Appendix C
Data Usability Assessment Report
(On CD)

Appendix C
Data Usability Assessment Report

The purposes of this data usability and assessment report (DUAR) are to 1) summarize the data validation performed on the data sets for the Historic Site Assessment (HSA) Subarea 5A samples collected, and 2) determine whether the sample results meet the Data Quality Objectives (DQOs) outlined in the *Master Work Plan/Field Sampling and Anlaysis Plan, Co-Located Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California (CDM Federal Programs Corporation* [CDM Smith] 2011a) (WP/FSAP) and *Addendum No. 2 to Master Work Plan/Field Sampling and Analysis Plan, Co-Located Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California, EPA Subarea 5A Soil Sampling* (CDM Smith 2011b) (Addendum to the WP/FSAP).

A total of 300 soil samples including 27 drainage locations, 94 surface locations, and 138 soil boring location samples, were collected and analyzed.

C.1 Usability Summary

For this data usability assessment, 77 data sets were reviewed. A data set consists of 20 or fewer samples grouped together by analytical method for analyses depending on the time and date of when the samples were received by the laboratory. A data set is called a sample delivery group, or SDG. The analyses performed are discussed in Section 2.5 of the Subarea 5A Technical Memorandum (TM).

Samples were collected and analyzed in accordance with the WP/FSAP (CDM 2011a and 2011b). Deviations were encountered during the field investigation for the 5A Subarea sampling activities and are discussed in detail in Section 2.7 of the Subarea 5A TM.

The data generated for the Subarea 5A samples together with the added data validation qualifiers are usable as reported, with the exception of 79 individual analyte results (0.13 percent of all analytes) that were rejected (35 herbicide results; five mercury results, one metal result, four perchlorate results, two energetic results; nine PCB results; 19 pesticide results and four semivolatile results). These rejected data do not impact the overall achievement of project objectives and goals. Specific details are provided in the validation reports in this Appendix and below in Section C.8.

C.2 Data Validation Procedures

Data were validated by the independent data validation firm Laboratory Data Consultants, Inc. All data validation was conducted in accordance with *U.S. Environmental Protection Agency (EPA) Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (EPA 2004), *EPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (EPA 2008),

and *EPA Contract Laboratory Program National Functional Guidelines for Chlorinated Dioxin/Furan Data Review* (EPA 2005).

The data validation strategy employed was to validate 10 percent of the data according to EPA Level IV protocols (all QC parameters and raw data) and the remaining 90 percent according to EPA Level III (all QC parameters except calibrations and raw data) protocols.

Table C-1 shows all SDGs that include Subarea 5A samples and which SDGs were validated as Level III or Level IV. Some SDGs contain samples from other subareas[1] but all samples in an SDG were validated together.

In order to evaluate the quality of the laboratory and the validation firm, CDM Smith chemists reviewed 10 percent of the Subarea 5A sample SDGs. The purpose of the review was to identify any quality control issues with the laboratory not identified by the validation firm or any discrepancies in validation procedures by the validation firm. No additional qualifiers were applied to the data based on CDM Smith's review.

C.3 Quality Assurance Objectives

Quality assurance (QA) objectives for measurement data are expressed in terms of precision, accuracy, representativeness, comparability, completeness, and sensitivity (PARCCS). The QA objectives provide a mechanism for evaluating and measuring data quality.

A review of the collected data is necessary to determine if data quality objectives established in the WP/FSAP (CDM 2011a and 2011b) have been met. The following data measurement tasks were evaluated:

- Specification and adherence to analytical method and reporting detection limit requirements
- Identification of the appropriate laboratory analytical QC requirements and verification of whether these QC requirements were met
- Verification that measurement performance criteria (representativeness and completeness) for the data have been met
- Verification that field procedures were followed, deviations were documented, and determination of impact on data quality from these deviations

The data validation review determines if the collected data are of sufficient quality (except for the rejected results) to support their intended use.

[1] During sampling in Subarea 5A, EPA transitioned sampling into other subareas. Thus some sample delivery groups may contain results for sample from multiple Subareas.

C.4 Summary of Field and Laboratory QA Activities

CDM Smith completed sampling activities in Subarea 5A in accordance with the approved WP/FSAP (CDM 2011a and 2011b). A total of 300 soil samples were collected and analyzed from 27 drainage locations, 94 surface locations, and 138 soil boring location samples. Tables 2-1 and 2-2 in the Subarea 5A TM provides a summary of the samples collected and the laboratory analyses requested.

Table C-1 in this report presents the SDGs and validation level for the HSA Subarea 5A sample data. An index of samples associated with each SDG is presented at the beginning of the data validation reports presented in this appendix. The WP/FSAP (CDM 2011a and 2011b) defined the procedures to be followed and the data quality requirements for the field sampling events.

C.5 Field Quality QA/QC

Field QC samples, such as matrix spike/matrix spike duplicates (MS/MSDs) and field duplicates, were to be collected at a frequency of 1 per 20 samples (5 percent) for MS/MSDs and field duplicates. Seven duplicate samples and MS/MSD samples were collected in association with the surface samples and analyzed for primary analytes, two of these samples were also analyzed for VOCs and 1,4-dioxane, and one sample was also analyzed for the secondary analytes. For the subsurface samples, nine duplicate samples and MS/MSD samples were collected for the primary analyses, and seven of these duplicate and MS/MSD samples were also analyzed for VOCs and 1,4-dioxane. Six of the nine subsurface duplicate/MS/MSD samples were collected for the secondary analyses. MS/MSD and field duplicate samples met the frequency requirements detailed in the WP/FSAP (CDM 2011a and 2011b).

Five equipment rinsate blank samples were collected in association with the surface soil sampling and analyzed for primary analytes. Seven equipment rinsate blank samples were collected in association with the subsurface soil sampling and analyzed for the primary analytes and VOCs/1,4-dioxane. Two of these seven blanks were also analyzed for secondary analytes. Three equipment rinsate blanks were collected for secondary analyses only. The equipment rinsate blank results are presented in Table C-2.

No field blank samples were collected in conjunction with soil sampling in Subarea 5A.

Forty-six trip blank samples were collected with the Subarea 5A Area IV samples. The results for these samples are presented in Table C-3. Data qualifications based on blank detections are discussed in Section C.7.3 and in the Appendix C validation reports.

Temperature blanks were included with each shipment of samples.

The number of field QC samples collected satisfies the minimum requirements for the Subarea 5A sampling event specified in the WP/FSAP (CDM 2011a and 2011b). Field

QA/QC objectives were accomplished through the use of appropriate sampling techniques and collection of the required QC samples at the required frequencies.

C.6 Laboratory Quality QA/QC

Analytical QA/QC was assessed by laboratory QC checks, method blanks, sample custody tracking, sample preservation, adherence to holding times, laboratory control samples (LCSs), MSs, calibration recoveries, surrogates, tuning criteria, second column confirmations, internal standards, serial dilutions, laboratory duplicates, and interference check standards. The majority of the laboratory QC sample criteria met project requirements as indicated in the data validation reports in this appendix with the appropriate qualifiers applied. Seventy-nine individual analyte results (0.13 percent of all the analytes) were rejected as discussed below and in the validation reports presented in this appendix.

C.7 Data Quality Indicators

This section summarizes the validation performed. Individual SDG validation reports with specific sample detail are provided in this appendix.

Achievement of the DQOs was determined in part by the use of data quality indicators (DQIs) as described in the WP/FSAP (CDM 2011a and 2011b). These DQIs for measurement data are expressed in terms of PARCCS. The DQIs provide a mechanism for ongoing control to evaluate and measure data quality throughout the project. These criteria are defined in the sections below.

C.7.1 Precision

Precision is a quantitative term that estimates the reproducibility of a set of replicate measurements under a given set of conditions. It is defined as a measurement of mutual agreement between measurements of the same property and is expressed in terms of relative percent difference (RPD) between duplicate determinations.

RPD is calculated as follows:

$$\text{RPD} = \text{absolute value } [(C1-C2)/\{(C1+C2)/2)\}] \times 100\%$$

Where:

C1 = concentration of primary sample
C2 = concentration of duplicate sample

Field and analytical precision were determined from the review of the field duplicate results. The sample results were compared by calculating their RPDs. The field duplicate samples were collected in the same manner as the original samples but were collected in separate, individual containers, given separate sample identifiers, and treated as individual samples by the laboratory.

Laboratory duplicate RPD control limits are presented in the WP/FSAP (CDM 2011a and 2011b) or are laboratory specific. For laboratory duplicates, if one or both of the sample results were less than two times the RL, a control limit of the absolute difference equal to the RL value was used for comparison.

The field duplicate RPD criterion is 50 percent. Field duplicates for this project were validated using the following: If one result is non-detect and the other result is above the RL, the RPD result is shown as 200 percent and the field duplicate sample and parent sample results are qualified as estimated "J" or "UJ." If the field duplicate RPD was above the 50 percent criterion (and both sample results were above the RL), the field duplicate and parent sample results for that analyte were qualified as estimated "J."

Qualifiers were applied to applicable sample analyte results during the validation process based on laboratory and field duplicate precision results. Details are discussed in the laboratory validation reports in this appendix. Table C-4 shows the field duplicate pairs and RPD results. RPD results outside of criteria are highlighted.

The following individual analyte results were qualified as estimated "J/UJ" based on precision criteria:

- 16 dioxin results, three PCB results and nine herbicide results were qualified as estimated based on second column RPD results

- Four dioxin results; three NDMA results; two fluoride/nitrate results; 1,226 metal analyte results; one alcohol/terphenyl result; one TPH/glycol result; two pesticide results; one PCB result; two VOC analyte results; six SVOC analyte results; six SVOC SIM analyte results; and two energetic results were qualified as estimated based on laboratory precision criteria

- 144 dioxin results; two NDMA results; one fluoride/nitrate results; 32 metal results; six hexavalent chromium results; nine mercury results; one alcohol/terphenyl result; eight TPH/glycol results; eight pesticide results; 14 PCB results; five herbicide results; 15 VOC results; eight SVOC results; 79 SVOC SIM results and one formaldehyde result were qualified based on field duplicate criteria

The following individual analyte results were rejected "R" based on precision criteria:

- one antimony result and one SVOC (benzidine) result based on laboratory precision criteria

There was no discernable pattern or reason for the laboratory and field sample RPD exceedances identified. No field sampling issues were identified from the RPD results that were outside of criteria and the exceedances are reasonable for this type of sampling activity. Sample results that have been qualified as estimated "J/UJ" due to precision criteria are usable for project decisions. The one antimony and benzidine results that were rejected are not usable.

C.7.2 Accuracy

Accuracy is the degree of agreement between a measurement and the accepted reference or true value and is a measure of the bias in a system. Accuracy of the data was assessed by comparing LCS recovery, MS recovery, calibration recovery, Inductively Coupled Plasma (ICP) interferences, and by performing serial dilution checks during metals analyses. Accuracy is expressed as percent recovery (%R), which is calculated by:

$$\text{Percent Recovery} = \frac{(\text{Total Analyte Found} - \text{Analyte Originally Present})}{\text{Analyte Added}} \times 100$$

Analytical accuracy for the entire data collection activity is difficult to assess because several sources of error exist. Errors can be introduced by any of the following:

- Sampling procedure
- Field contamination
- Sample preservation and handling
- Sample matrix
- Sample preparation
- Analytical techniques

Accuracy is maintained to the extent possible by adhering to the EPA method and approved field and analytical standard operating procedures.

Qualifiers were applied to applicable sample analyte results during the validation process based on laboratory accuracy results and are discussed in detail in the laboratory validation reports in Appendix C.

The following individual analyte results were qualified as nondetect "U" or nondetect estimated "UJ" based on accuracy criteria:

- 1,296 metal analyte results were qualified as estimated based on inductively coupled plasma serial dilution results

- 12 TPH/glycol results; 84 pesticide results; 17 PCB results; 66 VOC results; 40 SVOC results and 18 SVOC SIM results were qualified as estimated based on calibration criteria

- Six dioxin results were qualified as estimated based on internal standard criteria

- 23 TPH/glycol results; 16 pesticide results; 191 PCB results; 40 herbicide results; 12 VOC results; 276 SVOC results; 27 SVOC SIM; and two energetics results were qualified as estimated based on LCS percent recovery criteria

- 13 dioxin results; 2 NDMA results; 218 fluoride/nitrate results; six perchlorate results; 2,107 metal analyte results; one hexavalent chromium result; 12 mercury results; nine alcohol/terphenyl results; 10 TPH/glycol results; nine pesticide

results; two PCB results; 12 herbicide results; 29 VOC results; 48 SVOC results; 17 SVOC SIM results; and six energetic results were qualified as estimated based on MS percent recovery criteria

- Three alcohol/terphenyl results; six TPH/glycol results; 134 pesticide results; 109 PCB results; and one SVOC result were qualified as estimated based on surrogate recovery criteria

The following individual analyte results were rejected "R" based on accuracy criteria:

- Four perchlorate results based on matrix spike accuracy
- One antimony result based on matrix spike accuracy
- Five mercury results based on matrix spike accuracy
- 19 pesticide results based on matrix spike accuracy criteria and surrogate recoveries
- Nine PCB results based on surrogate recoveries
- 35 individual herbicide analyte results based on laboratory control sample accuracy criteria and matrix spike accuracy criteria
- Four individual SVOC analyte results based on matrix spike accuracy criteria
- Two energetic results based on laboratory control sample accuracy criteria

Sample preservation, handling, and holding times are additional measures of accuracy of the data. All sample preservation and handling criteria were met.

Sample results that have been qualified as estimated "J/UJ" due to accuracy criteria are usable for project decisions. Results that have been rejected are not usable.

C.7.3 Blank Contamination

Field blanks (e.g., equipment and trip) and laboratory method blanks are analyzed to identify possible sources of contamination. Contamination of a sample can be introduced by field sample collection methods, sample handling, preparation, and/or analysis. The laboratory validation reports in this appendix and summarized below discuss the results qualified based on field and laboratory blank contamination.

The following individual analyte results were qualified as estimated "J/UJ" based on blank contamination:

- 2,564 dioxin results (50%); 10 NDMA results (10%); 467 metal results (5%); 11 hexavalent chromium results (3.6%); 11 mercury results (3.6%); 1 alcohol/terphenyl result (0.17%); 28 TPH/glycol result (3.2%); six herbicide results

(0.5%); 161 VOC results (1.5%); 11 SVOC results (0.07%); and 53 SVOC SIM results (0.76%) were qualified as non-detect due to blank contamination criteria

The percentage of results qualified as non-detect based on laboratory blank contamination was less than or equal to 10% for all these analyses except for dioxins as shown above.

Estimated detection limits (EDLs) for the dioxins are calculated for each sample. The EDLs for this analysis are very low, reported in ng/kg or parts per trillion, resulting in numerous results qualified as estimated "J" values because they are below the RL. Many of these estimated values have been subsequently qualified as nondetect "U" because the compound was detected in related laboratory blanks. Low level detections of dioxin analytes are somewhat inevitable because of the nature and universal extent of the compounds. The dioxin levels found in the blanks were well below site-related action levels. Therefore, the resulting qualification of associated sample results as not detected or "U" qualified data do not falsely diminish identification of site-related contaminants.

Tables C-2 and C-3 provide a summary of chemicals observed in the equipment and trip blank samples. The validators applied appropriate qualifiers to samples associated with the blanks. Specific details are provided in the data validation reports in this appendix.

The reported sample results were judged to be usable after validation. In general, all detected concentrations were below the RL indicating field sample collection and equipment decontamination activities were adequately performed.

C.7.4 Representativeness, Comparability, and Sensitivity

Representativeness, comparability, and sensitivity are achieved by using EPA-approved sampling procedures and analytical methodologies. By following the procedures described in the WP/FSAP (CDM 2011a and 2011b) for this sampling event and future sampling events, sample analysis should yield results representative of environmental conditions at the time of sampling. Similarly, reasonable comparability of analytical results for this and future sampling events can be achieved if approved EPA analytical methods and standardized reporting units are employed.

C.7.4.1 Representativeness

Representativeness is a qualitative term that expresses the degree to which the sample data accurately and precisely represent the environmental conditions corresponding to the location and depth interval of sample collection. Requirements and procedures for sample collection are designed to maximize sample representativeness.

Representativeness also can be monitored by reviewing field documentation and/or by performing field audits. For this report, a detailed review was performed on the COC forms, field data collection forms, laboratory sample confirmation logs, and data validation packages. Laboratory QA/QC requirements were included in the

WP/FSAP (CDM 2011a and 2011b) and laboratory statements of work (SOWs) to ensure that the laboratory analytical results were representative of true field conditions.

Field sampling accuracy was attained through strict adherence to the approved WP/FSAP (CDM 2011a and 2011b) and by using approved standard operating procedures for field data collection. Based on this, the data should represent as near as possible the actual field conditions at the time of sampling.

Representativeness has been achieved by the performed field work and laboratory analyses. The analytical data generated, that have not been rejected, are viewed to be a representative characterization of the project area.

C.7.4.2 Comparability

Comparability is a qualitative term that expresses the confidence with which a data set can be compared with another. Strict adherence to standard sample collection procedures, analytical detection limits, and analytical methods assures that data from like samples and sample conditions are comparable. This comparability is independent of laboratory personnel, data reviewers, or sampling personnel. Comparability criteria are met for the project if, based on data review, the sample collection and analytical procedures are determined to have been followed, or defined to show that variations did not affect the values reported.

To ensure comparability of data generated for the site, standard sample collection procedures and Department of Toxic Substances Control (DTSC)-approved analytical methods were utilized by CDM Smith. The sample analyses were performed by LLI in Lancaster, Pennsylvania. Utilizing such procedures and methods enables the current data to be comparable with previous and future data sets generated with similar methods.

C.7.4.3 Sensitivity

Sensitivity is related to the ability to compare analytical results with project-specific levels of interest, such as risk-based screening levels or action levels. Analytical detection limits for the various sample analytes should be below the level of interest to allow an effective comparison.

Detection Limits

Each analytical method used during the sampling events was selected because it had potential to achieve RLs established for this project. RLs were established for each analyte in consultation with the laboratory to achieve analytical results at or below regulatory comparison criteria.

The method detection limit (MDL) is defined as the concentration of an analyte that produces a signal with a 99 percent confidence that the concentration is above that of a blank but that that concentration cannot be accurately quantified. A blank is a sample that does not contain measurable concentrations of the analyte of concern.

Tested by statistical performance, calibration samples, and LCSs, MDLs represent the best fundamental measurement of instrument sensitivity and the basis for establishing RLs.

The laboratory RL is typically about 3 to 5 times higher than the MDL and is a laboratory-specific number. The actual sample RL is variable based on the sample matrix, moisture content, and other sample-specific factors. When a sample has to be diluted before analysis, either because of matrix problems or to bring the instrument response within the linear dynamic range, the RL is raised by a factor corresponding to the dilution factor.

In reporting environmental sample results, laboratories follow protocols that help ensure that the result reported is at the lowest level and is defensible, taking into account the ability of the instrument to differentiate a signal generated by the analyte from the background instrument noise, imprecision added to the detection capabilities of the analyte due to the sample processing manipulations (MDLs) and sample matrix affects, and adjustments made to the detection limits based on difficulties encountered in analyzing the sample (dilution factors, etc.).

The result for an analyte is flagged with a "U" if that analyte was not detected, or qualified with a "J" flag if blank or other QC results fall outside the appropriate tolerance limits. If an analyte is present at a concentration between the MDL and the RL, the analytical result is flagged with a "J," indicating an estimated quantity. Qualifying the result as an estimated concentration reflects increased uncertainty in the reported value.

The following analyses and individual analyte sample results were qualified as estimated "J" due to the sample results being reported as detected below the RL:

- Method 1613B (Dioxins)
  - 3,982 individual analyte results
- Method 1625C (NDMA)
  - 18 individual analyte results
- Method 300 (Fluoride/Nitrate)
  - 44 individual analyte results
- Method 314 (Perchlorate)
  - 2 individual analyte results
- Methods 6010B/6020 (Metals)
  - 1,573 individual analyte results
- Method 7199 (Hexavalent Chromium)
  - 192 individual analyte results

- Method 7471A (Mercury)
  - 142 individual analyte results
- Method 8015B (Alcohols and terphenyls)
  - 4 individual analyte results
- Method 8015M (TPHs and glycols)
  - 86 individual analyte results
- Method 8081A (Pesticides)
  - 171 individual analyte results
- Method 8082 (PCBs)
  - 118 individual analyte results
- Method 8151A (Herbicides)
  - 54 individual analyte results
- Method 8260B (VOCs)
  - 232 individual analyte results
- Method 8270C (SVOCs)
  - 255 individual analyte results
- Method 8270C SIM (SVOCs)
  - 787 individual analyte results
- Method 8315A (Formaldehyde)
  - 2 individual analyte results
- Method 8330A (Energetics)
  - 2 individual analyte results

As discussed in Section C.7.3, the EDLs for the dioxins are calculated for each sample and are very low resulting in numerous results qualified as estimated "J" values because they are below the RL as indicated above. The qualification of the dioxins results as estimated “J” based on RL criteria does not falsely diminish identification of site-related contaminants.

In general, for the data validated in this report, detection limits for the sample results were low enough to compare to the action levels stated in the WP/FSAP (CDM 2011a and 2011b). The detection limits for this project are lower than "normal" environmental data analyses. Analytical laboratory methods were modified in order to achieve the lowest practicable RL. Current laboratory instrumentation technology cannot achieve all of these low project RLs, and thus some of the RLs were above project criteria. These results are still considered usable for project decisions.

C.8 Review of Selected Validation Reports

CDM Smith performed a review of 10 percent of the validation reports identified in Table C-1. This review involved comparing the validation report results against the laboratory data packages as well as the validation guidance documents. All validation report results that were reviewed were verified against the laboratory data packages and determined that validation documents were followed as required.

C.9 Data Completeness

Completeness of the data collection program is defined as the percentage of samples planned for collection as listed in the WP/FSAP (CDM 2011a and 2011b) versus the actual number of samples collected during the field program (see equation A).

Completeness for acceptable data is defined as the percentage of acceptable data obtained judged to be valid versus the total quantity of data generated (see equation B). Acceptable data include both data that pass all the QC criteria (unqualified data) and data that may not pass all the QC criteria but had appropriate corrective actions taken (qualified but usable data).

A. $$\%\text{Completeness} = C_x \frac{100}{n}$$

Where:

C = actual number of samples collected
n = total number of samples planned

B. $$\%\text{Completeness} = V_x \frac{100}{n'}$$

Where:

V = number of measurements judged valid
n' = total number of measurements made

The overall completeness goal for these sampling events was 90 percent for all project data.

A total of 317 Subarea 5A soil samples including the field duplicates were collected and analyzed. As discussed in Section 2.7 of the TM, nine locations were not sampled due to the reasons cited in Table 2.1 of the TM and Section 2.7. These sampling deviations do not impact completeness objectives for this sampling event. As the sampling program progresses, it may be determined during the Phase III Data Gap Investigation that sample locations not affected by archeological findings and not able to be collected during this sampling event, may be resampled. Ninety-six percent of the samples identified in the Addendum to the WP/FSAP (CDM 2011a and 2011b) were collected, therefore meeting the completeness goal for the number of samples collected versus number of samples planned.

The completeness goal for acceptable data achieved was 98.3 percent of the number of measurements judged to be valid versus the total number of measurements made for all sample analyses for the Subarea 5A samples. Table C-5, Completeness Calculation Summary, shows a summary of the results that were estimated or rejected.

The following individual analyte results were rejected per analyses:

- Method 8151 A
  - 35 herbicide results out of 1,200 results (2.91 percent)
- Method 7471A
  - 5 mercury results out of 299 results (1.67 percent)
- Method 6020
  - 1 antimony result out of 4,784 results (0.02 percent)
- Method 314
  - 4 perchlorate results out of 299 results (1.3 percent)
- Method 8330A
  - 2 energetic results out of 1,710 results (0.11 percent)
- Method 8082
  - 9 PCB results out of 3,588 results (0.25 percent)
- Method 8081A
  - 19 pesticide results out of 2,520 results (0.75 percent)
- Method 8027C
  - 4 SVOC results out of 14,611 results (0.03 percent)

The completeness goals for both the number of samples collected and the number of measurements judged to be valid were met.

Sampling deviations from that described in the WP/FSAP (CDM Smith 2011a and 2011b) are discussed in Section 2.7 of the TM. Deviations did not impact DQOs for this sampling event. The data reported, and not rejected, are suitable for their intended use for characterization of Area IV of SSFL. The DQIs identified in the WP/FSAP (CDM 2011a and 2011b) met appropriate criteria. The achievement of the completeness goals for the data indicates a sufficient amount of usable data has been generated on which to base project decisions.

C.10 Assessment of Data Usability and Reconciliation with WP/FSAP Goals

Over 98 percent of the data validated and reported are suitable for their intended use for site characterization. Sample results that were rejected are not suitable for project

use. The rejected analyte results do not impact achievement of the overall project objectives. The detection limits reported generally met the expected limits proposed by the analytical laboratory in their contract agreement with CDM Smith.

Sample results that were qualified as estimated are usable for project decisions. Numerous dioxin results were qualified as estimated and/or non-detect due to the low detection limits. This data is considered usable.

Field duplicate precision also met criteria a majority of the time. RPDs were outside criteria predominantly when the sample results were close to the RL and/or below the project required action limits. Decisions based on results close to the RL should be made with a degree of caution. The achievement of the completeness goals for number of samples collected, and the number of sample results acceptable for use provides sufficient quality data to support project decisions.

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Table C-1 Sample Delivery Groups and Validation Levels for Subarea 5A

Sample Delivery Group	Level of Validation Performed	CDM Review
DE077	Level III	
DE083	Level III	
DE084	Level III	
DE086	Level III	Yes
DE087	Level III	
DE088	Level III	
DE089	Level III	
DE090	Level III	
DE091	Level III	
DE092	Level III	
DE093	Level III	
DE094	Level III	
DE095	Level IV	Yes
DE096	Level III	
DE097	Level III	
DE098	Level III	
DE099	Level III	
DE100	Level III	
DE102	Level III	
DE103	Level IV	
DE104	Level III	
DE105	Level III	
DE106	Level III	Yes
DE107	Level III	
DE108	Level III	
DE109	Level III	
DE110	Level III	
DE111	Level III	
DE112	Level IV	
DE113	Level III	
DE114	Level III	
DE115	Level III	
DE116	Level III	Yes
DE117	Level III	
DE118	Level III	
DE119	Level III	
DE120	Level III	
DE121	Level III	
DE122	Level III	
DE123	Level III	
DE125	Level IV	
DE126	Level III	
DE128	Level III	
DE129	Level III	
DE130	Level IV	Yes
DE131	Level III	
DE133	Level III	
DE135	Level III	
DE151	Level III	
DE152	Level III	
DX048	Level III	
DX051	Level III	
DX052	Level III	Yes

Table C-1 Sample Delivery Groups and Validation Levels for Subarea 5A

Sample Delivery Group	Level of Validation Performed	CDM Review
DX053	Level III	
DX054	Level III	
DX055	Level III	
DX056	Level III	
DX057	Level III	
DX058	Level III	
DX059	Level III	
DX060	Level IV	Yes
DX061	Level III	
DX062	Level III	
DX063	Level III	
DX064	Level III	
DX065	Level III	
DX066	Level III	
DX067	Level III	
DX069	Level III	
DX070	Level III	
DX071	Level III	Yes
DX072	Level IV	
DX073	Level III	
DX075	Level III	
DX077	Level III	
DX081	Level III	
DX082	Level III	

Table C-2 - Subarea 5A Equipment Rinsate Blank Results

Sample Name:		EB01-SA5A-022311		EB02-SA5A-022811		EB03-SA5A-022811		EB04-SA5A-030111		EB05-SA5A-030211		EB06-SA5A-030311		EB07-SA5A-031511		EB08-SA5A-032211		EB09-SA5A-032311		EB10-SA5A-032911	
Sample Date:		02/23/2011		02/28/2011		02/28/2011		03/01/2011		03/02/2011		03/03/2011		03/15/2011		03/22/2011		03/23/2011		03/29/2011	
Sample Type		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
Analyte	**Units**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**
1,1,1,2-Tetrachloroethane	ug/l											5	U	5	U	5	U			5	U
1,1,1-TRICHLOROETHANE	ug/l											5	U	5	U	5	U			5	U
1,1,2,2-TETRACHLOROETHANE	ug/l											5	U	5	U	5	U			5	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l											10	U	10	U	10	U			10	U
1,1,2-TRICHLOROETHANE	ug/l											5	U	5	U	5	U			5	U
1,1-DICHLOROETHANE	ug/l											5	U	5	U	5	U			5	U
1,1-DICHLOROETHENE	ug/l											5	U	5	U	5	U			5	U
1,1-DICHLOROPROPENE	ug/l											5	U	5	U	5	U			5	U
1,2,3,4,6,7,8-HPCDD	pg/l	10.6	U	10.6	U	9.53	U	10.4	U	9.50	U	9.97	U	10.1	U	10.1	U			10.2	U
1,2,3,4,6,7,8-HPCDF	pg/l	10.6	U	10.6	U	9.53	U	10.4	U	9.50	U	9.97	UJ	10.1	UJ	10.1	U			10.2	U
1,2,3,4,7,8,9-HPCDF	pg/l	10.6	U	10.6	U	9.53	U	10.4	U	9.50	U	9.97	U	10.1	U	10.1	U			10.2	U
1,2,3,4,7,8-HxCDD	pg/l	10.6	U	10.6	U	9.53	U	10.4	U	9.50	U	9.97	U	10.1	U	10.1	U			10.2	U
1,2,3,4,7,8-HXCDF	pg/l	10.6	U	10.6	U	9.53	U	10.4	U	9.50	U	9.97	UJ	10.1	UJ	10.1	U			10.2	U
1,2,3,6,7,8-HXCDD	pg/l	10.6	U	10.6	U	9.53	U	10.4	U	9.50	U	9.97	U	10.1	U	10.1	U			10.2	U
1,2,3,6,7,8-HXCDF	pg/l	10.6	U	10.6	U	9.53	U	10.4	U	9.50	U	9.97	U	10.1	U	10.1	U			10.2	U
1,2,3,7,8,9-HXCDD	pg/l	10.6	U	10.6	U	9.53	U	10.4	U	9.50	U	9.97	U	10.1	U	10.1	U			10.2	U
1,2,3,7,8,9-HXCDF	pg/l	10.6	U	10.6	U	9.53	U	10.4	U	9.50	U	9.97	U	10.1	U	10.1	U			10.2	U
1,2,3,7,8-PECDD	pg/l	10.6	U	10.6	U	9.53	U	10.4	U	9.50	U	9.97	U	10.1	U	10.1	U			10.2	U
1,2,3,7,8-PECDF	pg/l	10.6	U	10.6	U	9.53	U	10.4	U	9.50	U	9.97	U	10.1	U	10.1	U			10.2	U
1,2,3-TRICHLOROBENZENE	ug/l											5	U	5	U	5	U			5	U
1,2,3-TRICHLOROPROPANE	ug/l											5	U	5	U	5	U			5	U
1,2,4-TRICHLOROBENZENE(a)	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			5	U
												5	U	5	U	5	U			10	U
1,2,4-TRIMETHYLBENZENE	ug/l											5	U	5	U	5	U			5	U
1,2-DIBROMO-3-CHLOROPROPANE	ug/l											5	U	5	U	5	U			5	U
1,2-Dibromoethane (EDB)	ug/l											5	U	5	U	5	U			5	U
1,2-DICHLOROBENZENE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			5	U
												5	U	5	U	5	U			10	U
1,2-DICHLOROETHANE	ug/l											5	U	5	U	5	U			5	U
1,2-DICHLOROPROPANE	ug/l											5	U	5	U	5	U			5	U
1,2-Diphenylhydrazine/Azobenzene	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
1,3,5-TRIMETHYLBENZENE	ug/l											5	U	5	U	5	U			5	U
1,3,5-TRINITROBENZENE	ug/l													0.60	U			0.60	U	0.60	U
1,3-DICHLOROBENZENE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			5	U
												5	U	5	U	5	U			10	U
1,3-DICHLOROPROPANE	ug/l											5	U	5	U	5	U			5	U
1,3-DINITROBENZENE	ug/l													0.60	U			0.60	U	0.60	U
1,4-DICHLOROBENZENE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			5	U
												5	U	5	U	5	U			10	U
1,4-DIOXANE	ug/l											2.0	U	2.0	U	2.0	U			2.0	U
1-METHYLNAPHTHALENE	ug/l	0.052	U	0.054	U	0.053	U	0.052	U	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
2,2-DICHLOROPROPANE	ug/l											5	U	5	U	5	U			5	U
2,3,4,6,7,8-HXCDF	pg/l	10.6	U	10.6	U	9.53	U	10.4	U	9.50	U	9.97	U	10.1	U	10.1	U			10.2	U
2,3,4,7,8-PECDF	pg/l	10.6	U	10.6	U	9.53	U	10.4	U	9.50	U	9.97	U	10.1	U	10.1	U			10.2	U
2,3,7,8-TCDD	pg/l	0.107	J	2.13	U	1.91	U	2.08	U	1.90	U	1.99	U	0.439	J	0.238	J			2.03	U
2,3,7,8-TCDF	pg/l	2.11	U	2.13	U	1.91	U	2.08	U	1.90	U	1.99	U	2.03	U	2.01	U			2.03	U
2,4,5-T	ug/l	0.052	U	0.053	U	0.052	U	0.050	U	0.054	U										
2,4,5-TP (Silvex)	ug/l	0.052	U	0.053	U	0.052	U	0.050	U	0.054	U										
2,4,5-TRICHLOROPHENOL	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
2,4,6-TRICHLOROPHENOL	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
2,4,6-TRINITROTOLUENE	ug/l													0.60	U			0.60	U	0.60	U
2,4-D	ug/l	0.52	U	0.53	U	0.52	U	0.50	U	0.54	U										
2,4-DB	ug/l	1.0	U	1.1	U	1.0	U	1.0	U	1.1	U										
2,4-DIAMINO-6-NITROTOLUENE	ug/l													0.60	U			0.60	U	0.60	U
2,4-DICHLOROPHENOL	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
2,4-DIMETHYLPHENOL	ug/l	11	U	11	U	11	U	10	U	11	U	10	U	10	U	10	U			20	U
2,4-DINITROPHENOL	ug/l	32	U	34	U	32	U	31	U	32	U	30	U	29	U	30	U			60	U
2,4-DINITROTOLUENE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	UJ	5	U	0.60	U	10	U
														0.60	U					0.60	U
2,6-Diamino-4-nitrotoluene	ug/l													0.60	U			0.60	U	0.60	U
2,6-DINITROTOLUENE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	UJ	5	U	0.60	U	10	U
														0.60	U					0.60	U
2-AMINO-4,6-DINITROTOLUENE	ug/l													0.60	U			0.60	U	0.60	U
2-BUTANONE (MEK)	ug/l											10	U	10	U	10	U			10	U
2-Chloro-1,1,1-trifluoroethane	ug/l											5	U	5	U	5	U			5	U
2-CHLOROETHYL VINYL ETHER	ug/l											10	U	10	U	10	U			10	U
2-CHLORONAPHTHALENE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
2-CHLOROPHENOL	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
2-CHLOROTOLUENE	ug/l											5	U	5	U	5	U			5	U
2-HEXANONE	ug/l											10	U	10	U	10	U			10	U
2-METHYLNAPHTHALENE	ug/l	0.052	U	0.054	U	0.053	U	0.052	U	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
2-METHYLPHENOL	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
2-NITROANILINE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	UJ	5	U			10	U
2-NITROPHENOL	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	UJ	5	U			10	U
2-NITROTOLUENE	ug/l													0.60	U			0.60	U	0.60	U
3,3'-DICHLOROBENZIDINE	ug/l	5	U	6	U	5	U	5	U	5	U	5	UJ	5	U	5	U			10	U
3,5-Dimethylphenol	ug/l	11	U	11	U	11	U	10	U	11	U	10	U	10	U	10	U			20	U
3-NITROANILINE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
3-NITROTOLUENE	ug/l													1.2	U			1.2	U	1.2	U
4,4'-DDD	ug/l	0.021	U	0.022	U	0.021	U	0.021	U	0.020	U										
4,4'-DDE	ug/l	0.021	U	0.022	U	0.021	U	0.021	U	0.020	U										

Table C-2 - Subarea 5A Equipment Rinsate Blank Results

Sample Name:		EB01-SA5A-022311		EB02-SA5A-022811		EB03-SA5A-022811		EB04-SA5A-030111		EB05-SA5A-030211		EB06-SA5A-030311		EB07-SA5A-031511		EB08-SA5A-032211		EB09-SA5A-032311		EB10-SA5A-032911	
Sample Date:		02/23/2011		02/28/2011		02/28/2011		03/01/2011		03/02/2011		03/03/2011		03/15/2011		03/22/2011		03/23/2011		03/29/2011	
Sample Type		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
Analyte	**Units**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**
4,4'-DDT	ug/l	0.021	U	0.022	U	0.021	U	0.021	U	0.020	U										
4,6-DINITRO-2-METHYLPHENOL	ug/l	16	U	17	U	16	U	16	U	16	U	15	U	15	UJ	15	U			30	U
4-AMINO-2,6-DINITROTOLUENE	ug/l													0.60	U			0.60	U	0.60	U
4-BROMOPHENYL-PHENYLETHER	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
4-CHLORO-3-METHYLPHENOL	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
4-CHLOROANILINE	ug/l	5	U	6	U	5	U	5	U	5	UJ	5	U	5	U	5	U			10	U
4-CHLOROPHENYL-PHENYLETHER	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
4-CHLOROTOLUENE	ug/l											5	U	5	U	5	U			5	U
4-METHYL-2-PENTANONE (MIBK)	ug/l											10	U	10	U	10	U			10	U
4-METHYLPHENOL	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
4-NITROANILINE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
4-NITROPHENOL	ug/l	32	U	34	U	32	U	31	U	32	U	30	U	29	U	30	U			60	U
4-NITROTOLUENE	ug/l													1.2	U			1.2	U	1.2	U
ACENAPHTHENE	ug/l	0.052	U	0.054	U	0.053	U	0.052	U	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
ACENAPHTHYLENE	ug/l	0.052	U	0.054	U	0.053	U	0.052	U	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
ACETONE	ug/l											20	U	20	U	20	U			20	U
ALDRIN	ug/l	0.011	U	0.011	U	0.010	U	0.010	U	0.010	U										
ALPHA-BHC	ug/l	0.011	U	0.011	U	0.010	U	0.010	U	0.010	U										
ALUMINUM	mg/l	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U			0.200	U
ANILINE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
ANTHRACENE	ug/l	0.052	U	0.054	U	0.053	U	0.052	U	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
ANTIMONY	mg/l	0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U			0.0010	U
Aroclor 1016	ug/l	0.53	UJ	0.56	U	0.52	U	0.52	U	0.51	U	0.49	U	0.49	U	0.49	U			0.50	U
Aroclor 1221	ug/l	0.53	UJ	0.56	U	0.52	U	0.52	U	0.51	U	0.49	U	0.49	U	0.49	U			0.50	U
Aroclor 1232	ug/l	0.53	UJ	0.56	U	0.52	U	0.52	U	0.51	U	0.49	U	0.49	U	0.49	U			0.50	U
Aroclor 1242	ug/l	0.53	UJ	0.56	U	0.52	U	0.52	U	0.51	U	0.49	U	0.49	U	0.49	U			0.50	U
Aroclor 1248	ug/l	0.53	UJ	0.56	U	0.52	U	0.52	U	0.51	U	0.49	U	0.49	U	0.49	U			0.50	U
Aroclor 1254	ug/l	0.53	UJ	0.56	U	0.52	U	0.52	U	0.51	U	0.49	U	0.49	U	0.49	U			0.50	U
Aroclor 1260	ug/l	0.53	UJ	0.56	U	0.52	U	0.52	U	0.51	U	0.49	U	0.49	U	0.49	U			0.50	U
Aroclor 1262	ug/l	0.53	UJ	0.56	U	0.52	U	0.52	U	0.51	U	0.49	U	0.49	U	0.49	U			0.50	U
Aroclor 1268	ug/l	0.53	UJ	0.56	U	0.52	U	0.52	U	0.51	U	0.49	U	0.49	U	0.49	U			0.50	U
Aroclor 5432	ug/l	0.53	UJ	0.56	U	0.52	U	0.52	U	0.51	U	0.49	U	0.49	U	0.49	U			0.50	U
Aroclor 5442	ug/l	0.53	UJ	0.56	U	0.52	U	0.52	U	0.51	U	0.49	U	0.49	U	0.49	U			0.50	U
Aroclor 5460	ug/l	0.53	UJ	0.56	U	0.52	U	0.52	U	0.51	U	0.49	U	0.49	U	0.49	U			0.50	U
Arsenic	mg/l	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U			0.0020	U
BARIUM	mg/l	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U			0.0020	U
BENZENE	ug/l											5	U	5	U	5	U			5	U
BENZIDINE	ug/l	64	U	67	U	65	U	63	U	64	UJ	60	U	59	U	60	U			120	U
BENZO(A)ANTHRACENE	ug/l	0.052	U	0.054	U	0.053	U	0.052	U	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
BENZO(A)PYRENE	ug/l	0.052	U	0.054	U	0.053	U	0.052	U	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
BENZO(B)FLUORANTHENE	ug/l	0.052	U	0.054	U	0.053	U	0.052	U	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
BENZO(G,H,I)PERYLENE	ug/l	0.052	U	0.054	U	0.053	U	0.052	U	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
BENZO(K)FLUORANTHENE	ug/l	0.052	U	0.054	U	0.053	U	0.052	U	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
BENZOIC ACID	ug/l	16	U	17	U	16	U	16	U	16	U	15	UJ	15	U	15	U			30	U
BENZYL ALCOHOL	ug/l	16	UJ	17	U	16	U	16	U	16	U	15	U	15	UJ	15	U			30	U
BERYLLIUM	mg/l	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U			0.00050	U
BETA-BHC	ug/l	0.011	U	0.011	U	0.010	U	0.010	U	0.010	U										
BIS(2-CHLOROETHOXY)METHANE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
BIS(2-CHLOROETHYL) ETHER	ug/l	5	UJ	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
BIS(2-CHLOROISOPROPYL) ETHER	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
BIS(2-ETHYLHEXYL)PHTHALATE	ug/l	1.0	U	1.1	U	1.1	U	1.0	U	1.1	U	0.99	U	0.96	U	0.22	J			1.1	U
BORON	mg/l	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U			0.0500	U
BROMOBENZENE	ug/l											5	U	5	U	5	U			5	U
BROMOCHLOROMETHANE	ug/l											5	U	5	U	5	U			5	U
BROMODICHLOROMETHANE	ug/l											5	U	5	U	5	U			5	U
BROMOFORM	ug/l											5	U	5	U	5	U			5	U
BROMOMETHANE	ug/l											5	U	5	U	5	U			5	U
Butylbenzylphthalate	ug/l	1.0	U	1.1	U	1.1	U	0.071	J	1.1	U	5	U	0.96	U	0.99	U			1.1	U
CADMIUM	mg/l	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U			0.00050	U
CALCIUM	mg/l	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U			0.200	U
CARBAZOLE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
CARBON TETRACHLORIDE	ug/l											5	U	5	U	5	U			5	U
Chlordane	ug/l	0.53	U	0.56	U	0.52	U	0.52	U	0.51	U										
Chlorobenzene	ug/l											5	U	5	U	5	U			5	U
Chloroethane	ug/l											5	U	5	U	5	U			5	U
CHLOROFORM	ug/l											5	U	5	U	5	U			5	U
CHLOROMETHANE	ug/l											5	U	5	U	5	U			5	U
Chlorotrifluoroethylene	ug/l											5	U	5	U	5	U			5	U
CHROMIUM	mg/l	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U			0.0020	U
CHRYSENE	ug/l	0.052	U	0.083		0.053	U	0.025	J	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
CIS-1,2-DICHLOROETHENE	ug/l											5	U	5	U	5	U			5	U
CIS-1,3-DICHLOROPROPENE	ug/l											5	U	5	U	5	U			5	U
COBALT	mg/l	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U			0.00050	U
COPPER	mg/l	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U			0.0020	U
CYANIDE	mg/l													0.010	U			0.010	U	0.010	U
DALAPON	ug/l	1.3	U	1.3	U	1.3	U	1.3	U	1.4	U										
DELTA-BHC	ug/l	0.011	U	0.011	U	0.010	U	0.010	U	0.010	U										
DIBENZO(A,H)ANTHRACENE	ug/l	0.052	U	0.054	U	0.053	U	0.052	U	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
DIBENZOFURAN	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
DIBROMOCHLOROMETHANE	ug/l											5	U	5	U	5	U			5	U
DIBROMOMETHANE	ug/l											5	U	5	U	5	U			5	U

Table C-2 - Subarea 5A Equipment Rinsate Blank Results

Sample Name:		EB01-SA5A-022311		EB02-SA5A-022811		EB03-SA5A-022811		EB04-SA5A-030111		EB05-SA5A-030211		EB06-SA5A-030311		EB07-SA5A-031511		EB08-SA5A-032211		EB09-SA5A-032311		EB10-SA5A-032911	
Sample Date:		02/23/2011		02/28/2011		02/28/2011		03/01/2011		03/02/2011		03/03/2011		03/15/2011		03/22/2011		03/23/2011		03/29/2011	
Sample Type		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
Analyte	**Units**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**
DICAMBA	ug/l	0.31	U	0.32	U	0.31	U	0.30	U	0.33	U										
DICHLORODIFLUOROMETHANE	ug/l											5	U	5	U	5	U			5	U
DICHLOROPROP	ug/l	0.52	U	0.53	U	0.52	U	0.50	U	0.54	U										
DIELDRIN	ug/l	0.021	U	0.022	U	0.021	U	0.021	U	0.020	UJ										
DIETHYLENE GLYCOL	mg/l													100	UJ			10	J	100	U
Diethylphthalate	ug/l	1.0	U	1.1	U	1.1	U	1.0	U	1.1	U	5	U	0.067	J	0.071	J			0.091	J
Dimethylphthalate	ug/l	1.0	UJ	1.1	U	1.1	U	1.0	U	1.1	U	5	U	0.96	U	0.99	U			1.1	U
Di-n-butylphthalate	ug/l	1.0	U	0.39	J	1.1	U	1.0	U	1.1	U	0.43	J	0.44	J	0.99	U			1.1	U
Di-n-octylphthalate	ug/l	0.22	J	1.1	U	1.1	U	1.0	U	1.1	U	0.99	U	0.96	U	0.99	U			0.12	J
DINOSEB	ug/l	0.52	U	0.53	U	0.52	U	0.50	U	0.54	U										
EFH (C12-C14)	mg/l													0.58	U			0.58	U	0.60	U
EFH (C15-C20)	mg/l													0.58	U			0.58	U	0.60	U
EFH (C21-C30)	mg/l													0.58	U			0.58	U	0.60	U
EFH (C30-C40)	mg/l													0.58	U			0.58	U	0.60	U
EFH (C8-C11)	mg/l													0.58	U			0.58	U	0.60	U
ENDOSULFAN I	ug/l	0.011	U	0.011	U	0.010	U	0.010	U	0.010	U										
ENDOSULFAN II	ug/l	0.021	U	0.022	U	0.021	U	0.021	U	0.020	U										
ENDOSULFAN SULFATE	ug/l	0.021	U	0.022	U	0.021	U	0.021	U	0.020	U										
ENDRIN	ug/l	0.021	U	0.022	U	0.021	U	0.021	U	0.020	U										
ENDRIN ALDEHYDE	ug/l	0.11	U	0.11	U	0.10	U	0.10	U	0.10	U										
ENDRIN KETONE	ug/l	0.021	U	0.022	U	0.021	U	0.021	U	0.020	U										
ETHANOL	ug/l													1000	U			1000	U	1000	U
ETHYLBENZENE	ug/l											5	U	5	U	5	U			5	U
ETHYLENE GLYCOL	mg/l													100	UJ			14	J	100	U
FLUORANTHENE	ug/l	0.052	U	0.054	U	0.053	U	0.052	U	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
FLUORENE	ug/l	0.052	U	0.054	U	0.053	U	0.052	U	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
FLUORIDE	mg/l	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U			0.10	U
FORMALDEHYDE	ug/l													50	U			50	U	50	U
gamma-BHC (Lindane)	ug/l	0.011	U	0.011	U	0.010	U	0.010	U	0.010	U										
GASOLINE RANGE ORGANICS (C5-C12)	ug/l													50	U			50	U	50	U
HEPTACHLOR	ug/l	0.011	U	0.011	U	0.010	U	0.010	U	0.010	U										
HEPTACHLOR EPOXIDE	ug/l	0.011	U	0.011	U	0.010	U	0.010	U	0.010	U										
HEXACHLOROBENZENE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
HEXACHLOROBUTADIENE	ug/l	5	U	6	U	5	U	5	U	5	U	5 5	U U	5 5	U U	5 5	U U			5 10	U U
HEXACHLOROCYCLOPENTADIENE	ug/l	16	U	17	U	16	U	16	U	16	U	15	U	15	U	15	U			30	U
HEXACHLOROETHANE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
HEXAVALENT CHROMIUM	ug/l	10.0	U	10.0	U	10.0	U	10.0	UJ	10.0	UJ	10.0	U	10.0	UJ	10.0	U			10.0	UJ
HMX	ug/l													2.0	U			2.0	U	2.0	U
INDENO(1,2,3-CD)PYRENE	ug/l	0.052	U	0.054	U	0.053	U	0.052	U	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
IRON	mg/l	0.200	U	0.200	U	0.0665	J	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U			0.200	U
ISOPHORONE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
Isopropanol	ug/l													1000	U			1000	U	1000	U
ISOPROPYLBENZENE	ug/l											5	U	5	U	5	U			5	U
LEAD	mg/l	0.0010	U	0.0010	U	0.000066	J	0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U			0.0010	U
LITHIUM	mg/l	0.0200	U	0.0200	U	0.0200	U	0.0200	U	0.0200	U	0.0200	U	0.0200	U	0.0200	U			0.0200	U
m,p-Xylene	ug/l											5	U	5	U	5	U			5	U
MAGNESIUM	mg/l	0.100	U	0.100	U	0.100	U	0.100	U	0.100	U	0.100	U	0.100	U	0.100	U			0.100	U
MANGANESE	mg/l	0.0050	U	0.0050	U	0.00088	J	0.0050	U	0.0050	U	0.0050	U	0.0050	U	0.0050	U			0.0050	U
MCPA	ug/l	1000	U	1100	U	1000	U	1000	U	1100	U										
MCPP	ug/l	210	U	210	U	210	U	200	U	220	U										
Mercury	mg/l	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U	0.00020	U			0.00020	U
METHANOL	ug/l													1000	U			1000	U	1000	U
METHOXYCHLOR	ug/l	0.11	U	0.11	U	0.10	U	0.10	U	0.10	U										
METHYL TERT-BUTYL ETHER (MTBE)	ug/l											5	U	5	U	5	U			5	U
METHYLENE CHLORIDE	ug/l											5	U	5	U	5	U			5	U
MIREX	ug/l	0.27	U	0.28	U	0.26	U	0.26	U	0.25	U										
MOLYBDENUM	mg/l	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U			0.00050	U
m-Terphenyl	mg/l													0.25	UJ			0.47	U	0.25	U
NAPHTHALENE	ug/l	0.029	J	0.035	J	0.035	J	0.033	J	0.053	U	0.031	J	0.029	J	0.049	U			0.053	U
N-BUTYLBENZENE	ug/l											5	U	5	U	5	U			5	U
NICKEL	mg/l	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U			0.0020	U
Nitrate-NO3	mg/l													0.10	U			0.10	U	0.10	U
NITROBENZENE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5 0.60	UJ U	5	UJ	0.60	U	10 0.60	U U
Nitroglycerin	ug/l													15	U			15	U	15	U
N-NITROSODIMETHYLAMINE	ng/l													0.982	U			0.993	U	1.01	U
N-NITROSODIMETHYLAMINE	ug/l	0.052	U	0.054	U	0.053	U	0.052	U	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
N-NITROSO-DI-N-PROPYLAMINE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
N-NITROSODIPHENYLAMINE	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U
N-PROPYLBENZENE	ug/l											5	U	5	U	5	U			5	U
OCDD	pg/l	21.1	U	21.3	U	19.1	U	20.8	U	19.0	U	19.9	U	20.3	U	20.1	U			20.3	U
OCDF	pg/l	21.1	U	21.3	U	19.1	U	20.8	U	19.0	U	19.9	U	20.3	U	20.1	U			20.3	U
O-TERPHENYL	mg/l													0.25	UJ			0.47	U	0.25	U
O-XYLENE	ug/l											5	U	5	U	5	U			5	U
PENTACHLOROPHENOL	ug/l	16	U	17	U	16	U	16	U	16	U	15	U	15	U	15	U			30	U
PERCHLORATE	ug/l	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U			2.0	U
PETN	ug/l													18	U			18	U	18	U
PH	pH unit													5.7		5.9	J			5.5	
PHENANTHRENE	ug/l	0.052	U	0.020	J	0.053	U	0.052	U	0.053	U	0.041	J	0.048	U	0.049	U			0.053	U
PHENOL	ug/l	5	U	6	U	5	U	5	U	5	U	5	U	5	U	5	U			10	U

Table C-2 - Subarea 5A Equipment Rinsate Blank Results

Sample Name:	EB01-SA5A-022311		EB02-SA5A-022811		EB03-SA5A-022811		EB04-SA5A-030111		EB05-SA5A-030211		EB06-SA5A-030311		EB07-SA5A-031511		EB08-SA5A-032211		EB09-SA5A-032311		EB10-SA5A-032911	
Sample Date:	02/23/2011		02/28/2011		02/28/2011		03/01/2011		03/02/2011		03/03/2011		03/15/2011		03/22/2011		03/23/2011		03/29/2011	
Sample Type	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
Analyte	**Units**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**
PHOSPHORUS	mg/l	0.100	U	0.100	U	0.100	U	0.100	U	0.100	U	0.100	U	0.100	U	0.100	U			0.100	U
P-ISOPROPYLTOLUENE	ug/l											5	U	5	U	5	U			5	U
POTASSIUM	mg/l	0.500	U	0.500	U	0.500	U	0.500	U	0.500	U	0.500	U	0.500	U	0.500	U			0.500	U
Propylene glycol	mg/l													100	U			100	U	100	U
p-Terphenyl	mg/l													0.25	UJ			0.47	U	0.25	U
PYRENE	ug/l	0.052	U	0.054	U	0.053	U	0.052	U	0.053	U	0.050	U	0.048	U	0.049	U			0.053	U
RDX	ug/l													0.60	U			0.60	U	0.60	U
SEC-BUTYLBENZENE	ug/l											5	U	5	U	5	U			5	U
SELENIUM	mg/l	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U			0.0020	U
SILVER	mg/l	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U			0.00050	U
SODIUM	mg/l	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U			1.00	U
STRONTIUM	mg/l	0.0050	U	0.0050	U	0.0050	U	0.0050	U	0.0050	U	0.0050	U	0.0050	U	0.0050	U			0.0050	U
STYRENE	ug/l											5	U	5	U	5	U			5	U
TERT-BUTYLBENZENE	ug/l											5	U	5	U	5	U			5	U
TETRACHLOROETHENE	ug/l											5	U	5	U	5	U			5	U
Tetryl	ug/l													0.60	U			0.60	U	0.60	U
THALLIUM	mg/l	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U			0.00050	U
TIN	mg/l	0.0200	U	0.0200	U	0.0200	U	0.0200	U	0.0200	U	0.0200	U	0.0200	U	0.0200	U			0.0200	U
TITANIUM	mg/l	0.0100	U	0.0100	U	0.0100	U	0.0100	U	0.0100	U	0.0100	U	0.0100	U	0.0100	U			0.0100	U
TOLUENE	ug/l											5	U	5	U	5	U			5	U
TOXAPHENE	ug/l	3.2	U	3.4	U	3.1	U	3.1	U	3.0	U										
TRANS-1,2-DICHLOROETHENE	ug/l											5	U	5	U	5	U			5	U
TRANS-1,3-DICHLOROPROPENE	ug/l											5	U	5	U	5	U			5	U
TRICHLOROETHENE	ug/l											5	U	5	U	5	U			5	U
TRICHLOROFLUOROMETHANE	ug/l											5	U	5	U	5	U			5	U
VANADIUM	mg/l	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U			0.00050	U
VINYL CHLORIDE	ug/l											5	U	5	U	5	U			5	U
ZINC	mg/l	0.0150	U	0.0150	U	0.0150	U	0.0150	U	0.0150	U	0.0150	U	0.0150	U	0.0150	U			0.0150	U
Zirconium	mg/l	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U			0.0500	U

ug/L - microgram per liter
mg/L - milligram per liter
ng/L - nanogram per liter
pg/L - picogram per liter
U - Compound not detected above the reporting limit

(a) Some SVOC results had two values - one for SVOC and one for SVOC SIM. The validators used the value with the lowest detection limit for validation purposes

Table C-2 - Subarea 5A Equipment Rinsate Blank Results

Sample Name:		EB11-SA5A-SB-040511		EB12-SA5A-SB-040611		EB13-SA5A-SB-041811		EB14-SA5A-SB-041911		EB15-SA5A-SB-051611	
Sample Date:		04/05/2011		04/06/2011		04/18/2011		04/19/2011		05/16/2011	
Sample Type		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
Analyte	**Units**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**
1,1,1,2-Tetrachloroethane	ug/l	5	U			5	U			5	U
1,1,1-TRICHLOROETHANE	ug/l	5	U			5	U			5	U
1,1,2,2-TETRACHLOROETHANE	ug/l	5	U			5	U			5	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	10	U			10	U			10	U
1,1,2-TRICHLOROETHANE	ug/l	5	U			5	U			5	U
1,1-DICHLOROETHANE	ug/l	5	U			5	U			5	U
1,1-DICHLOROETHENE	ug/l	5	U			5	U			5	U
1,1-DICHLOROPROPENE	ug/l	5	U			5	U			5	U
1,2,3,4,6,7,8-HPCDD	pg/l	10.5	U			9.91	U			10.7	U
1,2,3,4,6,7,8-HPCDF	pg/l	10.5	U			9.91	U			10.7	U
1,2,3,4,7,8,9-HPCDF	pg/l	10.5	U			9.91	U			10.7	U
1,2,3,4,7,8-HxCDD	pg/l	10.5	U			9.91	U			10.7	U
1,2,3,4,7,8-HXCDF	pg/l	10.5	U			9.91	U			10.7	U
1,2,3,6,7,8-HXCDD	pg/l	10.5	U			9.91	U			10.7	U
1,2,3,6,7,8-HXCDF	pg/l	10.5	U			9.91	U			10.7	U
1,2,3,7,8,9-HXCDD	pg/l	10.5	U			9.91	U			10.7	U
1,2,3,7,8,9-HXCDF	pg/l	10.5	U			9.91	U			10.7	U
1,2,3,7,8-PECDD	pg/l	10.5	U			9.91	U			10.7	U
1,2,3,7,8-PECDF	pg/l	10.5	U			9.91	U			0.168	J
1,2,3-TRICHLOROBENZENE	ug/l	5	U			5	U			5	U
1,2,3-TRICHLOROPROPANE	ug/l	5	U			5	U			5	U
1,2,4-TRICHLOROBENZENE(a)	ug/l	5	U			5	U			5	U
		5	U			5	U			6	U
1,2,4-TRIMETHYLBENZENE	ug/l	5	U			5	U			5	U
1,2-DIBROMO-3-CHLOROPROPANE	ug/l	5	U			5	U			5	U
1,2-Dibromoethane (EDB)	ug/l	5	U			5	U			5	U
1,2-DICHLOROBENZENE	ug/l	5	U			5	U			5	U
		5	U			5	U			6	U
1,2-DICHLOROETHANE	ug/l	5	U			5	UJ			5	U
1,2-DICHLOROPROPANE	ug/l	5	U			5	U			5	U
1,2-Diphenylhydrazine/Azobenzene	ug/l	5	U			5	U			6	U
1,3,5-TRIMETHYLBENZENE	ug/l	5	U			5	U			5	U
1,3,5-TRINITROBENZENE	ug/l			0.60	U			0.60	U		
1,3-DICHLOROBENZENE	ug/l	5	U			5	U			5	U
		5	U			5	U			6	U
1,3-DICHLOROPROPANE	ug/l	5	U			5	U			5	U
1,3-DINITROBENZENE	ug/l			0.60	U			0.60	U		
1,4-DICHLOROBENZENE	ug/l	5	U			5	U			5	U
		5	U			5	U			6	U
1,4-DIOXANE	ug/l	2.0	U			2.0	U			2.0	U
1-METHYLNAPHTHALENE	ug/l	0.055	U			0.050	U			0.031	J
2,2-DICHLOROPROPANE	ug/l	5	U			5	U			5	U
2,3,4,6,7,8-HXCDF	pg/l	10.5	U			9.91	U			10.7	U
2,3,4,7,8-PECDF	pg/l	10.5	U			9.91	U			10.7	U
2,3,7,8-TCDD	pg/l	2.11	U			1.98	U			2.14	U
2,3,7,8-TCDF	pg/l	2.11	U			0.269	J			2.14	U
2,4,5-T	ug/l										
2,4,5-TP (Silvex)	ug/l										
2,4,5-TRICHLOROPHENOL	ug/l	5	U			5	U			6	U
2,4,6-TRICHLOROPHENOL	ug/l	5	U			5	U			6	U
2,4,6-TRINITROTOLUENE	ug/l			0.60	U			0.60	U		
2,4-D	ug/l										
2,4-DB	ug/l										
2,4-DIAMINO-6-NITROTOLUENE	ug/l			0.60	U			0.60	U		
2,4-DICHLOROPHENOL	ug/l	5	U			5	U			6	U
2,4-DIMETHYLPHENOL	ug/l	10	U			10	U			11	U
2,4-DINITROPHENOL	ug/l	31	U			30	U			33	U
2,4-DINITROTOLUENE	ug/l	5	U	0.60	U	5	U	0.60	U	6	U
2,6-Diamino-4-nitrotoluene	ug/l			0.60	U			0.60	U		
2,6-DINITROTOLUENE	ug/l	5	U	0.60	U	5	U	0.60	U	6	U
2-AMINO-4,6-DINITROTOLUENE	ug/l			0.60	U			0.60	U		
2-BUTANONE (MEK)	ug/l	10	U			10	U			10	U
2-Chloro-1,1,1-trifluoroethane	ug/l	5	U			5	U			5	U
2-CHLOROETHYL VINYL ETHER	ug/l	10	U			10	U			10	U
2-CHLORONAPHTHALENE	ug/l	5	U			5	U			6	U
2-CHLOROPHENOL	ug/l	5	U			5	U			6	U
2-CHLOROTOLUENE	ug/l	5	U			5	U			5	U
2-HEXANONE	ug/l	10	U			10	U			10	U
2-METHYLNAPHTHALENE	ug/l	0.055	U			0.050	U			0.033	J
2-METHYLPHENOL	ug/l	5	U			5	U			6	U
2-NITROANILINE	ug/l	5	U			5	U			6	U
2-NITROPHENOL	ug/l	5	U			5	U			6	U
2-NITROTOLUENE	ug/l			0.60	U			0.60	U		
3,3'-DICHLOROBENZIDINE	ug/l	5	U			5	U			6	U
3,5-Dimethylphenol	ug/l	10	U			10	U			11	U
3-NITROANILINE	ug/l	5	U			5	U			6	U
3-NITROTOLUENE	ug/l			1.2	U			1.2	U		
4,4'-DDD	ug/l										
4,4'-DDE	ug/l										

Table C-2 - Subarea 5A Equipment Rinsate Blank Results

Sample Name:		EB11-SA5A-SB-040511		EB12-SA5A-SB-040611		EB13-SA5A-SB-041811		EB14-SA5A-SB-041911		EB15-SA5A-SB-051611	
Sample Date:		04/05/2011		04/06/2011		04/18/2011		04/19/2011		05/16/2011	
Sample Type		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
Analyte	**Units**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**
4,4'-DDT	ug/l										
4,6-DINITRO-2-METHYLPHENOL	ug/l	16	U			15	U			17	U
4-AMINO-2,6-DINITROTOLUENE	ug/l			0.60	U			0.60	U		
4-BROMOPHENYL-PHENYLETHER	ug/l	5	U			5	U			6	U
4-CHLORO-3-METHYLPHENOL	ug/l	5	U			5	U			6	U
4-CHLOROANILINE	ug/l	5	U			5	U			6	U
4-CHLOROPHENYL-PHENYLETHER	ug/l	5	U			5	U			6	U
4-CHLOROTOLUENE	ug/l	5	U			5	U			5	U
4-METHYL-2-PENTANONE (MIBK)	ug/l	10	U			10	U			10	U
4-METHYLPHENOL	ug/l	5	U			5	U			6	UJ
4-NITROANILINE	ug/l	5	U			5	U			6	U
4-NITROPHENOL	ug/l	31	U			30	U			33	U
4-NITROTOLUENE	ug/l			1.2	U			1.2	U		
ACENAPHTHENE	ug/l	0.055	U			0.050	U			0.054	U
ACENAPHTHYLENE	ug/l	0.055	U			0.050	U			0.054	U
ACETONE	ug/l	20	U			20	UJ			20	U
ALDRIN	ug/l										
ALPHA-BHC	ug/l										
ALUMINUM	mg/l	0.200	U			0.200	U			0.200	U
ANILINE	ug/l	5	U			5	U			6	U
ANTHRACENE	ug/l	0.055	U			0.050	U			0.054	U
ANTIMONY	mg/l	0.0010	U			0.0010	U			0.0010	U
Aroclor 1016	ug/l	0.51	U			0.48	U			0.52	U
Aroclor 1221	ug/l	0.51	U			0.48	U			0.52	U
Aroclor 1232	ug/l	0.51	U			0.48	U			0.52	U
Aroclor 1242	ug/l	0.51	U			0.48	U			0.52	U
Aroclor 1248	ug/l	0.51	U			0.48	U			0.52	U
Aroclor 1254	ug/l	0.51	U			0.48	U			0.52	U
Aroclor 1260	ug/l	0.51	U			0.48	U			0.52	U
Aroclor 1262	ug/l	0.51	U			0.48	U			0.52	U
Aroclor 1268	ug/l	0.51	U			0.48	U			0.52	U
Aroclor 5432	ug/l	0.51	U			0.48	UJ			0.52	U
Aroclor 5442	ug/l	0.51	U			0.48	U			0.52	U
Aroclor 5460	ug/l	0.51	U			0.48	U			0.52	U
Arsenic	mg/l	0.0020	U			0.0020	U			0.0020	U
BARIUM	mg/l	0.0020	U			0.0020	U			0.0020	U
BENZENE	ug/l	5	U			5	U			5	U
BENZIDINE	ug/l	62	U			59	U			67	U
BENZO(A)ANTHRACENE	ug/l	0.055	U			0.050	U			0.054	U
BENZO(A)PYRENE	ug/l	0.055	U			0.050	U			0.054	U
BENZO(B)FLUORANTHENE	ug/l	0.055	U			0.050	UJ			0.054	U
BENZO(G,H,I)PERYLENE	ug/l	0.055	U			0.050	U			0.054	U
BENZO(K)FLUORANTHENE	ug/l	0.055	U			0.050	U			0.054	U
BENZOIC ACID	ug/l	16	U			15	UJ			17	UJ
BENZYL ALCOHOL	ug/l	16	U			15	U			17	U
BERYLLIUM	mg/l	0.00050	U			0.00050	U			0.00050	U
BETA-BHC	ug/l										
BIS(2-CHLOROETHOXY)METHANE	ug/l	5	U			5	U			6	U
BIS(2-CHLOROETHYL) ETHER	ug/l	5	U			5	U			6	U
BIS(2-CHLOROISOPROPYL) ETHER	ug/l	5	U			5	U			6	U
BIS(2-ETHYLHEXYL)PHTHALATE	ug/l	0.098	J			0.30	J			1.1	U
BORON	mg/l	0.0500	U			0.0500	U			0.0500	U
BROMOBENZENE	ug/l	5	U			5	U			5	U
BROMOCHLOROMETHANE	ug/l	5	U			5	U			5	U
BROMODICHLOROMETHANE	ug/l	5	U			5	U			5	U
BROMOFORM	ug/l	5	U			5	U			5	U
BROMOMETHANE	ug/l	5	U			5	U			5	U
Butylbenzylphthalate	ug/l	1.1	U			1.0	U			1.1	U
CADMIUM	mg/l	0.00050	U			0.00050	U			0.00050	U
CALCIUM	mg/l	0.200	U			0.200	U			0.200	U
CARBAZOLE	ug/l	5	U			5	U			6	U
CARBON TETRACHLORIDE	ug/l	5	U			5	UJ			5	U
Chlordane	ug/l										
Chlorobenzene	ug/l	5	U			5	U			5	U
Chloroethane	ug/l	5	U			5	U			5	U
CHLOROFORM	ug/l	5	U			5	U			5	U
CHLOROMETHANE	ug/l	5	U			5	U			5	U
Chlorotrifluoroethylene	ug/l	5	U			5	U			5	U
CHROMIUM	mg/l	0.0020	U			0.0020	U			0.0020	U
CHRYSENE	ug/l	0.055	U			0.050	U			0.054	U
CIS-1,2-DICHLOROETHENE	ug/l	5	U			5	U			5	U
CIS-1,3-DICHLOROPROPENE	ug/l	5	U			5	U			5	U
COBALT	mg/l	0.00050	U			0.00050	U			0.00050	U
COPPER	mg/l	0.0020	U			0.0020	U			0.0020	U
CYANIDE	mg/l			0.010	U			0.010	U		
DALAPON	ug/l										
DELTA-BHC	ug/l										
DIBENZO(A,H)ANTHRACENE	ug/l	0.055	U			0.050	U			0.054	U
DIBENZOFURAN	ug/l	5	U			5	U			6	U
DIBROMOCHLOROMETHANE	ug/l	5	U			5	U			5	U
DIBROMOMETHANE	ug/l	5	U			5	U			5	U

Table C-2 - Subarea 5A Equipment Rinsate Blank Results

Sample Name:		EB11-SA5A-SB-040511		EB12-SA5A-SB-040611		EB13-SA5A-SB-041811		EB14-SA5A-SB-041911		EB15-SA5A-SB-051611	
Sample Date:		04/05/2011		04/06/2011		04/18/2011		04/19/2011		05/16/2011	
Sample Type		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
Analyte	**Units**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**
DICAMBA	ug/l										
DICHLORODIFLUOROMETHANE	ug/l	5	U			5	UJ			5	U
DICHLOROPROP	ug/l										
DIELDRIN	ug/l										
DIETHYLENE GLYCOL	mg/l			100	U			100	U		
Diethylphthalate	ug/l	0.066	J			1.0	U			1.1	U
Dimethylphthalate	ug/l	1.1	U			1.0	U			1.1	U
Di-n-butylphthalate	ug/l	0.62	J			0.32	J			1.1	U
Di-n-octylphthalate	ug/l	1.1	U			0.27	J			1.1	U
DINOSEB	ug/l										
EFH (C12-C14)	mg/l			0.62	U			0.62	U		
EFH (C15-C20)	mg/l			0.62	U			0.62	U		
EFH (C21-C30)	mg/l			0.62	U			0.62	U		
EFH (C30-C40)	mg/l			0.62	U			0.62	U		
EFH (C8-C11)	mg/l			0.62	U			0.62	U		
ENDOSULFAN I	ug/l										
ENDOSULFAN II	ug/l										
ENDOSULFAN SULFATE	ug/l										
ENDRIN	ug/l										
ENDRIN ALDEHYDE	ug/l										
ENDRIN KETONE	ug/l										
ETHANOL	ug/l			1000	U			1000	U		
ETHYLBENZENE	ug/l	5	U			5	U			5	U
ETHYLENE GLYCOL	mg/l			100	U			100	U		
FLUORANTHENE	ug/l	0.055	U			0.050	U			0.054	U
FLUORENE	ug/l	0.055	U			0.050	U			0.054	U
FLUORIDE	mg/l	0.10	U			0.10	U			0.10	U
FORMALDEHYDE	ug/l			50	U			50	U		
gamma-BHC (Lindane)	ug/l										
GASOLINE RANGE ORGANICS (C5-C12)	ug/l			50	U			50	U		
HEPTACHLOR	ug/l										
HEPTACHLOR EPOXIDE	ug/l										
HEXACHLOROBENZENE	ug/l	5	U			5	U			6	U
HEXACHLOROBUTADIENE	ug/l	5	U			5	U			5	U
		5	U			5	U			6	U
HEXACHLOROCYCLOPENTADIENE	ug/l	16	U			15	U			17	U
HEXACHLOROETHANE	ug/l	5	U			5	U			6	U
HEXAVALENT CHROMIUM	ug/l	10.0	UJ			10.0	U			10.0	U
HMX	ug/l			2.0	U			2.0	U		
INDENO(1,2,3-CD)PYRENE	ug/l	0.055	U			0.050	U			0.054	U
IRON	mg/l	0.200	U			0.200	U			0.200	U
ISOPHORONE	ug/l	5	U			5	U			6	U
Isopropanol	ug/l			1000	U			1000	U		
ISOPROPYLBENZENE	ug/l	5	U			5	U			5	U
LEAD	mg/l	0.0010	U			0.0010	U			0.0010	U
LITHIUM	mg/l	0.0200	U			0.0200	U			0.0200	U
m,p-Xylene	ug/l	5	U			5	U			5	U
MAGNESIUM	mg/l	0.0305	J			0.100	U			0.100	U
MANGANESE	mg/l	0.0050	U			0.0050	U			0.0050	U
MCPA	ug/l										
MCPP	ug/l										
Mercury	mg/l	0.00020	U			0.00020	U			0.00020	U
METHANOL	ug/l			1000	U			1000	U		
METHOXYCHLOR	ug/l										
METHYL TERT-BUTYL ETHER (MTBE)	ug/l	5	U			5	U			5	U
METHYLENE CHLORIDE	ug/l	5	U			5	U			5	U
MIREX	ug/l										
MOLYBDENUM	mg/l	0.00050	U			0.00050	U			0.00050	U
m-Terphenyl	mg/l			0.27	UJ			0.27	U		
NAPHTHALENE	ug/l	0.036	J			0.031	J			0.22	
N-BUTYLBENZENE	ug/l	5	U			5	U			5	U
NICKEL	mg/l	0.0020	U			0.0020	U			0.0020	U
Nitrate-NO3	mg/l			0.10	U			0.10	U		
NITROBENZENE	ug/l	5	U	0.60	U	5	U	0.60	U	6	U
Nitroglycerin	ug/l			15	U			15	U		
N-NITROSODIMETHYLAMINE	ng/l			0.730	J			0.808	J		
N-NITROSODIMETHYLAMINE	ug/l	0.055	U			0.050	U			0.030	J
N-NITROSO-DI-N-PROPYLAMINE	ug/l	5	U			5	U			6	U
N-NITROSODIPHENYLAMINE	ug/l	5	U			5	U			6	U
N-PROPYLBENZENE	ug/l	5	U			5	U			5	U
OCDD	pg/l	21.1	U			19.8	U			21.4	U
OCDF	pg/l	21.1	U			19.8	U			21.4	U
O-TERPHENYL	mg/l			0.27	UJ			0.27	U		
O-XYLENE	ug/l	5	U			5	U			5	U
PENTACHLOROPHENOL	ug/l	16	U			15	U			17	U
PERCHLORATE	ug/l	2.0	U			2.0	U			2.0	U
PETN	ug/l			18	U			18	U		
PH	pH unit					5.6				5.6	
PHENANTHRENE	ug/l	0.055	U			0.050	U			0.054	U
PHENOL	ug/l	5	U			5	U			6	U

Table C-2 - Subarea 5A Equipment Rinsate Blank Results

Sample Name:	EB11-SA5A-SB-040511		EB12-SA5A-SB-040611		EB13-SA5A-SB-041811		EB14-SA5A-SB-041911		EB15-SA5A-SB-051611	
Sample Date:	04/05/2011		04/06/2011		04/18/2011		04/19/2011		05/16/2011	
Sample Type	Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
Analyte	**Units**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**
PHOSPHORUS	mg/l	0.100	U			0.100	U			0.100	U
P-ISOPROPYLTOLUENE	ug/l	5	U			5	U			5	U
POTASSIUM	mg/l	0.500	U			0.500	U			0.500	U
Propylene glycol	mg/l			100	U			100	U		
p-Terphenyl	mg/l			0.27	UJ			0.27	U		
PYRENE	ug/l	0.055	U			0.050	U			0.054	U
RDX	ug/l			0.63	U			0.60	U		
SEC-BUTYLBENZENE	ug/l	5	U			5	U			5	U
SELENIUM	mg/l	0.0020	U			0.0020	U			0.0020	U
SILVER	mg/l	0.00050	U			0.00050	U			0.00050	U
SODIUM	mg/l	1.00	U			1.00	U			1.00	U
STRONTIUM	mg/l	0.0050	U			0.0050	U			0.0050	U
STYRENE	ug/l	5	U			5	U			5	U
TERT-BUTYLBENZENE	ug/l	5	U			5	U			5	U
TETRACHLOROETHENE	ug/l	5	U			5	U			5	U
Tetryl	ug/l			0.60	U			0.60	U		
THALLIUM	mg/l	0.00050	U			0.00050	U			0.00050	U
TIN	mg/l	0.0200	U			0.0200	U			0.0200	U
TITANIUM	mg/l	0.0100	U			0.0100	U			0.0100	U
TOLUENE	ug/l	5	U			5	U			5	U
TOXAPHENE	ug/l										
TRANS-1,2-DICHLOROETHENE	ug/l	5	U			5	U			5	U
TRANS-1,3-DICHLOROPROPENE	ug/l	5	U			5	U			5	U
TRICHLOROETHENE	ug/l	5	U			5	U			5	U
TRICHLOROFLUOROMETHANE	ug/l	5	U			5	UJ			5	U
VANADIUM	mg/l	0.00050	U			0.00050	U			0.00050	U
VINYL CHLORIDE	ug/l	5	U			5	U			5	U
ZINC	mg/l	0.0150	U			0.0150	U			0.0150	U
Zirconium	mg/l	0.0500	U			0.0500	U			0.0500	U

ug/L - microgram per liter
mg/L - milligram per liter
ng/L - nanogram per liter
pg/L - picogram per liter
U - Compound not detected above the reporting limit

(a) Some SVOC results had two values - one for SVOC and one for SVOC SIM. The validators used the value with the lowest detection limit for validation purposes

Table C-3 - Subarea 5A Trip Blanks Results

Sample Name:		TB-020711		TB-021611		TB-021711		TB-022111		TB-022211		TB-022311		TB-022411		TB-022511		TB-022811	
Sample Date:		02/07/2011		02/16/2011		02/17/2011		02/21/2011		02/22/2011		02/23/2011		02/24/2011		02/25/2011		02/28/2011	
Sample Type		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank	
Analyte	**Units**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**
1,1,1,2-Tetrachloroethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,1-TRICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2,2-TETRACHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-TRICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-DICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-DICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-DICHLOROPROPENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,3-TRICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,3-TRICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,4-TRICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,4-TRIMETHYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DIBROMO-3-CHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane (EDB)	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3,5-TRIMETHYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3-DICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3-DICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,4-DICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,4-DIOXANE	ug/l	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
2,2-DICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-BUTANONE (MEK)	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chloro-1,1,1-trifluoroethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-CHLOROETHYL VINYL ETHER	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-CHLOROTOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-HEXANONE	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-CHLOROTOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-METHYL-2-PENTANONE (MIBK)	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
ACETONE	ug/l	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U
BENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOCHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMODICHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOFORM	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CARBON TETRACHLORIDE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chlorobenzene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chloroethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CHLOROFORM	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chlorotrifluoroethylene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CIS-1,2-DICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CIS-1,3-DICHLOROPROPENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
DIBROMOCHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
DIBROMOMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
DICHLORODIFLUOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
ETHYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
GASOLINE RANGE ORGANICS (C5-C12)	ug/l			50	U	50	U	50	U	50	U	50	U						
HEXACHLOROBUTADIENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
ISOPROPYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
m,p-Xylene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
METHYL TERT-BUTYL ETHER (MTBE)	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
METHYLENE CHLORIDE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-BUTYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-PROPYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
O-XYLENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
P-ISOPROPYLTOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
SEC-BUTYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
STYRENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TERT-BUTYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TETRACHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRANS-1,2-DICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRANS-1,3-DICHLOROPROPENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRICHLOROFLUOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
VINYL CHLORIDE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-3 - Subarea 5A Trip Blanks Results

Sample Name:		TB-030111		TB-030211		TB-030311		TB-030411		TB-030711		TB-030811		TB-031011		TB-031111		TB-031411	
Sample Date:		03/01/2011		03/02/2011		03/03/2011		03/04/2011		03/07/2011		03/08/2011		03/10/2011		03/11/2011		03/14/2011	
Sample Type		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank	
Analyte	**Units**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**
1,1,1,2-Tetrachloroethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,1-TRICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2,2-TETRACHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-TRICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-DICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-DICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-DICHLOROPROPENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,3-TRICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,3-TRICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,4-TRICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,4-TRIMETHYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DIBROMO-3-CHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane (EDB)	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3,5-TRIMETHYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3-DICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3-DICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,4-DICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,4-DIOXANE	ug/l	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
2,2-DICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-BUTANONE (MEK)	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chloro-1,1,1-trifluoroethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-CHLOROETHYL VINYL ETHER	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-CHLOROTOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-HEXANONE	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-CHLOROTOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-METHYL-2-PENTANONE (MIBK)	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
ACETONE	ug/l	20	U	20	U	20	U	20	U	20	U	20	U	20	UJ	20	U	20	U
BENZENE	ug/l	0.5	J	0.6	J	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOCHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMODICHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOFORM	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CARBON TETRACHLORIDE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chlorobenzene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chloroethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CHLOROFORM	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chlorotrifluoroethylene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CIS-1,2-DICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CIS-1,3-DICHLOROPROPENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
DIBROMOCHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
DIBROMOMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
DICHLORODIFLUOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	UJ	5	U	5	U
ETHYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
GASOLINE RANGE ORGANICS (C5-C12)	ug/l					50	U			50	U	50	U	50	U	50	U	50	U
HEXACHLOROBUTADIENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
ISOPROPYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
m,p-Xylene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
METHYL TERT-BUTYL ETHER (MTBE)	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
METHYLENE CHLORIDE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-BUTYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-PROPYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
O-XYLENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
P-ISOPROPYLTOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
SEC-BUTYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
STYRENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TERT-BUTYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TETRACHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRANS-1,2-DICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRANS-1,3-DICHLOROPROPENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRICHLOROFLUOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
VINYL CHLORIDE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-3 - Subarea 5A Trip Blanks Results

Sample Name:		TB-031511		TB-031611		TB-031711		TB-031811		TB-032111		TB-032211		TB-032311		TB-032411		TB-032511	
Sample Date:		03/15/2011		03/16/2011		03/17/2011		03/18/2011		03/21/2011		03/22/2011		03/23/2011		03/24/2011		03/25/2011	
Sample Type		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank	
Analyte	**Units**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**
1,1,1,2-Tetrachloroethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,1-TRICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2,2-TETRACHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-TRICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-DICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-DICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-DICHLOROPROPENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,3-TRICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,3-TRICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,4-TRICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,4-TRIMETHYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DIBROMO-3-CHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane (EDB)	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3,5-TRIMETHYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3-DICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3-DICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,4-DICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,4-DIOXANE	ug/l	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
2,2-DICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-BUTANONE (MEK)	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chloro-1,1,1-trifluoroethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-CHLOROETHYL VINYL ETHER	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	UJ	10	U
2-CHLOROTOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-HEXANONE	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-CHLOROTOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-METHYL-2-PENTANONE (MIBK)	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
ACETONE	ug/l	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	UJ	20	U
BENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOCHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMODICHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOFORM	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CARBON TETRACHLORIDE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chlorobenzene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chloroethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CHLOROFORM	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chlorotrifluoroethylene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CIS-1,2-DICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CIS-1,3-DICHLOROPROPENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
DIBROMOCHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
DIBROMOMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
DICHLORODIFLUOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	UJ	5	U
ETHYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
GASOLINE RANGE ORGANICS (C5-C12)	ug/l	50	U	50	U	50	U	50	U	50	U	50	U			50	U	50	U
HEXACHLOROBUTADIENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
ISOPROPYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
m,p-Xylene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
METHYL TERT-BUTYL ETHER (MTBE)	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
METHYLENE CHLORIDE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-BUTYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-PROPYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
O-XYLENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
P-ISOPROPYLTOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
SEC-BUTYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
STYRENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TERT-BUTYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TETRACHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRANS-1,2-DICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRANS-1,3-DICHLOROPROPENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRICHLOROFLUOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	UJ	5	U
VINYL CHLORIDE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-3 - Subarea 5A Trip Blanks Results

Sample Name:		TB-032811		TB-032911		TB-033011		TB-033111		TB-040111		TB-040411		TB-040511		TB-040611		TB-040711	
Sample Date:		03/28/2011		03/29/2011		03/30/2011		03/31/2011		04/01/2011		04/04/2011		04/05/2011		04/06/2011		04/07/2011	
Sample Type		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank	
Analyte	**Units**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**
1,1,1,2-Tetrachloroethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,1-TRICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2,2-TETRACHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-TRICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-DICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-DICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-DICHLOROPROPENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,3-TRICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,3-TRICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,4-TRICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,4-TRIMETHYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DIBROMO-3-CHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane (EDB)	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3,5-TRIMETHYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3-DICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3-DICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,4-DICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,4-DIOXANE	ug/l	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
2,2-DICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-BUTANONE (MEK)	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chloro-1,1,1-trifluoroethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-CHLOROETHYL VINYL ETHER	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-CHLOROTOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-HEXANONE	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-CHLOROTOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-METHYL-2-PENTANONE (MIBK)	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
ACETONE	ug/l	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U
BENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOCHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMODICHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOFORM	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CARBON TETRACHLORIDE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chlorobenzene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chloroethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CHLOROFORM	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chlorotrifluoroethylene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CIS-1,2-DICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CIS-1,3-DICHLOROPROPENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
DIBROMOCHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
DIBROMOMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
DICHLORODIFLUOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
ETHYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
GASOLINE RANGE ORGANICS (C5-C12)	ug/l	50	U	50	U	50	U	50	U	50	U			50	U	50	U	50	U
HEXACHLOROBUTADIENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
ISOPROPYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
m,p-Xylene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
METHYL TERT-BUTYL ETHER (MTBE)	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
METHYLENE CHLORIDE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-BUTYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-PROPYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
O-XYLENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
P-ISOPROPYLTOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
SEC-BUTYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
STYRENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TERT-BUTYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TETRACHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRANS-1,2-DICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRANS-1,3-DICHLOROPROPENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRICHLOROFLUOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
VINYL CHLORIDE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-3 - Subarea 5A Trip Blanks Results

Sample Name:		TB-041111		TB-041211		TB-041311		TB-041411		TB-041511		TB-041811		TB-041911		TB-042011		TB-042211	
Sample Date:		04/11/2011		04/12/2011		04/13/2011		04/14/2011		04/15/2011		04/18/2011		04/19/2011		04/20/2011		04/22/2011	
Sample Type		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank	
Analyte	**Units**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**	**Concentration**	**Final Qualifer**
1,1,1,2-Tetrachloroethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,1-TRICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2,2-TETRACHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
1,1,2-TRICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-DICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-DICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,1-DICHLOROPROPENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,3-TRICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,3-TRICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,4-TRICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,4-TRIMETHYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DIBROMO-3-CHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane (EDB)	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-DICHLOROETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	UJ	5	U	5	U	5	U
1,2-DICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3,5-TRIMETHYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3-DICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,3-DICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,4-DICHLOROBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,4-DIOXANE	ug/l	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
2,2-DICHLOROPROPANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-BUTANONE (MEK)	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chloro-1,1,1-trifluoroethane	ug/l	5	U	5	UJ	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-CHLOROETHYL VINYL ETHER	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-CHLOROTOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-HEXANONE	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-CHLOROTOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-METHYL-2-PENTANONE (MIBK)	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
ACETONE	ug/l	20	U	20	UJ	20	U	20	U	20	U	20	UJ	20	U	20	U	20	U
BENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOCHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMODICHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOFORM	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BROMOMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CARBON TETRACHLORIDE	ug/l	5	U	5	U	5	U	5	U	5	U	5	UJ	5	U	5	U	5	U
Chlorobenzene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chloroethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CHLOROFORM	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chlorotrifluoroethylene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CIS-1,2-DICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
CIS-1,3-DICHLOROPROPENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
DIBROMOCHLOROMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
DIBROMOMETHANE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
DICHLORODIFLUOROMETHANE	ug/l	5	U	5	UJ	5	U	5	U	5	U	5	UJ	5	U	5	U	5	U
ETHYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
GASOLINE RANGE ORGANICS (C5-C12)	ug/l	50	U			50	U	50	U	50	U	50	U			50	U	50	U
HEXACHLOROBUTADIENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
ISOPROPYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
m,p-Xylene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
METHYL TERT-BUTYL ETHER (MTBE)	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
METHYLENE CHLORIDE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-BUTYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N-PROPYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
O-XYLENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
P-ISOPROPYLTOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
SEC-BUTYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
STYRENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TERT-BUTYLBENZENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TETRACHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TOLUENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRANS-1,2-DICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRANS-1,3-DICHLOROPROPENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRICHLOROETHENE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
TRICHLOROFLUOROMETHANE	ug/l	5	U	5	UJ	5	U	5	U	5	U	5	UJ	5	U	5	U	5	U
VINYL CHLORIDE	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-3 - Subarea 5A Trip Blanks Results

Sample Name:		TB-051611	
Sample Date:		05/16/2011	
Sample Type		Trip Blank	
Analyte	**Units**	**Concentration**	**Final Qualifer**
1,1,1,2-Tetrachloroethane	ug/l	5	U
1,1,1-TRICHLOROETHANE	ug/l	5	U
1,1,2,2-TETRACHLOROETHANE	ug/l	5	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	10	U
1,1,2-TRICHLOROETHANE	ug/l	5	U
1,1-DICHLOROETHANE	ug/l	5	U
1,1-DICHLOROETHENE	ug/l	5	U
1,1-DICHLOROPROPENE	ug/l	5	U
1,2,3-TRICHLOROBENZENE	ug/l	5	U
1,2,3-TRICHLOROPROPANE	ug/l	5	U
1,2,4-TRICHLOROBENZENE	ug/l	5	U
1,2,4-TRIMETHYLBENZENE	ug/l	5	U
1,2-DIBROMO-3-CHLOROPROPANE	ug/l	5	U
1,2-Dibromoethane (EDB)	ug/l	5	U
1,2-DICHLOROBENZENE	ug/l	5	U
1,2-DICHLOROETHANE	ug/l	5	U
1,2-DICHLOROPROPANE	ug/l	5	U
1,3,5-TRIMETHYLBENZENE	ug/l	5	U
1,3-DICHLOROBENZENE	ug/l	5	U
1,3-DICHLOROPROPANE	ug/l	5	U
1,4-DICHLOROBENZENE	ug/l	5	U
1,4-DIOXANE	ug/l	2.0	U
2,2-DICHLOROPROPANE	ug/l	5	U
2-BUTANONE (MEK)	ug/l	10	U
2-Chloro-1,1,1-trifluoroethane	ug/l	5	U
2-CHLOROETHYL VINYL ETHER	ug/l	10	U
2-CHLOROTOLUENE	ug/l	5	U
2-HEXANONE	ug/l	10	U
4-CHLOROTOLUENE	ug/l	5	U
4-METHYL-2-PENTANONE (MIBK)	ug/l	10	U
ACETONE	ug/l	20	U
BENZENE	ug/l	5	U
BROMOBENZENE	ug/l	5	U
BROMOCHLOROMETHANE	ug/l	5	U
BROMODICHLOROMETHANE	ug/l	5	U
BROMOFORM	ug/l	5	U
BROMOMETHANE	ug/l	5	U
CARBON TETRACHLORIDE	ug/l	5	U
Chlorobenzene	ug/l	5	U
Chloroethane	ug/l	5	U
CHLOROFORM	ug/l	5	U
CHLOROMETHANE	ug/l	5	U
Chlorotrifluoroethylene	ug/l	5	U
CIS-1,2-DICHLOROETHENE	ug/l	5	U
CIS-1,3-DICHLOROPROPENE	ug/l	5	U
DIBROMOCHLOROMETHANE	ug/l	5	U
DIBROMOMETHANE	ug/l	5	U
DICHLORODIFLUOROMETHANE	ug/l	5	U
ETHYLBENZENE	ug/l	5	U
GASOLINE RANGE ORGANICS (C5-C12)	ug/l	50	U
HEXACHLOROBUTADIENE	ug/l	5	U
ISOPROPYLBENZENE	ug/l	5	U
m,p-Xylene	ug/l	5	U
METHYL TERT-BUTYL ETHER (MTBE)	ug/l	5	U
METHYLENE CHLORIDE	ug/l	5	U
N-BUTYLBENZENE	ug/l	5	U
N-PROPYLBENZENE	ug/l	5	U
O-XYLENE	ug/l	5	U
P-ISOPROPYLTOLUENE	ug/l	5	U
SEC-BUTYLBENZENE	ug/l	5	U
STYRENE	ug/l	5	U
TERT-BUTYLBENZENE	ug/l	5	U
TETRACHLOROETHENE	ug/l	5	U
TOLUENE	ug/l	5	U
TRANS-1,2-DICHLOROETHENE	ug/l	5	U
TRANS-1,3-DICHLOROPROPENE	ug/l	5	U
TRICHLOROETHENE	ug/l	5	U
TRICHLOROFLUOROMETHANE	ug/l	5	U
VINYL CHLORIDE	ug/l	5	U

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-4 - Subarea 5A Field Duplicate Results

		Location	SL-004-SA5A		SL-004-SA5A		RPD	SL-036-SA5A		SL-036-SA5A		RPD
		Sample Name:	DUP-04-SA5A-QC-022311		SL-004-SA5A-SS-0.0-0.5			DUP-03-SA5A-QC-022311		SL-036-SA5A-SB-4.0-5.0		
		Sample Date	02/23/2011		02/23/2011			02/23/2011		02/23/2011		
		Start Depth:	0		0			4		4		
		End Depth:	0.5		0.5			5		5		
		Area:	5A		5A			5A		5A		
		Matrix:	SO		SO			SO		SO		
		Sample Type:	FD		N			FD		N		
Chemical Name:	Lab Method:	Result Unit										
Aluminum	6010B	mg/kg	14100		14700		-4.17	21900		19600		11.08
Antimony	6020	mg/kg	0.133	J	0.178	J	-28.94	0.240	J	0.154	J	43.65
Arsenic	6020	mg/kg	3.88		4.15		-6.72	8.51	J	5.54	J	42.28
Barium	6020	mg/kg	99.6	J	109	J	-9.01	121	J	93.4	J	25.75
Beryllium	6020	mg/kg	0.499		0.549		-9.54	0.855	J	0.629	J	30.46
Boron	6010B	mg/kg	3.26	J	3.61	J	-10.19	1.35	J	1.74	J	-25.24
Cadmium	6020	mg/kg	0.204		0.217		-6.18	0.102	UJ	0.107	UJ	--
Calcium	6010B	mg/kg	3280	J	3370	J	-2.71	2180		1950		11.14
Chromium	6020	mg/kg	15.9	J	17.0	J	-6.69	31.7	J	23.9	J	28.06
Chromium VI	7199	mg/kg	0.31	J	0.33	J	-6.25	0.37	J	0.45	J	-19.51
Cobalt	6020	mg/kg	5.15	J	5.10	J	0.98	5.96	J	4.68	J	24.06
Copper	6020	mg/kg	7.36	J	7.78	J	-5.55	7.89		7.76		1.66
Cyanide	9012B	mg/kg						0.52	U	0.53	U	--
Fluoride	300.0	mg/kg	1.2		1.0	J	18.18	2.2	J	1.4	J	44.44
Iron	6010B	mg/kg	19600		21300		-8.31	27000		22700		17.30
Lead	6020	mg/kg	8.66	J	7.09	J	19.94	8.57	J	6.40	J	28.99
Lithium	6010B	mg/kg	22.5		24.3		-7.69	22.2		21.2		4.61
Magnesium	6010B	mg/kg	4410		4690		-6.15	4430		4470		-0.90
Manganese	6010B	mg/kg	282		325		-14.17	129	J	178	J	-31.92
Mercury	7471A	mg/kg	0.0379	J	0.0398	J	-4.89	0.103	U	0.106	U	--
Molybdenum	6020	mg/kg	0.408		0.397		2.73	0.875	J	0.566	J	42.89
Nickel	6020	mg/kg	9.57		10.8		-12.08	16.2	J	11.8	J	31.43
Nitrate	300.0	mg/kg						1.2	J	1.3	J	-8.00
Percent Moisture	160.3M	%	9.7		10.6		-8.87	5.3		6.2		-15.65
Perchlorate	314.0	ug/kg	33.2	U	33.6	U	-1.20	31.7	U	32.0	U	--
Perchlorate	6850	ug/kg										
pH	9045M	pH unit	8.04		7.95		1.13	6.29		6.74		-6.91
Phosphorus	6010B	mg/kg	389		460		-16.73	126		139		-9.81
Potassium	6010B	mg/kg	3130	J	3280	J	-4.68	1230	J	1740	J	-34.34
Selenium	6020	mg/kg	0.107	J	0.0750	J	35.16	0.164	J	0.192	J	-15.73
Silver	6020	mg/kg	0.0302	J	0.0318	J	-5.16	0.0276	J	0.0264	J	4.44
Sodium	6010B	mg/kg	86.1	J	91.4	J	-5.97	324		199		47.80
Strontium	6010B	mg/kg	17.4		19.1		-9.32	19.9		19.6		1.52
Thallium	6020	mg/kg	0.237		0.255		-7.32	0.337	J	0.253	J	28.47
Tin	6010B	mg/kg	10.6	U	11.0	U	--	10.2	U	10.4	U	--
Titanium	6010B	mg/kg	1190		1240		-4.12	1130		1280		-12.45
Vanadium	6020	mg/kg	27.7		33.0		-17.46	59.6	J	43.4	J	31.46
Zinc	6020	mg/kg	82.8	J	86.1	J	-3.91	71.6		48.6		38.27
Zirconium	6010B	mg/kg	2.36	J	1.96	J	18.52	1.33	J	1.46	J	-9.32
1,3,5-Trinitrobenzene	8330A	ug/kg						130	U	130	U	--
2,4,6-Trinitrotoluene	8330A	ug/kg						130	U	130	U	--
2,4-Diamino-6-nitrotoluene	8330A	ug/kg						250	U	260	U	--
2,4-Dinitrotoluene	8330A	ug/kg						130	U	130	U	--
2,6-Diamino-4-nitrotoluene	8330A	ug/kg						250	U	260	U	--
2,6-Dinitrotoluene	8330A	ug/kg						130	U	130	U	--
2-Amino-4,6-Dinitrotoluene	8330A	ug/kg						130	U	130	U	--
2-Nitrotoluene	8330A	ug/kg						130	U	130	U	--
2-Propanol	8015B	ug/kg						530	U	530	U	--
3-Nitrotoluene	8330A	ug/kg						130	U	130	U	--
4-Amino-2,6-Dinitrotoluene	8330A	ug/kg						130	U	130	U	--
4-Nitrotoluene	8330A	ug/kg						130	U	130	U	--
Diethylene Glycol	8015M	mg/kg						13	U	13	U	--
Ethanol	8015B	ug/kg						530	U	530	U	--
Ethylene Glycol	8015M	mg/kg						13	U	13	U	--
Formaldehyde	8315A	ug/kg						1600	U	1600	U	--
HMX	8330A	ug/kg						320	U	320	U	--
m-Dinitrobenzene	8330A	ug/kg						130	U	130	U	--
Methanol	8015B	ug/kg						530	U	530	U	--
m-Terphenyl	8015B	mg/kg						3.7	U	3.7	U	--
Nitrobenzene	8330A	ug/kg						130	U	130	U	--
Nitroglycerin	8330A	ug/kg						2500	U	2600	U	--
o-Terphenyl	8015B	mg/kg						3.7	U	3.7	U	--
PETN	8330A	ug/kg						2500	U	2600	U	--
Propylene glycol	8015M	mg/kg						13	U	13	U	--
p-Terphenyl	8015B	mg/kg						3.7	U	3.7	U	--
RDX	8330A	ug/kg						130	U	130	U	--
Tetryl	8330A	ug/kg						130	U	130	U	--
1,2,3,4,6,7,8-HpCDD	1613B	ng/kg	37.1	J	164	J	-126.21	5.28	U	5.33	U	--
1,2,3,4,6,7,8-HpCDF	1613B	ng/kg	4.87	J	10.7	J	-74.89	5.28	U	5.33	U	--
1,2,3,4,7,8,9-HpCDF	1613B	ng/kg	0.359	J	0.780	J	-73.92	5.28	U	5.33	U	--
1,2,3,4,7,8-HxCDD	1613B	ng/kg	0.141	J	0.328	J	-79.74	5.28	UJ	5.33	UJ	--
1,2,3,4,7,8-HxCDF	1613B	ng/kg	1.01	J	1.37	J	-30.25	5.28	U	5.33	U	--
1,2,3,6,7,8-HxCDD	1613B	ng/kg	1.19	J	4.46	J	-115.75	5.28	U	5.33	U	--
1,2,3,6,7,8-HxCDF	1613B	ng/kg	0.262	J	0.552	J	-71.25	5.28	U	5.33	U	--
1,2,3,7,8,9-HxCDD	1613B	ng/kg	0.455	J	1.46	J	-104.96	5.28	U	5.33	U	--
1,2,3,7,8,9-HxCDF	1613B	ng/kg	0.191	J	0.227	J	-17.22	5.28	U	5.33	U	--
1,2,3,7,8-PeCDD	1613B	ng/kg	0.0738	J	0.223	J	-100.54	5.28	U	5.33	U	--
1,2,3,7,8-PeCDF	1613B	ng/kg	0.0659	J	0.0814	J	-21.05	5.28	U	5.33	U	--
2,3,4,6,7,8-HxCDF	1613B	ng/kg	0.280	J	0.577	J	-69.31	5.28	U	5.33	U	--
2,3,4,7,8-PeCDF	1613B	ng/kg	0.403	J	0.517	J	-24.78	5.28	U	5.33	U	--
2,3,7,8-TCDD	1613B	ng/kg	1.11	UJ	0.0403	J	200*	1.06	UJ	1.07	UJ	--
2,3,7,8-TCDF	1613B	ng/kg	0.118	J	0.309	J	-89.46	1.06	UJ	1.07	UJ	--
Aroclor 1016	8082	ug/kg	9.4	U	1.9	U	--	1.8	U	1.8	U	--
Aroclor 1221	8082	ug/kg	9.4	U	1.9	U	--	1.8	U	1.8	U	--
Aroclor 1232	8082	ug/kg	9.4	U	1.9	U	--	1.8	U	1.8	U	--
Aroclor 1242	8082	ug/kg	9.4	U	1.9	U	--	1.8	U	1.8	U	--
Aroclor 1248	8082	ug/kg	9.4	U	1.9	U	--	1.8	U	1.8	U	--
Aroclor 1254	8082	ug/kg	45	J	12	J	115.79	1.8	U	1.8	U	--
Aroclor 1260	8082	ug/kg	9.4	U	1.9	U	--	1.8	U	1.8	U	--
Aroclor 1262	8082	ug/kg	9.4	U	1.9	U	--	1.8	U	1.8	U	--
Aroclor 1268	8082	ug/kg	47	J	7.8	J	143.07	1.8	U	1.8	U	--
Aroclor 5432	8082	ug/kg	18	U	3.7	U	--	3.5	UJ	3.5	UJ	--
Aroclor 5442	8082	ug/kg	18	U	3.7	U	--	3.5	UJ	3.5	UJ	--
Aroclor 5460	8082	ug/kg	51	J	8.2	J	144.59	3.5	UJ	3.5	UJ	--
OCDD	1613B	ng/kg	388	J	1410	J	-113.68	10.6	U	10.7	U	--
OCDF	1613B	ng/kg	12.4	J	25.0	J	-67.38	10.6	U	10.7	U	--
2,2-Dichlor-Propionic Acid	8151A	ug/kg	10	U	10	U	--					
2,4 DB	8151A	ug/kg	1.9	U	1.9	U	--					
2,4,5-T	8151A	ug/kg	0.19	UJ	0.19	UJ	--					
2,4,5-TP	8151A	ug/kg	0.19	U	0.19	U	--					
2,4-D	8151A	ug/kg	4.0	U	4.0	U	--					
4,4'-DDD	8081A	ug/kg	0.37	UJ	0.38	U	--					
4,4'-DDE	8081A	ug/kg	0.37	UJ	0.38	U	--					
4,4'-DDT	8081A	ug/kg	0.61	UJ	1.5	J	200.00					
Aldrin	8081A	ug/kg	0.18	UJ	0.18	R	--					
Alpha-BHC	8081A	ug/kg	0.18	UJ	0.18	U	--					
Beta-BHC	8081A	ug/kg	0.18	UJ	0.18	U	--					
Chlordane	8081A	ug/kg	3.7	UJ	3.8	U	--					
Delta-BHC	8081A	ug/kg	0.18	UJ	0.18	U	--					
Dicamba	8151A	ug/kg	1.3	U	1.3	U	--					
Dichlorprop	8151A	ug/kg	1.9	U	1.9	U	--					
Dieldrin	8081A	ug/kg	0.37	UJ	0.38	U	--					
Dinitrobutyl Phenol	8151A	ug/kg	2.7	R	2.7	R	--					
Endosulfan I	8081A	ug/kg	0.18	UJ	0.18	U	--					
Endosulfan II	8081A	ug/kg	0.37	UJ	0.38	U	--					
Endosulfan Sulfate	8081A	ug/kg	0.37	UJ	0.38	U	--					
Endrin	8081A	ug/kg	0.37	UJ	0.38	U	--					
Endrin Aldehyde	8081A	ug/kg	0.37	UJ	0.38	U	--					

Table C-4 - Subarea 5A Field Duplicate Results

			Location		SL-004-SA5A		SL-004-SA5A		RPD	SL-036-SA5A		SL-036-SA5A		RPD
			Sample Name:		DUP-04-SA5A-QC-022311		SL-004-SA5A-SS-0.0-0.5			DUP-03-SA5A-QC-022311		SL-036-SA5A-SB-4.0-5.0		
			Sample Date		02/23/2011		02/23/2011			02/23/2011		02/23/2011		
			Start Depth:		0		0			4		4		
			End Depth:		0.5		0.5			5		5		
			Area:		5A		5A			5A		5A		
			Matrix:		SO		SO			SO		SO		
			Sample Type:		FD		N			FD		N		
Endrin Ketone	8081A	ug/kg		0.37	UJ	0.38	R	--						
Gamma-BHC (Lindane)	8081A	ug/kg		0.18	UJ	0.052	J	--						
Heptachlor	8081A	ug/kg		0.18	UJ	0.18	U	--						
Heptachlor Epoxide	8081A	ug/kg		0.18	UJ	0.18	U	--						
MCPA	8151A	ug/kg		260	J	280	UJ	200.00						
MCPP	8151A	ug/kg		280	U	280	U	--						
Methoxychlor	8081A	ug/kg		1.8	UJ	1.8	U	--						
Mirex	8081A	ug/kg		0.37	UJ	0.38	U	--						
Toxaphene	8081A	ug/kg		7.3	UJ	7.3	U	--						
1,2,4-Trichlorobenzene	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
1,2-Dichlorobenzene	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
1,2-Diphenylhydrazine	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
1,3-Dichlorobenzene	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
1,4-Dichlorobenzene	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
1-Methylnaphthalene	8270C SIM	ug/kg		1.8	U	1.8	U	--	1.8	U	1.8	U	--	
2,4,5-Trichlorophenol	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
2,4,6-Trichlorophenol	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
2,4-Dichlorophenol	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
2,4-Dimethylphenol	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
2,4-Dinitrophenol	8270C	ug/kg		1100	U	1100	U	--	1100	U	1100	U	--	
2,4-Dinitrotoluene	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
2,6-Dinitrotoluene	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
2-Chloronaphthalene	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
2-Chlorophenol	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
2-Methylnaphthalene	8270C SIM	ug/kg		1.8	U	1.8	U	--	1.8	U	1.8	U	--	
2-Methylphenol	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
2-Nitroaniline	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
2-Nitrophenol	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
3,3`-Dichlorobenzidine	8270C	ug/kg		370	U	370	U	--	350	U	350	U	--	
3,5-Dimethylphenol	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
3-Nitroaniline	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
4,6-Dinitro-2-Methylphenol	8270C	ug/kg		550	U	560	U	--	530	UJ	530	UJ	--	
4-Bromophenyl Phenyl Ether	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
4-Chloro-3-Methylphenol	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
4-Chloroaniline	8270C	ug/kg		180	U	190	U	--	180	U	180	U	--	
4-Chlorophenyl Phenylether	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
4-Methylphenol	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
4-Nitroaniline	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
4-Nitrophenol	8270C	ug/kg		550	U	560	U	--	530	UJ	530	UJ	--	
Acenaphthene	8270C SIM	ug/kg		1.8	U	1.8	U	--	1.8	U	1.8	U	--	
Acenaphthylene	8270C SIM	ug/kg		1.8	U	1.8	U	--	1.8	U	1.8	U	--	
Aniline	8270C	ug/kg		550	U	560	U	--	530	U	530	U	--	
Anthracene	8270C SIM	ug/kg		1.8	U	1.8	U	--	1.8	U	1.8	U	--	
Benzidine	8270C	ug/kg		3700	U	3700	U	--	3500	U	3500	R	--	
Benzo(a)anthracene	8270C	ug/kg												
Benzo(a)anthracene	8270C SIM	ug/kg		1.9		1.5	J	23.53	1.8	U	1.8	U	--	
Benzo(a)pyrene	8270C	ug/kg												
Benzo(a)pyrene	8270C SIM	ug/kg		7.5	J	3.3	J	77.78	1.8	U	1.8	U	--	
Benzo(b)fluoranthene	8270C	ug/kg												
Benzo(b)fluoranthene	8270C SIM	ug/kg		6.5	J	2.6	J	85.71	1.8	U	1.8	U	--	
Benzo(g,h,i)perylene	8270C	ug/kg												
Benzo(g,h,i)perylene	8270C SIM	ug/kg		5.0	J	2.6	J	63.16	1.8	U	1.8	U	--	
Benzo(k)fluoranthene	8270C	ug/kg												
Benzo(k)fluoranthene	8270C SIM	ug/kg		1.8	UJ	1.4	J	200.00	1.8	U	1.8	U	--	
Benzoic Acid	8270C	ug/kg		550	U	560	U	--	530	U	530	U	--	
Benzyl Alcohol	8270C	ug/kg		550	U	560	U	--	530	UJ	530	UJ	--	
Bis(2-Chloroethoxy) methane	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
Bis(2-Chloroethyl) ether	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
bis(2-Chloroisopropyl) ether	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
Bis(2-Ethylhexyl) phthalate	8270C	ug/kg							350	UJ	23	J	200.00	
Bis(2-Ethylhexyl) phthalate	8270C SIM	ug/kg		20	U	20	UJ	--						
Butylbenzylphthalate	8270C	ug/kg		180	U	190	U	--						
Butylbenzylphthalate	8270C SIM	ug/kg							19	U	19	U	--	
Carbazole	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
Chrysene	8270C	ug/kg												
Chrysene	8270C SIM	ug/kg		4.6	J	2.6	J	55.56	1.8	U	1.8	U	--	
Dibenzo(a,h)anthracene	8270C	ug/kg												
Dibenzo(a,h)anthracene	8270C SIM	ug/kg		1.9	J	1.8	UJ	200.00	1.8	U	1.8	U	--	
Dibenzofuran	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
Diethylphthalate	8270C	ug/kg												
Diethylphthalate	8270C SIM	ug/kg		20	U	20	U	--	19	U	19	U	--	
Dimethylphthalate	8270C	ug/kg												
Dimethylphthalate	8270C SIM	ug/kg		20	U	20	U	--	19	U	19	U	--	
Di-n-Butylphthalate	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
Di-n-Butylphthalate	8270C SIM	ug/kg												
Di-N-Octyl Phthalate	8270C	ug/kg												
Di-N-Octyl Phthalate	8270C SIM	ug/kg		20	UJ	20	UJ	--	19	U	19	U	--	
Fluoranthene	8270C	ug/kg												
Fluoranthene	8270C SIM	ug/kg		1.3	J	1.7	J	-26.67	1.8	U	1.8	U	--	
Fluorene	8270C SIM	ug/kg		1.8	U	1.8	U	--	1.8	U	1.8	U	--	
Hexachlorobenzene	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
Hexachlorobutadiene	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
Hexachlorocyclopentadiene	8270C	ug/kg		550	U	560	U	--	530	U	530	U	--	
Hexachloroethane	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
Indeno(1,2,3-Cd)Pyrene	8270C	ug/kg												
Indeno(1,2,3-Cd)Pyrene	8270C SIM	ug/kg		2.5	J	1.0	J	85.71	1.8	U	1.8	U	--	
Isophorone	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
Naphthalene	8270C	ug/kg												
Naphthalene	8270C SIM	ug/kg		1.8	U	1.8	U	--	1.8	U	1.8	U	--	
Nitrobenzene	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
N-Nitrosodimethylamine	1625C	ng/kg							34.6	U	35.5	U	--	
N-Nitrosodimethylamine	8270C SIM	ug/kg		1.8	U	1.8	U	--	1.8	U	1.8	U	--	
N-Nitroso-Di-N-Propylamine	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
N-Nitrosodiphenylamine	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
Pentachlorophenol	8270C	ug/kg		550	U	560	U	--	530	U	530	U	--	
Phenanthrene	8270C	ug/kg												
Phenanthrene	8270C SIM	ug/kg		1.8	UJ	0.98	J	200.00	1.8	U	1.8	U	--	
Phenol	8270C	ug/kg		180	U	190	U	--	180	UJ	180	UJ	--	
Pyrene	8270C	ug/kg												
Pyrene	8270C SIM	ug/kg		1.9		1.7	J	11.11	1.8	U	1.8	U	--	
1,1,1,2-Tetrachloroethane	8260B	ug/kg							4.4	U	4.8	U	--	
1,1,1-Trichloroethane	8260B	ug/kg							4.4	U	4.8	U	--	
1,1,2,2-Tetrachloroethane	8260B	ug/kg							4.4	U	4.8	U	--	
1,1,2-Trichloroethane	8260B	ug/kg							4.4	U	4.8	U	--	
1,1-Dichloroethane	8260B	ug/kg							4.4	U	4.8	U	--	
1,1-Dichloroethene	8260B	ug/kg							4.4	U	4.8	U	--	
1,1-Dichloropropene	8260B	ug/kg							4.4	U	4.8	U	--	
1,2,3-Trichlorobenzene	8260B	ug/kg							4.4	U	4.8	U	--	
1,2,3-Trichloropropane	8260B	ug/kg							4.4	U	4.8	U	--	
1,2,4-Trichlorobenzene	8260B	ug/kg							4.4	U	4.8	U	--	
1,2,4-Trimethylbenzene	8260B	ug/kg							4.4	U	4.8	U	--	
1,2-Dibromo-3-chloropropane	8260B	ug/kg							4.4	U	4.8	U	--	
1,2-Dibromoethane	8260B	ug/kg							4.4	U	4.8	U	--	
1,2-Dichlorobenzene	8260B	ug/kg							4.4	U	4.8	U	--	
1,2-Dichloroethane	8260B	ug/kg							4.4	U	4.8	U	--	
1,2-Dichloropropane	8260B	ug/kg							4.4	U	4.8	U	--	
1,3,5-Trimethylbenzene	8260B	ug/kg							4.4	U	4.8	U	--	
1,3-Dichlorobenzene	8260B	ug/kg							4.4	U	4.8	U	--	
1,3-Dichloropropane	8260B	ug/kg							4.4	U	4.8	U	--	

Table C-4 - Subarea 5A Field Duplicate Results

			Location		SL-004-SA5A		SL-004-SA5A		RPD	SL-036-SA5A		SL-036-SA5A		RPD
			Sample Name:		DUP-04-SA5A-QC-022311		SL-004-SA5A-SS-0.0-0.5			DUP-03-SA5A-QC-022311		SL-036-SA5A-SB-4.0-5.0		
			Sample Date		02/23/2011		02/23/2011			02/23/2011		02/23/2011		
			Start Depth:		0		0			4		4		
			End Depth:		0.5		0.5			5		5		
			Area:		5A		5A			5A		5A		
			Matrix:		SO		SO			SO		SO		
			Sample Type:		FD		N			FD		N		
1,4-Dichlorobenzene	8260B	ug/kg								4.4	U	4.8	U	--
1,4-Dioxane	8260B SIM	ug/kg								18	U	17	U	--
2,2-Dichloropropane	8260B	ug/kg								4.4	U	4.8	U	--
2-Butanone	8260B	ug/kg								8.9	U	9.7	U	--
2-Chloroethyl Vinyl Ether	8260B	ug/kg								4.4	U	4.8	U	--
2-Chlorotoluene	8260B	ug/kg								4.4	U	4.8	U	--
2-Hexanone	8260B	ug/kg								8.9	U	9.7	U	--
4-Chlorotoluene	8260B	ug/kg								4.4	U	4.8	U	--
4-Methyl-2-Pentanone	8260B	ug/kg								8.9	U	9.7	U	--
Acetone	8260B	ug/kg								8.9	U	9.7	U	--
Benzene	8260B	ug/kg								4.4	U	4.8	U	--
Bromobenzene	8260B	ug/kg								4.4	U	4.8	U	--
Bromochloromethane	8260B	ug/kg								4.4	U	4.8	U	--
Bromodichloromethane	8260B	ug/kg								4.4	U	4.8	U	--
Bromoform	8260B	ug/kg								4.4	U	4.8	U	--
Bromomethane	8260B	ug/kg								4.4	U	4.8	U	--
Carbon tetrachloride	8260B	ug/kg								4.4	U	4.8	U	--
Chlorobenzene	8260B	ug/kg								4.4	U	4.8	U	--
Chloroethane	8260B	ug/kg								4.4	U	4.8	U	--
Chloroform	8260B	ug/kg								4.4	U	4.8	U	--
Chloromethane	8260B	ug/kg								4.4	U	4.8	U	--
Chlorotrifluoroethene	8260B	ug/kg								5.5	U	6.0	U	--
cis-1,2-Dichloroethene	8260B	ug/kg								4.4	U	4.8	U	--
cis-1,3-Dichloropropene	8260B	ug/kg								4.4	U	4.8	U	--
Dibromochloromethane	8260B	ug/kg								4.4	U	4.8	U	--
Dibromomethane	8260B	ug/kg								4.4	U	4.8	U	--
Dichlorodifluoromethane	8260B	ug/kg								4.4	U	4.8	U	--
EFH (C15-C20)	8015M	mg/kg								1.3	U	1.3	U	--
EFH (C21-C30)	8015M	mg/kg								1.3	U	1.3	U	--
EFH (C30-C40)	8015M	mg/kg								1.3	U	1.3	U	--
EFH (C8-C11)	8015M	mg/kg								1.3	U	1.3	U	--
Ethylbenzene	8260B	ug/kg								4.4	UJ	0.12	J	200.00
Freon 113	8260B	ug/kg								4.4	U	4.8	U	--
Freon 113a	8260B	ug/kg								5.5	U	6.0	U	--
GRO (C5-C12)	8015M	mg/kg								1.1	U	1.2	U	--
Hexachlorobutadiene	8260B	ug/kg								4.4	U	4.8	U	--
Isopropylbenzene	8260B	ug/kg								4.4	U	4.8	U	--
Isopropyltoluene	8260B	ug/kg								4.4	U	4.8	U	--
m,p-Xylene	8260B	ug/kg								4.4	UJ	0.39	J	200.00
Methyl tert-Butyl Ether	8260B	ug/kg								4.4	U	4.8	U	--
Methylene chloride	8260B	ug/kg								4.4	U	4.8	U	--
N-Butylbenzene	8260B	ug/kg								4.4	U	4.8	U	--
N-Propylbenzene	8260B	ug/kg								4.4	U	4.8	U	--
o-Xylene	8260B	ug/kg								4.4	U	4.8	U	--
sec-Butylbenzene	8260B	ug/kg								4.4	U	4.8	U	--
Styrene	8260B	ug/kg								4.4	U	4.8	U	--
tert-Butylbenzene	8260B	ug/kg								4.4	U	4.8	U	--
Tetrachloroethene	8260B	ug/kg								4.4	U	4.8	U	--
Toluene	8260B	ug/kg								4.4	U	4.8	U	--
trans-1,2-Dichloroethene	8260B	ug/kg								4.4	U	4.8	U	--
trans-1,3-Dichloropropene	8260B	ug/kg								4.4	U	4.8	U	--
Trichloroethene	8260B	ug/kg								4.4	U	4.8	U	--
Trichlorofluoromethane	8260B	ug/kg								4.4	U	4.8	U	--
Vinyl Chloride	8260B	ug/kg								4.4	U	4.8	U	--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported

200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only

Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-4 - Subarea 5A Field Duplicate Results

		Location	SL-042-SA5A		SL-042-SA5A		RPD	SL-048-SA5A		SL-048-SA5A		RPD
		Sample Name:	DUP-17-SA5A-QC-051611		SL-042-SA5A-SB-3.5-4.5			DUP-07-SA5A-QC-030211		SL-048-SA5A-SS-0.0-0.5		
		Sample Date	05/16/2011		05/16/2011			03/02/2011		03/02/2011		
		Start Depth:	3.5		3.5			0		0		
		End Depth:	4.5		4.5			0.5		0.5		
		Area:	5A		5A			5A		5A		
		Matrix:	SO		SO			SO		SO		
		Sample Type:	FD		N			FD		N		
Chemical Name:	Lab Method:	Result Unit										
Aluminum	6010B	mg/kg	29600		33800		-13.25	17100		17600		-2.88
Antimony	6020	mg/kg	0.250	J	0.312	J	-22.06	0.141	J	0.167	J	-16.88
Arsenic	6020	mg/kg	6.91	J	9.05	J	-26.82	5.35	J	7.30	J	-30.83
Barium	6020	mg/kg	114	J	120	J	-5.13	140	J	165	J	-16.39
Beryllium	6020	mg/kg	0.849	J	1.11	J	-26.65	0.632	J	0.853	J	-29.76
Boron	6010B	mg/kg	5.51	U	5.48	U	--	3.16	J	3.38	J	-6.73
Cadmium	6020	mg/kg	0.0742	J	0.0923	J	-21.74	0.258	J	0.259	J	-0.39
Calcium	6010B	mg/kg	2780		3050		-9.26	3000		3150		-4.88
Chromium	6020	mg/kg	20.9	J	28.3	J	-30.08	23.3	J	29.1	J	-22.14
Chromium VI	7199	mg/kg	0.40	J	0.58	J	-36.73	1.1	U	1.1	U	--
Cobalt	6020	mg/kg	8.87	J	9.21	J	-3.76	6.86	J	7.73	J	-11.93
Copper	6020	mg/kg	8.59	J	11.1	J	-25.50	11.5	J	11.3	J	1.75
Cyanide	9012B	mg/kg										
Fluoride	300.0	mg/kg	1.1	UJ	1.1	UJ	--	1.6	J	1.5	J	6.45
Iron	6010B	mg/kg	26800		28200		-5.09	23500		23600		-0.42
Lead	6020	mg/kg	6.44	J	8.57	J	-28.38	11.3	J	14.9	J	-27.48
Lithium	6010B	mg/kg	32.4		32.1		0.93	27.1		27.6		-1.83
Magnesium	6010B	mg/kg	5650		5730		-1.41	5460		5550		-1.63
Manganese	6010B	mg/kg	304	J	252	J	18.71	367		370		-0.81
Mercury	7471A	mg/kg	0.112	U	0.110	U	--	0.0448	J	0.0040	J	167.21
Molybdenum	6020	mg/kg	0.918	J	1.50	J	-48.14	0.717	J	1.04	J	-36.77
Nickel	6020	mg/kg	15.2	J	18.9	J	-21.70	16.2	J	18.8	J	-14.86
Nitrate	300.0	mg/kg										
Percent Moisture	160.3M	%	11.9		12.2		-2.49	12.6		12.5		0.80
Perchlorate	314.0	ug/kg	34.1	U	34.2	U	--	34.3	U	34.3	U	--
Perchlorate	6850	ug/kg										
pH	9045M	pH unit	6.43		6.53		-1.54	6.20		6.33		-2.08
Phosphorus	6010B	mg/kg	322		322		0.00	664		696		-4.71
Potassium	6010B	mg/kg	2180	J	1810	J	18.55	4420		4460		-0.90
Selenium	6020	mg/kg	0.207	J	0.248	J	-18.02	0.162	J	0.554	J	-109.50
Silver	6020	mg/kg	0.391	J	0.833	J	-72.22	0.114	J	0.180	J	-44.90
Sodium	6010B	mg/kg	108	J	112		-3.64	81.6	J	81.4	J	0.25
Strontium	6010B	mg/kg	21.9		22.9		-4.46	19.7		20.3		-3.00
Thallium	6020	mg/kg	0.306		0.295		3.66	0.304		0.379		-21.96
Tin	6010B	mg/kg	11.0	U	11.0	U	--	11.3	U	11.1	U	--
Titanium	6010B	mg/kg	1520		1450		4.71	1270		1290		-1.56
Vanadium	6020	mg/kg	43.0		55.1		-24.67	43.1	J	52.1	J	-18.91
Zinc	6020	mg/kg	54.4		52.4		3.75	80.9	J	92.2	J	-13.06
Zirconium	6010B	mg/kg	4.56	J	5.24	J	-13.88	5.66	U	5.55	U	--
1,3,5-Trinitrobenzene	8330A	ug/kg										
2,4,6-Trinitrotoluene	8330A	ug/kg										
2,4-Diamino-6-nitrotoluene	8330A	ug/kg										
2,4-Dinitrotoluene	8330A	ug/kg										
2,6-Diamino-4-nitrotoluene	8330A	ug/kg										
2,6-Dinitrotoluene	8330A	ug/kg										
2-Amino-4,6-Dinitrotoluene	8330A	ug/kg										
2-Nitrotoluene	8330A	ug/kg										
2-Propanol	8015B	ug/kg										
3-Nitrotoluene	8330A	ug/kg										
4-Amino-2,6-Dinitrotoluene	8330A	ug/kg										
4-Nitrotoluene	8330A	ug/kg										
Diethylene Glycol	8015M	mg/kg										
Ethanol	8015B	ug/kg										
Ethylene Glycol	8015M	mg/kg										
Formaldehyde	8315A	ug/kg										
HMX	8330A	ug/kg										
m-Dinitrobenzene	8330A	ug/kg										
Methanol	8015B	ug/kg										
m-Terphenyl	8015B	mg/kg										
Nitrobenzene	8330A	ug/kg										
Nitroglycerin	8330A	ug/kg										
o-Terphenyl	8015B	mg/kg										
PETN	8330A	ug/kg										
Propylene glycol	8015M	mg/kg										
p-Terphenyl	8015B	mg/kg										
RDX	8330A	ug/kg										
Tetryl	8330A	ug/kg										
1,2,3,4,6,7,8-HpCDD	1613B	ng/kg	24.2	J	12.6	J	63.04	26.0		21.2		20.34
1,2,3,4,6,7,8-HpCDF	1613B	ng/kg	4.92	J	2.06	J	81.95	4.83	J	3.56	J	30.27
1,2,3,4,7,8,9-HpCDF	1613B	ng/kg	1.11	J	5.45	UJ	200.00	0.448	J	0.388	J	14.35
1,2,3,4,7,8-HxCDD	1613B	ng/kg	0.421	J	0.178	J	81.14	0.402	J	0.338	J	17.30
1,2,3,4,7,8-HxCDF	1613B	ng/kg	0.543	J	5.45	UJ	200.00	0.387	J	5.71	UJ	200.00
1,2,3,6,7,8-HxCDD	1613B	ng/kg	1.42	J	0.579	J	84.14	1.10	J	0.908	J	19.12
1,2,3,6,7,8-HxCDF	1613B	ng/kg	0.512	J	5.45	UJ	200.00	0.275	J	5.71	U	200.00
1,2,3,7,8,9-HxCDD	1613B	ng/kg	0.701	J	5.45	UJ	200.00	1.02	J	1.05	J	-2.90
1,2,3,7,8,9-HxCDF	1613B	ng/kg	0.403	J	5.45	UJ	200.00	5.72	U	0.364	J	176.07
1,2,3,7,8-PeCDD	1613B	ng/kg	5.54	UJ	5.45	UJ	--	0.295	J	0.253	J	15.33
1,2,3,7,8-PeCDF	1613B	ng/kg	5.54	UJ	5.45	UJ	--	0.322	J	5.71	UJ	200.00
2,3,4,6,7,8-HxCDF	1613B	ng/kg	0.773	J	0.292	J	90.33	0.361	J	5.71	U	200.00
2,3,4,7,8-PeCDF	1613B	ng/kg	5.54	UJ	5.45	UJ	--	5.72	U	5.71	U	--
2,3,7,8-TCDD	1613B	ng/kg	1.11	UJ	1.09	UJ	--	1.14	U	1.14	U	--
2,3,7,8-TCDF	1613B	ng/kg	0.102	J	0.0432	J	80.99	0.207	J	0.199	J	3.94
Aroclor 1016	8082	ug/kg	1.9	U	1.9	U	--	1.9	U	1.9	U	--
Aroclor 1221	8082	ug/kg	1.9	U	1.9	U	--	1.9	U	1.9	U	--
Aroclor 1232	8082	ug/kg	1.9	U	1.9	U	--	1.9	U	1.9	U	--
Aroclor 1242	8082	ug/kg	1.9	U	1.9	U	--	1.9	U	1.9	U	--
Aroclor 1248	8082	ug/kg	1.9	U	1.9	U	--	1.9	U	1.9	U	--
Aroclor 1254	8082	ug/kg	1.7	J	3.2	J	-61.22	0.98	J	1.9	UJ	200.00
Aroclor 1260	8082	ug/kg	1.9	J	1.9	UJ	200.00	0.65	J	0.88	J	-30.07
Aroclor 1262	8082	ug/kg	1.9	U	1.9	U	--	1.9	U	1.9	U	--
Aroclor 1268	8082	ug/kg	1.9	U	1.9	U	--	1.9	U	1.9	U	--
Aroclor 5432	8082	ug/kg	3.7	U	3.7	U	--	3.8	U	3.8	U	--
Aroclor 5442	8082	ug/kg	3.7	U	3.7	U	--	3.8	U	3.8	U	--
Aroclor 5460	8082	ug/kg	1.3	J	1.5	J	-14.29	2.1	J	1.3	J	47.06
OCDD	1613B	ng/kg	247		150	J	48.87	429		314		30.96
OCDF	1613B	ng/kg	10.9	J	4.68	J	79.85	16.2		11.5		33.94
2,2-Dichlor-Propionic Acid	8151A	ug/kg						10	U	10	U	--
2,4 DB	8151A	ug/kg						6.1	U	6.7	U	--
2,4,5-T	8151A	ug/kg						0.19	U	0.19	U	--
2,4,5-TP	8151A	ug/kg						0.19	U	0.19	U	--
2,4-D	8151A	ug/kg						4.1	U	4.1	U	--
4,4'-DDD	8081A	ug/kg						0.39	U	0.39	U	--
4,4'-DDE	8081A	ug/kg						0.39	U	0.39	U	--
4,4'-DDT	8081A	ug/kg						0.39	U	0.39	U	--
Aldrin	8081A	ug/kg						0.19	U	0.19	U	--
Alpha-BHC	8081A	ug/kg						0.19	U	0.19	U	--
Beta-BHC	8081A	ug/kg						0.19	U	0.19	U	--
Chlordane	8081A	ug/kg						3.9	U	3.9	U	--
Delta-BHC	8081A	ug/kg						0.19	U	0.19	U	--
Dicamba	8151A	ug/kg						1.4	U	1.4	U	--
Dichlorprop	8151A	ug/kg						1.9	U	1.9	U	--
Dieldrin	8081A	ug/kg						0.39	U	0.39	U	--
Dinitrobutyl Phenol	8151A	ug/kg						2.7	U	2.7	U	--
Endosulfan I	8081A	ug/kg						0.19	U	0.19	U	--
Endosulfan II	8081A	ug/kg						0.39	U	0.39	U	--
Endosulfan Sulfate	8081A	ug/kg						0.39	U	0.39	U	--
Endrin	8081A	ug/kg						0.39	U	0.39	U	--
Endrin Aldehyde	8081A	ug/kg						0.39	U	0.39	U	--

Table C-4 - Subarea 5A Field Duplicate Results

			Location		SL-042-SA5A		SL-042-SA5A		RPD	SL-048-SA5A		SL-048-SA5A		RPD
			Sample Name:		DUP-17-SA5A-QC-051611		SL-042-SA5A-SB-3.5-4.5			DUP-07-SA5A-QC-030211		SL-048-SA5A-SS-0.0-0.5		
			Sample Date		05/16/2011		05/16/2011			03/02/2011		03/02/2011		
			Start Depth:		3.5		3.5			0		0		
			End Depth:		4.5		4.5			0.5		0.5		
			Area:		5A		5A			5A		5A		
			Matrix:		SO		SO			SO		SO		
			Sample Type:		FD		N			FD		N		
Endrin Ketone	8081A	ug/kg								0.39	U	0.39	U	--
Gamma-BHC (Lindane)	8081A	ug/kg								0.19	U	0.19	U	--
Heptachlor	8081A	ug/kg								0.19	U	0.19	U	--
Heptachlor Epoxide	8081A	ug/kg								0.19	U	0.19	U	--
MCPA	8151A	ug/kg								290	U	290	U	--
MCPP	8151A	ug/kg								290	U	290	U	--
Methoxychlor	8081A	ug/kg								1.9	U	1.9	U	--
Mirex	8081A	ug/kg								0.39	U	0.39	U	--
Toxaphene	8081A	ug/kg								7.5	U	7.5	U	--
1,2,4-Trichlorobenzene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
1,2-Dichlorobenzene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
1,2-Diphenylhydrazine	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
1,3-Dichlorobenzene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
1,4-Dichlorobenzene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
1-Methylnaphthalene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.9	U	1.9	U	--
2,4,5-Trichlorophenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2,4,6-Trichlorophenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2,4-Dichlorophenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2,4-Dimethylphenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2,4-Dinitrophenol	8270C	ug/kg	1100	UJ	1100	UJ	--			1100	U	1100	U	--
2,4-Dinitrotoluene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2,6-Dinitrotoluene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2-Chloronaphthalene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2-Chlorophenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2-Methylnaphthalene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.9	U	1.9	U	--
2-Methylphenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2-Nitroaniline	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2-Nitrophenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
3,3`-Dichlorobenzidine	8270C	ug/kg	370	U	380	U	--			380	U	380	U	--
3,5-Dimethylphenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
3-Nitroaniline	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
4,6-Dinitro-2-Methylphenol	8270C	ug/kg	560	UJ	560	UJ	--			570	U	570	U	--
4-Bromophenyl Phenyl Ether	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
4-Chloro-3-Methylphenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
4-Chloroaniline	8270C	ug/kg	190	U	190	U	--			190	UJ	190	UJ	--
4-Chlorophenyl Phenylether	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
4-Methylphenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
4-Nitroaniline	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
4-Nitrophenol	8270C	ug/kg	560	U	560	U	--			570	U	570	U	--
Acenaphthene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.9	U	1.9	U	--
Acenaphthylene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.9	U	1.9	U	--
Aniline	8270C	ug/kg	560	U	560	U	--			570	UJ	570	UJ	--
Anthracene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.9	U	1.9	U	--
Benzidine	8270C	ug/kg	3700	U	3800	UJ	--			3800	UJ	3800	UJ	--
Benzo(a)anthracene	8270C	ug/kg												
Benzo(a)anthracene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.9	U	1.9	U	--
Benzo(a)pyrene	8270C	ug/kg												
Benzo(a)pyrene	8270C SIM	ug/kg	1.9	U	1.9	U	--			0.94	J	1.9	UJ	200.00
Benzo(b)fluoranthene	8270C	ug/kg												
Benzo(b)fluoranthene	8270C SIM	ug/kg	1.9	U	1.9	U	--			5.3	J	2.9	J	58.54
Benzo(g,h,i)perylene	8270C	ug/kg												
Benzo(g,h,i)perylene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.9	U	1.9	U	--
Benzo(k)fluoranthene	8270C	ug/kg												
Benzo(k)fluoranthene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.9	U	1.9	U	--
Benzoic Acid	8270C	ug/kg	560	U	560	U	--			570	U	570	U	--
Benzyl Alcohol	8270C	ug/kg	560	U	560	U	--			570	U	570	U	--
Bis(2-Chloroethoxy) methane	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Bis(2-Chloroethyl) ether	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
bis(2-Chloroisopropyl) ether	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Bis(2-Ethylhexyl) phthalate	8270C	ug/kg												
Bis(2-Ethylhexyl) phthalate	8270C SIM	ug/kg	20	U	20	U	--			7.6	J	21	UJ	200.00
Butylbenzylphthalate	8270C	ug/kg												
Butylbenzylphthalate	8270C SIM	ug/kg	20	U	20	U	--			21	U	21	U	--
Carbazole	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Chrysene	8270C	ug/kg												
Chrysene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.6	J	0.90	J	56.00
Dibenzo(a,h)anthracene	8270C	ug/kg												
Dibenzo(a,h)anthracene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.9	U	1.9	U	--
Dibenzofuran	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Diethylphthalate	8270C	ug/kg												
Diethylphthalate	8270C SIM	ug/kg	20	U	20	U	--			21	U	21	U	--
Dimethylphthalate	8270C	ug/kg												
Dimethylphthalate	8270C SIM	ug/kg	20	U	20	U	--			21	U	21	U	--
Di-n-Butylphthalate	8270C	ug/kg												
Di-n-Butylphthalate	8270C SIM	ug/kg	20	U	20	U	--			13	J	12	J	8.00
Di-N-Octyl Phthalate	8270C	ug/kg												
Di-N-Octyl Phthalate	8270C SIM	ug/kg	20	U	20	U	--			12	J	12	J	0.00
Fluoranthene	8270C	ug/kg												
Fluoranthene	8270C SIM	ug/kg	1.9	U	1.9	U	--			2.5	J	0.94	J	90.70
Fluorene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.9	U	1.9	U	--
Hexachlorobenzene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Hexachlorobutadiene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Hexachlorocyclopentadiene	8270C	ug/kg	560	U	560	U	--			570	U	570	U	--
Hexachloroethane	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Indeno(1,2,3-Cd)Pyrene	8270C	ug/kg												
Indeno(1,2,3-Cd)Pyrene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.9	U	1.9	U	--
Isophorone	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Naphthalene	8270C	ug/kg												
Naphthalene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.9	U	1.9	U	--
Nitrobenzene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
N-Nitrosodimethylamine	1625C	ng/kg												
N-Nitrosodimethylamine	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.9	U	1.9	U	--
N-Nitroso-Di-N-Propylamine	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
N-Nitrosodiphenylamine	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Pentachlorophenol	8270C	ug/kg	560	U	560	U	--			570	U	570	U	--
Phenanthrene	8270C	ug/kg												
Phenanthrene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.1	J	1.9	UJ	200.00
Phenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Pyrene	8270C	ug/kg												
Pyrene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.9	J	1.9	UJ	200.00
1,1,1,2-Tetrachloroethane	8260B	ug/kg	4.4	U	4.3	U	--							
1,1,1-Trichloroethane	8260B	ug/kg	4.4	U	4.3	U	--							
1,1,2,2-Tetrachloroethane	8260B	ug/kg	4.4	U	4.3	U	--							
1,1,2-Trichloroethane	8260B	ug/kg	4.4	U	4.3	U	--							
1,1-Dichloroethane	8260B	ug/kg	4.4	U	4.3	U	--							
1,1-Dichloroethene	8260B	ug/kg	4.4	U	4.3	U	--							
1,1-Dichloropropene	8260B	ug/kg	4.4	U	4.3	U	--							
1,2,3-Trichlorobenzene	8260B	ug/kg	4.4	U	4.3	U	--							
1,2,3-Trichloropropane	8260B	ug/kg	4.4	U	4.3	U	--							
1,2,4-Trichlorobenzene	8260B	ug/kg	4.4	U	4.3	U	--							
1,2,4-Trimethylbenzene	8260B	ug/kg	4.4	U	4.3	U	--							
1,2-Dibromo-3-chloropropane	8260B	ug/kg	4.4	U	4.3	U	--							
1,2-Dibromoethane	8260B	ug/kg	4.4	U	4.3	U	--							
1,2-Dichlorobenzene	8260B	ug/kg	4.4	U	4.3	U	--							
1,2-Dichloroethane	8260B	ug/kg	4.4	U	4.3	U	--							
1,2-Dichloropropane	8260B	ug/kg	4.4	U	4.3	U	--							
1,3,5-Trimethylbenzene	8260B	ug/kg	4.4	U	4.3	U	--							
1,3-Dichlorobenzene	8260B	ug/kg	4.4	U	4.3	U	--							
1,3-Dichloropropane	8260B	ug/kg	4.4	U	4.3	U	--							

Table C-4 - Subarea 5A Field Duplicate Results

			Location		SL-042-SA5A		SL-042-SA5A		RPD	SL-048-SA5A		SL-048-SA5A		RPD
			Sample Name:		DUP-17-SA5A-QC-051611		SL-042-SA5A-SB-3.5-4.5			DUP-07-SA5A-QC-030211		SL-048-SA5A-SS-0.0-0.5		
			Sample Date		05/16/2011		05/16/2011			03/02/2011		03/02/2011		
			Start Depth:		3.5		3.5			0		0		
			End Depth:		4.5		4.5			0.5		0.5		
			Area:		5A		5A			5A		5A		
			Matrix:		SO		SO			SO		SO		
			Sample Type:		FD		N			FD		N		
1,4-Dichlorobenzene	8260B	ug/kg		4.4	U	4.3	U	--					
1,4-Dioxane	8260B SIM	ug/kg		18	U	15	U	--					
2,2-Dichloropropane	8260B	ug/kg		4.4	U	4.3	U	--					
2-Butanone	8260B	ug/kg		8.8	U	8.5	U	--					
2-Chloroethyl Vinyl Ether	8260B	ug/kg		4.4	U	4.3	U	--					
2-Chlorotoluene	8260B	ug/kg		4.4	U	4.3	U	--					
2-Hexanone	8260B	ug/kg		8.8	U	8.5	U	--					
4-Chlorotoluene	8260B	ug/kg		4.4	U	4.3	U	--					
4-Methyl-2-Pentanone	8260B	ug/kg		8.8	U	8.5	U	--					
Acetone	8260B	ug/kg		8.8	UJ	7.4	J	200.00					
Benzene	8260B	ug/kg		4.4	U	4.3	U	--					
Bromobenzene	8260B	ug/kg		4.4	U	4.3	U	--					
Bromochloromethane	8260B	ug/kg		4.4	U	4.3	U	--					
Bromodichloromethane	8260B	ug/kg		4.4	U	4.3	U	--					
Bromoform	8260B	ug/kg		4.4	U	4.3	U	--					
Bromomethane	8260B	ug/kg		4.4	U	4.3	U	--					
Carbon tetrachloride	8260B	ug/kg		4.4	U	4.3	U	--					
Chlorobenzene	8260B	ug/kg		4.4	U	4.3	U	--					
Chloroethane	8260B	ug/kg		4.4	U	4.3	U	--					
Chloroform	8260B	ug/kg		4.4	U	4.3	U	--					
Chloromethane	8260B	ug/kg		4.4	U	4.3	U	--					
Chlorotrifluoroethene	8260B	ug/kg		5.5	U	5.3	U	--					
cis-1,2-Dichloroethene	8260B	ug/kg		4.4	U	4.3	U	--					
cis-1,3-Dichloropropene	8260B	ug/kg		4.4	U	4.3	U	--					
Dibromochloromethane	8260B	ug/kg		4.4	U	4.3	U	--					
Dibromomethane	8260B	ug/kg		4.4	U	4.3	U	--					
Dichlorodifluoromethane	8260B	ug/kg		4.4	U	4.3	U	--					
EFH (C15-C20)	8015M	mg/kg											
EFH (C21-C30)	8015M	mg/kg											
EFH (C30-C40)	8015M	mg/kg											
EFH (C8-C11)	8015M	mg/kg											
Ethylbenzene	8260B	ug/kg		4.4	U	4.3	U	--					
Freon 113	8260B	ug/kg		4.4	U	4.3	U	--					
Freon 113a	8260B	ug/kg		5.5	U	5.3	U	--					
GRO (C5-C12)	8015M	mg/kg											
Hexachlorobutadiene	8260B	ug/kg		4.4	U	4.3	U	--					
Isopropylbenzene	8260B	ug/kg		4.4	U	4.3	U	--					
Isopropyltoluene	8260B	ug/kg		4.4	U	4.3	U	--					
m,p-Xylene	8260B	ug/kg		4.4	U	4.3	U	--					
Methyl tert-Butyl Ether	8260B	ug/kg		4.4	U	4.3	U	--					
Methylene chloride	8260B	ug/kg		4.1	J	3.7	J	10.26					
N-Butylbenzene	8260B	ug/kg		4.4	U	4.3	U	--					
N-Propylbenzene	8260B	ug/kg		4.4	U	4.3	U	--					
o-Xylene	8260B	ug/kg		4.4	U	4.3	U	--					
sec-Butylbenzene	8260B	ug/kg		4.4	U	4.3	U	--					
Styrene	8260B	ug/kg		4.4	U	4.3	U	--					
tert-Butylbenzene	8260B	ug/kg		4.4	U	4.3	U	--					
Tetrachloroethene	8260B	ug/kg		4.4	U	4.3	U	--					
Toluene	8260B	ug/kg		0.17	J	0.12	J	34.48					
trans-1,2-Dichloroethene	8260B	ug/kg		4.4	U	4.3	U	--					
trans-1,3-Dichloropropene	8260B	ug/kg		4.4	U	4.3	U	--					
Trichloroethene	8260B	ug/kg		4.4	U	4.3	U	--					
Trichlorofluoromethane	8260B	ug/kg		4.4	U	4.3	U	--					
Vinyl Chloride	8260B	ug/kg		4.4	U	4.3	U	--					

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported

200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only

Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-4 - Subarea 5A Field Duplicate Results

		Location	SL-058-SA5A		SL-058-SA5A		RPD	SL-064-SA5A		SL-064-SA5A		RPD
		Sample Name:	DUP14-SA5A-QC-041411		SL-058-SA5A-SB-3.0-4.0			DUP16-SA5A-QC-042211		SL-064-SA5A-SB-3.0-4.0		
		Sample Date	04/14/2011		04/14/2011			04/22/2011		04/22/2011		
		Start Depth:	3		3			3		3		
		End Depth:	4		4			4		4		
		Area:	5A		5A			5A		5A		
		Matrix:	SO		SO			SO		SO		
		Sample Type:	FD		N			FD		N		
Chemical Name:	Lab Method:	Result Unit										
Aluminum	6010B	mg/kg	15900	J	15600	J	1.90	23700		21900		7.89
Antimony	6020	mg/kg	0.217	UJ	0.0723	J	200.00	0.221	UJ	0.220	UJ	--
Arsenic	6020	mg/kg	8.17	J	5.46	J	39.77	8.02	J	7.42	J	7.77
Barium	6020	mg/kg	87.0	J	99.0	J	-12.90	113	J	102	J	10.23
Beryllium	6020	mg/kg	0.769	J	0.661	J	15.10	0.952	J	0.865	J	9.58
Boron	6010B	mg/kg	1.17	J	2.40	J	-68.91	7.87		8.23		-4.47
Cadmium	6020	mg/kg	0.0684	J	0.102	J	-39.44	0.112	J	0.0937	J	17.79
Calcium	6010B	mg/kg	3090	J	2350	J	27.21	2990		2920		2.37
Chromium	6020	mg/kg	21.3	J	21.1	J	0.94	25.9	J	23.6	J	9.29
Chromium VI	7199	mg/kg	0.40	J	0.52	J	-26.09	0.29	J	1.1	UJ	200.00
Cobalt	6020	mg/kg	10.9		7.02		43.30	8.70	J	8.10	J	7.14
Copper	6020	mg/kg	12.5	J	12.5	J	0.00	14.5	J	11.4	J	23.94
Cyanide	9012B	mg/kg										
Fluoride	300.0	mg/kg	1.4	J	1.1	J	24.00	3.0	J	2.3	J	26.42
Iron	6010B	mg/kg	25600	J	21100	J	19.27	26600		24900		6.60
Lead	6020	mg/kg	6.85	J	6.18	J	10.28	8.33	J	7.52	J	10.22
Lithium	6010B	mg/kg	33.8	J	25.5	J	27.99	36.7		32.8		11.22
Magnesium	6010B	mg/kg	5820	J	4690	J	21.50	5980		5460		9.09
Manganese	6010B	mg/kg	334		261		24.54	296		292		1.36
Mercury	7471A	mg/kg	0.107	U	0.103	U	--	0.110	UJ	0.107	UJ	--
Molybdenum	6020	mg/kg	0.530		0.469		12.21	0.575	J	0.532	J	7.77
Nickel	6020	mg/kg	19.2	J	16.2	J	16.95	20.2	J	18.5	J	8.79
Nitrate	300.0	mg/kg										
Percent Moisture	160.3M	%	8.6		9.0		-4.55	10.6		10.8		-1.87
Perchlorate	314.0	ug/kg	32.8	U	33.0	U	--	33.6	U	33.6	U	--
Perchlorate	6850	ug/kg										
pH	9045M	pH unit	6.46		6.47		-0.15	7.08		6.86		3.16
Phosphorus	6010B	mg/kg	503	J	368	J	31.00	297		309		-3.96
Potassium	6010B	mg/kg	2680	J	2980	J	-10.60	2490	J	2660	J	-6.60
Selenium	6020	mg/kg	0.166	J	0.152	J	8.81	0.170	J	0.134	J	23.68
Silver	6020	mg/kg	0.0147	J	0.0289	J	-65.14	0.0405	J	0.0404	J	0.25
Sodium	6010B	mg/kg	111		79.9	J	32.58	102	J	93.2	J	9.02
Strontium	6010B	mg/kg	18.1		17.8		1.67	19.6		18.3		6.86
Thallium	6020	mg/kg	0.359	J	0.263	J	30.87	0.353		0.316		11.06
Tin	6010B	mg/kg	10.7	U	10.8	U	--	11.1	U	11.1	U	--
Titanium	6010B	mg/kg	1200		1010		17.19	1190		1170		1.69
Vanadium	6020	mg/kg	39.8	J	36.4	J	8.92	46.5	J	41.7	J	10.88
Zinc	6020	mg/kg	74.5	J	58.7	J	23.72	69.4	J	63.8	J	8.41
Zirconium	6010B	mg/kg	1.12	J	1.28	J	-13.33	5.54	U	5.55	U	--
1,3,5-Trinitrobenzene	8330A	ug/kg										
2,4,6-Trinitrotoluene	8330A	ug/kg										
2,4-Diamino-6-nitrotoluene	8330A	ug/kg										
2,4-Dinitrotoluene	8330A	ug/kg										
2,6-Diamino-4-nitrotoluene	8330A	ug/kg										
2,6-Dinitrotoluene	8330A	ug/kg										
2-Amino-4,6-Dinitrotoluene	8330A	ug/kg										
2-Nitrotoluene	8330A	ug/kg										
2-Propanol	8015B	ug/kg										
3-Nitrotoluene	8330A	ug/kg										
4-Amino-2,6-Dinitrotoluene	8330A	ug/kg										
4-Nitrotoluene	8330A	ug/kg										
Diethylene Glycol	8015M	mg/kg										
Ethanol	8015B	ug/kg										
Ethylene Glycol	8015M	mg/kg										
Formaldehyde	8315A	ug/kg										
HMX	8330A	ug/kg										
m-Dinitrobenzene	8330A	ug/kg										
Methanol	8015B	ug/kg										
m-Terphenyl	8015B	mg/kg										
Nitrobenzene	8330A	ug/kg										
Nitroglycerin	8330A	ug/kg										
o-Terphenyl	8015B	mg/kg										
PETN	8330A	ug/kg										
Propylene glycol	8015M	mg/kg										
p-Terphenyl	8015B	mg/kg										
RDX	8330A	ug/kg										
Tetryl	8330A	ug/kg										
1,2,3,4,6,7,8-HpCDD	1613B	ng/kg	5.46	UJ	5.43	UJ	--	5.48	U	5.44	U	--
1,2,3,4,6,7,8-HpCDF	1613B	ng/kg	5.46	UJ	5.43	UJ	--	5.48	UJ	5.44	UJ	--
1,2,3,4,7,8,9-HpCDF	1613B	ng/kg	5.46	UJ	5.43	UJ	--	5.48	UJ	5.44	UJ	--
1,2,3,4,7,8-HxCDD	1613B	ng/kg	0.197	J	5.43	UJ	200.00	5.48	UJ	0.119	J	200.00
1,2,3,4,7,8-HxCDF	1613B	ng/kg	5.46	UJ	5.43	UJ	--	5.48	UJ	5.44	UJ	--
1,2,3,6,7,8-HxCDD	1613B	ng/kg	0.256	J	5.43	UJ	200.00	5.48	UJ	5.44	UJ	--
1,2,3,6,7,8-HxCDF	1613B	ng/kg	5.46	UJ	5.43	UJ	--	5.48	UJ	5.44	UJ	--
1,2,3,7,8,9-HxCDD	1613B	ng/kg	5.46	U	0.257	J	200.00	5.48	UJ	5.44	UJ	--
1,2,3,7,8,9-HxCDF	1613B	ng/kg	5.46	UJ	5.43	UJ	--	5.48	UJ	5.44	UJ	--
1,2,3,7,8-PeCDD	1613B	ng/kg	0.270	J	5.43	UJ	200.00	5.48	UJ	0.238	J	200.00
1,2,3,7,8-PeCDF	1613B	ng/kg	0.317	J	5.43	UJ	200.00	5.48	UJ	0.234	J	200.00
2,3,4,6,7,8-HxCDF	1613B	ng/kg	5.46	UJ	5.43	UJ	--	5.48	UJ	5.44	UJ	--
2,3,4,7,8-PeCDF	1613B	ng/kg	5.46	UJ	5.43	UJ	--	5.48	UJ	5.44	UJ	--
2,3,7,8-TCDD	1613B	ng/kg	1.09	UJ	1.09	UJ	--	1.10	UJ	1.09	UJ	--
2,3,7,8-TCDF	1613B	ng/kg	0.240	J	1.09	UJ	200.00	1.10	UJ	0.0441	J	200.00
Aroclor 1016	8082	ug/kg	1.9	U	1.9	U	--	1.9	U	1.9	U	--
Aroclor 1221	8082	ug/kg	1.9	U	1.9	U	--	1.9	U	1.9	U	--
Aroclor 1232	8082	ug/kg	1.9	U	1.9	U	--	1.9	U	1.9	U	--
Aroclor 1242	8082	ug/kg	1.9	U	1.9	U	--	1.9	U	1.9	U	--
Aroclor 1248	8082	ug/kg	1.9	U	1.9	U	--	1.9	U	1.9	U	--
Aroclor 1254	8082	ug/kg	1.9	U	1.9	U	--	1.9	U	1.9	U	--
Aroclor 1260	8082	ug/kg	1.9	U	1.9	U	--	1.9	U	1.9	U	--
Aroclor 1262	8082	ug/kg	1.9	U	1.9	U	--	1.9	U	1.9	U	--
Aroclor 1268	8082	ug/kg	1.9	U	1.9	U	--	1.9	U	1.9	U	--
Aroclor 5432	8082	ug/kg	3.6	U	3.6	U	--	3.7	U	3.7	U	--
Aroclor 5442	8082	ug/kg	3.6	U	3.6	U	--	3.7	U	3.7	U	--
Aroclor 5460	8082	ug/kg	3.6	U	3.6	U	--	3.7	U	3.7	U	--
OCDD	1613B	ng/kg	10.9	UJ	12.1	J	200.00	2.65	J	3.90	J	-38.17
OCDF	1613B	ng/kg	10.9	UJ	10.9	UJ	--	11.0	U	10.9	U	--
2,2-Dichlor-Propionic Acid	8151A	ug/kg										
2,4 DB	8151A	ug/kg										
2,4,5-T	8151A	ug/kg										
2,4,5-TP	8151A	ug/kg										
2,4-D	8151A	ug/kg										
4,4'-DDD	8081A	ug/kg										
4,4'-DDE	8081A	ug/kg										
4,4'-DDT	8081A	ug/kg										
Aldrin	8081A	ug/kg										
Alpha-BHC	8081A	ug/kg										
Beta-BHC	8081A	ug/kg										
Chlordane	8081A	ug/kg										
Delta-BHC	8081A	ug/kg										
Dicamba	8151A	ug/kg										
Dichlorprop	8151A	ug/kg										
Dieldrin	8081A	ug/kg										
Dinitrobutyl Phenol	8151A	ug/kg										
Endosulfan I	8081A	ug/kg										
Endosulfan II	8081A	ug/kg										
Endosulfan Sulfate	8081A	ug/kg										
Endrin	8081A	ug/kg										
Endrin Aldehyde	8081A	ug/kg										

Table C-4 - Subarea 5A Field Duplicate Results

			Location		SL-058-SA5A		SL-058-SA5A		RPD	SL-064-SA5A		SL-064-SA5A		RPD
			Sample Name:		DUP14-SA5A-QC-041411		SL-058-SA5A-SB-3.0-4.0			DUP16-SA5A-QC-042211		SL-064-SA5A-SB-3.0-4.0		
			Sample Date		04/14/2011		04/14/2011			04/22/2011		04/22/2011		
			Start Depth:		3		3			3		3		
			End Depth:		4		4			4		4		
			Area:		5A		5A			5A		5A		
			Matrix:		SO		SO			SO		SO		
			Sample Type:		FD		N			FD		N		
Endrin Ketone	8081A	ug/kg												
Gamma-BHC (Lindane)	8081A	ug/kg												
Heptachlor	8081A	ug/kg												
Heptachlor Epoxide	8081A	ug/kg												
MCPA	8151A	ug/kg												
MCPP	8151A	ug/kg												
Methoxychlor	8081A	ug/kg												
Mirex	8081A	ug/kg												
Toxaphene	8081A	ug/kg												
1,2,4-Trichlorobenzene	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
1,2-Dichlorobenzene	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
1,2-Diphenylhydrazine	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
1,3-Dichlorobenzene	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
1,4-Dichlorobenzene	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
1-Methylnaphthalene	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
2,4,5-Trichlorophenol	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
2,4,6-Trichlorophenol	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
2,4-Dichlorophenol	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
2,4-Dimethylphenol	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
2,4-Dinitrophenol	8270C	ug/kg	1100	U	1100	U	--	1100	U	1100	U	--		
2,4-Dinitrotoluene	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
2,6-Dinitrotoluene	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
2-Chloronaphthalene	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
2-Chlorophenol	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
2-Methylnaphthalene	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
2-Methylphenol	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
2-Nitroaniline	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
2-Nitrophenol	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
3,3`-Dichlorobenzidine	8270C	ug/kg	360	U	370	U	--	370	U	370	U	--		
3,5-Dimethylphenol	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
3-Nitroaniline	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
4,6-Dinitro-2-Methylphenol	8270C	ug/kg	550	U	550	U	--	560	U	560	U	--		
4-Bromophenyl Phenyl Ether	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
4-Chloro-3-Methylphenol	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
4-Chloroaniline	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
4-Chlorophenyl Phenylether	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
4-Methylphenol	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
4-Nitroaniline	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
4-Nitrophenol	8270C	ug/kg	550	U	550	U	--	560	U	560	U	--		
Acenaphthene	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
Acenaphthylene	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
Aniline	8270C	ug/kg	550	U	550	U	--	560	U	560	U	--		
Anthracene	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
Benzidine	8270C	ug/kg	3600	U	3700	UJ	--	3700	U	3700	UJ	--		
Benzo(a)anthracene	8270C	ug/kg												
Benzo(a)anthracene	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
Benzo(a)pyrene	8270C	ug/kg												
Benzo(a)pyrene	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
Benzo(b)fluoranthene	8270C	ug/kg												
Benzo(b)fluoranthene	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
Benzo(g,h,i)perylene	8270C	ug/kg												
Benzo(g,h,i)perylene	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
Benzo(k)fluoranthene	8270C	ug/kg												
Benzo(k)fluoranthene	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
Benzoic Acid	8270C	ug/kg	550	U	550	U	--	560	U	560	U	--		
Benzyl Alcohol	8270C	ug/kg	550	U	550	U	--	560	U	560	U	--		
Bis(2-Chloroethoxy) methane	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
Bis(2-Chloroethyl) ether	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
bis(2-Chloroisopropyl) ether	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
Bis(2-Ethylhexyl) phthalate	8270C	ug/kg												
Bis(2-Ethylhexyl) phthalate	8270C SIM	ug/kg	20	U	20	U	--	20	U	20	U	--		
Butylbenzylphthalate	8270C	ug/kg												
Butylbenzylphthalate	8270C SIM	ug/kg	20	U	20	U	--	20	U	20	U	--		
Carbazole	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
Chrysene	8270C	ug/kg												
Chrysene	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
Dibenzo(a,h)anthracene	8270C	ug/kg												
Dibenzo(a,h)anthracene	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
Dibenzofuran	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
Diethylphthalate	8270C	ug/kg												
Diethylphthalate	8270C SIM	ug/kg	20	U	20	U	--	7.0	J	20	UJ	200.00		
Dimethylphthalate	8270C	ug/kg												
Dimethylphthalate	8270C SIM	ug/kg	20	U	20	U	--	20	U	20	U	--		
Di-n-Butylphthalate	8270C	ug/kg												
Di-n-Butylphthalate	8270C SIM	ug/kg	20	U	20	U	--	14	J	20	UJ	200.00		
Di-N-Octyl Phthalate	8270C	ug/kg												
Di-N-Octyl Phthalate	8270C SIM	ug/kg	20	U	20	U	--	20	U	20	U	--		
Fluoranthene	8270C	ug/kg												
Fluoranthene	8270C SIM	ug/kg	1.8	U	1.8	U	--	0.97	J	1.8	UJ	200.00		
Fluorene	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
Hexachlorobenzene	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
Hexachlorobutadiene	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
Hexachlorocyclopentadiene	8270C	ug/kg	550	U	550	U	--	560	U	560	U	--		
Hexachloroethane	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
Indeno(1,2,3-Cd)Pyrene	8270C	ug/kg												
Indeno(1,2,3-Cd)Pyrene	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
Isophorone	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
Naphthalene	8270C	ug/kg												
Naphthalene	8270C SIM	ug/kg	1.8	UJ	0.81	J	200.00	1.9	U	1.8	U	--		
Nitrobenzene	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
N-Nitrosodimethylamine	1625C	ng/kg												
N-Nitrosodimethylamine	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
N-Nitroso-Di-N-Propylamine	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
N-Nitrosodiphenylamine	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
Pentachlorophenol	8270C	ug/kg	550	U	550	U	--	560	U	560	U	--		
Phenanthrene	8270C	ug/kg												
Phenanthrene	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
Phenol	8270C	ug/kg	180	U	180	U	--	190	U	190	U	--		
Pyrene	8270C	ug/kg												
Pyrene	8270C SIM	ug/kg	1.8	U	1.8	U	--	1.9	U	1.8	U	--		
1,1,1,2-Tetrachloroethane	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,1,1-Trichloroethane	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,1,2,2-Tetrachloroethane	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,1,2-Trichloroethane	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,1-Dichloroethane	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,1-Dichloroethene	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,1-Dichloropropene	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,2,3-Trichlorobenzene	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,2,3-Trichloropropane	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,2,4-Trichlorobenzene	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,2,4-Trimethylbenzene	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,2-Dibromo-3-chloropropane	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,2-Dibromoethane	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,2-Dichlorobenzene	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,2-Dichloroethane	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,2-Dichloropropane	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,3,5-Trimethylbenzene	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,3-Dichlorobenzene	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		
1,3-Dichloropropane	8260B	ug/kg	4.4	U	4.2	U	--	4.0	U	3.7	U	--		

Table C-4 - Subarea 5A Field Duplicate Results

			Location	SL-058-SA5A		SL-058-SA5A		RPD	SL-064-SA5A		SL-064-SA5A		RPD
			Sample Name:	DUP14-SA5A-QC-041411		SL-058-SA5A-SB-3.0-4.0			DUP16-SA5A-QC-042211		SL-064-SA5A-SB-3.0-4.0		
			Sample Date	04/14/2011		04/14/2011			04/22/2011		04/22/2011		
			Start Depth:	3		3			3		3		
			End Depth:	4		4			4		4		
			Area:	5A		5A			5A		5A		
			Matrix:	SO		SO			SO		SO		
			Sample Type:	FD		N			FD		N		
1,4-Dichlorobenzene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
1,4-Dioxane	8260B SIM	ug/kg		16	U	16	U	--	13	U	14	U	--
2,2-Dichloropropane	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
2-Butanone	8260B	ug/kg		8.9	U	8.4	U	--	7.9	U	7.5	U	--
2-Chloroethyl Vinyl Ether	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
2-Chlorotoluene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
2-Hexanone	8260B	ug/kg		8.9	U	8.4	U	--	7.9	U	7.5	U	--
4-Chlorotoluene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
4-Methyl-2-Pentanone	8260B	ug/kg		8.9	U	8.4	U	--	7.9	U	7.5	U	--
Acetone	8260B	ug/kg		8.9	U	8.4	U	--	7.9	U	7.5	U	--
Benzene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Bromobenzene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Bromochloromethane	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Bromodichloromethane	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Bromoform	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Bromomethane	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Carbon tetrachloride	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Chlorobenzene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Chloroethane	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Chloroform	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Chloromethane	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Chlorotrifluoroethene	8260B	ug/kg		5.5	U	5.2	U	--	5.0	U	4.7	U	--
cis-1,2-Dichloroethene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
cis-1,3-Dichloropropene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Dibromochloromethane	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Dibromomethane	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Dichlorodifluoromethane	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
EFH (C15-C20)	8015M	mg/kg											
EFH (C21-C30)	8015M	mg/kg											
EFH (C30-C40)	8015M	mg/kg											
EFH (C8-C11)	8015M	mg/kg											
Ethylbenzene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Freon 113	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Freon 113a	8260B	ug/kg		5.5	U	5.2	U	--	5.0	U	4.7	U	--
GRO (C5-C12)	8015M	mg/kg											
Hexachlorobutadiene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Isopropylbenzene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Isopropyltoluene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
m,p-Xylene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Methyl tert-Butyl Ether	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Methylene chloride	8260B	ug/kg		4.4	UJ	4.2	UJ	--	4.0	U	3.7	U	--
N-Butylbenzene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
N-Propylbenzene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
o-Xylene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
sec-Butylbenzene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Styrene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
tert-Butylbenzene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Tetrachloroethene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Toluene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
trans-1,2-Dichloroethene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
trans-1,3-Dichloropropene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Trichloroethene	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Trichlorofluoromethane	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--
Vinyl Chloride	8260B	ug/kg		4.4	U	4.2	U	--	4.0	U	3.7	U	--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported

200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only

Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-4 - Subarea 5A Field Duplicate Results

		Location	SL-087-SA5A		SL-087-SA5A		RPD	SL-090-SA5A		SL-090-SA5A		RPD
		Sample Name:	DUP-05-SA5A-QC-022811		SL-087-SA5A-SS-0.0-0.5			DUP-12-SA5A-QC-033011		SL-090-SA5A-SB-4.0-5.0		
		Sample Date	02/28/2011		02/28/2011			03/30/2011		03/30/2011		
		Start Depth:	0		0			4		4		
		End Depth:	0.5		0.5			5		5		
		Area:	5A		5A			5A		5A		
		Matrix:	SO		SO			SO		SO		
		Sample Type:	FD		N			FD		N		
Chemical Name:	Lab Method:	Result Unit										
Aluminum	6010B	mg/kg	17500		18900		-7.69	12600		12000		4.88
Antimony	6020	mg/kg	0.236	J	0.259	J	-9.29	0.190	J	0.212	J	-10.95
Arsenic	6020	mg/kg	7.71	J	7.16	J	7.40	4.09	J	5.19	J	-23.71
Barium	6020	mg/kg	146		142		2.78	77.6		101		-26.20
Beryllium	6020	mg/kg	0.937	J	0.922	J	1.61	0.463		0.564		-19.67
Boron	6010B	mg/kg	6.79		7.26		-6.69	4.01	J	3.32	J	18.83
Cadmium	6020	mg/kg	0.243	J	0.186	J	26.57	0.150		0.219		-37.40
Calcium	6010B	mg/kg	2650		2750		-3.70	3290	J	4050	J	-20.71
Chromium	6020	mg/kg	30.3	J	29.6	J	2.34	15.1	J	16.5	J	-8.86
Chromium VI	7199	mg/kg	0.74	J	0.64	J	14.49	1.1	U	1.1	U	--
Cobalt	6020	mg/kg	7.72	J	7.59	J	1.70	5.06		6.20		-20.25
Copper	6020	mg/kg	11.6	J	9.40	J	20.95	10.7	J	9.72	J	9.60
Cyanide	9012B	mg/kg								0.53	U	
Fluoride	300.0	mg/kg	1.5	J	1.8	J	-18.18	1.9		2.1		-10.00
Iron	6010B	mg/kg	22800		23900		-4.71	20600		19800		3.96
Lead	6020	mg/kg	14.4	J	13.3	J	7.94	6.69		8.70		-26.12
Lithium	6010B	mg/kg	25.0		26.3		-5.07	23.9		24.5		-2.48
Magnesium	6010B	mg/kg	4930		5010		-1.61	4730		4630		2.14
Manganese	6010B	mg/kg	306		304		0.66	283	J	300	J	-5.83
Mercury	7471A	mg/kg	0.0082	J	0.0155	J	-61.60	0.0197	J	0.0556	J	-95.35
Molybdenum	6020	mg/kg	1.07	J	0.738	J	36.73	0.436	J	0.548	J	-22.76
Nickel	6020	mg/kg	18.6	J	17.2	J	7.82	9.30		10.7		-14.00
Nitrate	300.0	mg/kg								1.2	J	--
Percent Moisture	160.3M	%	15.9		14.7		7.84	11.0		9.8		11.54
Perchlorate	314.0	ug/kg	35.7	U	35.2	U	--	33.7	U	33.3	U	--
Perchlorate	6850	ug/kg						5.6	U			--
pH	9045M	pH unit	6.28		6.42		-2.20	8.26		8.26		0.00
Phosphorus	6010B	mg/kg	418		399		4.65	403		371		8.27
Potassium	6010B	mg/kg	3400	J	3310	J	2.68	3280		2910		11.95
Selenium	6020	mg/kg	0.226	J	0.200	J	12.21	0.0916	J	0.108	J	-16.43
Silver	6020	mg/kg	0.0525	J	0.0838	J	-45.93	0.0262	J	0.0322	J	-20.55
Sodium	6010B	mg/kg	67.9	J	76.1	J	-11.39	97.4	J	77.1	J	23.27
Strontium	6010B	mg/kg	19.1		20.1		-5.10	16.8		16.1		4.26
Thallium	6020	mg/kg	0.412	J	0.316	J	26.37	0.220		0.263		-17.81
Tin	6010B	mg/kg	11.7	U	11.4	U	--	11.1	UJ	10.9	UJ	--
Titanium	6010B	mg/kg	1230		1260		-2.41	1280		1180		8.13
Vanadium	6020	mg/kg	56.7		54.8		3.41	33.7	J	33.8	J	-0.30
Zinc	6020	mg/kg	82.8		74.2		10.96	64.2		81.3		-23.51
Zirconium	6010B	mg/kg	1.18	J	1.12	J	5.22	3.25	J	3.74	J	-14.02
1,3,5-Trinitrobenzene	8330A	ug/kg								130	U	--
2,4,6-Trinitrotoluene	8330A	ug/kg								130	U	--
2,4-Diamino-6-nitrotoluene	8330A	ug/kg								260	U	--
2,4-Dinitrotoluene	8330A	ug/kg								130	U	--
2,6-Diamino-4-nitrotoluene	8330A	ug/kg								260	U	--
2,6-Dinitrotoluene	8330A	ug/kg								130	U	--
2-Amino-4,6-Dinitrotoluene	8330A	ug/kg								130	U	--
2-Nitrotoluene	8330A	ug/kg								130	U	--
2-Propanol	8015B	ug/kg								550	U	--
3-Nitrotoluene	8330A	ug/kg								130	U	--
4-Amino-2,6-Dinitrotoluene	8330A	ug/kg								130	U	--
4-Nitrotoluene	8330A	ug/kg								130	U	--
Diethylene Glycol	8015M	mg/kg								14	U	--
Ethanol	8015B	ug/kg								550	U	--
Ethylene Glycol	8015M	mg/kg								14	U	--
Formaldehyde	8315A	ug/kg								1700	U	--
HMX	8330A	ug/kg								330	U	--
m-Dinitrobenzene	8330A	ug/kg								130	U	--
Methanol	8015B	ug/kg								550	U	--
m-Terphenyl	8015B	mg/kg								3.9	U	--
Nitrobenzene	8330A	ug/kg								130	U	--
Nitroglycerin	8330A	ug/kg								2600	U	--
o-Terphenyl	8015B	mg/kg								3.9	U	--
PETN	8330A	ug/kg								2600	U	--
Propylene glycol	8015M	mg/kg								14	U	--
p-Terphenyl	8015B	mg/kg								3.9	U	--
RDX	8330A	ug/kg								130	U	--
Tetryl	8330A	ug/kg								130	U	--
1,2,3,4,6,7,8-HpCDD	1613B	ng/kg	15.8		11.6		30.66	8.87		12.1		-30.81
1,2,3,4,6,7,8-HpCDF	1613B	ng/kg	2.02	J	1.95	J	3.53	2.76	J	2.39	J	14.37
1,2,3,4,7,8,9-HpCDF	1613B	ng/kg	0.195	J	0.184	J	5.80	5.53	U	5.52	U	--
1,2,3,4,7,8-HxCDD	1613B	ng/kg	0.232	J	0.164	J	34.34	5.53	U	5.52	U	--
1,2,3,4,7,8-HxCDF	1613B	ng/kg	0.447	J	0.420	J	6.23	1.02	J	5.52	U	200.00
1,2,3,6,7,8-HxCDD	1613B	ng/kg	0.762	J	0.591	J	25.28	1.04	J	0.868	J	18.03
1,2,3,6,7,8-HxCDF	1613B	ng/kg	0.184	J	0.192	J	-4.26	0.690	J	5.52	U	200.00
1,2,3,7,8,9-HxCDD	1613B	ng/kg	0.697	J	0.596	J	15.62	0.780	J	5.52	U	200.00
1,2,3,7,8,9-HxCDF	1613B	ng/kg	5.95	U	0.209	J	186.43	5.53	U	5.52	U	--
1,2,3,7,8-PeCDD	1613B	ng/kg	0.169	J	0.184	J	-8.50	5.53	UJ	5.52	UJ	--
1,2,3,7,8-PeCDF	1613B	ng/kg	0.331	J	0.383	J	-14.57	5.53	U	5.52	U	--
2,3,4,6,7,8-HxCDF	1613B	ng/kg	0.249	J	5.86	U	200.00	0.694	J	0.551	J	22.97
2,3,4,7,8-PeCDF	1613B	ng/kg	0.480	J	0.422	J	12.86	5.53	U	5.52	U	--
2,3,7,8-TCDD	1613B	ng/kg	1.19	UJ	0.0510	J	200.00	0.0526	J	0.0541	J	-2.81
2,3,7,8-TCDF	1613B	ng/kg	0.378	J	0.331	J	13.26	1.11	U	0.210	J	200.00
Aroclor 1016	8082	ug/kg	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Aroclor 1221	8082	ug/kg	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Aroclor 1232	8082	ug/kg	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Aroclor 1242	8082	ug/kg	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Aroclor 1248	8082	ug/kg	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Aroclor 1254	8082	ug/kg	2.0	U	2.0	U	--	1.7	J	1.9	UJ	200.00
Aroclor 1260	8082	ug/kg	2.0	UJ	0.68	J	200.00	1.9		1.2	J	45.16
Aroclor 1262	8082	ug/kg	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Aroclor 1268	8082	ug/kg	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Aroclor 5432	8082	ug/kg	3.9	U	3.9	U	--	3.7	U	3.6	U	--
Aroclor 5442	8082	ug/kg	3.9	U	3.9	U	--	3.7	U	3.6	U	--
Aroclor 5460	8082	ug/kg	3.9	UJ	1.2	J	200.00	1.7	J	2.2	J	-25.64
OCDD	1613B	ng/kg	291	J	162	J	56.95	55.1		78.4		-34.91
OCDF	1613B	ng/kg	5.44	J	5.94	J	-8.79	2.83	J	3.79	J	-29.00
2,2-Dichlor-Propionic Acid	8151A	ug/kg	11	U	11	U	--					
2,4 DB	8151A	ug/kg	20	J	39	UJ	200.00					
2,4,5-T	8151A	ug/kg	0.20	U	0.20	U	--					
2,4,5-TP	8151A	ug/kg	0.20	U	0.20	U	--					
2,4-D	8151A	ug/kg	4.3	U	4.2	U	--					
4,4'-DDD	8081A	ug/kg	0.40	U	0.40	U	--					
4,4'-DDE	8081A	ug/kg	0.30	J	0.40	UJ	200.00					
4,4'-DDT	8081A	ug/kg	0.40	J	0.40	UJ	200.00					
Aldrin	8081A	ug/kg	0.20	U	0.19	U	--					
Alpha-BHC	8081A	ug/kg	0.20	U	0.19	U	--					
Beta-BHC	8081A	ug/kg	0.20	U	0.19	U	--					
Chlordane	8081A	ug/kg	4.0	U	4.0	U	--					
Delta-BHC	8081A	ug/kg	0.20	U	0.19	U	--					
Dicamba	8151A	ug/kg	1.4	U	1.4	U	--					
Dichlorprop	8151A	ug/kg	1.4	J	3.4	J	-83.33					
Dieldrin	8081A	ug/kg	0.40	U	0.40	U	--					
Dinitrobutyl Phenol	8151A	ug/kg	2.9	U	2.8	UJ	--					
Endosulfan I	8081A	ug/kg	0.20	U	0.19	U	--					
Endosulfan II	8081A	ug/kg	0.40	U	0.40	U	--					
Endosulfan Sulfate	8081A	ug/kg	0.40	U	0.40	U	--					
Endrin	8081A	ug/kg	0.40	U	0.40	U	--					
Endrin Aldehyde	8081A	ug/kg	0.40	U	0.40	U	--					

Table C-4 - Subarea 5A Field Duplicate Results

			Location		SL-087-SA5A		SL-087-SA5A		RPD	SL-090-SA5A		SL-090-SA5A		RPD
			Sample Name:		DUP-05-SA5A-QC-022811		SL-087-SA5A-SS-0.0-0.5			DUP-12-SA5A-QC-033011		SL-090-SA5A-SB-4.0-5.0		
			Sample Date		02/28/2011		02/28/2011			03/30/2011		03/30/2011		
			Start Depth:		0		0			4		4		
			End Depth:		0.5		0.5			5		5		
			Area:		5A		5A			5A		5A		
			Matrix:		SO		SO			SO		SO		
			Sample Type:		FD		N			FD		N		
Endrin Ketone	8081A	ug/kg		0.40 U		0.40 U		--						
Gamma-BHC (Lindane)	8081A	ug/kg		0.20 U		0.19 U		--						
Heptachlor	8081A	ug/kg		0.20 U		0.19 U		--						
Heptachlor Epoxide	8081A	ug/kg		0.20 U		0.19 U		--						
MCPA	8151A	ug/kg		300 U		520 U		--						
MCPP	8151A	ug/kg		300 U		290 U		--						
Methoxychlor	8081A	ug/kg		2.0 U		1.9 U		--						
Mirex	8081A	ug/kg		0.40 U		0.40 U		--						
Toxaphene	8081A	ug/kg		7.8 U		7.7 U		--						
1,2,4-Trichlorobenzene	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
1,2-Dichlorobenzene	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
1,2-Diphenylhydrazine	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
1,3-Dichlorobenzene	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
1,4-Dichlorobenzene	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
1-Methylnaphthalene	8270C SIM	ug/kg		2.0 U		1.9 U		--	1.8	U	1.8	U		--
2,4,5-Trichlorophenol	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
2,4,6-Trichlorophenol	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
2,4-Dichlorophenol	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
2,4-Dimethylphenol	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
2,4-Dinitrophenol	8270C	ug/kg		1200 U		1200 U		--	1100	U	1100	U		--
2,4-Dinitrotoluene	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
2,6-Dinitrotoluene	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
2-Chloronaphthalene	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
2-Chlorophenol	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
2-Methylnaphthalene	8270C SIM	ug/kg		2.0 U		1.9 U		--	1.8	U	1.8	U		--
2-Methylphenol	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
2-Nitroaniline	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
2-Nitrophenol	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
3,3`-Dichlorobenzidine	8270C	ug/kg		400 U		390 U		--	370	U	360	U		--
3,5-Dimethylphenol	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
3-Nitroaniline	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
4,6-Dinitro-2-Methylphenol	8270C	ug/kg		590 U		590 U		--	560	U	550	U		--
4-Bromophenyl Phenyl Ether	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
4-Chloro-3-Methylphenol	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
4-Chloroaniline	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
4-Chlorophenyl Phenylether	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
4-Methylphenol	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
4-Nitroaniline	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
4-Nitrophenol	8270C	ug/kg		590 U		590 U		--	560	U	550	U		--
Acenaphthene	8270C SIM	ug/kg		2.0 UJ		0.78 J		200.00	1.8	U	1.8	U		--
Acenaphthylene	8270C SIM	ug/kg		2.0 UJ		0.67 J		200.00	1.8	U	1.8	U		--
Aniline	8270C	ug/kg		590 U		590 U		--	560	U	550	U		--
Anthracene	8270C SIM	ug/kg		2.0 UJ		1.6 J		200.00	1.8	UJ	1.9	J		200.00
Benzidine	8270C	ug/kg		4000 U		3900 UJ		--	3700	U	3600	U		--
Benzo(a)anthracene	8270C	ug/kg												
Benzo(a)anthracene	8270C SIM	ug/kg		2.0 UJ		2.8 J		200.00	1.8	UJ	2.1	J		200.00
Benzo(a)pyrene	8270C	ug/kg												
Benzo(a)pyrene	8270C SIM	ug/kg		2.0 UJ		3.3 J		200.00	1.8	UJ	1.7	J		200.00
Benzo(b)fluoranthene	8270C	ug/kg												
Benzo(b)fluoranthene	8270C SIM	ug/kg		1.5 J		12 J		-155.56	1.8	UJ	2.0	J		200.00
Benzo(g,h,i)perylene	8270C	ug/kg												
Benzo(g,h,i)perylene	8270C SIM	ug/kg		2.0 UJ		1.4 J		200.00	1.8	UJ	1.4	J		200.00
Benzo(k)fluoranthene	8270C	ug/kg												
Benzo(k)fluoranthene	8270C SIM	ug/kg		2.0 UJ		3.1 J		200.00	1.8	UJ	1.8	J		200.00
Benzoic Acid	8270C	ug/kg		590 U		590 U		--	560	U	550	U		--
Benzyl Alcohol	8270C	ug/kg		590 U		590 U		--	560	U	550	U		--
Bis(2-Chloroethoxy) methane	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
Bis(2-Chloroethyl) ether	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
bis(2-Chloroisopropyl) ether	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
Bis(2-Ethylhexyl) phthalate	8270C	ug/kg							370	U				--
Bis(2-Ethylhexyl) phthalate	8270C SIM	ug/kg		21 UJ		16 J		200.00			11	J		--
Butylbenzylphthalate	8270C	ug/kg												
Butylbenzylphthalate	8270C SIM	ug/kg		21 U		21 U		--	20	U	20	U		--
Carbazole	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
Chrysene	8270C	ug/kg												
Chrysene	8270C SIM	ug/kg		0.53 J		4.4 J		-157.00	1.8	UJ	2.1	J		200.00
Dibenzo(a,h)anthracene	8270C	ug/kg												
Dibenzo(a,h)anthracene	8270C SIM	ug/kg		2.0 UJ		0.94 J		200.00	1.8	UJ	1.2	J		200.00
Dibenzofuran	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
Diethylphthalate	8270C	ug/kg												
Diethylphthalate	8270C SIM	ug/kg		21 U		21 U		--	20	U	20	U		--
Dimethylphthalate	8270C	ug/kg												
Dimethylphthalate	8270C SIM	ug/kg		21 U		21 U		--	20	U	20	U		--
Di-n-Butylphthalate	8270C	ug/kg							190	U	180	U		--
Di-n-Butylphthalate	8270C SIM	ug/kg		21 U		21 U		--						
Di-N-Octyl Phthalate	8270C	ug/kg												
Di-N-Octyl Phthalate	8270C SIM	ug/kg		21 UJ		14 J		200.00	20	UJ	25	J		200.00
Fluoranthene	8270C	ug/kg												
Fluoranthene	8270C SIM	ug/kg		2.0 UJ		7.0 J		200.00	1.8	UJ	2.8	J		200.00
Fluorene	8270C SIM	ug/kg		2.0 UJ		1.4 J		200.00	1.8	UJ	1.1	J		200.00
Hexachlorobenzene	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
Hexachlorobutadiene	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
Hexachlorocyclopentadiene	8270C	ug/kg		590 U		590 U		--	560	U	550	U		--
Hexachloroethane	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
Indeno(1,2,3-Cd)Pyrene	8270C	ug/kg												
Indeno(1,2,3-Cd)Pyrene	8270C SIM	ug/kg		2.0 UJ		1.5 J		200.00	1.8	UJ	1.2	J		200.00
Isophorone	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
Naphthalene	8270C	ug/kg												
Naphthalene	8270C SIM	ug/kg		2.0 U		1.9 U		--	1.8	U	1.8	U		--
Nitrobenzene	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
N-Nitrosodimethylamine	1625C	ng/kg									366	U		--
N-Nitrosodimethylamine	8270C SIM	ug/kg		2.0 U		1.9 U		--	1.8	U	1.8	U		--
N-Nitroso-Di-N-Propylamine	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
N-Nitrosodiphenylamine	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
Pentachlorophenol	8270C	ug/kg		590 U		590 U		--	560	U	550	U		--
Phenanthrene	8270C	ug/kg												
Phenanthrene	8270C SIM	ug/kg		2.0 UJ		3.6 J		200.00	1.8	UJ	2.3	J		200.00
Phenol	8270C	ug/kg		200 U		200 U		--	190	U	180	U		--
Pyrene	8270C	ug/kg												
Pyrene	8270C SIM	ug/kg		2.0 UJ		6.6 J		200.00	1.8	UJ	2.1	J		200.00
1,1,1,2-Tetrachloroethane	8260B	ug/kg							4.4	U	4.0	U		--
1,1,1-Trichloroethane	8260B	ug/kg							4.4	U	4.0	U		--
1,1,2,2-Tetrachloroethane	8260B	ug/kg							4.4	U	4.0	U		--
1,1,2-Trichloroethane	8260B	ug/kg							4.4	U	4.0	U		--
1,1-Dichloroethane	8260B	ug/kg							4.4	U	4.0	U		--
1,1-Dichloroethene	8260B	ug/kg							4.4	U	4.0	U		--
1,1-Dichloropropene	8260B	ug/kg							4.4	U	4.0	U		--
1,2,3-Trichlorobenzene	8260B	ug/kg							4.4	U	4.0	U		--
1,2,3-Trichloropropane	8260B	ug/kg							4.4	U	4.0	U		--
1,2,4-Trichlorobenzene	8260B	ug/kg							4.4	U	4.0	U		--
1,2,4-Trimethylbenzene	8260B	ug/kg							4.4	U	4.0	U		--
1,2-Dibromo-3-chloropropane	8260B	ug/kg							4.4	U	4.0	U		--
1,2-Dibromoethane	8260B	ug/kg							4.4	U	4.0	U		--
1,2-Dichlorobenzene	8260B	ug/kg							4.4	U	4.0	U		--
1,2-Dichloroethane	8260B	ug/kg							4.4	U	4.0	U		--
1,2-Dichloropropane	8260B	ug/kg							4.4	U	4.0	U		--
1,3,5-Trimethylbenzene	8260B	ug/kg							4.4	U	4.0	U		--
1,3-Dichlorobenzene	8260B	ug/kg							4.4	U	4.0	U		--
1,3-Dichloropropane	8260B	ug/kg							4.4	U	4.0	U		--

Table C-4 - Subarea 5A Field Duplicate Results

			Location		SL-087-SA5A		SL-087-SA5A		RPD	SL-090-SA5A		SL-090-SA5A		RPD
			Sample Name:		DUP-05-SA5A-QC-022811		SL-087-SA5A-SS-0.0-0.5			DUP-12-SA5A-QC-033011		SL-090-SA5A-SB-4.0-5.0		
			Sample Date		02/28/2011		02/28/2011			03/30/2011		03/30/2011		
			Start Depth:		0		0			4		4		
			End Depth:		0.5		0.5			5		5		
			Area:		5A		5A			5A		5A		
			Matrix:		SO		SO			SO		SO		
			Sample Type:		FD		N			FD		N		
1,4-Dichlorobenzene	8260B	ug/kg								4.4	U	4.0	U	--
1,4-Dioxane	8260B SIM	ug/kg								14	U	15	U	--
2,2-Dichloropropane	8260B	ug/kg								4.4	U	4.0	U	--
2-Butanone	8260B	ug/kg								8.8	U	7.9	U	--
2-Chloroethyl Vinyl Ether	8260B	ug/kg								4.4	U	4.0	U	--
2-Chlorotoluene	8260B	ug/kg								4.4	U	4.0	U	--
2-Hexanone	8260B	ug/kg								8.8	U	7.9	U	--
4-Chlorotoluene	8260B	ug/kg								4.4	U	4.0	U	--
4-Methyl-2-Pentanone	8260B	ug/kg								8.8	U	7.9	U	--
Acetone	8260B	ug/kg								8.8	U	7.9	U	--
Benzene	8260B	ug/kg								4.4	U	4.0	U	--
Bromobenzene	8260B	ug/kg								4.4	U	4.0	U	--
Bromochloromethane	8260B	ug/kg								4.4	U	4.0	U	--
Bromodichloromethane	8260B	ug/kg								4.4	U	4.0	U	--
Bromoform	8260B	ug/kg								4.4	U	4.0	U	--
Bromomethane	8260B	ug/kg								4.4	U	4.0	U	--
Carbon tetrachloride	8260B	ug/kg								4.4	U	4.0	U	--
Chlorobenzene	8260B	ug/kg								4.4	U	4.0	U	--
Chloroethane	8260B	ug/kg								4.4	U	4.0	U	--
Chloroform	8260B	ug/kg								4.4	U	4.0	U	--
Chloromethane	8260B	ug/kg								4.4	U	4.0	U	--
Chlorotrifluoroethene	8260B	ug/kg								5.5	U	5.0	U	--
cis-1,2-Dichloroethene	8260B	ug/kg								4.4	U	4.0	U	--
cis-1,3-Dichloropropene	8260B	ug/kg								4.4	U	4.0	U	--
Dibromochloromethane	8260B	ug/kg								4.4	U	4.0	U	--
Dibromomethane	8260B	ug/kg								4.4	U	4.0	U	--
Dichlorodifluoromethane	8260B	ug/kg								4.4	U	4.0	U	--
EFH (C15-C20)	8015M	mg/kg										1.3	U	--
EFH (C21-C30)	8015M	mg/kg										5.9		--
EFH (C30-C40)	8015M	mg/kg										29		--
EFH (C8-C11)	8015M	mg/kg										1.3	U	--
Ethylbenzene	8260B	ug/kg								4.4	U	4.0	U	--
Freon 113	8260B	ug/kg								4.4	U	4.0	U	--
Freon 113a	8260B	ug/kg								5.5	U	5.0	U	--
GRO (C5-C12)	8015M	mg/kg										1	U	--
Hexachlorobutadiene	8260B	ug/kg								4.4	U	4.0	U	--
Isopropylbenzene	8260B	ug/kg								4.4	U	4.0	U	--
Isopropyltoluene	8260B	ug/kg								4.4	U	4.0	U	--
m,p-Xylene	8260B	ug/kg								4.4	U	4.0	U	--
Methyl tert-Butyl Ether	8260B	ug/kg								4.4	U	4.0	U	--
Methylene chloride	8260B	ug/kg								4.4	U	4.0	U	--
N-Butylbenzene	8260B	ug/kg								4.4	U	4.0	U	--
N-Propylbenzene	8260B	ug/kg								4.4	U	4.0	U	--
o-Xylene	8260B	ug/kg								4.4	U	4.0	U	--
sec-Butylbenzene	8260B	ug/kg								4.4	U	4.0	U	--
Styrene	8260B	ug/kg								4.4	U	4.0	U	--
tert-Butylbenzene	8260B	ug/kg								4.4	U	4.0	U	--
Tetrachloroethene	8260B	ug/kg								4.4	U	4.0	U	--
Toluene	8260B	ug/kg								4.4	U	4.0	U	--
trans-1,2-Dichloroethene	8260B	ug/kg								4.4	U	4.0	U	--
trans-1,3-Dichloropropene	8260B	ug/kg								4.4	U	4.0	U	--
Trichloroethene	8260B	ug/kg								4.4	U	4.0	U	--
Trichlorofluoromethane	8260B	ug/kg								4.4	U	4.0	U	--
Vinyl Chloride	8260B	ug/kg								4.4	U	4.0	U	--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported

200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only

Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-4 - Subarea 5A Field Duplicate Results

		Location	SL-099-SA5A		SL-099-SA5A		RPD	SL-114-SA5A		SL-114-SA5A		RPD
		Sample Name:	DUP01-SA5A-QC-021811		SL-099-SA5A-SS-0.0-0.5			DUP09-SA5A-QC-031111		SL-114-SA5A-SB-4.0-5.0		
		Sample Date	02/18/2011		02/18/2011			03/11/2011		03/11/2011		
		Start Depth:	0		0			4		4		
		End Depth:	0.5		0.5			5		5		
		Area:	5A		5A			5A		5A		
		Matrix:	SO		SO			SO		SO		
		Sample Type:	FD		N			FD		N		
Chemical Name:	Lab Method:	Result Unit										
Aluminum	6010B	mg/kg	17700		16300		8.24	35100		37200		-5.81
Antimony	6020	mg/kg	0.222	UJ	0.212	UJ	--	0.227		0.290		-24.37
Arsenic	6020	mg/kg	7.14	J	6.17	J	14.58	8.98		9.31		-3.61
Barium	6020	mg/kg	142		126		11.94	160		152		5.13
Beryllium	6020	mg/kg	0.942	J	0.774	J	19.58	1.08		0.126	U	200.00
Boron	6010B	mg/kg	2.61	J	2.57	J	1.54	12.4		13.8	J	-10.69
Cadmium	6020	mg/kg	0.220		0.189		15.16	0.383		0.445		-14.98
Calcium	6010B	mg/kg	2460		2300		6.72	18500		35900		-63.97
Chromium	6020	mg/kg	26.9	J	23.1	J	15.20	39.2		44.3		-12.22
Chromium VI	7199	mg/kg	0.27	J	0.58	J	-72.94	0.29		1.3	U	-127.04
Cobalt	6020	mg/kg	10.4	J	17.4	J	-50.36	12.3		10.3		17.70
Copper	6020	mg/kg	11.5	J	10.2	J	11.98	17.7		17.7		0.00
Cyanide	9012B	mg/kg						0.60	U	0.64	U	--
Fluoride	300.0	mg/kg	1.5	J	1.6	J	-6.45	5.2		6.6		-23.73
Iron	6010B	mg/kg	22100		20200		8.98	34500		34200		0.87
Lead	6020	mg/kg	13.9		12.9		7.46	13.2		13.3		-0.75
Lithium	6010B	mg/kg	23.6		21.8		7.93	29.6		33.0	J	-10.86
Magnesium	6010B	mg/kg	4090		3870		5.53	8330		8320	J	0.12
Manganese	6010B	mg/kg	312		298		4.59	388		454		-15.68
Mercury	7471A	mg/kg	0.105	UJ	0.0031	J	200.00	0.0083		0.0091		-9.20
Molybdenum	6020	mg/kg	0.881	J	0.782	J	11.91	0.458		0.350		26.73
Nickel	6020	mg/kg	18.6	J	16.7	J	10.76	29.7		27.7		6.97
Nitrate	300.0	mg/kg						2.0	J	2.2	J	-9.52
Percent Moisture	160.3M	%	9.9		9.4		5.18	17.7	J	22.8		-25.19
Perchlorate	314.0	ug/kg	33.3	U	33.1	U	--	36.5	U	38.9	UJ	--
Perchlorate	6850	ug/kg			5.5	U	--					
pH	9045M	pH unit	6.56		6.93		-5.49	11.5		8.06		35.17
Phosphorus	6010B	mg/kg	341		333		2.37	313		246		23.97
Potassium	6010B	mg/kg	3260	J	3150	J	3.43	3920		3430	J	13.33
Selenium	6020	mg/kg	0.444	U	0.425	U	--	0.162		0.162		0.00
Silver	6020	mg/kg	0.111	UJ	0.106	UJ	--	0.0505		0.0781		-42.92
Sodium	6010B	mg/kg	80.0	J	77.2	J	3.56	211		284	J	-29.49
Strontium	6010B	mg/kg	19.9		18.8		5.68	56.2		67.4	J	-18.12
Thallium	6020	mg/kg	0.111	UJ	0.106	UJ	--	0.441		0.419		5.12
Tin	6010B	mg/kg	11.1	U	10.8	U	--	3.01		3.11	J	-3.27
Titanium	6010B	mg/kg	1070		988		7.97	1530		1570		-2.58
Vanadium	6020	mg/kg	50.7	J	42.5	J	17.60	75.8		82.1		-7.98
Zinc	6020	mg/kg	54.1		54.7		-1.10	89.9		82.1		9.07
Zirconium	6010B	mg/kg	3.40	J	3.42	J	-0.59	5.35		5.57		-4.03
1,3,5-Trinitrobenzene	8330A	ug/kg						140	U	150	U	--
2,4,6-Trinitrotoluene	8330A	ug/kg						140	U	150	U	--
2,4-Diamino-6-nitrotoluene	8330A	ug/kg						290	U	300	U	--
2,4-Dinitrotoluene	8330A	ug/kg						140	U	150	U	--
2,6-Diamino-4-nitrotoluene	8330A	ug/kg						290	UJ	300	U	--
2,6-Dinitrotoluene	8330A	ug/kg						140	U	150	U	--
2-Amino-4,6-Dinitrotoluene	8330A	ug/kg						140	U	150	U	--
2-Nitrotoluene	8330A	ug/kg						140	U	150	U	--
2-Propanol	8015B	ug/kg						610	U	650	U	--
3-Nitrotoluene	8330A	ug/kg						140	U	150	U	--
4-Amino-2,6-Dinitrotoluene	8330A	ug/kg						140	U	150	U	--
4-Nitrotoluene	8330A	ug/kg						140	U	150	U	--
Diethylene Glycol	8015M	mg/kg						15	U	16	U	--
Ethanol	8015B	ug/kg						610	U	650	U	--
Ethylene Glycol	8015M	mg/kg						15	U	16	U	--
Formaldehyde	8315A	ug/kg						1800	U	1900	U	--
HMX	8330A	ug/kg						360	U	380	U	--
m-Dinitrobenzene	8330A	ug/kg						140	U	150	U	--
Methanol	8015B	ug/kg						610	U	650	U	--
m-Terphenyl	8015B	mg/kg						4.3	U	4.5	U	--
Nitrobenzene	8330A	ug/kg						140	U	150	U	--
Nitroglycerin	8330A	ug/kg						2900	UJ	3000	U	--
o-Terphenyl	8015B	mg/kg						4.3	U	4.5	U	--
PETN	8330A	ug/kg						2900	U	3000	U	--
Propylene glycol	8015M	mg/kg						15	U	16	U	--
p-Terphenyl	8015B	mg/kg						4.3	U	4.5	U	--
RDX	8330A	ug/kg						140	U	150	U	--
Tetryl	8330A	ug/kg						140	UJ	150	U	--
1,2,3,4,6,7,8-HpCDD	1613B	ng/kg	112		93.5	J	18.00	6.08	UJ	6.48	UJ	--
1,2,3,4,6,7,8-HpCDF	1613B	ng/kg	25.9		23.4		10.14	6.08	UJ	6.48	UJ	--
1,2,3,4,7,8,9-HpCDF	1613B	ng/kg	2.50	J	2.14	J	15.52	6.08	UJ	6.48	UJ	--
1,2,3,4,7,8-HxCDD	1613B	ng/kg	1.46	J	1.36	J	7.09	0.0675	J	6.48	UJ	200.00
1,2,3,4,7,8-HxCDF	1613B	ng/kg	1.03	J	0.900	J	13.47	6.08	UJ	6.48	UJ	--
1,2,3,6,7,8-HxCDD	1613B	ng/kg	3.09	J	2.82	J	9.14	6.08	UJ	6.48	UJ	--
1,2,3,6,7,8-HxCDF	1613B	ng/kg	0.653	J	0.630	J	3.59	6.08	UJ	6.48	UJ	--
1,2,3,7,8,9-HxCDD	1613B	ng/kg	3.23	J	2.82	J	13.55	6.08	UJ	6.48	UJ	--
1,2,3,7,8,9-HxCDF	1613B	ng/kg	0.222	J	0.268	J	-18.78	6.08	UJ	6.48	UJ	--
1,2,3,7,8-PeCDD	1613B	ng/kg	0.790	J	0.779	J	1.40	6.08	UJ	0.0233	J	200.00
1,2,3,7,8-PeCDF	1613B	ng/kg	0.111	J	0.139	J	-22.40	6.08	UJ	6.48	UJ	--
2,3,4,6,7,8-HxCDF	1613B	ng/kg	1.02	J	0.964	J	5.65	6.08	UJ	6.48	UJ	--
2,3,4,7,8-PeCDF	1613B	ng/kg	0.357	J	0.375	J	-4.92	6.08	UJ	6.48	UJ	--
2,3,7,8-TCDD	1613B	ng/kg	0.121	J	0.121	J	0.00	0.0380	J	0.0178	J	72.40
2,3,7,8-TCDF	1613B	ng/kg	0.162	J	0.188	J	-14.86	1.22	UJ	1.30	UJ	--
Aroclor 1016	8082	ug/kg	1.9	U	1.9	U	--	2.1	U	2.2	U	--
Aroclor 1221	8082	ug/kg	1.9	U	1.9	U	--	2.1	U	2.2	U	--
Aroclor 1232	8082	ug/kg	1.9	U	1.9	U	--	2.1	U	2.2	U	--
Aroclor 1242	8082	ug/kg	1.9	U	1.9	U	--	2.1	U	2.2	U	--
Aroclor 1248	8082	ug/kg	1.9	U	1.9	U	--	2.1	U	2.2	U	--
Aroclor 1254	8082	ug/kg	0.78	J	0.75	J	3.92	2.1	U	2.2	U	--
Aroclor 1260	8082	ug/kg	0.56	J	0.93	J	-49.66	2.1	U	2.2	U	--
Aroclor 1262	8082	ug/kg	1.9	U	1.9	U	--	2.1	UJ	2.2	U	--
Aroclor 1268	8082	ug/kg	1.9	U	1.9	U	--	2.1	U	2.2	U	--
Aroclor 5432	8082	ug/kg	3.7	UJ	3.6	UJ	--	4.0	UJ	4.3	U	--
Aroclor 5442	8082	ug/kg	3.7	UJ	3.6	UJ	--	4.0	U	4.3	U	--
Aroclor 5460	8082	ug/kg	1.6	J	2.0	J	-22.22	4.0	U	4.3	U	--
OCDD	1613B	ng/kg	1540		1130		30.71	12.2	U	2.23	J	200.00
OCDF	1613B	ng/kg	119		94.6		22.85	12.2	UJ	13.0	UJ	--
2,2-Dichlor-Propionic Acid	8151A	ug/kg	10	U	9.9	U	--					
2,4 DB	8151A	ug/kg	2.9	U	4.0	U	--					
2,4,5-T	8151A	ug/kg	0.19	U	0.19	U	--					
2,4,5-TP	8151A	ug/kg	0.19	U	0.57	U	--					
2,4-D	8151A	ug/kg	4.0	U	4.0	U	--					
4,4'-DDD	8081A	ug/kg	0.38	U	0.37	U	--					
4,4'-DDE	8081A	ug/kg	0.14	J	0.081	J	53.39					
4,4'-DDT	8081A	ug/kg	0.42		0.31	J	30.14					
Aldrin	8081A	ug/kg	0.18	U	0.18	U	--					
Alpha-BHC	8081A	ug/kg	0.18	U	0.18	U	--					
Beta-BHC	8081A	ug/kg	0.18	U	0.18	U	--					
Chlordane	8081A	ug/kg	3.8	U	3.7	U	--					
Delta-BHC	8081A	ug/kg	0.18	U	0.18	U	--					
Dicamba	8151A	ug/kg	1.3	U	1.3	U	--					
Dichlorprop	8151A	ug/kg	1.9	U	1.9	U	--					
Dieldrin	8081A	ug/kg	0.38	U	0.37	U	--					
Dinitrobutyl Phenol	8151A	ug/kg	2.7	U	2.6	U	--					
Endosulfan I	8081A	ug/kg	0.18	U	0.18	U	--					
Endosulfan II	8081A	ug/kg	0.38	U	0.37	U	--					
Endosulfan Sulfate	8081A	ug/kg	0.38	U	0.37	U	--					
Endrin	8081A	ug/kg	0.38	U	0.37	U	--					
Endrin Aldehyde	8081A	ug/kg	0.11	J	0.37	UJ	200.00					

Table C-4 - Subarea 5A Field Duplicate Results

			Location		SL-099-SA5A		SL-099-SA5A		RPD	SL-114-SA5A		SL-114-SA5A		RPD
			Sample Name:		DUP01-SA5A-QC-021811		SL-099-SA5A-SS-0.0-0.5			DUP09-SA5A-QC-031111		SL-114-SA5A-SB-4.0-5.0		
			Sample Date		02/18/2011		02/18/2011			03/11/2011		03/11/2011		
			Start Depth:		0		0			4		4		
			End Depth:		0.5		0.5			5		5		
			Area:		5A		5A			5A		5A		
			Matrix:		SO		SO			SO		SO		
			Sample Type:		FD		N			FD		N		
Endrin Ketone	8081A	ug/kg		0.13	J	0.37	UJ	200.00					
Gamma-BHC (Lindane)	8081A	ug/kg		0.18	U	0.18	U	--					
Heptachlor	8081A	ug/kg		0.18	U	0.18	U	--					
Heptachlor Epoxide	8081A	ug/kg		0.18	U	0.18	U	--					
MCPA	8151A	ug/kg		280	UJ	550	J	200.00					
MCPP	8151A	ug/kg		280	U	280	U	--					
Methoxychlor	8081A	ug/kg		1.8	U	1.8	U	--					
Mirex	8081A	ug/kg		0.38	U	0.37	U	--					
Toxaphene	8081A	ug/kg		7.3	U	7.3	U	--					
1,2,4-Trichlorobenzene	8270C	ug/kg		180	U	180	U	--	200	UJ	220	U	--
1,2-Dichlorobenzene	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
1,2-Diphenylhydrazine	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
1,3-Dichlorobenzene	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
1,4-Dichlorobenzene	8270C	ug/kg		180	U	180	U	--	200	U	220	UJ	--
1-Methylnaphthalene	8270C SIM	ug/kg		1.8	U	1.8	U	--	2.0	U	2.2	U	--
2,4,5-Trichlorophenol	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
2,4,6-Trichlorophenol	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
2,4-Dichlorophenol	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
2,4-Dimethylphenol	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
2,4-Dinitrophenol	8270C	ug/kg		1100	U	1100	U	--	1200	U	1300	U	--
2,4-Dinitrotoluene	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
2,6-Dinitrotoluene	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
2-Chloronaphthalene	8270C	ug/kg		180	U	180	U	--	200	U	220	UJ	--
2-Chlorophenol	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
2-Methylnaphthalene	8270C SIM	ug/kg		1.8	U	1.8	U	--	2.0	U	2.2	U	--
2-Methylphenol	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
2-Nitroaniline	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
2-Nitrophenol	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
3,3`-Dichlorobenzidine	8270C	ug/kg		370	U	360	U	--	410	U	430	U	--
3,5-Dimethylphenol	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
3-Nitroaniline	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
4,6-Dinitro-2-Methylphenol	8270C	ug/kg		550	U	540	U	--	610	U	650	U	--
4-Bromophenyl Phenyl Ether	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
4-Chloro-3-Methylphenol	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
4-Chloroaniline	8270C	ug/kg		180	U	180	U	--	200	U	220	UJ	--
4-Chlorophenyl Phenylether	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
4-Methylphenol	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
4-Nitroaniline	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
4-Nitrophenol	8270C	ug/kg		550	U	540	U	--	610	U	650	U	--
Acenaphthene	8270C SIM	ug/kg		1.8	U	1.8	U	--	2.0	U	2.2	U	--
Acenaphthylene	8270C SIM	ug/kg		1.8	U	1.8	U	--	2.0	U	2.2	U	--
Aniline	8270C	ug/kg		550	U	540	U	--	610	U	650	U	--
Anthracene	8270C SIM	ug/kg		1.8	U	1.8	U	--	2.0	U	2.2	U	--
Benzidine	8270C	ug/kg		3700	U	3600	R	--	4100	U	4300	U	--
Benzo(a)anthracene	8270C	ug/kg											
Benzo(a)anthracene	8270C SIM	ug/kg		1.8	U	1.8	U	--	2.0	U	2.2	U	--
Benzo(a)pyrene	8270C	ug/kg											
Benzo(a)pyrene	8270C SIM	ug/kg		1.8	U	1.8	U	--	2.0	UJ	2.2	U	--
Benzo(b)fluoranthene	8270C	ug/kg											
Benzo(b)fluoranthene	8270C SIM	ug/kg		1.1	J	0.92	J	17.82	2.0	U	2.2	U	--
Benzo(g,h,i)perylene	8270C	ug/kg											
Benzo(g,h,i)perylene	8270C SIM	ug/kg		0.79	J	0.92	J	-15.20	2.0	U	2.2	U	--
Benzo(k)fluoranthene	8270C	ug/kg											
Benzo(k)fluoranthene	8270C SIM	ug/kg		1.8	U	1.8	U	--	2.0	U	2.2	U	--
Benzoic Acid	8270C	ug/kg		550	U	540	U	--	610	U	650	U	--
Benzyl Alcohol	8270C	ug/kg		550	U	540	U	--	610	U	650	U	--
Bis(2-Chloroethoxy) methane	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
Bis(2-Chloroethyl) ether	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
bis(2-Chloroisopropyl) ether	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
Bis(2-Ethylhexyl) phthalate	8270C	ug/kg											
Bis(2-Ethylhexyl) phthalate	8270C SIM	ug/kg		13	J	350	J	-185.67	22	U	23	U	--
Butylbenzylphthalate	8270C	ug/kg											
Butylbenzylphthalate	8270C SIM	ug/kg		9.9	J	20	UJ	200.00	22	UJ	23	U	--
Carbazole	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
Chrysene	8270C	ug/kg											
Chrysene	8270C SIM	ug/kg		1.1	J	1.0	J	9.52	2.0	U	2.2	U	--
Dibenzo(a,h)anthracene	8270C	ug/kg											
Dibenzo(a,h)anthracene	8270C SIM	ug/kg		1.8	U	1.8	U	--	2.0	U	2.2	U	--
Dibenzofuran	8270C	ug/kg		180	U	180	U	--	200	U	220	UJ	--
Diethylphthalate	8270C	ug/kg											
Diethylphthalate	8270C SIM	ug/kg		20	U	20	U	--	22	U	23	U	--
Dimethylphthalate	8270C	ug/kg											
Dimethylphthalate	8270C SIM	ug/kg		20	U	20	U	--	22	U	23	U	--
Di-n-Butylphthalate	8270C	ug/kg		180	U			--	200	U	220	U	--
Di-n-Butylphthalate	8270C SIM	ug/kg				20	U	--					
Di-N-Octyl Phthalate	8270C	ug/kg							200	U			--
Di-N-Octyl Phthalate	8270C SIM	ug/kg		20	U	20	U	--			23	U	--
Fluoranthene	8270C	ug/kg											
Fluoranthene	8270C SIM	ug/kg		1.2	J	0.74	J	47.42	2.0	U	2.2	U	--
Fluorene	8270C SIM	ug/kg		1.8	U	1.8	U	--	2.0	UJ	2.2	U	--
Hexachlorobenzene	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
Hexachlorobutadiene	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
Hexachlorocyclopentadiene	8270C	ug/kg		550	U	540	U	--	610	U	650	UJ	--
Hexachloroethane	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
Indeno(1,2,3-Cd)Pyrene	8270C	ug/kg											
Indeno(1,2,3-Cd)Pyrene	8270C SIM	ug/kg		1.8	U	1.8	U	--	2.0	U	2.2	U	--
Isophorone	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
Naphthalene	8270C	ug/kg				180	U	--					
Naphthalene	8270C SIM	ug/kg		1.8	U			--	2.0	U	2.2	U	--
Nitrobenzene	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
N-Nitrosodimethylamine	1625C	ng/kg							405	U	432	UJ	--
N-Nitrosodimethylamine	8270C SIM	ug/kg		1.8	U	1.8	U	--	2.0	U	2.2	U	--
N-Nitroso-Di-N-Propylamine	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
N-Nitrosodiphenylamine	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
Pentachlorophenol	8270C	ug/kg		550	U	540	U	--	610	U	650	U	--
Phenanthrene	8270C	ug/kg											
Phenanthrene	8270C SIM	ug/kg		0.82	J	1.8	UJ	200.00	2.0	UJ	2.2	U	--
Phenol	8270C	ug/kg		180	U	180	U	--	200	U	220	U	--
Pyrene	8270C	ug/kg											
Pyrene	8270C SIM	ug/kg		1.0	J	0.74	J	29.89	2.0	U	2.2	U	--
1,1,1,2-Tetrachloroethane	8260B	ug/kg							4.1	U	4.9	U	--
1,1,1-Trichloroethane	8260B	ug/kg							4.1	U	4.9	U	--
1,1,2,2-Tetrachloroethane	8260B	ug/kg							4.1	U	4.9	U	--
1,1,2-Trichloroethane	8260B	ug/kg							4.1	U	4.9	U	--
1,1-Dichloroethane	8260B	ug/kg							4.1	U	4.9	U	--
1,1-Dichloroethene	8260B	ug/kg							4.1	U	4.9	U	--
1,1-Dichloropropene	8260B	ug/kg							4.1	U	4.9	U	--
1,2,3-Trichlorobenzene	8260B	ug/kg							4.1	U	4.9	UJ	--
1,2,3-Trichloropropane	8260B	ug/kg							4.1	U	4.9	U	--
1,2,4-Trichlorobenzene	8260B	ug/kg							4.1	U	4.9	U	--
1,2,4-Trimethylbenzene	8260B	ug/kg							4.1	U	4.9	U	--
1,2-Dibromo-3-chloropropane	8260B	ug/kg							4.1	U	4.9	U	--
1,2-Dibromoethane	8260B	ug/kg							4.1	UJ	4.9	U	--
1,2-Dichlorobenzene	8260B	ug/kg							4.1	U	4.9	U	--
1,2-Dichloroethane	8260B	ug/kg							4.1	UJ	4.9	U	--
1,2-Dichloropropane	8260B	ug/kg							4.1	U	4.9	U	--
1,3,5-Trimethylbenzene	8260B	ug/kg							4.1	UJ	4.9	U	--
1,3-Dichlorobenzene	8260B	ug/kg							4.1	U	4.9	U	--
1,3-Dichloropropane	8260B	ug/kg							4.1	U	4.9	UJ	--

Table C-4 - Subarea 5A Field Duplicate Results

			Location		SL-099-SA5A		SL-099-SA5A		RPD	SL-114-SA5A		SL-114-SA5A		RPD
			Sample Name:		DUP01-SA5A-QC-021811		SL-099-SA5A-SS-0.0-0.5			DUP09-SA5A-QC-031111		SL-114-SA5A-SB-4.0-5.0		
			Sample Date		02/18/2011		02/18/2011			03/11/2011		03/11/2011		
			Start Depth:		0		0			4		4		
			End Depth:		0.5		0.5			5		5		
			Area:		5A		5A			5A		5A		
			Matrix:		SO		SO			SO		SO		
			Sample Type:		FD		N			FD		N		
1,4-Dichlorobenzene	8260B	ug/kg								4.1	U	4.9	U	--
1,4-Dioxane	8260B SIM	ug/kg								17	U	17	U	--
2,2-Dichloropropane	8260B	ug/kg								4.1	U	4.9	U	--
2-Butanone	8260B	ug/kg								8.3	U	9.7	U	--
2-Chloroethyl Vinyl Ether	8260B	ug/kg								4.1	U	4.9	U	--
2-Chlorotoluene	8260B	ug/kg								4.1	U	4.9	U	--
2-Hexanone	8260B	ug/kg								8.3	U	9.7	U	--
4-Chlorotoluene	8260B	ug/kg								4.1	UJ	4.9	U	--
4-Methyl-2-Pentanone	8260B	ug/kg								8.3	UJ	9.7	U	--
Acetone	8260B	ug/kg								8.3	U	9.7	U	--
Benzene	8260B	ug/kg								4.1	U	4.9	U	--
Bromobenzene	8260B	ug/kg								4.1	U	4.9	U	--
Bromochloromethane	8260B	ug/kg								4.1	U	4.9	U	--
Bromodichloromethane	8260B	ug/kg								4.1	U	4.9	U	--
Bromoform	8260B	ug/kg								4.1	U	4.9	U	--
Bromomethane	8260B	ug/kg								4.1	U	4.9	U	--
Carbon tetrachloride	8260B	ug/kg								4.1	U	4.9	U	--
Chlorobenzene	8260B	ug/kg								4.1	U	4.9	U	--
Chloroethane	8260B	ug/kg								4.1	U	4.9	U	--
Chloroform	8260B	ug/kg								4.1	U	4.9	U	--
Chloromethane	8260B	ug/kg								4.1	U	4.9	U	--
Chlorotrifluoroethene	8260B	ug/kg								5.2	U	6.1	UJ	--
cis-1,2-Dichloroethene	8260B	ug/kg								4.1	U	4.9	U	--
cis-1,3-Dichloropropene	8260B	ug/kg								4.1	UJ	4.9	U	--
Dibromochloromethane	8260B	ug/kg								4.1	U	4.9	U	--
Dibromomethane	8260B	ug/kg								4.1	U	4.9	U	--
Dichlorodifluoromethane	8260B	ug/kg								4.1	U	4.9	U	--
EFH (C15-C20)	8015M	mg/kg								1.4	U	2.0		200.00
EFH (C21-C30)	8015M	mg/kg								1.0		7.3		-151.81
EFH (C30-C40)	8015M	mg/kg								2.9		29		-163.64
EFH (C8-C11)	8015M	mg/kg								1.4	U	1.6	U	--
Ethylbenzene	8260B	ug/kg								4.1	UJ	4.9	U	--
Freon 113	8260B	ug/kg								4.1	U	4.9	U	--
Freon 113a	8260B	ug/kg								5.2	U	6.1	U	--
GRO (C5-C12)	8015M	mg/kg								1.0	U	1.2	U	--
Hexachlorobutadiene	8260B	ug/kg								4.1	U	4.9	U	--
Isopropylbenzene	8260B	ug/kg								4.1	U	4.9	U	--
Isopropyltoluene	8260B	ug/kg								4.1	U	4.9	U	--
m,p-Xylene	8260B	ug/kg								4.1	U	4.9	U	--
Methyl tert-Butyl Ether	8260B	ug/kg								4.1	U	4.9	U	--
Methylene chloride	8260B	ug/kg								0.78		1.0		-24.72
N-Butylbenzene	8260B	ug/kg								4.1	UJ	4.9	U	--
N-Propylbenzene	8260B	ug/kg								4.1	U	4.9	U	--
o-Xylene	8260B	ug/kg								4.1	U	4.9	U	--
sec-Butylbenzene	8260B	ug/kg								4.1	U	4.9	U	--
Styrene	8260B	ug/kg								4.1	U	4.9	U	--
tert-Butylbenzene	8260B	ug/kg								4.1	U	4.9	U	--
Tetrachloroethene	8260B	ug/kg								4.1	U	4.9	UJ	--
Toluene	8260B	ug/kg								4.1	UJ	4.9	U	--
trans-1,2-Dichloroethene	8260B	ug/kg								4.1	U	4.9	U	--
trans-1,3-Dichloropropene	8260B	ug/kg								4.1	U	4.9	U	--
Trichloroethene	8260B	ug/kg								4.1	U	4.9	U	--
Trichlorofluoromethane	8260B	ug/kg								4.1	U	4.9	U	--
Vinyl Chloride	8260B	ug/kg								4.1	U	4.9	U	--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported

200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only

Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-4 - Subarea 5A Field Duplicate Results

		Location	SL-148-SA5A		SL-148-SA5A		RPD	SL-181-SA5A		SL-181-SA5A		RPD
		Sample Name:	DUP15-SA5A-QC-042011		SL-148-SA5A-SB-4.0-5.0			DUP-02-SA5A-QC-022211		SL-181-SA5A-SS-0.0-0.5		
		Sample Date	04/20/2011		04/20/2011			02/22/2011		02/22/2011		
		Start Depth:	4		4			0		0		
		End Depth:	5		5			0.5		0.5		
		Area:	5A		5A			5A		5A		
		Matrix:	SO		SO			SO		SO		
		Sample Type:	FD		N			FD		N		
Chemical Name:	Lab Method:	Result Unit										
Aluminum	6010B	mg/kg	19100		19000		0.52	13500		15500		-13.79
Antimony	6020	mg/kg	0.151	J	0.191	J	-23.39	0.216	J	0.191	J	12.29
Arsenic	6020	mg/kg	4.35	J	4.37	J	-0.46	4.95	J	4.54	J	8.64
Barium	6020	mg/kg	108		108		0.00	107		100		6.76
Beryllium	6020	mg/kg	0.670		0.703		-4.81	0.523		0.555		-5.94
Boron	6010B	mg/kg	1.01	J	1.92	J	-62.12	2.80	J	3.28	J	-15.79
Cadmium	6020	mg/kg	0.0645	J	0.108	UJ	200.00	0.625		0.540		14.59
Calcium	6010B	mg/kg	2070		2020		2.44	4260		4390		-3.01
Chromium	6020	mg/kg	17.0	J	17.9	J	-5.16	20.4	J	22.7	J	-10.67
Chromium VI	7199	mg/kg	0.54	J	0.39	J	32.26	2.3	J	0.42	J	138.24
Cobalt	6020	mg/kg	6.11	J	6.36	J	-4.01	5.79	J	5.50	J	5.14
Copper	6020	mg/kg	7.87	J	7.21	J	8.75	12.8		12.9		-0.78
Cyanide	9012B	mg/kg	0.54	U	0.56	U	--					
Fluoride	300.0	mg/kg	1.6	J	1.4	J	13.33	1.3	J	1.3	J	0.00
Iron	6010B	mg/kg	20600		19900		3.46	18700		20900		-11.11
Lead	6020	mg/kg	5.26	J	5.29	J	-0.57	12.4	J	12.7	J	-2.39
Lithium	6010B	mg/kg	24.3		23.8		2.08	22.7	J	19.4	J	15.68
Magnesium	6010B	mg/kg	4200		4080		2.90	4160		4870		-15.73
Manganese	6010B	mg/kg	355		303		15.81	294		312		-5.94
Mercury	7471A	mg/kg	0.0099	J	0.0196	J	-65.76	0.0576	J	0.0595	J	-3.25
Molybdenum	6020	mg/kg	0.600		0.625		-4.08	0.463		0.481		-3.81
Nickel	6020	mg/kg	12.2	J	12.3	J	-0.82	12.4	J	12.5	J	-0.80
Nitrate	300.0	mg/kg	1.2	J	1.2	J	0.00					
Percent Moisture	160.3M	%	10.4		10.8		-3.77	13.1		14.2		-8.06
Perchlorate	314.0	ug/kg	33.5	U	33.6	U	--	34.5	U	35.0	U	--
Perchlorate	6850	ug/kg										
pH	9045M	pH unit	7.10		6.49		8.98	7.71		7.85		-1.80
Phosphorus	6010B	mg/kg	239		234		2.11	518	J	438	J	16.74
Potassium	6010B	mg/kg	2510	J	2360	J	6.16	2580		3030		-16.04
Selenium	6020	mg/kg	0.124	J	0.124	J	0.00	0.144	J	0.136	J	5.71
Silver	6020	mg/kg	0.0421	J	0.0367	J	13.71	0.183		0.186		-1.63
Sodium	6010B	mg/kg	109	J	116		-6.22	113		101	J	11.21
Strontium	6010B	mg/kg	20.7		21.2		-2.39	24.9		23.2		7.07
Thallium	6020	mg/kg	0.289		0.260		10.56	0.238		0.267		-11.49
Tin	6010B	mg/kg	11.1	U	10.9	U	--	11.3	U	11.5	U	--
Titanium	6010B	mg/kg	1160		1110		4.41	965		1090		-12.17
Vanadium	6020	mg/kg	33.7	J	35.7	J	-5.76	36.4	J	35.4	J	2.79
Zinc	6020	mg/kg	48.4		50.4		-4.05	79.0		85.9		-8.37
Zirconium	6010B	mg/kg	1.61	J	1.70	J	-5.44	3.38	J	4.41	J	-26.44
1,3,5-Trinitrobenzene	8330A	ug/kg	130	U	130	U	--					
2,4,6-Trinitrotoluene	8330A	ug/kg	130	U	130	U	--					
2,4-Diamino-6-nitrotoluene	8330A	ug/kg	270	U	270	U	--					
2,4-Dinitrotoluene	8330A	ug/kg	130	U	130	U	--					
2,6-Diamino-4-nitrotoluene	8330A	ug/kg	270	U	270	U	--					
2,6-Dinitrotoluene	8330A	ug/kg	130	U	130	U	--					
2-Amino-4,6-Dinitrotoluene	8330A	ug/kg	130	U	130	U	--					
2-Nitrotoluene	8330A	ug/kg	130	U	130	U	--					
2-Propanol	8015B	ug/kg	560	U	560	U	--					
3-Nitrotoluene	8330A	ug/kg	130	U	130	U	--					
4-Amino-2,6-Dinitrotoluene	8330A	ug/kg	130	U	130	U	--					
4-Nitrotoluene	8330A	ug/kg	130	U	130	U	--					
Diethylene Glycol	8015M	mg/kg	14	U	14	UJ	--					
Ethanol	8015B	ug/kg	560	U	560	U	--					
Ethylene Glycol	8015M	mg/kg	14	U	14	U	--					
Formaldehyde	8315A	ug/kg	1700	U	1700	U	--					
HMX	8330A	ug/kg	330	U	340	U	--					
m-Dinitrobenzene	8330A	ug/kg	130	U	130	U	--					
Methanol	8015B	ug/kg	560	U	560	U	--					
m-Terphenyl	8015B	mg/kg	3.9	U	3.9	U	--					
Nitrobenzene	8330A	ug/kg	130	U	130	U	--					
Nitroglycerin	8330A	ug/kg	2700	U	2700	U	--					
o-Terphenyl	8015B	mg/kg	3.9	U	3.9	U	--					
PETN	8330A	ug/kg	2700	U	2700	U	--					
Propylene glycol	8015M	mg/kg	14	U	14	U	--					
p-Terphenyl	8015B	mg/kg	3.9	U	3.9	U	--					
RDX	8330A	ug/kg	130	U	130	U	--					
Tetryl	8330A	ug/kg	130	U	130	U	--					
1,2,3,4,6,7,8-HpCDD	1613B	ng/kg	5.32	U	5.53	U	--	130		123		5.53
1,2,3,4,6,7,8-HpCDF	1613B	ng/kg	5.32	UJ	5.53	UJ	--	16.1		18.3		-12.79
1,2,3,4,7,8,9-HpCDF	1613B	ng/kg	5.32	UJ	5.53	UJ	--	1.21	J	1.30	J	-7.17
1,2,3,4,7,8-HxCDD	1613B	ng/kg	5.32	UJ	5.53	UJ	--	0.722	J	1.52	J	-71.19
1,2,3,4,7,8-HxCDF	1613B	ng/kg	5.32	UJ	5.53	UJ	--	2.01	J	2.42	J	-18.51
1,2,3,6,7,8-HxCDD	1613B	ng/kg	5.32	U	5.53	U	--	6.72		5.39	J	21.97
1,2,3,6,7,8-HxCDF	1613B	ng/kg	5.32	UJ	5.53	UJ	--	1.06	J	1.74	J	-48.57
1,2,3,7,8,9-HxCDD	1613B	ng/kg	5.32	UJ	5.53	UJ	--	2.81	J	2.51	J	11.28
1,2,3,7,8,9-HxCDF	1613B	ng/kg	5.32	UJ	5.53	UJ	--	0.560	J	0.592	J	-5.56
1,2,3,7,8-PeCDD	1613B	ng/kg	5.32	U	5.53	U	--	0.549	J	0.642	J	-15.62
1,2,3,7,8-PeCDF	1613B	ng/kg	5.32	U	5.53	U	--	0.741	J	0.343	J	73.43
2,3,4,6,7,8-HxCDF	1613B	ng/kg	5.32	UJ	5.53	UJ	--	1.13	J	1.42	J	-22.75
2,3,4,7,8-PeCDF	1613B	ng/kg	5.32	U	5.53	U	--	1.42	J	1.60	J	-11.92
2,3,7,8-TCDD	1613B	ng/kg	0.0255	J	1.11	UJ	200.00	0.104	J	0.0990	J	4.93
2,3,7,8-TCDF	1613B	ng/kg	1.06	U	1.11	U	--	1.06	J	1.35		-24.07
Aroclor 1016	8082	ug/kg	1.9	U	1.9	U	--	9.8	U	4.0	U	--
Aroclor 1221	8082	ug/kg	1.9	U	1.9	U	--	9.8	U	4.0	U	--
Aroclor 1232	8082	ug/kg	1.9	U	1.9	U	--	9.8	U	4.0	U	--
Aroclor 1242	8082	ug/kg	1.9	U	1.9	U	--	9.8	U	4.0	U	--
Aroclor 1248	8082	ug/kg	1.9	U	1.9	U	--	9.8	U	4.0	U	--
Aroclor 1254	8082	ug/kg	1.9	U	1.9	U	--	35	J	28	J	22.22
Aroclor 1260	8082	ug/kg	1.9	U	1.9	U	--	21	J	17	J	21.05
Aroclor 1262	8082	ug/kg	1.9	U	1.9	U	--	9.8	U	4.0	U	--
Aroclor 1268	8082	ug/kg	1.9	U	1.9	U	--	9.8	U	4.0	U	--
Aroclor 5432	8082	ug/kg	3.7	U	3.7	U	--	19	UJ	7.7	U	--
Aroclor 5442	8082	ug/kg	3.7	U	3.7	U	--	19	UJ	7.7	U	--
Aroclor 5460	8082	ug/kg	3.7	U	3.7	U	--	200	J	21	J	161.99
OCDD	1613B	ng/kg	10.6	U	11.1	U	--	1280		1300		-1.55
OCDF	1613B	ng/kg	10.6	UJ	11.1	UJ	--	39.5		41.6		-5.18
2,2-Dichlor-Propionic Acid	8151A	ug/kg						10	U	10	U	--
2,4 DB	8151A	ug/kg						2.0	U	2.0	U	--
2,4,5-T	8151A	ug/kg						0.20	U	0.20	U	--
2,4,5-TP	8151A	ug/kg						0.20	U	0.20	U	--
2,4-D	8151A	ug/kg						4.1	U	4.2	U	--
4,4'-DDD	8081A	ug/kg						2.2	U	0.40	U	--
4,4'-DDE	8081A	ug/kg						0.64	U	0.55	U	--
4,4'-DDT	8081A	ug/kg						2.7	U	2.1	U	--
Aldrin	8081A	ug/kg						0.19	U	0.19	U	--
Alpha-BHC	8081A	ug/kg						0.19	U	0.19	U	--
Beta-BHC	8081A	ug/kg						0.24		0.26	J	-8.00
Chlordane	8081A	ug/kg						3.9	U	4.0	U	--
Delta-BHC	8081A	ug/kg						0.19	U	0.19	U	--
Dicamba	8151A	ug/kg						1.4	U	1.4	U	--
Dichlorprop	8151A	ug/kg						2.0	U	2.0	U	--
Dieldrin	8081A	ug/kg						0.70	U	0.55	U	--
Dinitrobutyl Phenol	8151A	ug/kg						2.8	U	2.8	U	--
Endosulfan I	8081A	ug/kg						0.19	U	0.19	R	--
Endosulfan II	8081A	ug/kg						0.39	U	0.40	U	--
Endosulfan Sulfate	8081A	ug/kg						0.39	U	0.40	U	--
Endrin	8081A	ug/kg						0.39	U	0.40	R	--
Endrin Aldehyde	8081A	ug/kg						0.40	U	0.40	U	--

Table C-4 - Subarea 5A Field Duplicate Results

			Location		SL-148-SA5A		SL-148-SA5A		RPD	SL-181-SA5A		SL-181-SA5A		RPD
			Sample Name:		DUP15-SA5A-QC-042011		SL-148-SA5A-SB-4.0-5.0			DUP-02-SA5A-QC-022211		SL-181-SA5A-SS-0.0-0.5		
			Sample Date		04/20/2011		04/20/2011			02/22/2011		02/22/2011		
			Start Depth:		4		4			0		0		
			End Depth:		5		5			0.5		0.5		
			Area:		5A		5A			5A		5A		
			Matrix:		SO		SO			SO		SO		
			Sample Type:		FD		N			FD		N		
Endrin Ketone	8081A	ug/kg								0.39	U	0.40	U	--
Gamma-BHC (Lindane)	8081A	ug/kg								0.19	U	0.19	U	--
Heptachlor	8081A	ug/kg								0.19	U	0.19	U	--
Heptachlor Epoxide	8081A	ug/kg								0.20	U	0.19	U	--
MCPA	8151A	ug/kg								1400		1300	J	7.41
MCPP	8151A	ug/kg								290	U	290	R	--
Methoxychlor	8081A	ug/kg								1.9	U	1.9	U	--
Mirex	8081A	ug/kg								0.39	U	0.40	U	--
Toxaphene	8081A	ug/kg								7.6	U	7.7	U	--
1,2,4-Trichlorobenzene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
1,2-Dichlorobenzene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
1,2-Diphenylhydrazine	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
1,3-Dichlorobenzene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
1,4-Dichlorobenzene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
1-Methylnaphthalene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.0	J	1.2	J	-18.18
2,4,5-Trichlorophenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2,4,6-Trichlorophenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2,4-Dichlorophenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2,4-Dimethylphenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2,4-Dinitrophenol	8270C	ug/kg	1100	U	1100	U	--			1100	U	1200	U	--
2,4-Dinitrotoluene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2,6-Dinitrotoluene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2-Chloronaphthalene	8270C	ug/kg	190	U	190	U	--			190	UJ	190	UJ	--
2-Chlorophenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2-Methylnaphthalene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.3	J	1.6	J	-20.69
2-Methylphenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2-Nitroaniline	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
2-Nitrophenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
3,3`-Dichlorobenzidine	8270C	ug/kg	370	U	370	U	--			380	U	380	U	--
3,5-Dimethylphenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
3-Nitroaniline	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
4,6-Dinitro-2-Methylphenol	8270C	ug/kg	560	U	560	U	--			570	U	580	U	--
4-Bromophenyl Phenyl Ether	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
4-Chloro-3-Methylphenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
4-Chloroaniline	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
4-Chlorophenyl Phenylether	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
4-Methylphenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
4-Nitroaniline	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
4-Nitrophenol	8270C	ug/kg	560	U	560	U	--			570	U	580	U	--
Acenaphthene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.6	J	1.4	J	13.33
Acenaphthylene	8270C SIM	ug/kg	1.9	U	1.9	U	--			2.4		2.7		-11.76
Aniline	8270C	ug/kg	560	U	560	U	--			570	U	580	U	--
Anthracene	8270C SIM	ug/kg	1.9	U	1.9	U	--			5.2		6.5		-22.22
Benzidine	8270C	ug/kg	3700	U	3700	R	--			3800	U	3800	U	--
Benzo(a)anthracene	8270C	ug/kg								32	J	82	J	-87.72
Benzo(a)anthracene	8270C SIM	ug/kg	1.9	U	1.9	U	--							
Benzo(a)pyrene	8270C	ug/kg										85	J	--
Benzo(a)pyrene	8270C SIM	ug/kg	1.9	U	1.9	U	--			43				
Benzo(b)fluoranthene	8270C	ug/kg										110	J	--
Benzo(b)fluoranthene	8270C SIM	ug/kg	1.9	U	1.9	U	--			63				
Benzo(g,h,i)perylene	8270C	ug/kg								34	J	74	J	-74.07
Benzo(g,h,i)perylene	8270C SIM	ug/kg	1.9	U	1.9	U	--							
Benzo(k)fluoranthene	8270C	ug/kg										50	J	--
Benzo(k)fluoranthene	8270C SIM	ug/kg	1.9	U	1.9	U	--			24				--
Benzoic Acid	8270C	ug/kg	560	U	560	U	--			570	U	580	U	--
Benzyl Alcohol	8270C	ug/kg	560	U	560	U	--			570	U	580	U	--
Bis(2-Chloroethoxy) methane	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Bis(2-Chloroethyl) ether	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
bis(2-Chloroisopropyl) ether	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Bis(2-Ethylhexyl) phthalate	8270C	ug/kg								44	J	45	J	-2.25
Bis(2-Ethylhexyl) phthalate	8270C SIM	ug/kg	20	U	20	U	--							
Butylbenzylphthalate	8270C	ug/kg												
Butylbenzylphthalate	8270C SIM	ug/kg	20	U	20	U	--			30		25	J	18.18
Carbazole	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Chrysene	8270C	ug/kg								44	J	120	J	-92.68
Chrysene	8270C SIM	ug/kg	1.9	U	1.9	U	--							
Dibenzo(a,h)anthracene	8270C	ug/kg								21	J	22	J	-4.65
Dibenzo(a,h)anthracene	8270C SIM	ug/kg	1.9	U	1.9	U	--							
Dibenzofuran	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Diethylphthalate	8270C	ug/kg												
Diethylphthalate	8270C SIM	ug/kg	20	U	20	U	--			21	U	21	U	--
Dimethylphthalate	8270C	ug/kg												
Dimethylphthalate	8270C SIM	ug/kg	20	U	20	U	--			21	UJ	15	J	200.00
Di-n-Butylphthalate	8270C	ug/kg												
Di-n-Butylphthalate	8270C SIM	ug/kg	20	U	20	U	--			110		99	J	10.53
Di-N-Octyl Phthalate	8270C	ug/kg												
Di-N-Octyl Phthalate	8270C SIM	ug/kg	20	U	20	U	--			21	U	21	U	--
Fluoranthene	8270C	ug/kg								58	J	210	J	-113.43
Fluoranthene	8270C SIM	ug/kg	1.9	U	1.9	U	--							
Fluorene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.9	UJ	2.7	J	200.00
Hexachlorobenzene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Hexachlorobutadiene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Hexachlorocyclopentadiene	8270C	ug/kg	560	U	560	U	--			570	U	580	U	--
Hexachloroethane	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Indeno(1,2,3-Cd)Pyrene	8270C	ug/kg								28	J	56	J	-66.67
Indeno(1,2,3-Cd)Pyrene	8270C SIM	ug/kg	1.9	U	1.9	U	--							
Isophorone	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Naphthalene	8270C	ug/kg												
Naphthalene	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.7	J	1.4	J	19.35
Nitrobenzene	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
N-Nitrosodimethylamine	1625C	ng/kg	76.2		50.5	J	40.57							
N-Nitrosodimethylamine	8270C SIM	ug/kg	1.9	U	1.9	U	--			1.9	U	1.9	U	--
N-Nitroso-Di-N-Propylamine	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
N-Nitrosodiphenylamine	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Pentachlorophenol	8270C	ug/kg	560	U	560	U	--			570	U	580	U	--
Phenanthrene	8270C	ug/kg								36	J	140	J	-118.18
Phenanthrene	8270C SIM	ug/kg	1.9	U	1.9	U	--							
Phenol	8270C	ug/kg	190	U	190	U	--			190	U	190	U	--
Pyrene	8270C	ug/kg								62	J	190	J	-101.59
Pyrene	8270C SIM	ug/kg	1.9	U	1.9	U	--							
1,1,1,2-Tetrachloroethane	8260B	ug/kg	3.6	U	3.6	U	--							
1,1,1-Trichloroethane	8260B	ug/kg	3.6	U	3.6	U	--							
1,1,2,2-Tetrachloroethane	8260B	ug/kg	3.6	U	3.6	U	--							
1,1,2-Trichloroethane	8260B	ug/kg	3.6	U	3.6	U	--							
1,1-Dichloroethane	8260B	ug/kg	3.6	U	3.6	U	--							
1,1-Dichloroethene	8260B	ug/kg	3.6	U	3.6	U	--							
1,1-Dichloropropene	8260B	ug/kg	3.6	U	3.6	U	--							
1,2,3-Trichlorobenzene	8260B	ug/kg	3.6	U	3.6	U	--							
1,2,3-Trichloropropane	8260B	ug/kg	3.6	U	3.6	U	--							
1,2,4-Trichlorobenzene	8260B	ug/kg	3.6	U	3.6	U	--							
1,2,4-Trimethylbenzene	8260B	ug/kg	3.6	U	3.6	U	--							
1,2-Dibromo-3-chloropropane	8260B	ug/kg	3.6	U	3.6	U	--							
1,2-Dibromoethane	8260B	ug/kg	3.6	U	3.6	U	--							
1,2-Dichlorobenzene	8260B	ug/kg	3.6	U	3.6	U	--							
1,2-Dichloroethane	8260B	ug/kg	3.6	U	3.6	U	--							
1,2-Dichloropropane	8260B	ug/kg	3.6	U	3.6	U	--							
1,3,5-Trimethylbenzene	8260B	ug/kg	3.6	U	3.6	U	--							
1,3-Dichlorobenzene	8260B	ug/kg	3.6	U	3.6	U	--							
1,3-Dichloropropane	8260B	ug/kg	3.6	U	3.6	U	--							

Table C-4 - Subarea 5A Field Duplicate Results

			Location		SL-148-SA5A		SL-148-SA5A		RPD	SL-181-SA5A		SL-181-SA5A		RPD
			Sample Name:		DUP15-SA5A-QC-042011		SL-148-SA5A-SB-4.0-5.0			DUP-02-SA5A-QC-022211		SL-181-SA5A-SS-0.0-0.5		
			Sample Date		04/20/2011		04/20/2011			02/22/2011		02/22/2011		
			Start Depth:		4		4			0		0		
			End Depth:		5		5			0.5		0.5		
			Area:		5A		5A			5A		5A		
			Matrix:		SO		SO			SO		SO		
			Sample Type:		FD		N			FD		N		
1,4-Dichlorobenzene	8260B	ug/kg		3.6 U		3.6 U		--						
1,4-Dioxane	8260B SIM	ug/kg		14 U		13 U		--						
2,2-Dichloropropane	8260B	ug/kg		3.6 U		3.6 U		--						
2-Butanone	8260B	ug/kg		7.3 U		7.3 U		--						
2-Chloroethyl Vinyl Ether	8260B	ug/kg		3.6 U		3.6 U		--						
2-Chlorotoluene	8260B	ug/kg		3.6 U		3.6 U		--						
2-Hexanone	8260B	ug/kg		7.3 U		7.3 U		--						
4-Chlorotoluene	8260B	ug/kg		3.6 U		3.6 U		--						
4-Methyl-2-Pentanone	8260B	ug/kg		7.3 U		7.3 U		--						
Acetone	8260B	ug/kg		7.3 U		7.3 U		--						
Benzene	8260B	ug/kg		3.6 U		3.6 U		--						
Bromobenzene	8260B	ug/kg		3.6 U		3.6 U		--						
Bromochloromethane	8260B	ug/kg		3.6 U		3.6 U		--						
Bromodichloromethane	8260B	ug/kg		3.6 U		3.6 U		--						
Bromoform	8260B	ug/kg		3.6 U		3.6 U		--						
Bromomethane	8260B	ug/kg		3.6 U		3.6 U		--						
Carbon tetrachloride	8260B	ug/kg		3.6 U		3.6 U		--						
Chlorobenzene	8260B	ug/kg		3.6 U		3.6 U		--						
Chloroethane	8260B	ug/kg		3.6 U		3.6 U		--						
Chloroform	8260B	ug/kg		3.6 U		3.6 U		--						
Chloromethane	8260B	ug/kg		3.6 U		3.6 U		--						
Chlorotrifluoroethene	8260B	ug/kg		4.5 U		4.6 U		--						
cis-1,2-Dichloroethene	8260B	ug/kg		3.6 U		3.6 U		--						
cis-1,3-Dichloropropene	8260B	ug/kg		3.6 U		3.6 U		--						
Dibromochloromethane	8260B	ug/kg		3.6 U		3.6 U		--						
Dibromomethane	8260B	ug/kg		3.6 U		3.6 U		--						
Dichlorodifluoromethane	8260B	ug/kg		3.6 U		3.6 U		--						
EFH (C15-C20)	8015M	mg/kg		1.3 U		1.3 U		--						
EFH (C21-C30)	8015M	mg/kg		1.3 U		1.3 U		--						
EFH (C30-C40)	8015M	mg/kg		2.1 J		1.2 J		54.55						
EFH (C8-C11)	8015M	mg/kg		1.3 U		1.3 U		--						
Ethylbenzene	8260B	ug/kg		3.6 U		3.6 U		--						
Freon 113	8260B	ug/kg		3.6 U		3.6 U		--						
Freon 113a	8260B	ug/kg		4.5 U		4.6 U		--						
GRO (C5-C12)	8015M	mg/kg		1 U		0.9 U		--						
Hexachlorobutadiene	8260B	ug/kg		3.6 U		3.6 U		--						
Isopropylbenzene	8260B	ug/kg		3.6 U		3.6 U		--						
Isopropyltoluene	8260B	ug/kg		3.6 U		3.6 U		--						
m,p-Xylene	8260B	ug/kg		3.6 U		3.6 U		--						
Methyl tert-Butyl Ether	8260B	ug/kg		3.6 U		3.6 U		--						
Methylene chloride	8260B	ug/kg		3.6 U		3.6 U		--						
N-Butylbenzene	8260B	ug/kg		3.6 U		3.6 U		--						
N-Propylbenzene	8260B	ug/kg		3.6 U		3.6 U		--						
o-Xylene	8260B	ug/kg		3.6 U		3.6 U		--						
sec-Butylbenzene	8260B	ug/kg		3.6 U		3.6 U		--						
Styrene	8260B	ug/kg		3.6 U		3.6 U		--						
tert-Butylbenzene	8260B	ug/kg		3.6 U		3.6 U		--						
Tetrachloroethene	8260B	ug/kg		3.6 U		3.6 U		--						
Toluene	8260B	ug/kg		3.6 U		3.6 U		--						
trans-1,2-Dichloroethene	8260B	ug/kg		3.6 U		3.6 U		--						
trans-1,3-Dichloropropene	8260B	ug/kg		3.6 U		3.6 U		--						
Trichloroethene	8260B	ug/kg		3.6 U		3.6 U		--						
Trichlorofluoromethane	8260B	ug/kg		3.6 U		3.6 U		--						
Vinyl Chloride	8260B	ug/kg		3.6 U		3.6 U		--						

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported

200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only

Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-4 - Subarea 5A Field Duplicate Results

			Location		SL-187-SA5A		SL-187-SA5A		RPD	SL-222-SA5A		SL-222-SA5A		RPD
			Sample Name:		DUP-13-SA5A-QC-041111		SL-187-SA5A-SB-4.0-5.0			DUP-11-SA5A-QC-033011		SL-222-SA5A-SB-3.5-4.5		
			Sample Date		04/11/2011		04/11/2011			03/30/2011		03/30/2011		
			Start Depth:		4		4			3.5		3.5		
			End Depth:		5		5			4.5		4.5		
			Area:		5A		5A			5A		5A		
			Matrix:		SO		SO			SO		SO		
			Sample Type:		FD		N			FD		N		
Chemical Name:	Lab Method:	Result Unit												
Aluminum	6010B	mg/kg	9800		14900		-41.30	13300		14700		-10.00		
Antimony	6020	mg/kg	0.137	J	0.0988	J	32.40	0.112	J	1.52	J	-172.55		
Arsenic	6020	mg/kg	2.04	J	3.06	J	-40.00	4.68	J	4.83	J	-3.15		
Barium	6020	mg/kg	101	J	114	J	-12.09	74.0	J	140	J	-61.68		
Beryllium	6020	mg/kg	0.302		0.506		-50.50	0.456		0.562		-20.83		
Boron	6010B	mg/kg	5.79	UJ	2.73	J	200.00	4.56	J	5.72		-22.57		
Cadmium	6020	mg/kg	0.0601	J	0.167	J	-94.14	0.145	J	0.742	J	-134.61		
Calcium	6010B	mg/kg	5470	J	2250	J	83.42	3590	J	4580	J	-24.24		
Chromium	6020	mg/kg	9.86	J	14.9	J	-40.71	14.4	J	29.9	J	-69.98		
Chromium VI	7199	mg/kg	0.60	J	1.2	UJ	200.00	1.1	U	1.1	U	--		
Cobalt	6020	mg/kg	6.39	J	5.37	J	17.35	5.53		6.40		-14.59		
Copper	6020	mg/kg	14.4	J	10.3	J	33.20	8.97	J	44.7	J	-133.15		
Cyanide	9012B	mg/kg	0.59	U	0.56	U	--	0.54	U	0.53	U	--		
Fluoride	300.0	mg/kg	1.6	J	3.2	J	-66.67	1.5		1.5		0.00		
Iron	6010B	mg/kg	21400		21100		1.41	22200		23600		-6.11		
Lead	6020	mg/kg	3.24	J	4.95	J	-41.76	4.65	J	82.9	J	-178.75		
Lithium	6010B	mg/kg	15.0	J	20.4	J	-30.51	27.9		24.3		13.79		
Magnesium	6010B	mg/kg	4160		4040		2.93	5500		4700		15.69		
Manganese	6010B	mg/kg	243		265		-8.66	328	J	432	J	-27.37		
Mercury	7471A	mg/kg	0.0077	J	0.115	UJ	200.00	0.103	UJ	0.0057	J	200.00		
Molybdenum	6020	mg/kg	0.391		0.420		-7.15	0.379	J	1.35	J	-112.32		
Nickel	6020	mg/kg	6.20	J	10.3	J	-49.70	8.94	J	21.4	J	-82.14		
Nitrate	300.0	mg/kg	1.3	J	1.3	J	0.00	1.3	J	1.5	J	-14.29		
Percent Moisture	160.3M	%	15.4		15.3		0.65	9.9		8.4		16.39		
Perchlorate	314.0	ug/kg	35.5	U	35.4	U	--	33.3	U	32.8	U	--		
Perchlorate	6850	ug/kg												
pH	9045M	pH unit	6.92		7.13		-2.99	7.90		7.95		-0.63		
Phosphorus	6010B	mg/kg	858	J	341	J	86.24	405		390		3.77		
Potassium	6010B	mg/kg	2490	J	3450	J	-32.32	3100		3480		-11.55		
Selenium	6020	mg/kg	0.459	UJ	0.123	J	200.00	0.105	J	0.185	J	-55.17		
Silver	6020	mg/kg	0.292	J	0.0283	J	164.66	0.0313	J	1.70	J	-192.77		
Sodium	6010B	mg/kg	286	J	133	J	73.03	88.4	J	104	J	-16.22		
Strontium	6010B	mg/kg	27.3		22.1		21.05	13.6		20.4		-40.00		
Thallium	6020	mg/kg	0.105	J	0.254	J	-83.01	0.229		0.259		-12.30		
Tin	6010B	mg/kg	11.6	U	11.5	U	--	10.8	UJ	10.5	UJ	--		
Titanium	6010B	mg/kg	1020		1190		-15.38	1290		1330		-3.05		
Vanadium	6020	mg/kg	47.6	J	26.9	J	55.57	34.3	J	31.7	J	7.88		
Zinc	6020	mg/kg	34.3		54.2		-44.97	57.2	J	151	J	-90.11		
Zirconium	6010B	mg/kg	1.79	J	4.83	J	-91.84	3.65	J	4.51	J	-21.08		
1,3,5-Trinitrobenzene	8330A	ug/kg	140	U	140	UJ	--	130	U	130	U	--		
2,4,6-Trinitrotoluene	8330A	ug/kg	140	U	140	UJ	--	130	U	130	U	--		
2,4-Diamino-6-nitrotoluene	8330A	ug/kg	280	U	270	U	--	260	U	260	U	--		
2,4-Dinitrotoluene	8330A	ug/kg	140	U	140	UJ	--	130	U	130	U	--		
2,6-Diamino-4-nitrotoluene	8330A	ug/kg	280	U	270	U	--	260	U	260	U	--		
2,6-Dinitrotoluene	8330A	ug/kg	140	U	140	U	--	130	U	130	U	--		
2-Amino-4,6-Dinitrotoluene	8330A	ug/kg	140	U	140	U	--	130	U	130	U	--		
2-Nitrotoluene	8330A	ug/kg	140	U	140	U	--	130	U	130	U	--		
2-Propanol	8015B	ug/kg	590	U	590	U	--	550	U	550	U	--		
3-Nitrotoluene	8330A	ug/kg	140	U	140	U	--	130	U	130	U	--		
4-Amino-2,6-Dinitrotoluene	8330A	ug/kg	140	U	140	U	--	130	U	130	U	--		
4-Nitrotoluene	8330A	ug/kg	140	U	140	U	--	130	U	130	U	--		
Diethylene Glycol	8015M	mg/kg	15	U	15	U	--	14	U	14	U	--		
Ethanol	8015B	ug/kg	590	U	590	U	--	550	U	550	U	--		
Ethylene Glycol	8015M	mg/kg	15	U	15	U	--	14	U	14	U	--		
Formaldehyde	8315A	ug/kg	7300	J	15000	J	-69.06	1700	U	1600	U	--		
HMX	8330A	ug/kg	350	U	340	U	--	330	U	330	U	--		
m-Dinitrobenzene	8330A	ug/kg	140	U	140	U	--	130	U	130	U	--		
Methanol	8015B	ug/kg	590	UJ	150	J	200.00	550	U	550	U	--		
m-Terphenyl	8015B	mg/kg	4.1	U	4.1	U	--	3.9	U	3.8	UJ	--		
Nitrobenzene	8330A	ug/kg	140	U	140	U	--	130	U	130	U	--		
Nitroglycerin	8330A	ug/kg	2800	U	2700	U	--	2600	U	2600	U	--		
o-Terphenyl	8015B	mg/kg	4.1	U	4.1	U	--	3.9	U	3.8	U	--		
PETN	8330A	ug/kg	2800	U	2700	U	--	2600	U	2600	U	--		
Propylene glycol	8015M	mg/kg	15	U	15	U	--	14	U	14	U	--		
p-Terphenyl	8015B	mg/kg	4.1	U	4.1	U	--	3.9	U	3.8	U	--		
RDX	8330A	ug/kg	140	U	140	U	--	130	U	130	U	--		
Tetryl	8330A	ug/kg	140	U	140	UJ	--	130	U	130	U	--		
1,2,3,4,6,7,8-HpCDD	1613B	ng/kg	5.81	U	5.87	U	--	5.53	UJ	896	J	200.00		
1,2,3,4,6,7,8-HpCDF	1613B	ng/kg	5.81	U	5.87	U	--	5.53	UJ	964	J	200.00		
1,2,3,4,7,8,9-HpCDF	1613B	ng/kg	5.81	U	5.87	U	--	5.53	UJ	136	J	200.00		
1,2,3,4,7,8-HxCDD	1613B	ng/kg	5.81	UJ	5.87	UJ	--	5.53	UJ	41.0	J	200.00		
1,2,3,4,7,8-HxCDF	1613B	ng/kg	5.81	UJ	5.87	UJ	--	0.871	J	225	J	-198.46		
1,2,3,6,7,8-HxCDD	1613B	ng/kg	0.208	J	5.87	U	200.00	5.53	UJ	90.6	J	200.00		
1,2,3,6,7,8-HxCDF	1613B	ng/kg	5.81	U	5.87	U	--	5.53	UJ	197	J	200.00		
1,2,3,7,8,9-HxCDD	1613B	ng/kg	0.349	J	0.244	J	35.41	5.53	UJ	64.2	J	200.00		
1,2,3,7,8,9-HxCDF	1613B	ng/kg	5.81	UJ	5.87	UJ	--	5.53	UJ	79.8	J	200.00		
1,2,3,7,8-PeCDD	1613B	ng/kg	5.81	U	5.87	U	--	5.53	UJ	34.9	J	200.00		
1,2,3,7,8-PeCDF	1613B	ng/kg	5.81	U	5.87	U	--	5.53	UJ	89.7	J	200.00		
2,3,4,6,7,8-HxCDF	1613B	ng/kg	5.81	U	5.87	U	--	5.53	UJ	369	J	200.00		
2,3,4,7,8-PeCDF	1613B	ng/kg	5.81	U	5.87	U	--	5.53	UJ	187	J	200.00		
2,3,7,8-TCDD	1613B	ng/kg	1.16	UJ	1.17	UJ	--	0.0402	J	4.91	J	-196.75		
2,3,7,8-TCDF	1613B	ng/kg	1.16	UJ	1.17	UJ	--	1.11	UJ	50.0	J	200.00		
Aroclor 1016	8082	ug/kg	2.0	U	2.0	U	--	1.9	U	1.9	U	--		
Aroclor 1221	8082	ug/kg	2.0	U	2.0	U	--	1.9	U	1.9	U	--		
Aroclor 1232	8082	ug/kg	2.0	U	2.0	U	--	1.9	U	1.9	U	--		
Aroclor 1242	8082	ug/kg	2.0	U	2.0	U	--	1.9	U	1.9	U	--		
Aroclor 1248	8082	ug/kg	2.0	U	2.0	U	--	1.9	U	1.9	U	--		
Aroclor 1254	8082	ug/kg	2.0	UJ	0.62	J	200.00	1.9	U	1.9	U	--		
Aroclor 1260	8082	ug/kg	2.0	U	2.0	U	--	1.9	UJ	0.90	J	200.00		
Aroclor 1262	8082	ug/kg	2.0	U	2.0	U	--	1.9	U	1.9	U	--		
Aroclor 1268	8082	ug/kg	2.0	U	2.0	U	--	1.9	U	1.9	U	--		
Aroclor 5432	8082	ug/kg	3.9	U	3.9	U	--	3.7	U	3.6	U	--		
Aroclor 5442	8082	ug/kg	3.9	U	3.9	U	--	3.7	U	3.6	U	--		
Aroclor 5460	8082	ug/kg	3.9	U	3.9	U	--	32	J	3.9	J	156.55		
OCDD	1613B	ng/kg	11.6	UJ	11.7	UJ	--	11.1	UJ	2420	J	200.00		
OCDF	1613B	ng/kg	11.6	U	11.7	U	--	11.1	UJ	624	J	200.00		
2,2-Dichlor-Propionic Acid	8151A	ug/kg												
2,4 DB	8151A	ug/kg												
2,4,5-T	8151A	ug/kg												
2,4,5-TP	8151A	ug/kg												
2,4-D	8151A	ug/kg												
4,4'-DDD	8081A	ug/kg												
4,4'-DDE	8081A	ug/kg												
4,4'-DDT	8081A	ug/kg												
Aldrin	8081A	ug/kg												
Alpha-BHC	8081A	ug/kg												
Beta-BHC	8081A	ug/kg												
Chlordane	8081A	ug/kg												
Delta-BHC	8081A	ug/kg												
Dicamba	8151A	ug/kg												
Dichlorprop	8151A	ug/kg												
Dieldrin	8081A	ug/kg												
Dinitrobutyl Phenol	8151A	ug/kg												
Endosulfan I	8081A	ug/kg												
Endosulfan II	8081A	ug/kg												
Endosulfan Sulfate	8081A	ug/kg												
Endrin	8081A	ug/kg												
Endrin Aldehyde	8081A	ug/kg												

Table C-4 - Subarea 5A Field Duplicate Results

			Location		SL-187-SA5A			SL-222-SA5A		SL-222-SA5A		
			Sample Name:		DUP-13-SA5A-QC-041111		SL-187-SA5A-SB-4.0-5.0	DUP-11-SA5A-QC-033011		SL-222-SA5A-SB-3.5-4.5		
			Sample Date		04/11/2011		04/11/2011	03/30/2011		03/30/2011		
			Start Depth:		4		4	3.5		3.5		
			End Depth:		5		5	4.5		4.5		
			Area:		5A		5A	5A		5A		
			Matrix:		SO		SO	SO		SO		
			Sample Type:		FD		N	FD		N		RPD
Endrin Ketone	8081A	ug/kg										
Gamma-BHC (Lindane)	8081A	ug/kg										
Heptachlor	8081A	ug/kg										
Heptachlor Epoxide	8081A	ug/kg										
MCPA	8151A	ug/kg										
MCPP	8151A	ug/kg										
Methoxychlor	8081A	ug/kg										
Mirex	8081A	ug/kg										
Toxaphene	8081A	ug/kg										
1,2,4-Trichlorobenzene	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
1,2-Dichlorobenzene	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
1,2-Diphenylhydrazine	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
1,3-Dichlorobenzene	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
1,4-Dichlorobenzene	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
1-Methylnaphthalene	8270C SIM	ug/kg	2.0	U	2.0	U	--	1.8	U	1.8	U	--
2,4,5-Trichlorophenol	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
2,4,6-Trichlorophenol	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
2,4-Dichlorophenol	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
2,4-Dimethylphenol	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
2,4-Dinitrophenol	8270C	ug/kg	1200	U	1200	U	--	1100	U	1100	U	--
2,4-Dinitrotoluene	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
2,6-Dinitrotoluene	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
2-Chloronaphthalene	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
2-Chlorophenol	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
2-Methylnaphthalene	8270C SIM	ug/kg	2.0	U	2.0	U	--	1.8	U	1.8	U	--
2-Methylphenol	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
2-Nitroaniline	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
2-Nitrophenol	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
3,3`-Dichlorobenzidine	8270C	ug/kg	390	U	390	U	--	360	U	360	U	--
3,5-Dimethylphenol	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
3-Nitroaniline	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
4,6-Dinitro-2-Methylphenol	8270C	ug/kg	590	U	590	U	--	550	U	540	U	--
4-Bromophenyl Phenyl Ether	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
4-Chloro-3-Methylphenol	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
4-Chloroaniline	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
4-Chlorophenyl Phenylether	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
4-Methylphenol	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
4-Nitroaniline	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
4-Nitrophenol	8270C	ug/kg	590	U	590	U	--	550	U	540	U	--
Acenaphthene	8270C SIM	ug/kg	2.0	U	2.0	U	--	1.8	U	1.8	U	--
Acenaphthylene	8270C SIM	ug/kg	2.0	UJ	0.42	J	200.00	1.8	U	1.8	U	--
Aniline	8270C	ug/kg	590	U	590	U	--	550	U	540	U	--
Anthracene	8270C SIM	ug/kg	0.95	J	2.2	J	-79.37	1.8	U	1.8	U	--
Benzidine	8270C	ug/kg	3900	U	3900	UJ	--	3600	U	3600	U	--
Benzo(a)anthracene	8270C	ug/kg										
Benzo(a)anthracene	8270C SIM	ug/kg	2.5	J	4.7	J	-61.11	1.8	U	1.8	U	--
Benzo(a)pyrene	8270C	ug/kg										
Benzo(a)pyrene	8270C SIM	ug/kg	2.0	UJ	1.7	J	200.00	1.8	U	1.8	U	--
Benzo(b)fluoranthene	8270C	ug/kg										
Benzo(b)fluoranthene	8270C SIM	ug/kg	2.0	UJ	1.1	J	200.00	1.8	U	1.8	U	--
Benzo(g,h,i)perylene	8270C	ug/kg	26	J	28	J	-7.41					
Benzo(g,h,i)perylene	8270C SIM	ug/kg						1.8	U	1.8	U	--
Benzo(k)fluoranthene	8270C	ug/kg										
Benzo(k)fluoranthene	8270C SIM	ug/kg	2.0	U	2.0	U	--	1.8	U	1.8	U	--
Benzoic Acid	8270C	ug/kg	590	U	590	U	--	550	U	540	U	--
Benzyl Alcohol	8270C	ug/kg	590	U	590	U	--	550	U	540	U	--
Bis(2-Chloroethoxy) methane	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
Bis(2-Chloroethyl) ether	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
bis(2-Chloroisopropyl) ether	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
Bis(2-Ethylhexyl) phthalate	8270C	ug/kg						360	U			--
Bis(2-Ethylhexyl) phthalate	8270C SIM	ug/kg	13	J	7.9	J	48.80			20	U	--
Butylbenzylphthalate	8270C	ug/kg										
Butylbenzylphthalate	8270C SIM	ug/kg	21	U	21	U	--	20	U	20	U	--
Carbazole	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
Chrysene	8270C	ug/kg										
Chrysene	8270C SIM	ug/kg	3.2		3.5		-8.96	1.8	U	1.8	U	--
Dibenzo(a,h)anthracene	8270C	ug/kg										
Dibenzo(a,h)anthracene	8270C SIM	ug/kg	2.0	UJ	1.5	J	200.00	1.8	U	1.8	U	--
Dibenzofuran	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
Diethylphthalate	8270C	ug/kg										
Diethylphthalate	8270C SIM	ug/kg	8.3	J	8.5	J	-2.38	20	U	20	U	--
Dimethylphthalate	8270C	ug/kg										
Dimethylphthalate	8270C SIM	ug/kg	21	U	21	U	--	20	U	20	U	--
Di-n-Butylphthalate	8270C	ug/kg						180	U	180	U	--
Di-n-Butylphthalate	8270C SIM	ug/kg	10	J	10	J	0.00					
Di-N-Octyl Phthalate	8270C	ug/kg										
Di-N-Octyl Phthalate	8270C SIM	ug/kg	21	U	21	U	--	11	J	20	UJ	200.00
Fluoranthene	8270C	ug/kg										
Fluoranthene	8270C SIM	ug/kg	7.6		9.9		-26.29	0.89	J	1.8	UJ	200.00
Fluorene	8270C SIM	ug/kg	2.0	U	2.0	U	--	1.8	U	1.8	U	--
Hexachlorobenzene	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
Hexachlorobutadiene	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
Hexachlorocyclopentadiene	8270C	ug/kg	590	U	590	U	--	550	U	540	U	--
Hexachloroethane	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
Indeno(1,2,3-Cd)Pyrene	8270C	ug/kg										
Indeno(1,2,3-Cd)Pyrene	8270C SIM	ug/kg	2.3	J	11	J	-130.83	1.8	U	1.8	U	--
Isophorone	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
Naphthalene	8270C	ug/kg										
Naphthalene	8270C SIM	ug/kg	2.0	U	2.0	U	--	1.4	J	1.8	UJ	200.00
Nitrobenzene	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
N-Nitrosodimethylamine	1625C	ng/kg	39.4	UJ	37.5	J	200.00	36.6	U	364	U	--
N-Nitrosodimethylamine	8270C SIM	ug/kg	2.0	UJ	2.0	UJ	--	1.8	U	1.8	U	--
N-Nitroso-Di-N-Propylamine	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
N-Nitrosodiphenylamine	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
Pentachlorophenol	8270C	ug/kg	590	U	590	U	--	550	U	540	U	--
Phenanthrene	8270C	ug/kg										
Phenanthrene	8270C SIM	ug/kg	2.0	UJ	1.3	J	200.00	1.3	J	1.8	UJ	200.00
Phenol	8270C	ug/kg	200	U	200	U	--	180	U	180	U	--
Pyrene	8270C	ug/kg										
Pyrene	8270C SIM	ug/kg	9.0		11		-20.00	1.8	U	1.8	U	--
1,1,1,2-Tetrachloroethane	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,1,1-Trichloroethane	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,1,2,2-Tetrachloroethane	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,1,2-Trichloroethane	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,1-Dichloroethane	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,1-Dichloroethene	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,1-Dichloropropene	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,2,3-Trichlorobenzene	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,2,3-Trichloropropane	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,2,4-Trichlorobenzene	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,2,4-Trimethylbenzene	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,2-Dibromo-3-chloropropane	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,2-Dibromoethane	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,2-Dichlorobenzene	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,2-Dichloroethane	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,2-Dichloropropane	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,3,5-Trimethylbenzene	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,3-Dichlorobenzene	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,3-Dichloropropane	8260B	ug/kg	4.0	U	4.1	U	--	4.0	U	3.7	U	--

Table C-4 - Subarea 5A Field Duplicate Results

			Location									
			Sample Name:	SL-187-SA5A DUP-13-SA5A-QC-041111		SL-187-SA5A SL-187-SA5A-SB-4.0-5.0		RPD	SL-222-SA5A DUP-11-SA5A-QC-033011		SL-222-SA5A SL-222-SA5A-SB-3.5-4.5		RPD
			Sample Date	04/11/2011		04/11/2011			03/30/2011		03/30/2011		
			Start Depth:	4		4			3.5		3.5		
			End Depth:	5		5			4.5		4.5		
			Area:	5A		5A			5A		5A		
			Matrix:	SO		SO			SO		SO		
			Sample Type:	FD		N			FD		N		
1,4-Dichlorobenzene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
1,4-Dioxane	8260B SIM	ug/kg		16	U	15	U	--	14	U	14	U	--
2,2-Dichloropropane	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
2-Butanone	8260B	ug/kg		2.3	J	1.7	J	30.00	7.9	U	7.4	U	--
2-Chloroethyl Vinyl Ether	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
2-Chlorotoluene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
2-Hexanone	8260B	ug/kg		8.1	U	8.3	U	--	7.9	U	7.4	U	--
4-Chlorotoluene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
4-Methyl-2-Pentanone	8260B	ug/kg		8.1	U	8.3	U	--	7.9	U	7.4	U	--
Acetone	8260B	ug/kg		14		13		7.41	7.9	U	7.4	U	--
Benzene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Bromobenzene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Bromochloromethane	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Bromodichloromethane	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Bromoform	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Bromomethane	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Carbon tetrachloride	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Chlorobenzene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Chloroethane	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Chloroform	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Chloromethane	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Chlorotrifluoroethene	8260B	ug/kg		5.0	U	5.2	U	--	4.9	U	4.6	U	--
cis-1,2-Dichloroethene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
cis-1,3-Dichloropropene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Dibromochloromethane	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Dibromomethane	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Dichlorodifluoromethane	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
EFH (C15-C20)	8015M	mg/kg		0.68	J	0.51	J	28.57	1.3	UJ	9.4	J	200.00
EFH (C21-C30)	8015M	mg/kg		1.4	U	1.4	U	--	3.4	J	190	J	-192.97
EFH (C30-C40)	8015M	mg/kg		0.96	J	1.6		-50.00	13	J	710	J	-192.81
EFH (C8-C11)	8015M	mg/kg		1.4	U	1.4	U	--	1.3	UJ	26	UJ	--
Ethylbenzene	8260B	ug/kg		0.15	J	4.1	UJ	200.00	4.0	U	3.7	U	--
Freon 113	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Freon 113a	8260B	ug/kg		5.0	U	5.2	U	--	4.9	U	4.6	U	--
GRO (C5-C12)	8015M	mg/kg		0.4	J	0.3	J	28.57	0.9	U	0.9	U	--
Hexachlorobutadiene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Isopropylbenzene	8260B	ug/kg		0.27	J	4.1	UJ	200.00	4.0	U	3.7	U	--
Isopropyltoluene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
m,p-Xylene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Methyl tert-Butyl Ether	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Methylene chloride	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
N-Butylbenzene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
N-Propylbenzene	8260B	ug/kg		0.26	J	4.1	UJ	200.00	4.0	U	3.7	U	--
o-Xylene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
sec-Butylbenzene	8260B	ug/kg		0.85	J	0.14	J	143.43	4.0	U	3.7	U	--
Styrene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
tert-Butylbenzene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Tetrachloroethene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Toluene	8260B	ug/kg		4.0	U	4.1	U	--	0.09	J	3.7	UJ	200.00
trans-1,2-Dichloroethene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
trans-1,3-Dichloropropene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Trichloroethene	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Trichlorofluoromethane	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--
Vinyl Chloride	8260B	ug/kg		4.0	U	4.1	U	--	4.0	U	3.7	U	--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported

200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only

Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-4 - Subarea 5A Field Duplicate Results

			Location		SL-223-SA5A		SL-223-SA5A		RPD	SL-245-SA5A		SL-245-SA5A		RPD
			Sample Name:		DUP10-SA5A-QC-032411		SL-223-SA5A-SB-4.0-5.0			DUP08-SA5A-QC-030211		SL-245-SA5A-SB-4.0-5.0		
			Sample Date		03/24/2011		03/24/2011			03/02/2011		03/02/2011		
			Start Depth:		4		4			4		4		
			End Depth:		5		5			5		5		
			Area:		5A		5A			5A		5A		
			Matrix:		SO		SO			SO		SO		
			Sample Type:		FD		N			FD		N		
Chemical Name:	Lab Method:	Result Unit												
Aluminum	6010B	mg/kg	16300		14600		11.00	11300		11100		1.79
Antimony	6020	mg/kg	0.0789	J	0.105	J	-28.38	0.214	UJ	0.0800	J	200.00
Arsenic	6020	mg/kg	4.49		4.12		8.59	3.43		3.79		-9.97
Barium	6020	mg/kg	100	J	121	J	-19.00	63.0		70.9		-11.80
Beryllium	6020	mg/kg	0.636		0.463		31.48	0.461		0.458		0.65
Boron	6010B	mg/kg	8.57		7.72		10.44	2.24	J	2.21	J	1.35
Cadmium	6020	mg/kg	0.0577	J	0.136	J	-80.85	0.0700	J	0.0508	J	31.79
Calcium	6010B	mg/kg	2670		2830		-5.82	1900	J	2160	J	-12.81
Chromium	6020	mg/kg	17.3	J	16.8	J	2.93	10.1		11.0		-8.53
Chromium VI	7199	mg/kg	0.53	J	1.1	UJ	200.00	0.44	J	1.1	UJ	200.00
Cobalt	6020	mg/kg	6.02	J	6.64	J	-9.79	3.65	J	3.96	J	-8.15
Copper	6020	mg/kg	8.25	J	9.86	J	-17.78	3.83		4.24		-10.16
Cyanide	9012B	mg/kg	0.55	U	0.54	U	--					
Fluoride	300.0	mg/kg	2.8	J	3.1	J	-10.17	3.2		2.1		41.51
Iron	6010B	mg/kg	20000		18900		5.66	15700		16800		-6.77
Lead	6020	mg/kg	6.01	J	5.68	J	5.65	4.04		3.95		2.25
Lithium	6010B	mg/kg	21.2		22.5		-5.95	20.5		23.2		-12.36
Magnesium	6010B	mg/kg	4310		4100		4.99	2980		3410		-13.46
Manganese	6010B	mg/kg	345		282		20.10	204		226		-10.23
Mercury	7471A	mg/kg	0.108	U	0.110	U	--	0.110	U	0.101	U	--
Molybdenum	6020	mg/kg	0.445		0.482		-7.98	0.339		0.344		-1.46
Nickel	6020	mg/kg	13.1	J	13.8	J	-5.20	5.72		6.15		-7.25
Nitrate	300.0	mg/kg	2.1		2.0		4.88					
Percent Moisture	160.3M	%	9.7		12.0		-21.20	9.3		8.2		12.57
Perchlorate	314.0	ug/kg	33.2	U	34.1	U	--	33.1	U	32.7	U	--
Perchlorate	6850	ug/kg										
pH	9045M	pH unit	8.41		8.28		1.56	8.22		7.99		2.84
Phosphorus	6010B	mg/kg	370	J	345	J	6.99	221	J	315	J	-35.07
Potassium	6010B	mg/kg	4120	J	3630	J	12.65	2490	J	2550	J	-2.38
Selenium	6020	mg/kg	0.132	J	0.118	J	11.20	0.0972	J	0.114	J	-15.91
Silver	6020	mg/kg	0.0443	J	0.0262	J	51.35	0.0183	J	0.0143	J	24.54
Sodium	6010B	mg/kg	195		221		-12.50	99.5	J	99.8	J	-0.30
Strontium	6010B	mg/kg	21.3		17.7		18.46	9.97		11.4		-13.38
Thallium	6020	mg/kg	0.306		0.242		23.36	0.252		0.278		-9.81
Tin	6010B	mg/kg	11.1	U	11.1	U	--	10.6	U	10.7	U	--
Titanium	6010B	mg/kg	1160		1130		2.62	930		967		-3.90
Vanadium	6020	mg/kg	33.7		34.8		-3.21	23.0	J	25.0	J	-8.33
Zinc	6020	mg/kg	50.0	J	92.5	J	-59.65	52.2		59.7		-13.40
Zirconium	6010B	mg/kg	1.03	J	1.50	J	-37.15	5.30	U	5.34	U	--
1,3,5-Trinitrobenzene	8330A	ug/kg	130	U	140	U	--					
2,4,6-Trinitrotoluene	8330A	ug/kg	130	U	140	U	--					
2,4-Diamino-6-nitrotoluene	8330A	ug/kg	270	U	270	U	--					
2,4-Dinitrotoluene	8330A	ug/kg	130	U	140	U	--					
2,6-Diamino-4-nitrotoluene	8330A	ug/kg	270	U	270	U	--					
2,6-Dinitrotoluene	8330A	ug/kg	130	U	140	U	--					
2-Amino-4,6-Dinitrotoluene	8330A	ug/kg	130	U	140	U	--					
2-Nitrotoluene	8330A	ug/kg	130	U	140	U	--					
2-Propanol	8015B	ug/kg	550	U	570	U	--					
3-Nitrotoluene	8330A	ug/kg	130	U	140	U	--					
4-Amino-2,6-Dinitrotoluene	8330A	ug/kg	130	U	140	U	--					
4-Nitrotoluene	8330A	ug/kg	130	U	140	U	--					
Diethylene Glycol	8015M	mg/kg	14	U	14	U	--					
Ethanol	8015B	ug/kg	550	U	570	U	--					
Ethylene Glycol	8015M	mg/kg	14	U	14	U	--					
Formaldehyde	8315A	ug/kg	1700	U	1700	U	--					
HMX	8330A	ug/kg	330	U	340	U	--					
m-Dinitrobenzene	8330A	ug/kg	130	U	140	U	--					
Methanol	8015B	ug/kg	550	U	570	U	--					
m-Terphenyl	8015B	mg/kg	3.9	U	4.0	UJ	--					
Nitrobenzene	8330A	ug/kg	130	U	140	U	--					
Nitroglycerin	8330A	ug/kg	2700	U	2700	U	--					
o-Terphenyl	8015B	mg/kg	3.9	U	4.0	U	--					
PETN	8330A	ug/kg	2700	U	2700	U	--					
Propylene glycol	8015M	mg/kg	14	U	14	U	--					
p-Terphenyl	8015B	mg/kg	3.9	U	4.0	UJ	--					
RDX	8330A	ug/kg	130	U	140	U	--					
Tetryl	8330A	ug/kg	130	U	140	U	--					
1,2,3,4,6,7,8-HpCDD	1613B	ng/kg	5.54	UJ	13.3	J	200.00	5.51	U	5.45	U	--
1,2,3,4,6,7,8-HpCDF	1613B	ng/kg	5.54	UJ	2.54	J	200.00	5.51	UJ	0.576	J	200.00
1,2,3,4,7,8,9-HpCDF	1613B	ng/kg	5.54	UJ	0.298	J	200.00	5.51	U	5.45	U	--
1,2,3,4,7,8-HxCDD	1613B	ng/kg	5.54	UJ	0.104	J	200.00	5.51	U	5.45	U	--
1,2,3,4,7,8-HxCDF	1613B	ng/kg	1.13	J	0.345	J	106.44	5.51	UJ	0.151	J	200.00
1,2,3,6,7,8-HxCDD	1613B	ng/kg	0.321	J	0.587	J	-58.59	0.0223	J	0.0295	J	-27.80
1,2,3,6,7,8-HxCDF	1613B	ng/kg	5.54	UJ	0.254	J	200.00	5.51	UJ	5.45	UJ	--
1,2,3,7,8,9-HxCDD	1613B	ng/kg	0.388	J	0.403	J	-3.79	5.51	U	5.45	U	--
1,2,3,7,8,9-HxCDF	1613B	ng/kg	0.342	J	0.330	J	3.57	0.0552	J	0.0594	J	-7.33
1,2,3,7,8-PeCDD	1613B	ng/kg	5.54	U	5.68	U	--	5.51	UJ	5.45	UJ	--
1,2,3,7,8-PeCDF	1613B	ng/kg	5.54	UJ	0.172	J	200.00	5.51	U	5.45	U	--
2,3,4,6,7,8-HxCDF	1613B	ng/kg	5.54	UJ	0.418	J	200.00	5.51	UJ	5.45	UJ	--
2,3,4,7,8-PeCDF	1613B	ng/kg	0.410	J	0.700	J	-52.25	5.51	U	5.45	U	--
2,3,7,8-TCDD	1613B	ng/kg	0.0207	J	1.14	UJ	200.00	1.10	U	1.09	U	--
2,3,7,8-TCDF	1613B	ng/kg	1.11	UJ	0.351	J	200.00	1.10	UJ	0.0255	J	200.00
Aroclor 1016	8082	ug/kg	1.9	U	1.9	U	--	1.9	UJ	1.8	UJ	--
Aroclor 1221	8082	ug/kg	1.9	U	1.9	U	--	1.9	UJ	1.8	UJ	--
Aroclor 1232	8082	ug/kg	1.9	U	1.9	U	--	1.9	UJ	1.8	UJ	--
Aroclor 1242	8082	ug/kg	1.9	U	1.9	U	--	1.9	UJ	1.8	UJ	--
Aroclor 1248	8082	ug/kg	1.9	U	1.9	U	--	1.9	UJ	1.8	UJ	--
Aroclor 1254	8082	ug/kg	1.9	U	1.9	U	--	1.9	UJ	1.8	UJ	--
Aroclor 1260	8082	ug/kg	5.2		4.0		26.09	1.9	UJ	1.8	UJ	--
Aroclor 1262	8082	ug/kg	1.9	U	1.9	U	--	1.9	UJ	1.8	UJ	--
Aroclor 1268	8082	ug/kg	1.9	U	1.9	U	--	1.9	UJ	1.8	UJ	--
Aroclor 5432	8082	ug/kg	3.7	U	3.7	U	--	3.6	UJ	3.6	UJ	--
Aroclor 5442	8082	ug/kg	3.7	U	3.7	U	--	3.6	UJ	3.6	UJ	--
Aroclor 5460	8082	ug/kg	3.7	U	3.7	U	--	3.6	UJ	3.6	UJ	--
OCDD	1613B	ng/kg	10.7	J	144	J	-172.33	2.53	J	4.87	J	-63.24
OCDF	1613B	ng/kg	11.1	UJ	3.26	J	200.00	11.0	UJ	10.9	UJ	--
2,2-Dichlor-Propionic Acid	8151A	ug/kg										
2,4 DB	8151A	ug/kg										
2,4,5-T	8151A	ug/kg										
2,4,5-TP	8151A	ug/kg										
2,4-D	8151A	ug/kg										
4,4'-DDD	8081A	ug/kg										
4,4'-DDE	8081A	ug/kg										
4,4'-DDT	8081A	ug/kg										
Aldrin	8081A	ug/kg										
Alpha-BHC	8081A	ug/kg										
Beta-BHC	8081A	ug/kg										
Chlordane	8081A	ug/kg										
Delta-BHC	8081A	ug/kg										
Dicamba	8151A	ug/kg										
Dichlorprop	8151A	ug/kg										
Dieldrin	8081A	ug/kg										
Dinitrobutyl Phenol	8151A	ug/kg										
Endosulfan I	8081A	ug/kg										
Endosulfan II	8081A	ug/kg										
Endosulfan Sulfate	8081A	ug/kg										
Endrin	8081A	ug/kg										
Endrin Aldehyde	8081A	ug/kg										

Table C-4 - Subarea 5A Field Duplicate Results

			Location		SL-223-SA5A		SL-223-SA5A			SL-245-SA5A		SL-245-SA5A		
			Sample Name:		DUP10-SA5A-QC-032411		SL-223-SA5A-SB-4.0-5.0		RPD	DUP08-SA5A-QC-030211		SL-245-SA5A-SB-4.0-5.0		RPD
			Sample Date		03/24/2011		03/24/2011			03/02/2011		03/02/2011		
			Start Depth:		4		4			4		4		
			End Depth:		5		5			5		5		
			Area:		5A		5A			5A		5A		
			Matrix:		SO		SO			SO		SO		
			Sample Type:		FD		N			FD		N		
Endrin Ketone	8081A	ug/kg												
Gamma-BHC (Lindane)	8081A	ug/kg												
Heptachlor	8081A	ug/kg												
Heptachlor Epoxide	8081A	ug/kg												
MCPA	8151A	ug/kg												
MCPP	8151A	ug/kg												
Methoxychlor	8081A	ug/kg												
Mirex	8081A	ug/kg												
Toxaphene	8081A	ug/kg												
1,2,4-Trichlorobenzene	8270C	ug/kg	180	U	190	U	--	180	U	180	UJ	--		
1,2-Dichlorobenzene	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
1,2-Diphenylhydrazine	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
1,3-Dichlorobenzene	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
1,4-Dichlorobenzene	8270C	ug/kg	180	U	190	U	--	180	U	180	UJ	--		
1-Methylnaphthalene	8270C SIM	ug/kg	1.8	U	1.9	U	--	1.8	U	1.8	U	--		
2,4,5-Trichlorophenol	8270C	ug/kg	180	U	190	U	--	180	U	180	UJ	--		
2,4,6-Trichlorophenol	8270C	ug/kg	180	U	190	U	--	180	U	180	UJ	--		
2,4-Dichlorophenol	8270C	ug/kg	180	U	190	U	--	180	U	180	UJ	--		
2,4-Dimethylphenol	8270C	ug/kg	180	U	190	U	--	180	U	180	UJ	--		
2,4-Dinitrophenol	8270C	ug/kg	1100	U	1100	U	--	1100	U	1100	U	--		
2,4-Dinitrotoluene	8270C	ug/kg	180	U	190	U	--	180	U	180	UJ	--		
2,6-Dinitrotoluene	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
2-Chloronaphthalene	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
2-Chlorophenol	8270C	ug/kg	180	U	190	U	--	180	U	180	UJ	--		
2-Methylnaphthalene	8270C SIM	ug/kg	1.8	U	1.9	U	--	1.8	U	1.8	U	--		
2-Methylphenol	8270C	ug/kg	180	U	190	U	--	180	U	180	UJ	--		
2-Nitroaniline	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
2-Nitrophenol	8270C	ug/kg	180	U	190	U	--	180	U	180	UJ	--		
3,3`-Dichlorobenzidine	8270C	ug/kg	370	U	380	U	--	370	U	360	U	--		
3,5-Dimethylphenol	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
3-Nitroaniline	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
4,6-Dinitro-2-Methylphenol	8270C	ug/kg	550	U	560	U	--	550	U	540	U	--		
4-Bromophenyl Phenyl Ether	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
4-Chloro-3-Methylphenol	8270C	ug/kg	180	U	190	U	--	180	U	180	UJ	--		
4-Chloroaniline	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
4-Chlorophenyl Phenylether	8270C	ug/kg	180	U	190	U	--	180	U	180	UJ	--		
4-Methylphenol	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
4-Nitroaniline	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
4-Nitrophenol	8270C	ug/kg	550	U	560	U	--	550	U	540	U	--		
Acenaphthene	8270C SIM	ug/kg	1.8	U	1.9	U	--	1.8	U	1.8	U	--		
Acenaphthylene	8270C SIM	ug/kg	1.8	U	1.9	U	--	1.8	U	1.8	U	--		
Aniline	8270C	ug/kg	550	U	560	U	--	550	U	540	U	--		
Anthracene	8270C SIM	ug/kg	1.8	U	1.9	U	--	1.8	U	1.8	U	--		
Benzidine	8270C	ug/kg	3700	U	3800	U	--	3700	U	3600	UJ	--		
Benzo(a)anthracene	8270C	ug/kg	31	J			--							
Benzo(a)anthracene	8270C SIM	ug/kg			1.9	U	--	1.8	U	1.8	U	--		
Benzo(a)pyrene	8270C	ug/kg	26	J			--							
Benzo(a)pyrene	8270C SIM	ug/kg			1.9	U	--	1.8	U	1.8	U	--		
Benzo(b)fluoranthene	8270C	ug/kg	30	J			--							
Benzo(b)fluoranthene	8270C SIM	ug/kg			1.9	U	--	1.8	U	1.8	U	--		
Benzo(g,h,i)perylene	8270C	ug/kg	25	J			--							
Benzo(g,h,i)perylene	8270C SIM	ug/kg			1.9	U	--	1.8	U	1.8	U	--		
Benzo(k)fluoranthene	8270C	ug/kg	23	J			--							
Benzo(k)fluoranthene	8270C SIM	ug/kg			1.9	U	--	1.8	U	1.8	U	--		
Benzoic Acid	8270C	ug/kg	550	U	560	U	--	550	U	540	U	--		
Benzyl Alcohol	8270C	ug/kg	550	U	560	U	--	550	U	540	U	--		
Bis(2-Chloroethoxy) methane	8270C	ug/kg	180	U	190	U	--	180	U	180	UJ	--		
Bis(2-Chloroethyl) ether	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
bis(2-Chloroisopropyl) ether	8270C	ug/kg	180	UJ	190	UJ	--	180	U	180	U	--		
Bis(2-Ethylhexyl) phthalate	8270C	ug/kg	24	J			--			20	J	--		
Bis(2-Ethylhexyl) phthalate	8270C SIM	ug/kg			20	U	--	20	U			--		
Butylbenzylphthalate	8270C	ug/kg												
Butylbenzylphthalate	8270C SIM	ug/kg	20	U	20	U	--	20	U	20	U	--		
Carbazole	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
Chrysene	8270C	ug/kg	31	J			--							
Chrysene	8270C SIM	ug/kg			1.9	U	--	1.8	U	1.8	U	--		
Dibenzo(a,h)anthracene	8270C	ug/kg												
Dibenzo(a,h)anthracene	8270C SIM	ug/kg	1.8	U	1.9	U	--	1.8	U	1.8	U	--		
Dibenzofuran	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
Diethylphthalate	8270C	ug/kg												
Diethylphthalate	8270C SIM	ug/kg	20	U	20	U	--	20	U	20	U	--		
Dimethylphthalate	8270C	ug/kg												
Dimethylphthalate	8270C SIM	ug/kg	20	U	20	U	--	20	U	20	U	--		
Di-n-Butylphthalate	8270C	ug/kg												
Di-n-Butylphthalate	8270C SIM	ug/kg	20	U	20	U	--	20	U	20	U	--		
Di-N-Octyl Phthalate	8270C	ug/kg												
Di-N-Octyl Phthalate	8270C SIM	ug/kg	20	U	20	U	--	20	UJ	10	J	200.00		
Fluoranthene	8270C	ug/kg	28	J			--							
Fluoranthene	8270C SIM	ug/kg			1.9	U		1.8	U	1.8	U	--		
Fluorene	8270C SIM	ug/kg	1.8	U	1.9	U	--	1.8	U	1.8	U	--		
Hexachlorobenzene	8270C	ug/kg	180	U	190	U	--	180	U	180	UJ	--		
Hexachlorobutadiene	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
Hexachlorocyclopentadiene	8270C	ug/kg	550	U	560	U	--	550	U	540	U	--		
Hexachloroethane	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
Indeno(1,2,3-Cd)Pyrene	8270C	ug/kg												
Indeno(1,2,3-Cd)Pyrene	8270C SIM	ug/kg	1.8	U	1.9	U	--	1.8	U	1.8	U	--		
Isophorone	8270C	ug/kg	180	U	190	UJ	--	180	U	180	UJ	--		
Naphthalene	8270C	ug/kg												
Naphthalene	8270C SIM	ug/kg	1.8	U	1.9	U	--	1.8	U	1.8	U	--		
Nitrobenzene	8270C	ug/kg	180	UJ	190	UJ	--	180	U	180	UJ	--		
N-Nitrosodimethylamine	1625C	ng/kg	36.9	UJ	379	UJ	--							
N-Nitrosodimethylamine	8270C SIM	ug/kg	1.8	U	1.9	U	--	1.8	U	1.8	U	--		
N-Nitroso-Di-N-Propylamine	8270C	ug/kg	180	UJ	190	UJ	--	180	U	180	U	--		
N-Nitrosodiphenylamine	8270C	ug/kg	180	U	190	U	--	180	U	180	UJ	--		
Pentachlorophenol	8270C	ug/kg	550	U	560	U	--	550	U	540	U	--		
Phenanthrene	8270C	ug/kg												
Phenanthrene	8270C SIM	ug/kg	1.8	U	1.9	U	--	1.8	U	1.8	U	--		
Phenol	8270C	ug/kg	180	U	190	U	--	180	U	180	U	--		
Pyrene	8270C	ug/kg	43	J			--							
Pyrene	8270C SIM	ug/kg			1.9	U	--	1.8	U	1.8	U	--		
1,1,1,2-Tetrachloroethane	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,1,1-Trichloroethane	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,1,2,2-Tetrachloroethane	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,1,2-Trichloroethane	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,1-Dichloroethane	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,1-Dichloroethene	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,1-Dichloropropene	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,2,3-Trichlorobenzene	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,2,3-Trichloropropane	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,2,4-Trichlorobenzene	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,2,4-Trimethylbenzene	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,2-Dibromo-3-chloropropane	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,2-Dibromoethane	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,2-Dichlorobenzene	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,2-Dichloroethane	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,2-Dichloropropane	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,3,5-Trimethylbenzene	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,3-Dichlorobenzene	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		
1,3-Dichloropropane	8260B	ug/kg	3.9	U	3.7	U	--	4.2	U	3.7	U	--		

Table C-4 - Subarea 5A Field Duplicate Results

			Location		SL-223-SA5A		SL-223-SA5A		RPD	SL-245-SA5A		SL-245-SA5A		RPD
			Sample Name:		DUP10-SA5A-QC-032411		SL-223-SA5A-SB-4.0-5.0			DUP08-SA5A-QC-030211		SL-245-SA5A-SB-4.0-5.0		
			Sample Date		03/24/2011		03/24/2011			03/02/2011		03/02/2011		
			Start Depth:		4		4			4		4		
			End Depth:		5		5			5		5		
			Area:		5A		5A			5A		5A		
			Matrix:		SO		SO			SO		SO		
			Sample Type:		FD		N			FD		N		
1,4-Dichlorobenzene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
1,4-Dioxane	8260B SIM	ug/kg		14 U		14 U		--		15 U		13 U		--
2,2-Dichloropropane	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
2-Butanone	8260B	ug/kg		7.9 U		7.4 U		--		8.4 U		7.3 U		--
2-Chloroethyl Vinyl Ether	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
2-Chlorotoluene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
2-Hexanone	8260B	ug/kg		7.9 U		7.4 U		--		8.4 U		7.3 U		--
4-Chlorotoluene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
4-Methyl-2-Pentanone	8260B	ug/kg		7.9 U		7.4 U		--		8.4 U		7.3 U		--
Acetone	8260B	ug/kg		7.9 U		7.4 U		--		8.4 U		7.3 U		--
Benzene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Bromobenzene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Bromochloromethane	8260B	ug/kg		3.9 UJ		3.7 UJ		--		4.2 U		3.7 U		--
Bromodichloromethane	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Bromoform	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Bromomethane	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Carbon tetrachloride	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Chlorobenzene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Chloroethane	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Chloroform	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Chloromethane	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Chlorotrifluoroethene	8260B	ug/kg		4.9 U		4.6 U		--		5.3 U		4.6 UJ		--
cis-1,2-Dichloroethene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
cis-1,3-Dichloropropene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Dibromochloromethane	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Dibromomethane	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Dichlorodifluoromethane	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
EFH (C15-C20)	8015M	mg/kg		0.76 J		1.4 UJ		200.00						
EFH (C21-C30)	8015M	mg/kg		12 J		6.8 J		55.32						
EFH (C30-C40)	8015M	mg/kg		19		16		17.14						
EFH (C8-C11)	8015M	mg/kg		0.52 J		0.48 J		8.00						
Ethylbenzene	8260B	ug/kg		3.9 U		3.7 U		--		0.15 J		3.7 UJ		200.00
Freon 113	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Freon 113a	8260B	ug/kg		4.9 U		4.6 U		--		5.3 U		4.6 U		--
GRO (C5-C12)	8015M	mg/kg		0.9 U		0.9 U		--						
Hexachlorobutadiene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Isopropylbenzene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Isopropyltoluene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
m,p-Xylene	8260B	ug/kg		3.9 U		3.7 U		--		0.51 J		3.7 UJ		200.00
Methyl tert-Butyl Ether	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Methylene chloride	8260B	ug/kg		3.9 U		3.7 UJ		--		4.2 U		3.7 U		--
N-Butylbenzene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
N-Propylbenzene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
o-Xylene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
sec-Butylbenzene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Styrene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
tert-Butylbenzene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Tetrachloroethene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Toluene	8260B	ug/kg		3.9 UJ		3.7 UJ		--		4.2 U		3.7 U		--
trans-1,2-Dichloroethene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
trans-1,3-Dichloropropene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Trichloroethene	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Trichlorofluoromethane	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--
Vinyl Chloride	8260B	ug/kg		3.9 U		3.7 U		--		4.2 U		3.7 U		--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported

200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only

Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-4 - Subarea 5A Field Duplicate Results

		Location	SL-256-SA5A		SL-256-SA5A		RPD
		Sample Name:	DUP-06-SA5A-QC-030111		SL-256-SA5A-SS-0.0-0.5		
		Sample Date	03/01/2011		03/01/2011		
		Start Depth:	0		0		
		End Depth:	0.5		0.5		
		Area:	5A		5A		
		Matrix:	SO		SO		
		Sample Type:	FD		N		
Chemical Name:	Lab Method:	Result Unit					
Aluminum	6010B	mg/kg	13000		12200		6.35
Antimony	6020	mg/kg	0.246	J	0.161	J	41.77
Arsenic	6020	mg/kg	5.80	J	5.69	J	1.91
Barium	6020	mg/kg	91.3	J	83.8	J	8.57
Beryllium	6020	mg/kg	0.674	J	0.606	J	10.63
Boron	6010B	mg/kg	4.43	J	4.46	J	-0.67
Cadmium	6020	mg/kg	0.450	J	0.388	J	14.80
Calcium	6010B	mg/kg	3990		4390		-9.55
Chromium	6020	mg/kg	22.7	J	21.3	J	6.36
Chromium VI	7199	mg/kg	0.24	J	1.1	UJ	200.00
Cobalt	6020	mg/kg	6.95	J	6.10	J	13.03
Copper	6020	mg/kg	7.97	J	6.93	J	13.96
Cyanide	9012B	mg/kg					
Fluoride	300.0	mg/kg	1.3	J	1.7	J	-26.67
Iron	6010B	mg/kg	17600		16700		5.25
Lead	6020	mg/kg	6.85	J	5.42	J	23.31
Lithium	6010B	mg/kg	19.6		18.5		5.77
Magnesium	6010B	mg/kg	4310		3990		7.71
Manganese	6010B	mg/kg	258		246		4.76
Mercury	7471A	mg/kg	0.110	UJ	0.0133	J	200.00
Molybdenum	6020	mg/kg	0.311		0.372		-17.86
Nickel	6020	mg/kg	12.7	J	11.3	J	11.67
Nitrate	300.0	mg/kg					
Percent Moisture	160.3M	%	11.4		11.5		-0.87
Perchlorate	314.0	ug/kg	33.9	U	33.9	U	--
Perchlorate	6850	ug/kg					
pH	9045M	pH unit	7.94		8.05		-1.38
Phosphorus	6010B	mg/kg	312	J	352	J	-12.05
Potassium	6010B	mg/kg	2020		2040		-0.99
Selenium	6020	mg/kg	0.165	J	0.144	J	13.59
Silver	6020	mg/kg	0.0317	J	0.0242	J	26.83
Sodium	6010B	mg/kg	85.0	J	87.9	J	-3.35
Strontium	6010B	mg/kg	17.7		17.7		0.00
Thallium	6020	mg/kg	0.315	J	0.232	J	30.35
Tin	6010B	mg/kg	10.9	U	11.2	U	--
Titanium	6010B	mg/kg	1200		1080		10.53
Vanadium	6020	mg/kg	46.1	J	42.1	J	9.07
Zinc	6020	mg/kg	167	J	157	J	6.17
Zirconium	6010B	mg/kg	1.20	J	1.37	J	-13.23
1,3,5-Trinitrobenzene	8330A	ug/kg					
2,4,6-Trinitrotoluene	8330A	ug/kg					
2,4-Diamino-6-nitrotoluene	8330A	ug/kg					
2,4-Dinitrotoluene	8330A	ug/kg					
2,6-Diamino-4-nitrotoluene	8330A	ug/kg					
2,6-Dinitrotoluene	8330A	ug/kg					
2-Amino-4,6-Dinitrotoluene	8330A	ug/kg					
2-Nitrotoluene	8330A	ug/kg					
2-Propanol	8015B	ug/kg					
3-Nitrotoluene	8330A	ug/kg					
4-Amino-2,6-Dinitrotoluene	8330A	ug/kg					
4-Nitrotoluene	8330A	ug/kg					
Diethylene Glycol	8015M	mg/kg					
Ethanol	8015B	ug/kg					
Ethylene Glycol	8015M	mg/kg					
Formaldehyde	8315A	ug/kg					
HMX	8330A	ug/kg					
m-Dinitrobenzene	8330A	ug/kg					
Methanol	8015B	ug/kg					
m-Terphenyl	8015B	mg/kg					
Nitrobenzene	8330A	ug/kg					
Nitroglycerin	8330A	ug/kg					
o-Terphenyl	8015B	mg/kg					
PETN	8330A	ug/kg					
Propylene glycol	8015M	mg/kg					
p-Terphenyl	8015B	mg/kg					
RDX	8330A	ug/kg					
Tetryl	8330A	ug/kg					
1,2,3,4,6,7,8-HpCDD	1613B	ng/kg	3.68	J	4.44	J	-18.72
1,2,3,4,6,7,8-HpCDF	1613B	ng/kg	5.64	U	5.65	U	--
1,2,3,4,7,8,9-HpCDF	1613B	ng/kg	5.64	UJ	5.65	UJ	--
1,2,3,4,7,8-HxCDD	1613B	ng/kg	5.64	U	5.65	U	--
1,2,3,4,7,8-HxCDF	1613B	ng/kg	5.64	UJ	0.429	J	200.00
1,2,3,6,7,8-HxCDD	1613B	ng/kg	0.146	J	0.162	J	-10.39
1,2,3,6,7,8-HxCDF	1613B	ng/kg	5.64	UJ	5.65	UJ	--
1,2,3,7,8,9-HxCDD	1613B	ng/kg	0.148	J	0.142	J	4.14
1,2,3,7,8,9-HxCDF	1613B	ng/kg	5.64	U	5.65	U	--
1,2,3,7,8-PeCDD	1613B	ng/kg	0.0430	J	0.0557	J	-25.73
1,2,3,7,8-PeCDF	1613B	ng/kg	0.129	J	0.137	J	-6.02
2,3,4,6,7,8-HxCDF	1613B	ng/kg	5.64	U	5.65	U	--
2,3,4,7,8-PeCDF	1613B	ng/kg	5.64	U	5.65	U	--
2,3,7,8-TCDD	1613B	ng/kg	0.0139	J	0.0156	J	-11.53
2,3,7,8-TCDF	1613B	ng/kg	0.0634	J	0.133	J	-70.88
Aroclor 1016	8082	ug/kg	9.6	U	1.9	U	--
Aroclor 1221	8082	ug/kg	9.6	U	1.9	U	--
Aroclor 1232	8082	ug/kg	9.6	U	1.9	U	--
Aroclor 1242	8082	ug/kg	9.6	U	1.9	U	--
Aroclor 1248	8082	ug/kg	9.6	U	1.9	U	--
Aroclor 1254	8082	ug/kg	9.6	U	1.9	U	--
Aroclor 1260	8082	ug/kg	5.1	J	1.9	UJ	200.00
Aroclor 1262	8082	ug/kg	9.6	U	1.9	U	--
Aroclor 1268	8082	ug/kg	9.6	U	1.9	U	--
Aroclor 5432	8082	ug/kg	19	U	3.7	U	--
Aroclor 5442	8082	ug/kg	19	U	3.7	U	--
Aroclor 5460	8082	ug/kg	19	U	3.7	U	--
OCDD	1613B	ng/kg	42.9		55.2		-25.08
OCDF	1613B	ng/kg	1.46	J	2.02	J	-32.18
2,2-Dichlor-Propionic Acid	8151A	ug/kg	10	U	10	U	--
2,4 DB	8151A	ug/kg	1.5	J	1.9	UJ	200.00
2,4,5-T	8151A	ug/kg	0.19	U	0.19	U	--
2,4,5-TP	8151A	ug/kg	0.19	U	0.19	U	--
2,4-D	8151A	ug/kg	4.1	U	4.1	U	--
4,4'-DDD	8081A	ug/kg	1.9		1.3	J	37.50
4,4'-DDE	8081A	ug/kg	0.38	U	0.38	UJ	--
4,4'-DDT	8081A	ug/kg	0.96		1.3	J	-30.09
Aldrin	8081A	ug/kg	0.19	U	0.19	UJ	--
Alpha-BHC	8081A	ug/kg	0.19	U	0.19	UJ	--
Beta-BHC	8081A	ug/kg	0.19	U	0.19	UJ	--
Chlordane	8081A	ug/kg	19	U	11	UJ	--
Delta-BHC	8081A	ug/kg	0.19	U	0.19	UJ	--
Dicamba	8151A	ug/kg	1.4	U	1.4	U	--
Dichlorprop	8151A	ug/kg	1.9	U	1.9	U	--
Dieldrin	8081A	ug/kg	4.4		4.2	J	4.65
Dinitrobutyl Phenol	8151A	ug/kg	2.7	U	2.7	U	--
Endosulfan I	8081A	ug/kg	0.19	U	0.19	UJ	--
Endosulfan II	8081A	ug/kg	0.38	U	0.38	UJ	--
Endosulfan Sulfate	8081A	ug/kg	0.38	U	0.38	UJ	--
Endrin	8081A	ug/kg	0.38	U	0.38	R	--
Endrin Aldehyde	8081A	ug/kg	0.38	U	0.38	UJ	--

Table C-4 - Subarea 5A Field Duplicate Results

			Location	SL-256-SA5A		SL-256-SA5A		RPD
			Sample Name:	DUP-06-SA5A-QC-030111		SL-256-SA5A-SS-0.0-0.5		
			Sample Date	03/01/2011		03/01/2011		
			Start Depth:	0		0		
			End Depth:	0.5		0.5		
			Area:	5A		5A		
			Matrix:	SO		SO		
			Sample Type:	FD		N		
Endrin Ketone	8081A	ug/kg		0.38	U	0.38	UJ	--
Gamma-BHC (Lindane)	8081A	ug/kg		0.19	U	0.19	UJ	--
Heptachlor	8081A	ug/kg		0.19	U	0.19	UJ	--
Heptachlor Epoxide	8081A	ug/kg		0.19	U	0.19	UJ	--
MCPA	8151A	ug/kg		280	U	280	U	--
MCPP	8151A	ug/kg		280	U	280	U	--
Methoxychlor	8081A	ug/kg		1.9	U	1.9	UJ	--
Mirex	8081A	ug/kg		0.11	J	0.34	J	-102.22
Toxaphene	8081A	ug/kg		7.4	U	7.5	UJ	--
1,2,4-Trichlorobenzene	8270C	ug/kg		190	U	190	U	--
1,2-Dichlorobenzene	8270C	ug/kg		190	U	190	U	--
1,2-Diphenylhydrazine	8270C	ug/kg		190	U	190	U	--
1,3-Dichlorobenzene	8270C	ug/kg		190	U	190	U	--
1,4-Dichlorobenzene	8270C	ug/kg		190	U	190	U	--
1-Methylnaphthalene	8270C SIM	ug/kg		9.4	U	1.9	U	--
2,4,5-Trichlorophenol	8270C	ug/kg		190	U	190	U	--
2,4,6-Trichlorophenol	8270C	ug/kg		190	U	190	U	--
2,4-Dichlorophenol	8270C	ug/kg		190	U	190	U	--
2,4-Dimethylphenol	8270C	ug/kg		190	U	190	U	--
2,4-Dinitrophenol	8270C	ug/kg		1100	U	1100	U	--
2,4-Dinitrotoluene	8270C	ug/kg		190	U	190	U	--
2,6-Dinitrotoluene	8270C	ug/kg		190	U	190	U	--
2-Chloronaphthalene	8270C	ug/kg		190	U	190	U	--
2-Chlorophenol	8270C	ug/kg		190	U	190	U	--
2-Methylnaphthalene	8270C SIM	ug/kg		9.4	U	1.9	U	--
2-Methylphenol	8270C	ug/kg		190	U	190	U	--
2-Nitroaniline	8270C	ug/kg		190	U	190	U	--
2-Nitrophenol	8270C	ug/kg		190	U	190	U	--
3,3`-Dichlorobenzidine	8270C	ug/kg		380	U	380	U	--
3,5-Dimethylphenol	8270C	ug/kg		190	U	190	U	--
3-Nitroaniline	8270C	ug/kg		190	U	190	U	--
4,6-Dinitro-2-Methylphenol	8270C	ug/kg		560	U	560	U	--
4-Bromophenyl Phenyl Ether	8270C	ug/kg		190	U	190	U	--
4-Chloro-3-Methylphenol	8270C	ug/kg		190	U	190	U	--
4-Chloroaniline	8270C	ug/kg		190	U	190	U	--
4-Chlorophenyl Phenylether	8270C	ug/kg		190	U	190	U	--
4-Methylphenol	8270C	ug/kg		190	U	190	U	--
4-Nitroaniline	8270C	ug/kg		190	U	190	U	--
4-Nitrophenol	8270C	ug/kg		560	U	560	U	--
Acenaphthene	8270C SIM	ug/kg		9.4	U	1.9	U	--
Acenaphthylene	8270C SIM	ug/kg		9.4	U	1.9	U	--
Aniline	8270C	ug/kg		560	U	560	U	--
Anthracene	8270C SIM	ug/kg		9.4	U	1.9	U	--
Benzidine	8270C	ug/kg		3800	U	3800	U	--
Benzo(a)anthracene	8270C	ug/kg						
Benzo(a)anthracene	8270C SIM	ug/kg		9.4	UJ	1.2	J	200.00
Benzo(a)pyrene	8270C	ug/kg						
Benzo(a)pyrene	8270C SIM	ug/kg		3.8	J	1.6	J	81.48
Benzo(b)fluoranthene	8270C	ug/kg						
Benzo(b)fluoranthene	8270C SIM	ug/kg		21	J	1.9	J	166.81
Benzo(g,h,i)perylene	8270C	ug/kg						
Benzo(g,h,i)perylene	8270C SIM	ug/kg		3.9	J	1.1	J	112.00
Benzo(k)fluoranthene	8270C	ug/kg						
Benzo(k)fluoranthene	8270C SIM	ug/kg		9.4	UJ	0.75	J	200.00
Benzoic Acid	8270C	ug/kg		560	U	560	U	--
Benzyl Alcohol	8270C	ug/kg		560	U	560	U	--
Bis(2-Chloroethoxy) methane	8270C	ug/kg		190	U	190	U	--
Bis(2-Chloroethyl) ether	8270C	ug/kg		190	U	190	U	--
bis(2-Chloroisopropyl) ether	8270C	ug/kg		190	U	190	U	--
Bis(2-Ethylhexyl) phthalate	8270C	ug/kg						
Bis(2-Ethylhexyl) phthalate	8270C SIM	ug/kg		38	J	20	UJ	200.00
Butylbenzylphthalate	8270C	ug/kg		190	U			--
Butylbenzylphthalate	8270C SIM	ug/kg				20	U	--
Carbazole	8270C	ug/kg		190	U	190	U	--
Chrysene	8270C	ug/kg						
Chrysene	8270C SIM	ug/kg		7.5	J	1.3	J	140.91
Dibenzo(a,h)anthracene	8270C	ug/kg						
Dibenzo(a,h)anthracene	8270C SIM	ug/kg		9.4	U	1.9	U	--
Dibenzofuran	8270C	ug/kg		190	U	190	U	--
Diethylphthalate	8270C	ug/kg		190	U			--
Diethylphthalate	8270C SIM	ug/kg				20	U	--
Dimethylphthalate	8270C	ug/kg		190	U			--
Dimethylphthalate	8270C SIM	ug/kg				20	U	--
Di-n-Butylphthalate	8270C	ug/kg		190	U			--
Di-n-Butylphthalate	8270C SIM	ug/kg				20	U	--
Di-N-Octyl Phthalate	8270C	ug/kg		190	U			--
Di-N-Octyl Phthalate	8270C SIM	ug/kg				20	U	--
Fluoranthene	8270C	ug/kg						
Fluoranthene	8270C SIM	ug/kg		3.9	J	0.80	J	131.91
Fluorene	8270C SIM	ug/kg		9.4	U	1.9	U	--
Hexachlorobenzene	8270C	ug/kg		190	U	190	U	--
Hexachlorobutadiene	8270C	ug/kg		190	U	190	U	--
Hexachlorocyclopentadiene	8270C	ug/kg		560	U	560	U	--
Hexachloroethane	8270C	ug/kg		190	U	190	U	--
Indeno(1,2,3-Cd)Pyrene	8270C	ug/kg						
Indeno(1,2,3-Cd)Pyrene	8270C SIM	ug/kg		9.4	UJ	0.89	J	200.00
Isophorone	8270C	ug/kg		190	U	190	U	--
Naphthalene	8270C	ug/kg						
Naphthalene	8270C SIM	ug/kg		9.4	U	1.9	U	--
Nitrobenzene	8270C	ug/kg		190	U	190	U	--
N-Nitrosodimethylamine	1625C	ng/kg						
N-Nitrosodimethylamine	8270C SIM	ug/kg		9.4	U	1.9	U	--
N-Nitroso-Di-N-Propylamine	8270C	ug/kg		190	U	190	U	--
N-Nitrosodiphenylamine	8270C	ug/kg		190	U	190	U	--
Pentachlorophenol	8270C	ug/kg		560	U	560	U	--
Phenanthrene	8270C	ug/kg						
Phenanthrene	8270C SIM	ug/kg		9.4	U	1.9	U	--
Phenol	8270C	ug/kg		190	U	190	U	--
Pyrene	8270C	ug/kg						
Pyrene	8270C SIM	ug/kg		5.3	J	0.86	J	144.16
1,1,1,2-Tetrachloroethane	8260B	ug/kg						
1,1,1-Trichloroethane	8260B	ug/kg						
1,1,2,2-Tetrachloroethane	8260B	ug/kg						
1,1,2-Trichloroethane	8260B	ug/kg						
1,1-Dichloroethane	8260B	ug/kg						
1,1-Dichloroethene	8260B	ug/kg						
1,1-Dichloropropene	8260B	ug/kg						
1,2,3-Trichlorobenzene	8260B	ug/kg						
1,2,3-Trichloropropane	8260B	ug/kg						
1,2,4-Trichlorobenzene	8260B	ug/kg						
1,2,4-Trimethylbenzene	8260B	ug/kg						
1,2-Dibromo-3-chloropropane	8260B	ug/kg						
1,2-Dibromoethane	8260B	ug/kg						
1,2-Dichlorobenzene	8260B	ug/kg						
1,2-Dichloroethane	8260B	ug/kg						
1,2-Dichloropropane	8260B	ug/kg						
1,3,5-Trimethylbenzene	8260B	ug/kg						
1,3-Dichlorobenzene	8260B	ug/kg						
1,3-Dichloropropane	8260B	ug/kg						

Table C-4 - Subarea 5A Field Duplicate Results

			Location	SL-256-SA5A		SL-256-SA5A		RPD
			Sample Name:	DUP-06-SA5A-QC-030111		SL-256-SA5A-SS-0.0-0.5		
			Sample Date	03/01/2011		03/01/2011		
			Start Depth:	0		0		
			End Depth:	0.5		0.5		
			Area:	5A		5A		
			Matrix:	SO		SO		
			Sample Type:	FD		N		
1,4-Dichlorobenzene	8260B	ug/kg						
1,4-Dioxane	8260B SIM	ug/kg						
2,2-Dichloropropane	8260B	ug/kg						
2-Butanone	8260B	ug/kg						
2-Chloroethyl Vinyl Ether	8260B	ug/kg						
2-Chlorotoluene	8260B	ug/kg						
2-Hexanone	8260B	ug/kg						
4-Chlorotoluene	8260B	ug/kg						
4-Methyl-2-Pentanone	8260B	ug/kg						
Acetone	8260B	ug/kg						
Benzene	8260B	ug/kg						
Bromobenzene	8260B	ug/kg						
Bromochloromethane	8260B	ug/kg						
Bromodichloromethane	8260B	ug/kg						
Bromoform	8260B	ug/kg						
Bromomethane	8260B	ug/kg						
Carbon tetrachloride	8260B	ug/kg						
Chlorobenzene	8260B	ug/kg						
Chloroethane	8260B	ug/kg						
Chloroform	8260B	ug/kg						
Chloromethane	8260B	ug/kg						
Chlorotrifluoroethene	8260B	ug/kg						
cis-1,2-Dichloroethene	8260B	ug/kg						
cis-1,3-Dichloropropene	8260B	ug/kg						
Dibromochloromethane	8260B	ug/kg						
Dibromomethane	8260B	ug/kg						
Dichlorodifluoromethane	8260B	ug/kg						
EFH (C15-C20)	8015M	mg/kg						
EFH (C21-C30)	8015M	mg/kg						
EFH (C30-C40)	8015M	mg/kg						
EFH (C8-C11)	8015M	mg/kg						
Ethylbenzene	8260B	ug/kg						
Freon 113	8260B	ug/kg						
Freon 113a	8260B	ug/kg						
GRO (C5-C12)	8015M	mg/kg						
Hexachlorobutadiene	8260B	ug/kg						
Isopropylbenzene	8260B	ug/kg						
Isopropyltoluene	8260B	ug/kg						
m,p-Xylene	8260B	ug/kg						
Methyl tert-Butyl Ether	8260B	ug/kg						
Methylene chloride	8260B	ug/kg						
N-Butylbenzene	8260B	ug/kg						
N-Propylbenzene	8260B	ug/kg						
o-Xylene	8260B	ug/kg						
sec-Butylbenzene	8260B	ug/kg						
Styrene	8260B	ug/kg						
tert-Butylbenzene	8260B	ug/kg						
Tetrachloroethene	8260B	ug/kg						
Toluene	8260B	ug/kg						
trans-1,2-Dichloroethene	8260B	ug/kg						
trans-1,3-Dichloropropene	8260B	ug/kg						
Trichloroethene	8260B	ug/kg						
Trichlorofluoromethane	8260B	ug/kg						
Vinyl Chloride	8260B	ug/kg						

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported

200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only

Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C-6 - Subarea 5A Summary of Data Completeness Following Data Validation

Method Group	Analytical Method	Number of Analyte Detections without Qualifiers	Number of Estimated Results	Number of Rejected Results	Number of Non-Detected Results	Number of Estimated Non-Detected Results	Total Analytes Detected and Non-Detected	Percent of Analyte Results Judged Valid Versus Total Analyte Results Collected
Dioxins	1613B	540	1645	0	2820	78	5083	100.00%
Formaldehyde	8315A	5	3	0	87	0	95	100.00%
Herbicides	8151A	85	58	35	1006	16	1200	97.08%
Inorganics - Cyanide	9012B	0	0	0	95	0	95	100.00%
Inorganics - Fluoride	300	131	231	0	10	22	394	100.00%
Inorganics - Hexavalanent Chromium	7199	17	184	0	93	5	299	100.00%
Inorganics - Mercury	7471A	18	136	5	138	2	299	98.33%
Inorganics - Metals	6010B	2773	994	0	404	15	4186	100.00%
Inorganics - Metals	6020	1431	3128	1	121	103	4784	99.98%
Inorganics - Percent Moisture	160.3M	299	0	0	0	0	299	100.00%
Inorganics - Perchlorate	314	0	2	4	291	2	299	98.66%
Inorganics - Perchlorate	6850	1	0	0	40	0	41	100.00%
Inorganics - pH	9045M	299	0	0	0	0	299	100.00%
NDMA	1625C	18	19	0	55	3	95	100.00%
Organics - Alcohols and Terphenyls	8015B	0	4	0	554	12	570	100.00%
Organics - Energetics	8330A	0	2	2	1698	8	1710	99.88%
Organics - Total Petroleum Hydrocarbons and Glycols	8015M	74	83	0	667	31	855	100.00%
Oxidation Reduction Potential	ASTM D1498	298	0	0	0	0	298	100.00%
PCBs	8082	110	183	9	3068	218	3588	99.75%
Pesticides	8081A	105	207	19	2025	164	2520	99.25%
Semivolatiles	8270C	46	245	4	13952	364	14611	99.97%
Semivolatiles - SIM	8270C SIM	722	788	0	5355	53	6918	100.00%
Volatiles	8260B	28	104	0	10333	121	10586	100.00%
Volatiles - SIM	8260B SIM	0	0	0	158	0	158	100.00%

Appendix C. Samples by SDG for 5A

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
5A	SL-048-SA5A-SB-3.0-4.0	DE077	SO	2011-02-07	FIELD
5A	SL-049-SA5A-SB-2.0-3.0	DE077	SO	2011-02-07	FIELD
5A	SL-024-SA5A-SS-0.0-0.5	DE083	SO	2011-02-16	FIELD
5A	SL-025-SA5A-SS-0.0-0.5	DE083	SO	2011-02-16	FIELD
5A	SL-026-SA5A-SS-0.0-0.5	DE083	SO	2011-02-16	FIELD
5A	SL-028-SA5A-SS-0.0-0.5	DE083	SO	2011-02-16	FIELD
5A	SL-029-SA5A-SS-0.0-0.5	DE083	SO	2011-02-16	FIELD
5A	SL-031-SA5A-SS-0.0-0.5	DE083	SO	2011-02-16	FIELD
5A	SL-032-SA5A-SS-0.0-0.5	DE083	SO	2011-02-16	FIELD
5A	SL-041-SA5A-SS-0.0-0.5	DE083	SO	2011-02-16	FIELD
5A	SL-021-SA5A-SS-0.0-0.5	DE084	SO	2011-02-17	FIELD
5A	SL-022-SA5A-SS-0.0-0.5	DE084	SO	2011-02-17	FIELD
5A	SL-035-SA5A-SS-0.0-0.5	DE084	SO	2011-02-17	FIELD
5A	SL-036-SA5A-SS-0.0-0.5	DE084	SO	2011-02-17	FIELD
5A	SL-037-SA5A-SS-0.0-0.5	DE084	SO	2011-02-17	FIELD
5A	SL-040-SA5A-SS-0.0-0.5	DE084	SO	2011-02-17	FIELD
5A	SL-050-SA5A-SS-0.0-0.5	DE084	SO	2011-02-17	FIELD
5A	SL-051-SA5A-SS-0.0-0.5	DE084	SO	2011-02-17	FIELD
5A	DUP01-SA5A-QC-021811	DE086	SO	2011-02-18	FIELD
5A	SL-049-SA5A-SS-0.0-0.5	DE086	SO	2011-02-18	FIELD
5A	SL-052-SA5A-SS-0.0-0.5	DE086	SO	2011-02-18	FIELD
5A	SL-053-SA5A-SS-0.0-0.5	DE086	SO	2011-02-18	FIELD
5A	SL-096-SA5A-SS-0.0-0.5	DE086	SO	2011-02-18	FIELD
5A	SL-098-SA5A-SS-0.0-0.5	DE086	SO	2011-02-18	FIELD
5A	SL-099-SA5A-SS-0.0-0.5	DE086	SO	2011-02-18	FIELD
5A	SL-100-SA5A-SS-0.0-0.5	DE086	SO	2011-02-18	FIELD
5A	SL-101-SA5A-SS-0.0-0.5	DE086	SO	2011-02-18	FIELD
5A	SL-102-SA5A-SS-0.0-0.5	DE086	SO	2011-02-18	FIELD
5A	SL-241-SA5A-SS-0.0-0.5	DE086	SO	2011-02-18	FIELD
5A	SL-242-SA5A-SS-0.0-0.5	DE086	SO	2011-02-18	FIELD
5A	SL-025-SA5A-SB-4.5-5.5	DE087	SO	2011-02-21	FIELD
5A	SL-028-SA5A-SB-3.5-4.5	DE087	SO	2011-02-21	FIELD
5A	SL-029-SA5A-SB-3.0-4.0	DE087	SO	2011-02-21	FIELD
5A	SL-054-SA5A-SS-0.0-0.5	DE087	SO	2011-02-21	FIELD
5A	SL-055-SA5A-SS-0.0-0.5	DE087	SO	2011-02-21	FIELD
5A	SL-056-SA5A-SS-0.0-0.5	DE087	SO	2011-02-21	FIELD
5A	SL-057-SA5A-SS-0.0-0.5	DE087	SO	2011-02-21	FIELD
5A	SL-058-SA5A-SS-0.0-0.5	DE087	SO	2011-02-21	FIELD
5A	SL-059-SA5A-SS-0.0-0.5	DE087	SO	2011-02-21	FIELD
5A	SL-060-SA5A-SS-0.0-0.5	DE087	SO	2011-02-21	FIELD
5A	SL-061-SA5A-SS-0.0-0.5	DE087	SO	2011-02-21	FIELD
5A	SL-062-SA5A-SS-0.0-0.5	DE087	SO	2011-02-21	FIELD
5A	SL-063-SA5A-SS-0.0-0.5	DE087	SO	2011-02-21	FIELD
5A	SL-064-SA5A-SS-0.0-0.5	DE087	SO	2011-02-21	FIELD
5A	SL-095-SA5A-SS-0.0-0.5	DE087	SO	2011-02-21	FIELD
5A	DUP-02-SA5A-QC-022211	DE088	SO	2011-02-22	FIELD
5A	SL-024-SA5A-SB-2.5-3.5	DE088	SO	2011-02-22	FIELD
5A	SL-026-SA5A-SB-3.5-4.5	DE088	SO	2011-02-22	FIELD
5A	SL-031-SA5A-SB-4.0-5.0	DE088	SO	2011-02-22	FIELD
5A	SL-035-SA5A-SB-4.0-5.0	DE088	SO	2011-02-22	FIELD
5A	SL-175-SA5A-SS-0.0-0.3	DE088	SO	2011-02-22	FIELD

Appendix C. Samples by SDG for 5A

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
5A	SL-180-SA5A-SS-0.0-0.5	DE088	SO	2011-02-22	FIELD
5A	SL-181-SA5A-SS-0.0-0.5	DE088	SO	2011-02-22	FIELD
5A	SL-196-SA5A-SS-0.0-0.5	DE088	SO	2011-02-22	FIELD
5A	SL-197-SA5A-SS-0.0-0.5	DE088	SO	2011-02-22	FIELD
5A	SL-210-SA5A-SS-0.0-0.5	DE088	SO	2011-02-22	FIELD
5A	SL-211-SA5A-SS-0.0-0.5	DE088	SO	2011-02-22	FIELD
5A	SL-212-SA5A-SS-0.0-0.5	DE088	SO	2011-02-22	FIELD
5A	SL-214-SA5A-SS-0.0-0.5	DE088	SO	2011-02-22	FIELD
5A	SL-215-SA5A-SS-0.0-0.5	DE088	SO	2011-02-22	FIELD
5A	SL-217-SA5A-SS-0.0-0.5	DE088	SO	2011-02-22	FIELD
5A	SL-218-SA5A-SS-0.0-0.5	DE088	SO	2011-02-22	FIELD
5A	DUP-03-SA5A-QC-022311	DE089	SO	2011-02-23	FIELD
5A	SL-036-SA5A-SB-4.0-5.0	DE089	SO	2011-02-23	FIELD
5A	SL-037-SA5A-SB-4.0-5.0	DE089	SO	2011-02-23	FIELD
5A	SL-040-SA5A-SB-4.0-5.0	DE089	SO	2011-02-23	FIELD
5A	SL-040-SA5A-SB-9.0-10.0	DE089	SO	2011-02-23	FIELD
5A	DUP-04-SA5A-QC-022311	DE090	SO	2011-02-23	FIELD
5A	EB01-SA5A-022311	DE090	WQ	2011-02-23	FIELD
5A	SL-001-SA5A-SS-0.0-0.5	DE090	SO	2011-02-23	FIELD
5A	SL-002-SA5A-SS-0.0-0.5	DE090	SO	2011-02-23	FIELD
5A	SL-004-SA5A-SS-0.0-0.5	DE090	SO	2011-02-23	FIELD
5A	SL-006-SA5A-SS-0.0-0.5	DE090	SO	2011-02-23	FIELD
5A	SL-009-SA5A-SS-0.0-0.5	DE090	SO	2011-02-23	FIELD
5A	SL-010-SA5A-SS-0.0-0.5	DE090	SO	2011-02-23	FIELD
5A	SL-012-SA5A-SS-0.0-0.5	DE090	SO	2011-02-23	FIELD
5A	SL-013-SA5A-SS-0.0-0.5	DE090	SO	2011-02-23	FIELD
5A	SL-016-SA5A-SS-0.0-0.5	DE090	SO	2011-02-23	FIELD
5A	SL-017-SA5A-SS-0.0-0.5	DE090	SO	2011-02-23	FIELD
5A	SL-018-SA5A-SS-0.0-0.5	DE090	SO	2011-02-23	FIELD
5A	SL-019-SA5A-SS-0.0-0.5	DE090	SO	2011-02-23	FIELD
5A	SL-007-SA5A-SS-0.0-0.5	DE091	SO	2011-02-24	FIELD
5A	SL-008-SA5A-SS-0.0-0.5	DE091	SO	2011-02-24	FIELD
5A	SL-021-SA5A-SB-3.0-4.0	DE091	SO	2011-02-24	FIELD
5A	SL-022-SA5A-SB-4.0-5.0	DE091	SO	2011-02-24	FIELD
5A	SL-050-SA5A-SB-4.0-5.0	DE091	SO	2011-02-24	FIELD
5A	SL-110-SA5A-SS-0.0-0.5	DE091	SO	2011-02-24	FIELD
5A	SL-119-SA5A-SS-0.0-0.5	DE091	SO	2011-02-24	FIELD
5A	SL-120-SA5A-SS-0.0-0.5	DE091	SO	2011-02-24	FIELD
5A	SL-121-SA5A-SS-0.0-0.5	DE091	SO	2011-02-24	FIELD
5A	SL-122-SA5A-SS-0.0-0.5	DE091	SO	2011-02-24	FIELD
5A	SL-136-SA5A-SS-0.0-0.5	DE091	SO	2011-02-24	FIELD
5A	SL-137-SA5A-SS-0.0-0.5	DE091	SO	2011-02-24	FIELD
5A	SL-138-SA5A-SS-0.0-0.5	DE091	SO	2011-02-24	FIELD
5A	SL-143-SA5A-SS-0.0-0.5	DE091	SO	2011-02-24	FIELD
5A	SL-233-SA5A-SS-0.0-0.5	DE091	SO	2011-02-24	FIELD
5A	SL-250-SA5A-SS-0.0-0.5	DE091	SO	2011-02-24	FIELD
5A	SL-251-SA5A-SS-0.0-0.5	DE091	SO	2011-02-24	FIELD
5A	SL-053-SA5A-SB-3.0-4.0	DE092	SO	2011-02-25	FIELD
5A	SL-054-SA5A-SB-4.0-5.0	DE092	SO	2011-02-25	FIELD
5A	SL-054-SA5A-SB-9.0-10.0	DE092	SO	2011-02-25	FIELD
5A	SL-055-SA5A-SB-2.0-3.0	DE092	SO	2011-02-25	FIELD

Appendix C. Samples by SDG for 5A

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
5A	SL-056-SA5A-SB-4.0-5.0	DE092	SO	2011-02-25	FIELD
5A	SL-056-SA5A-SB-7.0-8.0	DE092	SO	2011-02-25	FIELD
5A	SL-126-SA5A-SS-0.0-0.5	DE092	SO	2011-02-25	FIELD
5A	SL-127-SA5A-SS-0.0-0.5	DE092	SO	2011-02-25	FIELD
5A	SL-132-SA5A-SS-0.0-0.5	DE092	SO	2011-02-25	FIELD
5A	SL-133-SA5A-SS-0.0-0.5	DE092	SO	2011-02-25	FIELD
5A	SL-144-SA5A-SS-0.0-0.5	DE092	SO	2011-02-25	FIELD
5A	SL-146-SA5A-SS-0.0-0.5	DE092	SO	2011-02-25	FIELD
5A	SL-171-SA5A-SS-0.0-0.5	DE092	SO	2011-02-25	FIELD
5A	SL-172-SA5A-SS-0.0-0.5	DE092	SO	2011-02-25	FIELD
5A	SL-173-SA5A-SS-0.0-0.5	DE092	SO	2011-02-25	FIELD
5A	SL-174-SA5A-SS-0.0-0.5	DE092	SO	2011-02-25	FIELD
5A	DUP-05-SA5A-QC-022811	DE093	SO	2011-02-28	FIELD
5A	EB02-SA5A-022811	DE093	AQ	2011-02-28	FIELD
5A	EB03-SA5A-022811	DE093	AQ	2011-02-28	FIELD
5A	SL-087-SA5A-SS-0.0-0.5	DE093	SO	2011-02-28	FIELD
5A	SL-105-SA5A-SS-0.0-0.5	DE093	SO	2011-02-28	FIELD
5A	SL-106-SA5A-SS-0.0-0.5	DE093	SO	2011-02-28	FIELD
5A	SL-107-SA5A-SS-0.0-0.5	DE093	SO	2011-02-28	FIELD
5A	SL-108-SA5A-SS-0.0-0.5	DE093	SO	2011-02-28	FIELD
5A	SL-109-SA5A-SS-0.0-0.5	DE093	SO	2011-02-28	FIELD
5A	SL-111-SA5A-SS-0.0-0.5	DE093	SO	2011-02-28	FIELD
5A	SL-145-SA5A-SS-0.0-0.5	DE093	SO	2011-02-28	FIELD
5A	SL-237-SA5A-SB-4.0-5.0	DE093	SO	2011-02-28	FIELD
5A	SL-237-SA5A-SB-9.0-10.0	DE093	SO	2011-02-28	FIELD
5A	SL-253-SA5A-SS-0.0-0.5	DE093	SO	2011-02-28	FIELD
5A	SL-255-SA5A-SS-0.0-0.5	DE093	SO	2011-02-28	FIELD
5A	DUP-06-SA5A-QC-030111	DE094	SO	2011-03-01	FIELD
5A	EB04-SA5A-030111	DE094	WQ	2011-03-01	FIELD
5A	SL-066-SA5A-SS-0.0-0.5	DE094	SO	2011-03-01	FIELD
5A	SL-072-SA5A-SS-0.0-0.5	DE094	SO	2011-03-01	FIELD
5A	SL-076-SA5A-SS-0.0-0.5	DE094	SO	2011-03-01	FIELD
5A	SL-077-SA5A-SS-0.0-0.5	DE094	SO	2011-03-01	FIELD
5A	SL-078-SA5A-SS-0.0-0.5	DE094	SO	2011-03-01	FIELD
5A	SL-103-SA5A-SS-0.0-0.5	DE094	SO	2011-03-01	FIELD
5A	SL-104-SA5A-SS-0.0-0.5	DE094	SO	2011-03-01	FIELD
5A	SL-191-SA5A-SS-0.0-0.5	DE094	SO	2011-03-01	FIELD
5A	SL-194-SA5A-SS-0.0-0.3	DE094	SO	2011-03-01	FIELD
5A	SL-195-SA5A-SS-0.0-0.2	DE094	SO	2011-03-01	FIELD
5A	SL-244-SA5A-SB-4.0-5.0	DE094	SO	2011-03-01	FIELD
5A	SL-244-SA5A-SB-9.0-10.0	DE094	SO	2011-03-01	FIELD
5A	SL-256-SA5A-SS-0.0-0.5	DE094	SO	2011-03-01	FIELD
5A	SL-257-SA5A-SS-0.0-0.5	DE094	SO	2011-03-01	FIELD
5A	DUP-07-SA5A-QC-030211	DE095	SO	2011-03-02	FIELD
5A	EB05-SA5A-030211	DE095	WQ	2011-03-02	FIELD
5A	SL-042-SA5A-SS-0.0-0.5	DE095	SO	2011-03-02	FIELD
5A	SL-044-SA5A-SS-0.0-0.5	DE095	SO	2011-03-02	FIELD
5A	SL-045-SA5A-SS-0.0-0.5	DE095	SO	2011-03-02	FIELD
5A	SL-048-SA5A-SS-0.0-0.5	DE095	SO	2011-03-02	FIELD
5A	SL-176-SA5A-SS-0.0-0.3	DE095	SO	2011-03-02	FIELD
5A	SL-178-SA5A-SS-0.0-0.4	DE095	SO	2011-03-02	FIELD

Appendix C. Samples by SDG for 5A

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
5A	SL-179-SA5A-SS-0.0-0.3	DE095	SO	2011-03-02	FIELD
5A	SL-186-SA5A-SS-0.0-0.5	DE095	SO	2011-03-02	FIELD
5A	SL-188-SA5A-SS-0.0-0.5	DE095	SO	2011-03-02	FIELD
5A	SL-189-SA5A-SS-0.0-0.5	DE095	SO	2011-03-02	FIELD
5A	DUP08-SA5A-QC-030211	DE096	SO	2011-03-02	FIELD
5A	SL-245-SA5A-SB-29.0-30.0	DE096	SO	2011-03-02	FIELD
5A	SL-245-SA5A-SB-4.0-5.0	DE096	SO	2011-03-02	FIELD
5A	SL-245-SA5A-SB-9.0-10.0	DE096	SO	2011-03-02	FIELD
5A	SL-246-SA5A-SB-4.0-5.0	DE096	SO	2011-03-02	FIELD
5A	SL-246-SA5A-SB-9.0-10.0	DE096	SO	2011-03-02	FIELD
5A	SL-247-SA5A-SB-4.0-5.0	DE096	SO	2011-03-02	FIELD
5A	SL-247-SA5A-SB-9.0-10.0	DE096	SO	2011-03-02	FIELD
5A	EB06-SA5A-030311	DE097	WQ	2011-03-03	FIELD
5A	SL-234-SA5A-SB-4.0-5.0	DE097	SO	2011-03-03	FIELD
5A	SL-234-SA5A-SB-9.0-10.0	DE097	SO	2011-03-03	FIELD
5A	SL-235-SA5A-SB-4.0-5.0	DE097	SO	2011-03-03	FIELD
5A	SL-235-SA5A-SB-8.5-9.5	DE097	SO	2011-03-03	FIELD
5A	SL-236-SA5A-SB-4.0-5.0	DE097	SO	2011-03-03	FIELD
5A	SL-236-SA5A-SB-9.0-10.0	DE097	SO	2011-03-03	FIELD
5A	SL-249-SA5A-SB-2.5-3.5	DE097	SO	2011-03-03	FIELD
5A	SL-249-SA5A-SB-9.0-10.0	DE097	SO	2011-03-03	FIELD
5A	SL-015-SA5A-SB-3.0-4.0	DE098	SO	2011-03-04	FIELD
5A	SL-233-SA5A-SB-4.0-5.0	DE098	SO	2011-03-04	FIELD
5A	SL-233-SA5A-SB-9.0-10.0	DE098	SO	2011-03-04	FIELD
5A	SL-007-SA5A-SB-4.0-5.0	DE099	SO	2011-03-07	FIELD
5A	SL-007-SA5A-SB-9.0-10.0	DE099	SO	2011-03-07	FIELD
5A	SL-012-SA5A-SB-2.0-3.0	DE099	SO	2011-03-07	FIELD
5A	SL-013-SA5A-SB-2.5-3.5	DE099	SO	2011-03-07	FIELD
5A	SL-006-SA5A-SB-2.0-3.0	DE100	SO	2011-03-08	FIELD
5A	DUP09-SA5A-QC-031111	DE102	SO	2011-03-11	FIELD
5A	SL-112-SA5A-SB-14.0-15.0	DE102	SO	2011-03-11	FIELD
5A	SL-112-SA5A-SB-8.5-9.5	DE102	SO	2011-03-11	FIELD
5A	SL-113-SA5A-SB-14.0-15.0	DE102	SO	2011-03-11	FIELD
5A	SL-113-SA5A-SB-9.0-10.0	DE102	SO	2011-03-11	FIELD
5A	SL-114-SA5A-SB-4.0-5.0	DE102	SO	2011-03-11	FIELD
5A	SL-114-SA5A-SB-9.0-10.0	DE102	SO	2011-03-11	FIELD
5A	SL-115-SA5A-SB-13.0-14.0	DE103	SO	2011-03-10	FIELD
5A	SL-115-SA5A-SB-6.5-7.5	DE103	SO	2011-03-10	FIELD
5A	SL-116-SA5A-SB-14.0-15.0	DE103	SO	2011-03-10	FIELD
5A	SL-116-SA5A-SB-6.0-7.0	DE103	SO	2011-03-10	FIELD
5A	SL-001-SA5A-SB-4.0-5.0	DE104	SO	2011-03-14	FIELD
5A	SL-117-SA5A-SB-5.0-6.0	DE104	SO	2011-03-14	FIELD
5A	SL-118-SA5A-SB-2.5-3.5	DE104	SO	2011-03-14	FIELD
5A	SL-121-SA5A-SB-2.0-3.0	DE104	SO	2011-03-14	FIELD
5A	EB07-SA5A-031511	DE105	AQ	2011-03-15	FIELD
5A	SL-132-SA5A-SB-2.0-3.0	DE105	SO	2011-03-15	FIELD
5A	SL-137-SA5A-SB-4.0-5.0	DE105	SO	2011-03-15	FIELD
5A	SL-138-SA5A-SB-4.0-5.0	DE105	SO	2011-03-15	FIELD
5A	SL-128-SA5A-SB-4.0-5.0	DE106	SO	2011-03-16	FIELD
5A	SL-128-SA5A-SB-9.0-10.0	DE106	SO	2011-03-16	FIELD
5A	SL-133-SA5A-SB-4.0-5.0	DE106	SO	2011-03-16	FIELD

Appendix C. Samples by SDG for 5A

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
5A	SL-146-SA5A-SB-3.0-4.0	DE106	SO	2011-03-16	FIELD
5A	SL-136-SA5A-SB-4.0-5.0	DE107	SO	2011-03-17	FIELD
5A	SL-139-SA5A-SB-2.5-3.5	DE107	SO	2011-03-17	FIELD
5A	SL-158-SA5A-SB-4.0-5.0	DE107	SO	2011-03-17	FIELD
5A	SL-159-SA5A-SB-4.0-5.0	DE108	SO	2011-03-18	FIELD
5A	SL-160-SA5A-SB-4.0-5.0	DE108	SO	2011-03-18	FIELD
5A	SL-160-SA5A-SB-9.0-10.0	DE108	SO	2011-03-18	FIELD
5A	SL-168-SA5A-SB-4.0-5.0	DE108	SO	2011-03-18	FIELD
5A	SL-169-SA5A-SB-4.0-5.0	DE108	SO	2011-03-18	FIELD
5A	SL-161-SA5A-SB-4.0-5.0	DE109	SO	2011-03-21	FIELD
5A	SL-161-SA5A-SB-7.5-8.5	DE109	SO	2011-03-21	FIELD
5A	SL-163-SA5A-SB-4.0-5.0	DE109	SO	2011-03-21	FIELD
5A	SL-252-SA5A-SB-4.0-5.0	DE109	SO	2011-03-21	FIELD
5A	EB08-SA5A-032211	DE110	WQ	2011-03-22	FIELD
5A	SL-180-SA5A-SB-4.0-5.0	DE110	SO	2011-03-22	FIELD
5A	SL-181-SA5A-SB-4.0-5.0	DE110	SO	2011-03-22	FIELD
5A	SL-231-SA5A-SB-2.0-3.0	DE110	SO	2011-03-22	FIELD
5A	EB09-SA5A-032311	DE111	WQ	2011-03-23	FIELD
5A	SL-197-SA5A-SB-4.0-5.0	DE111	SO	2011-03-23	FIELD
5A	SL-197-SA5A-SB-8.0-9.0	DE111	SO	2011-03-23	FIELD
5A	SL-198-SA5A-SB-3.0-4.0	DE111	SO	2011-03-23	FIELD
5A	SL-200-SA5A-SB-4.0-5.0	DE111	SO	2011-03-23	FIELD
5A	SL-239-SA5A-SB-4.0-5.0	DE111	SO	2011-03-23	FIELD
5A	SL-240-SA5A-SB-4.0-5.0	DE111	SO	2011-03-23	FIELD
5A	SL-240-SA5A-SB-9.0-10.0	DE111	SO	2011-03-23	FIELD
5A	DUP10-SA5A-QC-032411	DE112	SO	2011-03-24	FIELD
5A	SL-199-SA5A-SB-2.5-3.5	DE112	SO	2011-03-24	FIELD
5A	SL-223-SA5A-SB-4.0-5.0	DE112	SO	2011-03-24	FIELD
5A	SL-223-SA5A-SB-8.5-9.5	DE112	SO	2011-03-24	FIELD
5A	SL-224-SA5A-SB-4.0-5.0	DE112	SO	2011-03-24	FIELD
5A	SL-225-SA5A-SB-4.0-5.0	DE112	SO	2011-03-24	FIELD
5A	SL-226-SA5A-SB-4.0-5.0	DE112	SO	2011-03-24	FIELD
5A	SL-209-SA5A-SB-4.0-5.0	DE113	SO	2011-03-28	FIELD
5A	SL-211-SA5A-SB-2.5-3.5	DE113	SO	2011-03-28	FIELD
5A	SL-214-SA5A-SB-4.0-5.0	DE113	SO	2011-03-28	FIELD
5A	SL-214-SA5A-SB-8.5-9.5	DE113	SO	2011-03-28	FIELD
5A	SL-215-SA5A-SB-4.0-5.0	DE113	SO	2011-03-28	FIELD
5A	SL-216-SA5A-SB-4.0-5.0	DE113	SO	2011-03-28	FIELD
5A	EB10-SA5A-032911	DE114	WQ	2011-03-29	FIELD
5A	SL-091-SA5A-SB-3.0-4.0	DE114	SO	2011-03-29	FIELD
5A	SL-208-SA5A-SB-4.0-5.0	DE114	SO	2011-03-29	FIELD
5A	SL-208-SA5A-SB-7.5-8.5	DE114	SO	2011-03-29	FIELD
5A	SL-221-SA5A-SB-3.0-4.0	DE114	SO	2011-03-29	FIELD
5A	DUP-11-SA5A-QC-033011	DE115	SO	2011-03-30	FIELD
5A	DUP-12-SA5A-QC-033011	DE115	SO	2011-03-30	FIELD
5A	SL-082-SA5A-SB-4.0-5.0	DE115	SO	2011-03-30	FIELD
5A	SL-083-SA5A-SB-4.0-5.0	DE115	SO	2011-03-30	FIELD
5A	SL-083-SA5A-SB-9.0-10.0	DE115	SO	2011-03-30	FIELD
5A	SL-090-SA5A-SB-4.0-5.0	DE115	SO	2011-03-30	FIELD
5A	SL-093-SA5A-SB-3.5-4.5	DE115	SO	2011-03-30	FIELD
5A	SL-222-SA5A-SB-3.5-4.5	DE115	SO	2011-03-30	FIELD

Appendix C. Samples by SDG for 5A

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
5A	SL-257-SA5A-SB-2.5-3.5	DE115	SO	2011-03-30	FIELD
5A	SL-075-SA5A-SB-2.5-3.5	DE116	SO	2011-03-31	FIELD
5A	SL-089-SA5A-SB-4.0-5.0	DE116	SO	2011-03-31	FIELD
5A	SL-089-SA5A-SB-9.0-10.0	DE116	SO	2011-03-31	FIELD
5A	SL-094-SA5A-SB-4.0-5.0	DE116	SO	2011-03-31	FIELD
5A	SL-094-SA5A-SB-9.0-10.0	DE116	SO	2011-03-31	FIELD
5A	SL-071-SA5A-SB-4.0-5.0	DE117	SO	2011-04-01	FIELD
5A	SL-072-SA5A-SB-4.0-5.0	DE117	SO	2011-04-01	FIELD
5A	SL-076-SA5A-SB-4.0-5.0	DE117	SO	2011-04-01	FIELD
5A	SL-085-SA5A-SB-4.0-5.0	DE118	SO	2011-04-04	FIELD
5A	SL-087-SA5A-SB-2.0-3.0	DE118	SO	2011-04-04	FIELD
5A	EB11-SA5A-SB-040511	DE119	WQ	2011-04-05	FIELD
5A	SL-154-SA5A-SB-4.0-5.0	DE119	SO	2011-04-05	FIELD
5A	SL-154-SA5A-SB-7.0-8.0	DE119	SO	2011-04-05	FIELD
5A	SL-156-SA5A-SB-3.0-4.0	DE119	SO	2011-04-05	FIELD
5A	EB12-SA5A-SB-040611	DE120	WQ	2011-04-06	FIELD
5A	SL-151-SA5A-SB-4.0-5.0	DE120	SO	2011-04-06	FIELD
5A	SL-079-SA5A-SB-4.0-5.0	DE121	SO	2011-04-07	FIELD
5A	SL-080-SA5A-SB-3.0-4.0	DE121	SO	2011-04-07	FIELD
5A	SL-081-SA5A-SB-2.0-3.0	DE121	SO	2011-04-07	FIELD
5A	SL-088-SA5A-SB-4.0-5.0	DE121	SO	2011-04-07	FIELD
5A	SL-258-SA5A-SB-4.0-5.0	DE121	SO	2011-04-07	FIELD
5A	SL-143-SA5A-SB-4.0-5.0	DE122	SO	2011-03-25	FIELD
5A	SL-143-SA5A-SB-8.0-9.0	DE122	SO	2011-03-25	FIELD
5A	SL-144-SA5A-SB-4.0-5.0	DE122	SO	2011-03-25	FIELD
5A	SL-144-SA5A-SB-7.0-8.0	DE122	SO	2011-03-25	FIELD
5A	SL-213-SA5A-SB-4.0-5.0	DE122	SO	2011-03-25	FIELD
5A	SL-213-SA5A-SB-8.0-9.0	DE122	SO	2011-03-25	FIELD
5A	DUP-13-SA5A-QC-041111	DE123	SO	2011-04-11	FIELD
5A	SL-186-SA5A-SB-3.5-4.5	DE123	SO	2011-04-11	FIELD
5A	SL-187-SA5A-SB-4.0-5.0	DE123	SO	2011-04-11	FIELD
5A	SL-188-SA5A-SB-4.5-5.5	DE123	SO	2011-04-11	FIELD
5A	SL-189-SA5A-SB-5.0-6.0	DE123	SO	2011-04-11	FIELD
5A	SL-189-SA5A-SB-8.5-9.5	DE123	SO	2011-04-11	FIELD
5A	SL-202-SA5A-SB-3.0-4.0	DE125	SO	2011-04-12	FIELD
5A	SL-206-SA5A-SB-4.0-5.0	DE125	SO	2011-04-12	FIELD
5A	SL-207-SA5A-SB-3.0-4.0	DE125	SO	2011-04-12	FIELD
5A	SL-227-SA5A-SB-3.0-4.0	DE125	SO	2011-04-12	FIELD
5A	SL-228-SA5A-SB-3.0-4.0	DE125	SO	2011-04-12	FIELD
5A	SL-060-SA5A-SB-4.0-5.0	DE126	SO	2011-04-13	FIELD
5A	SL-060-SA5A-SB-8.0-9.0	DE126	SO	2011-04-13	FIELD
5A	SL-061-SA5A-SB-4.0-5.0	DE126	SO	2011-04-13	FIELD
5A	SL-204-SA5A-SB-4.0-5.0	DE126	SO	2011-04-13	FIELD
5A	SL-205-SA5A-SB-4.0-5.0	DE126	SO	2011-04-13	FIELD
5A	SL-205-SA5A-SB-8.0-9.0	DE126	SO	2011-04-13	FIELD
5A	DUP14-SA5A-QC-041411	DE128	SO	2011-04-14	FIELD
5A	SL-058-SA5A-SB-3.0-4.0	DE128	SO	2011-04-14	FIELD
5A	SL-059-SA5A-SB-3.0-4.0	DE128	SO	2011-04-14	FIELD
5A	SL-065-SA5A-SB-4.0-5.0	DE128	SO	2011-04-14	FIELD
5A	SL-242-SA5A-SB-2.5-3.5	DE128	SO	2011-04-14	FIELD
5A	SL-041-SA5A-SB-4.0-5.0	DE129	SO	2011-04-15	FIELD

Appendix C. Samples by SDG for 5A

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
5A	SL-044-SA5A-SB-3.0-4.0	DE129	SO	2011-04-15	FIELD
5A	SL-052-SA5A-SB-4.0-5.0	DE129	SO	2011-04-15	FIELD
5A	SL-243-SA5A-SB-4.0-5.0	DE129	SO	2011-04-15	FIELD
5A	EB13-SA5A-SB-041811	DE130	WQ	2011-04-18	FIELD
5A	SL-032-SA5A-SB-3.0-4.0	DE130	SO	2011-04-18	FIELD
5A	SL-172-SA5A-SB-4.0-5.0	DE130	SO	2011-04-18	FIELD
5A	SL-174-SA5A-SB-2.0-3.0	DE130	SO	2011-04-18	FIELD
5A	SL-254-SA5A-SB-2.5-3.5	DE130	SO	2011-04-18	FIELD
5A	EB14-SA5A-SB-041911	DE131	WQ	2011-04-19	FIELD
5A	SL-126-SA5A-SB-4.0-5.0	DE131	SO	2011-04-19	FIELD
5A	SL-127-SA5A-SB-2.0-3.0	DE131	SO	2011-04-19	FIELD
5A	SL-171-SA5A-SB-2.0-3.0	DE131	SO	2011-04-19	FIELD
5A	DUP15-SA5A-QC-042011	DE133	SO	2011-04-20	FIELD
5A	SL-148-SA5A-SB-4.0-5.0	DE133	SO	2011-04-20	FIELD
5A	SL-148-SA5A-SB-9.0-10.0	DE133	SO	2011-04-20	FIELD
5A	DUP16-SA5A-QC-042211	DE135	SO	2011-04-22	FIELD
5A	SL-064-SA5A-SB-3.0-4.0	DE135	SO	2011-04-22	FIELD
5A	SL-166-SA5A-SS-0.0-0.5	DE135	SO	2011-04-22	FIELD
5A	SL-253-SA5A-SB-4.0-5.0	DE135	SO	2011-04-15	FIELD
5A	SL-253-SA5A-SB-8.0-9.0	DE135	SO	2011-04-22	FIELD
5A	DUP-17-SA5A-QC-051611	DE151	SO	2011-05-16	FIELD
5A	EB15-SA5A-SB-051611	DE151	WQ	2011-05-16	FIELD
5A	SL-042-SA5A-SB-3.5-4.5	DE151	SO	2011-05-16	FIELD
5A	SL-167-SA5A-SB-1.0-2.0	DE151	SO	2011-05-16	FIELD
5A	SL-254-SA5A-SS-0.0-0.5	DE152	SO	2011-05-16	FIELD
5A	SL-048-SA5A-SB-3.0-4.0	DX048	SO	2011-02-07	FIELD
5A	SL-049-SA5A-SB-2.0-3.0	DX048	SO	2011-02-07	FIELD
5A	DUP01-SA5A-QC-021811	DX051	SO	2011-02-18	FIELD
5A	SL-024-SA5A-SS-0.0-0.5	DX051	SO	2011-02-16	FIELD
5A	SL-025-SA5A-SS-0.0-0.5	DX051	SO	2011-02-16	FIELD
5A	SL-026-SA5A-SS-0.0-0.5	DX051	SO	2011-02-16	FIELD
5A	SL-028-SA5A-SS-0.0-0.5	DX051	SO	2011-02-16	FIELD
5A	SL-029-SA5A-SS-0.0-0.5	DX051	SO	2011-02-16	FIELD
5A	SL-031-SA5A-SS-0.0-0.5	DX051	SO	2011-02-16	FIELD
5A	SL-032-SA5A-SS-0.0-0.5	DX051	SO	2011-02-16	FIELD
5A	SL-041-SA5A-SS-0.0-0.5	DX051	SO	2011-02-16	FIELD
5A	SL-049-SA5A-SS-0.0-0.5	DX051	SO	2011-02-18	FIELD
5A	SL-052-SA5A-SS-0.0-0.5	DX051	SO	2011-02-18	FIELD
5A	SL-053-SA5A-SS-0.0-0.5	DX051	SO	2011-02-18	FIELD
5A	SL-096-SA5A-SS-0.0-0.5	DX051	SO	2011-02-18	FIELD
5A	SL-098-SA5A-SS-0.0-0.5	DX051	SO	2011-02-18	FIELD
5A	SL-099-SA5A-SS-0.0-0.5	DX051	SO	2011-02-18	FIELD
5A	SL-100-SA5A-SS-0.0-0.5	DX051	SO	2011-02-18	FIELD
5A	SL-101-SA5A-SS-0.0-0.5	DX051	SO	2011-02-18	FIELD
5A	SL-021-SA5A-SS-0.0-0.5	DX052	SO	2011-02-17	FIELD
5A	SL-022-SA5A-SS-0.0-0.5	DX052	SO	2011-02-17	FIELD
5A	SL-035-SA5A-SS-0.0-0.5	DX052	SO	2011-02-17	FIELD
5A	SL-036-SA5A-SS-0.0-0.5	DX052	SO	2011-02-17	FIELD
5A	SL-037-SA5A-SS-0.0-0.5	DX052	SO	2011-02-17	FIELD
5A	SL-040-SA5A-SS-0.0-0.5	DX052	SO	2011-02-17	FIELD
5A	SL-050-SA5A-SS-0.0-0.5	DX052	SO	2011-02-17	FIELD

Appendix C. Samples by SDG for 5A

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
5A	SL-051-SA5A-SS-0.0-0.5	DX052	SO	2011-02-17	FIELD
5A	SL-102-SA5A-SS-0.0-0.5	DX052	SO	2011-02-18	FIELD
5A	SL-241-SA5A-SS-0.0-0.5	DX052	SO	2011-02-18	FIELD
5A	SL-242-SA5A-SS-0.0-0.5	DX052	SO	2011-02-18	FIELD
5A	DUP-03-SA5A-QC-022311	DX053	SO	2011-02-23	FIELD
5A	SL-025-SA5A-SB-4.5-5.5	DX053	SO	2011-02-21	FIELD
5A	SL-028-SA5A-SB-3.5-4.5	DX053	SO	2011-02-21	FIELD
5A	SL-029-SA5A-SB-3.0-4.0	DX053	SO	2011-02-21	FIELD
5A	SL-036-SA5A-SB-4.0-5.0	DX053	SO	2011-02-23	FIELD
5A	SL-037-SA5A-SB-4.0-5.0	DX053	SO	2011-02-23	FIELD
5A	SL-040-SA5A-SB-4.0-5.0	DX053	SO	2011-02-23	FIELD
5A	SL-040-SA5A-SB-9.0-10.0	DX053	SO	2011-02-23	FIELD
5A	SL-054-SA5A-SS-0.0-0.5	DX053	SO	2011-02-21	FIELD
5A	SL-055-SA5A-SS-0.0-0.5	DX053	SO	2011-02-21	FIELD
5A	SL-056-SA5A-SS-0.0-0.5	DX053	SO	2011-02-21	FIELD
5A	SL-057-SA5A-SS-0.0-0.5	DX053	SO	2011-02-21	FIELD
5A	SL-058-SA5A-SS-0.0-0.5	DX053	SO	2011-02-21	FIELD
5A	SL-059-SA5A-SS-0.0-0.5	DX053	SO	2011-02-21	FIELD
5A	SL-060-SA5A-SS-0.0-0.5	DX053	SO	2011-02-21	FIELD
5A	SL-061-SA5A-SS-0.0-0.5	DX053	SO	2011-02-21	FIELD
5A	SL-062-SA5A-SS-0.0-0.5	DX053	SO	2011-02-21	FIELD
5A	SL-063-SA5A-SS-0.0-0.5	DX053	SO	2011-02-21	FIELD
5A	SL-064-SA5A-SS-0.0-0.5	DX053	SO	2011-02-21	FIELD
5A	SL-095-SA5A-SS-0.0-0.5	DX053	SO	2011-02-21	FIELD
5A	DUP-02-SA5A-QC-022211	DX054	SO	2011-02-22	FIELD
5A	SL-024-SA5A-SB-2.5-3.5	DX054	SO	2011-02-22	FIELD
5A	SL-026-SA5A-SB-3.5-4.5	DX054	SO	2011-02-22	FIELD
5A	SL-031-SA5A-SB-4.0-5.0	DX054	SO	2011-02-22	FIELD
5A	SL-035-SA5A-SB-4.0-5.0	DX054	SO	2011-02-22	FIELD
5A	SL-175-SA5A-SS-0.0-0.3	DX054	SO	2011-02-22	FIELD
5A	SL-180-SA5A-SS-0.0-0.5	DX054	SO	2011-02-22	FIELD
5A	SL-181-SA5A-SS-0.0-0.5	DX054	SO	2011-02-22	FIELD
5A	SL-196-SA5A-SS-0.0-0.5	DX054	SO	2011-02-22	FIELD
5A	SL-197-SA5A-SS-0.0-0.5	DX054	SO	2011-02-22	FIELD
5A	SL-210-SA5A-SS-0.0-0.5	DX054	SO	2011-02-22	FIELD
5A	SL-211-SA5A-SS-0.0-0.5	DX054	SO	2011-02-22	FIELD
5A	SL-212-SA5A-SS-0.0-0.5	DX054	SO	2011-02-22	FIELD
5A	SL-214-SA5A-SS-0.0-0.5	DX054	SO	2011-02-22	FIELD
5A	SL-215-SA5A-SS-0.0-0.5	DX054	SO	2011-02-22	FIELD
5A	SL-217-SA5A-SS-0.0-0.5	DX054	SO	2011-02-22	FIELD
5A	SL-218-SA5A-SS-0.0-0.5	DX054	SO	2011-02-22	FIELD
5A	DUP-04-SA5A-QC-022311	DX055	SO	2011-02-23	FIELD
5A	EB01-SA5A-022311	DX055	WQ	2011-02-23	FIELD
5A	SL-001-SA5A-SS-0.0-0.5	DX055	SO	2011-02-23	FIELD
5A	SL-002-SA5A-SS-0.0-0.5	DX055	SO	2011-02-23	FIELD
5A	SL-004-SA5A-SS-0.0-0.5	DX055	SO	2011-02-23	FIELD
5A	SL-006-SA5A-SS-0.0-0.5	DX055	SO	2011-02-23	FIELD
5A	SL-009-SA5A-SS-0.0-0.5	DX055	SO	2011-02-23	FIELD
5A	SL-010-SA5A-SS-0.0-0.5	DX055	SO	2011-02-23	FIELD
5A	SL-012-SA5A-SS-0.0-0.5	DX055	SO	2011-02-23	FIELD
5A	SL-013-SA5A-SS-0.0-0.5	DX055	SO	2011-02-23	FIELD

Appendix C. Samples by SDG for 5A

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
5A	SL-016-SA5A-SS-0.0-0.5	DX055	SO	2011-02-23	FIELD
5A	SL-017-SA5A-SS-0.0-0.5	DX055	SO	2011-02-23	FIELD
5A	SL-018-SA5A-SS-0.0-0.5	DX055	SO	2011-02-23	FIELD
5A	SL-019-SA5A-SS-0.0-0.5	DX055	SO	2011-02-23	FIELD
5A	SL-007-SA5A-SS-0.0-0.5	DX056	SO	2011-02-24	FIELD
5A	SL-008-SA5A-SS-0.0-0.5	DX056	SO	2011-02-24	FIELD
5A	SL-021-SA5A-SB-3.0-4.0	DX056	SO	2011-02-24	FIELD
5A	SL-022-SA5A-SB-4.0-5.0	DX056	SO	2011-02-24	FIELD
5A	SL-050-SA5A-SB-4.0-5.0	DX056	SO	2011-02-24	FIELD
5A	SL-110-SA5A-SS-0.0-0.5	DX056	SO	2011-02-24	FIELD
5A	SL-119-SA5A-SS-0.0-0.5	DX056	SO	2011-02-24	FIELD
5A	SL-120-SA5A-SS-0.0-0.5	DX056	SO	2011-02-24	FIELD
5A	SL-121-SA5A-SS-0.0-0.5	DX056	SO	2011-02-24	FIELD
5A	SL-122-SA5A-SS-0.0-0.5	DX056	SO	2011-02-24	FIELD
5A	SL-136-SA5A-SS-0.0-0.5	DX056	SO	2011-02-24	FIELD
5A	SL-137-SA5A-SS-0.0-0.5	DX056	SO	2011-02-24	FIELD
5A	SL-138-SA5A-SS-0.0-0.5	DX056	SO	2011-02-24	FIELD
5A	SL-143-SA5A-SS-0.0-0.5	DX056	SO	2011-02-24	FIELD
5A	SL-233-SA5A-SS-0.0-0.5	DX056	SO	2011-02-24	FIELD
5A	SL-250-SA5A-SS-0.0-0.5	DX056	SO	2011-02-24	FIELD
5A	SL-251-SA5A-SS-0.0-0.5	DX056	SO	2011-02-24	FIELD
5A	SL-053-SA5A-SB-3.0-4.0	DX057	SO	2011-02-25	FIELD
5A	SL-054-SA5A-SB-4.0-5.0	DX057	SO	2011-02-25	FIELD
5A	SL-054-SA5A-SB-9.0-10.0	DX057	SO	2011-02-25	FIELD
5A	SL-055-SA5A-SB-2.0-3.0	DX057	SO	2011-02-25	FIELD
5A	SL-056-SA5A-SB-4.0-5.0	DX057	SO	2011-02-25	FIELD
5A	SL-056-SA5A-SB-7.0-8.0	DX057	SO	2011-02-25	FIELD
5A	SL-126-SA5A-SS-0.0-0.5	DX057	SO	2011-02-25	FIELD
5A	SL-127-SA5A-SS-0.0-0.5	DX057	SO	2011-02-25	FIELD
5A	SL-132-SA5A-SS-0.0-0.5	DX057	SO	2011-02-25	FIELD
5A	SL-133-SA5A-SS-0.0-0.5	DX057	SO	2011-02-25	FIELD
5A	SL-144-SA5A-SS-0.0-0.5	DX057	SO	2011-02-25	FIELD
5A	SL-146-SA5A-SS-0.0-0.5	DX057	SO	2011-02-25	FIELD
5A	SL-171-SA5A-SS-0.0-0.5	DX057	SO	2011-02-25	FIELD
5A	SL-172-SA5A-SS-0.0-0.5	DX057	SO	2011-02-25	FIELD
5A	SL-173-SA5A-SS-0.0-0.5	DX057	SO	2011-02-25	FIELD
5A	SL-174-SA5A-SS-0.0-0.5	DX057	SO	2011-02-25	FIELD
5A	DUP-05-SA5A-QC-022811	DX058	SO	2011-02-28	FIELD
5A	EB02-SA5A-022811	DX058	AQ	2011-02-28	FIELD
5A	EB03-SA5A-022811	DX058	AQ	2011-02-28	FIELD
5A	SL-087-SA5A-SS-0.0-0.5	DX058	SO	2011-02-28	FIELD
5A	SL-105-SA5A-SS-0.0-0.5	DX058	SO	2011-02-28	FIELD
5A	SL-106-SA5A-SS-0.0-0.5	DX058	SO	2011-02-28	FIELD
5A	SL-107-SA5A-SS-0.0-0.5	DX058	SO	2011-02-28	FIELD
5A	SL-108-SA5A-SS-0.0-0.5	DX058	SO	2011-02-28	FIELD
5A	SL-109-SA5A-SS-0.0-0.5	DX058	SO	2011-02-28	FIELD
5A	SL-111-SA5A-SS-0.0-0.5	DX058	SO	2011-02-28	FIELD
5A	SL-145-SA5A-SS-0.0-0.5	DX058	SO	2011-02-28	FIELD
5A	SL-237-SA5A-SB-4.0-5.0	DX058	SO	2011-02-28	FIELD
5A	SL-237-SA5A-SB-9.0-10.0	DX058	SO	2011-02-28	FIELD
5A	SL-253-SA5A-SS-0.0-0.5	DX058	SO	2011-02-28	FIELD

Appendix C. Samples by SDG for 5A

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
5A	SL-255-SA5A-SS-0.0-0.5	DX058	SO	2011-02-28	FIELD
5A	DUP-06-SA5A-QC-030111	DX059	SO	2011-03-01	FIELD
5A	EB04-SA5A-030111	DX059	WQ	2011-03-01	FIELD
5A	SL-066-SA5A-SS-0.0-0.5	DX059	SO	2011-03-01	FIELD
5A	SL-072-SA5A-SS-0.0-0.5	DX059	SO	2011-03-01	FIELD
5A	SL-076-SA5A-SS-0.0-0.5	DX059	SO	2011-03-01	FIELD
5A	SL-077-SA5A-SS-0.0-0.5	DX059	SO	2011-03-01	FIELD
5A	SL-078-SA5A-SS-0.0-0.5	DX059	SO	2011-03-01	FIELD
5A	SL-103-SA5A-SS-0.0-0.5	DX059	SO	2011-03-01	FIELD
5A	SL-104-SA5A-SS-0.0-0.5	DX059	SO	2011-03-01	FIELD
5A	SL-191-SA5A-SS-0.0-0.5	DX059	SO	2011-03-01	FIELD
5A	SL-194-SA5A-SS-0.0-0.3	DX059	SO	2011-03-01	FIELD
5A	SL-195-SA5A-SS-0.0-0.2	DX059	SO	2011-03-01	FIELD
5A	SL-244-SA5A-SB-4.0-5.0	DX059	SO	2011-03-01	FIELD
5A	SL-244-SA5A-SB-9.0-10.0	DX059	SO	2011-03-01	FIELD
5A	SL-256-SA5A-SS-0.0-0.5	DX059	SO	2011-03-01	FIELD
5A	SL-257-SA5A-SS-0.0-0.5	DX059	SO	2011-03-01	FIELD
5A	DUP-07-SA5A-QC-030211	DX060	SO	2011-03-02	FIELD
5A	EB05-SA5A-030211	DX060	WQ	2011-03-02	FIELD
5A	EB06-SA5A-030311	DX060	WQ	2011-03-03	FIELD
5A	SL-042-SA5A-SS-0.0-0.5	DX060	SO	2011-03-02	FIELD
5A	SL-044-SA5A-SS-0.0-0.5	DX060	SO	2011-03-02	FIELD
5A	SL-045-SA5A-SS-0.0-0.5	DX060	SO	2011-03-02	FIELD
5A	SL-048-SA5A-SS-0.0-0.5	DX060	SO	2011-03-02	FIELD
5A	SL-176-SA5A-SS-0.0-0.3	DX060	SO	2011-03-02	FIELD
5A	SL-178-SA5A-SS-0.0-0.4	DX060	SO	2011-03-02	FIELD
5A	SL-179-SA5A-SS-0.0-0.3	DX060	SO	2011-03-02	FIELD
5A	SL-186-SA5A-SS-0.0-0.5	DX060	SO	2011-03-02	FIELD
5A	SL-188-SA5A-SS-0.0-0.5	DX060	SO	2011-03-02	FIELD
5A	SL-189-SA5A-SS-0.0-0.5	DX060	SO	2011-03-02	FIELD
5A	SL-234-SA5A-SB-4.0-5.0	DX060	SO	2011-03-03	FIELD
5A	SL-234-SA5A-SB-9.0-10.0	DX060	SO	2011-03-03	FIELD
5A	SL-235-SA5A-SB-4.0-5.0	DX060	SO	2011-03-03	FIELD
5A	SL-235-SA5A-SB-8.5-9.5	DX060	SO	2011-03-03	FIELD
5A	SL-236-SA5A-SB-4.0-5.0	DX060	SO	2011-03-03	FIELD
5A	SL-236-SA5A-SB-9.0-10.0	DX060	SO	2011-03-03	FIELD
5A	SL-249-SA5A-SB-2.5-3.5	DX060	SO	2011-03-03	FIELD
5A	SL-249-SA5A-SB-9.0-10.0	DX060	SO	2011-03-03	FIELD
5A	DUP08-SA5A-QC-030211	DX061	SO	2011-03-02	FIELD
5A	SL-006-SA5A-SB-2.0-3.0	DX061	SO	2011-03-08	FIELD
5A	SL-007-SA5A-SB-4.0-5.0	DX061	SO	2011-03-07	FIELD
5A	SL-007-SA5A-SB-9.0-10.0	DX061	SO	2011-03-07	FIELD
5A	SL-012-SA5A-SB-2.0-3.0	DX061	SO	2011-03-07	FIELD
5A	SL-013-SA5A-SB-2.5-3.5	DX061	SO	2011-03-07	FIELD
5A	SL-015-SA5A-SB-3.0-4.0	DX061	SO	2011-03-04	FIELD
5A	SL-233-SA5A-SB-4.0-5.0	DX061	SO	2011-03-04	FIELD
5A	SL-233-SA5A-SB-9.0-10.0	DX061	SO	2011-03-04	FIELD
5A	SL-245-SA5A-SB-29.0-30.0	DX061	SO	2011-03-02	FIELD
5A	SL-245-SA5A-SB-4.0-5.0	DX061	SO	2011-03-02	FIELD
5A	SL-245-SA5A-SB-9.0-10.0	DX061	SO	2011-03-02	FIELD
5A	SL-246-SA5A-SB-4.0-5.0	DX061	SO	2011-03-02	FIELD

Appendix C. Samples by SDG for 5A

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
5A	SL-246-SA5A-SB-9.0-10.0	DX061	SO	2011-03-02	FIELD
5A	SL-247-SA5A-SB-4.0-5.0	DX061	SO	2011-03-02	FIELD
5A	SL-247-SA5A-SB-9.0-10.0	DX061	SO	2011-03-02	FIELD
5A	DUP09-SA5A-QC-031111	DX062	SO	2011-03-11	FIELD
5A	EB07-SA5A-031511	DX062	AQ	2011-03-15	FIELD
5A	SL-001-SA5A-SB-4.0-5.0	DX062	SO	2011-03-14	FIELD
5A	SL-112-SA5A-SB-14.0-15.0	DX062	SO	2011-03-11	FIELD
5A	SL-112-SA5A-SB-8.5-9.5	DX062	SO	2011-03-11	FIELD
5A	SL-113-SA5A-SB-14.0-15.0	DX062	SO	2011-03-11	FIELD
5A	SL-113-SA5A-SB-9.0-10.0	DX062	SO	2011-03-11	FIELD
5A	SL-114-SA5A-SB-4.0-5.0	DX062	SO	2011-03-11	FIELD
5A	SL-114-SA5A-SB-9.0-10.0	DX062	SO	2011-03-11	FIELD
5A	SL-115-SA5A-SB-13.0-14.0	DX062	SO	2011-03-10	FIELD
5A	SL-115-SA5A-SB-6.5-7.5	DX062	SO	2011-03-10	FIELD
5A	SL-116-SA5A-SB-14.0-15.0	DX062	SO	2011-03-10	FIELD
5A	SL-116-SA5A-SB-6.0-7.0	DX062	SO	2011-03-10	FIELD
5A	SL-117-SA5A-SB-5.0-6.0	DX062	SO	2011-03-14	FIELD
5A	SL-118-SA5A-SB-2.5-3.5	DX062	SO	2011-03-14	FIELD
5A	SL-121-SA5A-SB-2.0-3.0	DX062	SO	2011-03-14	FIELD
5A	SL-132-SA5A-SB-2.0-3.0	DX062	SO	2011-03-15	FIELD
5A	SL-137-SA5A-SB-4.0-5.0	DX062	SO	2011-03-15	FIELD
5A	SL-138-SA5A-SB-4.0-5.0	DX062	SO	2011-03-15	FIELD
5A	EB08-SA5A-032211	DX063	WQ	2011-03-22	FIELD
5A	SL-128-SA5A-SB-4.0-5.0	DX063	SO	2011-03-16	FIELD
5A	SL-128-SA5A-SB-9.0-10.0	DX063	SO	2011-03-16	FIELD
5A	SL-133-SA5A-SB-4.0-5.0	DX063	SO	2011-03-16	FIELD
5A	SL-136-SA5A-SB-4.0-5.0	DX063	SO	2011-03-17	FIELD
5A	SL-139-SA5A-SB-2.5-3.5	DX063	SO	2011-03-17	FIELD
5A	SL-146-SA5A-SB-3.0-4.0	DX063	SO	2011-03-16	FIELD
5A	SL-158-SA5A-SB-4.0-5.0	DX063	SO	2011-03-17	FIELD
5A	SL-159-SA5A-SB-4.0-5.0	DX063	SO	2011-03-18	FIELD
5A	SL-160-SA5A-SB-4.0-5.0	DX063	SO	2011-03-18	FIELD
5A	SL-160-SA5A-SB-9.0-10.0	DX063	SO	2011-03-18	FIELD
5A	SL-161-SA5A-SB-4.0-5.0	DX063	SO	2011-03-21	FIELD
5A	SL-161-SA5A-SB-7.5-8.5	DX063	SO	2011-03-21	FIELD
5A	SL-163-SA5A-SB-4.0-5.0	DX063	SO	2011-03-21	FIELD
5A	SL-168-SA5A-SB-4.0-5.0	DX063	SO	2011-03-18	FIELD
5A	SL-169-SA5A-SB-4.0-5.0	DX063	SO	2011-03-18	FIELD
5A	SL-180-SA5A-SB-4.0-5.0	DX063	SO	2011-03-22	FIELD
5A	SL-181-SA5A-SB-4.0-5.0	DX063	SO	2011-03-22	FIELD
5A	SL-231-SA5A-SB-2.0-3.0	DX063	SO	2011-03-22	FIELD
5A	SL-252-SA5A-SB-4.0-5.0	DX063	SO	2011-03-21	FIELD
5A	DUP10-SA5A-QC-032411	DX064	SO	2011-03-24	FIELD
5A	SL-143-SA5A-SB-4.0-5.0	DX064	SO	2011-03-25	FIELD
5A	SL-143-SA5A-SB-8.0-9.0	DX064	SO	2011-03-25	FIELD
5A	SL-144-SA5A-SB-4.0-5.0	DX064	SO	2011-03-25	FIELD
5A	SL-144-SA5A-SB-7.0-8.0	DX064	SO	2011-03-25	FIELD
5A	SL-197-SA5A-SB-4.0-5.0	DX064	SO	2011-03-23	FIELD
5A	SL-197-SA5A-SB-8.0-9.0	DX064	SO	2011-03-23	FIELD
5A	SL-198-SA5A-SB-3.0-4.0	DX064	SO	2011-03-23	FIELD
5A	SL-199-SA5A-SB-2.5-3.5	DX064	SO	2011-03-24	FIELD

Appendix C. Samples by SDG for 5A

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
5A	SL-200-SA5A-SB-4.0-5.0	DX064	SO	2011-03-23	FIELD
5A	SL-213-SA5A-SB-4.0-5.0	DX064	SO	2011-03-25	FIELD
5A	SL-213-SA5A-SB-8.0-9.0	DX064	SO	2011-03-25	FIELD
5A	SL-223-SA5A-SB-4.0-5.0	DX064	SO	2011-03-24	FIELD
5A	SL-223-SA5A-SB-8.5-9.5	DX064	SO	2011-03-24	FIELD
5A	SL-224-SA5A-SB-4.0-5.0	DX064	SO	2011-03-24	FIELD
5A	SL-225-SA5A-SB-4.0-5.0	DX064	SO	2011-03-24	FIELD
5A	SL-226-SA5A-SB-4.0-5.0	DX064	SO	2011-03-24	FIELD
5A	SL-239-SA5A-SB-4.0-5.0	DX064	SO	2011-03-23	FIELD
5A	SL-240-SA5A-SB-4.0-5.0	DX064	SO	2011-03-23	FIELD
5A	SL-240-SA5A-SB-9.0-10.0	DX064	SO	2011-03-23	FIELD
5A	DUP-11-SA5A-QC-033011	DX065	SO	2011-03-30	FIELD
5A	DUP-12-SA5A-QC-033011	DX065	SO	2011-03-30	FIELD
5A	EB10-SA5A-032911	DX065	WQ	2011-03-29	FIELD
5A	SL-082-SA5A-SB-4.0-5.0	DX065	SO	2011-03-30	FIELD
5A	SL-083-SA5A-SB-4.0-5.0	DX065	SO	2011-03-30	FIELD
5A	SL-083-SA5A-SB-9.0-10.0	DX065	SO	2011-03-30	FIELD
5A	SL-090-SA5A-SB-4.0-5.0	DX065	SO	2011-03-30	FIELD
5A	SL-091-SA5A-SB-3.0-4.0	DX065	SO	2011-03-29	FIELD
5A	SL-093-SA5A-SB-3.5-4.5	DX065	SO	2011-03-30	FIELD
5A	SL-208-SA5A-SB-4.0-5.0	DX065	SO	2011-03-29	FIELD
5A	SL-208-SA5A-SB-7.5-8.5	DX065	SO	2011-03-29	FIELD
5A	SL-209-SA5A-SB-4.0-5.0	DX065	SO	2011-03-28	FIELD
5A	SL-211-SA5A-SB-2.5-3.5	DX065	SO	2011-03-28	FIELD
5A	SL-214-SA5A-SB-4.0-5.0	DX065	SO	2011-03-28	FIELD
5A	SL-214-SA5A-SB-8.5-9.5	DX065	SO	2011-03-28	FIELD
5A	SL-215-SA5A-SB-4.0-5.0	DX065	SO	2011-03-28	FIELD
5A	SL-216-SA5A-SB-4.0-5.0	DX065	SO	2011-03-28	FIELD
5A	SL-221-SA5A-SB-3.0-4.0	DX065	SO	2011-03-29	FIELD
5A	SL-222-SA5A-SB-3.5-4.5	DX065	SO	2011-03-30	FIELD
5A	SL-257-SA5A-SB-2.5-3.5	DX065	SO	2011-03-30	FIELD
5A	EB11-SA5A-SB-040511	DX066	WQ	2011-04-05	FIELD
5A	SL-071-SA5A-SB-4.0-5.0	DX066	SO	2011-04-01	FIELD
5A	SL-072-SA5A-SB-4.0-5.0	DX066	SO	2011-04-01	FIELD
5A	SL-075-SA5A-SB-2.5-3.5	DX066	SO	2011-03-31	FIELD
5A	SL-076-SA5A-SB-4.0-5.0	DX066	SO	2011-04-01	FIELD
5A	SL-079-SA5A-SB-4.0-5.0	DX066	SO	2011-04-07	FIELD
5A	SL-080-SA5A-SB-3.0-4.0	DX066	SO	2011-04-07	FIELD
5A	SL-081-SA5A-SB-2.0-3.0	DX066	SO	2011-04-07	FIELD
5A	SL-085-SA5A-SB-4.0-5.0	DX066	SO	2011-04-04	FIELD
5A	SL-087-SA5A-SB-2.0-3.0	DX066	SO	2011-04-04	FIELD
5A	SL-088-SA5A-SB-4.0-5.0	DX066	SO	2011-04-07	FIELD
5A	SL-089-SA5A-SB-4.0-5.0	DX066	SO	2011-03-31	FIELD
5A	SL-089-SA5A-SB-9.0-10.0	DX066	SO	2011-03-31	FIELD
5A	SL-094-SA5A-SB-4.0-5.0	DX066	SO	2011-03-31	FIELD
5A	SL-094-SA5A-SB-9.0-10.0	DX066	SO	2011-03-31	FIELD
5A	SL-151-SA5A-SB-4.0-5.0	DX066	SO	2011-04-06	FIELD
5A	SL-154-SA5A-SB-4.0-5.0	DX066	SO	2011-04-05	FIELD
5A	SL-154-SA5A-SB-7.0-8.0	DX066	SO	2011-04-05	FIELD
5A	SL-156-SA5A-SB-3.0-4.0	DX066	SO	2011-04-05	FIELD
5A	SL-258-SA5A-SB-4.0-5.0	DX066	SO	2011-04-07	FIELD

Appendix C. Samples by SDG for 5A

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
5A	DUP-13-SA5A-QC-041111	DX067	SO	2011-04-11	FIELD
5A	SL-186-SA5A-SB-3.5-4.5	DX067	SO	2011-04-11	FIELD
5A	SL-187-SA5A-SB-4.0-5.0	DX067	SO	2011-04-11	FIELD
5A	SL-188-SA5A-SB-4.5-5.5	DX067	SO	2011-04-11	FIELD
5A	SL-189-SA5A-SB-5.0-6.0	DX067	SO	2011-04-11	FIELD
5A	SL-189-SA5A-SB-8.5-9.5	DX067	SO	2011-04-11	FIELD
5A	SL-202-SA5A-SB-3.0-4.0	DX069	SO	2011-04-12	FIELD
5A	SL-206-SA5A-SB-4.0-5.0	DX069	SO	2011-04-12	FIELD
5A	SL-207-SA5A-SB-3.0-4.0	DX069	SO	2011-04-12	FIELD
5A	SL-227-SA5A-SB-3.0-4.0	DX069	SO	2011-04-12	FIELD
5A	SL-228-SA5A-SB-3.0-4.0	DX069	SO	2011-04-12	FIELD
5A	SL-060-SA5A-SB-4.0-5.0	DX070	SO	2011-04-13	FIELD
5A	SL-060-SA5A-SB-8.0-9.0	DX070	SO	2011-04-13	FIELD
5A	SL-061-SA5A-SB-4.0-5.0	DX070	SO	2011-04-13	FIELD
5A	SL-204-SA5A-SB-4.0-5.0	DX070	SO	2011-04-13	FIELD
5A	SL-205-SA5A-SB-4.0-5.0	DX070	SO	2011-04-13	FIELD
5A	SL-205-SA5A-SB-8.0-9.0	DX070	SO	2011-04-13	FIELD
5A	EB13-SA5A-SB-041811	DX071	WQ	2011-04-18	FIELD
5A	SL-032-SA5A-SB-3.0-4.0	DX071	SO	2011-04-18	FIELD
5A	SL-172-SA5A-SB-4.0-5.0	DX071	SO	2011-04-18	FIELD
5A	SL-174-SA5A-SB-2.0-3.0	DX071	SO	2011-04-18	FIELD
5A	SL-254-SA5A-SB-2.5-3.5	DX071	SO	2011-04-18	FIELD
5A	DUP14-SA5A-QC-041411	DX072	SO	2011-04-14	FIELD
5A	SL-041-SA5A-SB-4.0-5.0	DX072	SO	2011-04-15	FIELD
5A	SL-044-SA5A-SB-3.0-4.0	DX072	SO	2011-04-15	FIELD
5A	SL-052-SA5A-SB-4.0-5.0	DX072	SO	2011-04-15	FIELD
5A	SL-058-SA5A-SB-3.0-4.0	DX072	SO	2011-04-14	FIELD
5A	SL-059-SA5A-SB-3.0-4.0	DX072	SO	2011-04-14	FIELD
5A	SL-065-SA5A-SB-4.0-5.0	DX072	SO	2011-04-14	FIELD
5A	SL-242-SA5A-SB-2.5-3.5	DX072	SO	2011-04-14	FIELD
5A	SL-243-SA5A-SB-4.0-5.0	DX072	SO	2011-04-15	FIELD
5A	SL-126-SA5A-SB-4.0-5.0	DX073	SO	2011-04-19	FIELD
5A	SL-127-SA5A-SB-2.0-3.0	DX073	SO	2011-04-19	FIELD
5A	SL-171-SA5A-SB-2.0-3.0	DX073	SO	2011-04-19	FIELD
5A	DUP15-SA5A-QC-042011	DX075	SO	2011-04-20	FIELD
5A	SL-148-SA5A-SB-4.0-5.0	DX075	SO	2011-04-20	FIELD
5A	SL-148-SA5A-SB-9.0-10.0	DX075	SO	2011-04-20	FIELD
5A	DUP16-SA5A-QC-042211	DX077	SO	2011-04-22	FIELD
5A	SL-064-SA5A-SB-3.0-4.0	DX077	SO	2011-04-22	FIELD
5A	SL-166-SA5A-SS-0.0-0.5	DX077	SO	2011-04-22	FIELD
5A	SL-253-SA5A-SB-4.0-5.0	DX077	SO	2011-04-15	FIELD
5A	SL-253-SA5A-SB-8.0-9.0	DX077	SO	2011-04-22	FIELD
5A	DUP-17-SA5A-QC-051611	DX081	SO	2011-05-16	FIELD
5A	EB15-SA5A-SB-051611	DX081	WQ	2011-05-16	FIELD
5A	SL-042-SA5A-SB-3.5-4.5	DX081	SO	2011-05-16	FIELD
5A	SL-167-SA5A-SB-1.0-2.0	DX081	SO	2011-05-16	FIELD
5A	SL-254-SA5A-SS-0.0-0.5	DX082	SO	2011-05-16	FIELD

SAMPLE DELIVERY GROUP

DE077

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-Feb-2011	TB-020711	6200292	TB	5030B	8260B	III
07-Feb-2011	TB-020711	6200292	TB	5030B	8260B SIM	III
07-Feb-2011	SL-160-SA5B-SB-4.0-5.0	6200288	N	3050B	6010B	III
07-Feb-2011	SL-160-SA5B-SB-4.0-5.0	6200288	N	3050B	6020	III
07-Feb-2011	SL-160-SA5B-SB-4.0-5.0	6200288	N	3060A	7199	III
07-Feb-2011	SL-160-SA5B-SB-4.0-5.0	6200288	N	3550B	8082	III
07-Feb-2011	SL-160-SA5B-SB-4.0-5.0	6200288	N	3550B	8270C	III
07-Feb-2011	SL-160-SA5B-SB-4.0-5.0	6200288	N	3550B	8270C SIM	III
07-Feb-2011	SL-160-SA5B-SB-4.0-5.0	6200288	N	5035	8260B	III
07-Feb-2011	SL-160-SA5B-SB-4.0-5.0	6200288	N	5035	8260B SIM	III
07-Feb-2011	SL-160-SA5B-SB-4.0-5.0	6200288	N	Gen Prep	9045M	III
07-Feb-2011	SL-160-SA5B-SB-4.0-5.0	6200288	N	METHOD	300.0	III
07-Feb-2011	SL-160-SA5B-SB-4.0-5.0	6200288	N	METHOD	314.0	III
07-Feb-2011	SL-160-SA5B-SB-4.0-5.0	6200288	N	METHOD	7471A	III
07-Feb-2011	SL-162-SA5B-SB-4.0-5.0	6200290	N	3050B	6010B	III
07-Feb-2011	SL-162-SA5B-SB-4.0-5.0	6200290	N	3050B	6020	III
07-Feb-2011	SL-162-SA5B-SB-4.0-5.0	6200290	N	3060A	7199	III
07-Feb-2011	SL-162-SA5B-SB-4.0-5.0	6200290	N	3550B	8082	III
07-Feb-2011	SL-162-SA5B-SB-4.0-5.0	6200290	N	3550B	8270C	III
07-Feb-2011	SL-162-SA5B-SB-4.0-5.0	6200290	N	3550B	8270C SIM	III
07-Feb-2011	SL-162-SA5B-SB-4.0-5.0	6200290	N	5035	8260B	III
07-Feb-2011	SL-162-SA5B-SB-4.0-5.0	6200290	N	5035	8260B SIM	III
07-Feb-2011	SL-162-SA5B-SB-4.0-5.0	6200290	N	Gen Prep	9045M	III
07-Feb-2011	SL-162-SA5B-SB-4.0-5.0	6200290	N	METHOD	300.0	III
07-Feb-2011	SL-162-SA5B-SB-4.0-5.0	6200290	N	METHOD	314.0	III
07-Feb-2011	SL-162-SA5B-SB-4.0-5.0	6200290	N	METHOD	7471A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-Feb-2011	SL-162-SA5B-SB-4.0-5.0DUP	P200290D270652B	DUP	METHOD	314.0	III
07-Feb-2011	SL-162-SA5B-SB-4.0-5.0MS	P200290R270740B	MS	METHOD	314.0	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0	6200286	N	3050B	6010B	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0	6200286	N	3050B	6020	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0	6200286	N	3060A	7199	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0	6200286	N	3550B	8082	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0	6200286	N	3550B	8270C	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0	6200286	N	3550B	8270C SIM	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0	6200286	N	5035	8260B	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0	6200286	N	5035	8260B SIM	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0	6200286	N	Gen Prep	9045M	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0	6200286	N	METHOD	300.0	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0	6200286	N	METHOD	314.0	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0	6200286	N	METHOD	7471A	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0DUP	P200286D221103	DUP	3050B	6010B	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0DUP	P200286D221116A	DUP	3050B	6020	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0DUP	P200286D221116C	DUP	3050B	6020	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0DUP	P200286D221116D	DUP	3050B	6020	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0DUP	P200286D221539	DUP	METHOD	7471A	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0DUP	P200286D221635A	DUP	3050B	6020	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0DUP	P200286D221635B	DUP	3050B	6020	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0DUP	P200286D222125	DUP	3050B	6010B	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0DUP	P200286D271307A	DUP	METHOD	300.0	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0DUP	P200286D291330A	DUP	Gen Prep	9045M	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MSD	P200286M221122A	MSD	3050B	6020	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MSD	P200286M221122C	MSD	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MSD	P200286M221122D	MSD	3050B	6020	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MSD	P200286M221541	MSD	METHOD	7471A	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MSD	P200286M221640A	MSD	3050B	6020	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MSD	P200286M221640B	MSD	3050B	6020	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MSD	P200286M222133	MSD	3050B	6010B	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MSD	P200286M241940A	MSD	3550B	8082	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MSD	P200286M261036	MSD	3550B	8270C SIM	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MS	P200286R221119A	MS	3050B	6020	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MS	P200286R221119C	MS	3050B	6020	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MS	P200286R221119D	MS	3050B	6020	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MS	P200286R221540	MS	METHOD	7471A	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MS	P200286R221638A	MS	3050B	6020	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MS	P200286R221638B	MS	3050B	6020	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MS	P200286R222128	MS	3050B	6010B	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MS	P200286R241922A	MS	3550B	8082	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MS	P200286R261005	MS	3550B	8270C SIM	III
07-Feb-2011	SL-048-SA5A-SB-3.0-4.0MS	P200286R271322A	MS	METHOD	300.0	III
07-Feb-2011	SL-161-SA5B-SB-4.0-5.0	6200289	N	3050B	6010B	III
07-Feb-2011	SL-161-SA5B-SB-4.0-5.0	6200289	N	3050B	6020	III
07-Feb-2011	SL-161-SA5B-SB-4.0-5.0	6200289	N	3060A	7199	III
07-Feb-2011	SL-161-SA5B-SB-4.0-5.0	6200289	N	3550B	8082	III
07-Feb-2011	SL-161-SA5B-SB-4.0-5.0	6200289	N	3550B	8270C	III
07-Feb-2011	SL-161-SA5B-SB-4.0-5.0	6200289	N	3550B	8270C SIM	III
07-Feb-2011	SL-161-SA5B-SB-4.0-5.0	6200289	N	5035	8260B	III
07-Feb-2011	SL-161-SA5B-SB-4.0-5.0	6200289	N	5035	8260B SIM	III
07-Feb-2011	SL-161-SA5B-SB-4.0-5.0	6200289	N	Gen Prep	9045M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-Feb-2011	SL-161-SA5B-SB-4.0-5.0	6200289	N	METHOD	300.0	III
07-Feb-2011	SL-161-SA5B-SB-4.0-5.0	6200289	N	METHOD	314.0	III
07-Feb-2011	SL-161-SA5B-SB-4.0-5.0	6200289	N	METHOD	7471A	III
07-Feb-2011	SL-049-SA5A-SB-2.0-3.0	6200287	N	3050B	6010B	III
07-Feb-2011	SL-049-SA5A-SB-2.0-3.0	6200287	N	3050B	6020	III
07-Feb-2011	SL-049-SA5A-SB-2.0-3.0	6200287	N	3060A	7199	III
07-Feb-2011	SL-049-SA5A-SB-2.0-3.0	6200287	N	3550B	8082	III
07-Feb-2011	SL-049-SA5A-SB-2.0-3.0	6200287	N	3550B	8270C	III
07-Feb-2011	SL-049-SA5A-SB-2.0-3.0	6200287	N	3550B	8270C SIM	III
07-Feb-2011	SL-049-SA5A-SB-2.0-3.0	6200287	N	5035	8260B	III
07-Feb-2011	SL-049-SA5A-SB-2.0-3.0	6200287	N	5035	8260B SIM	III
07-Feb-2011	SL-049-SA5A-SB-2.0-3.0	6200287	N	Gen Prep	9045M	III
07-Feb-2011	SL-049-SA5A-SB-2.0-3.0	6200287	N	METHOD	300.0	III
07-Feb-2011	SL-049-SA5A-SB-2.0-3.0	6200287	N	METHOD	314.0	III
07-Feb-2011	SL-049-SA5A-SB-2.0-3.0	6200287	N	METHOD	7471A	III
07-Feb-2011	SL-163-SA5B-SB-3.5-4.5	6200291	N	3050B	6010B	III
07-Feb-2011	SL-163-SA5B-SB-3.5-4.5	6200291	N	3050B	6020	III
07-Feb-2011	SL-163-SA5B-SB-3.5-4.5	6200291	N	3060A	7199	III
07-Feb-2011	SL-163-SA5B-SB-3.5-4.5	6200291	N	3550B	8082	III
07-Feb-2011	SL-163-SA5B-SB-3.5-4.5	6200291	N	3550B	8270C	III
07-Feb-2011	SL-163-SA5B-SB-3.5-4.5	6200291	N	3550B	8270C SIM	III
07-Feb-2011	SL-163-SA5B-SB-3.5-4.5	6200291	N	5035	8260B	III
07-Feb-2011	SL-163-SA5B-SB-3.5-4.5	6200291	N	5035	8260B SIM	III
07-Feb-2011	SL-163-SA5B-SB-3.5-4.5	6200291	N	Gen Prep	9045M	III
07-Feb-2011	SL-163-SA5B-SB-3.5-4.5	6200291	N	METHOD	300.0	III
07-Feb-2011	SL-163-SA5B-SB-3.5-4.5	6200291	N	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-Feb-2011	SL-163-SA5B-SB-3.5-4.5	6200291	N	METHOD	7471A	III

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation
N = Normal Sample
FD = Field Duplicate
TB = Trip Blank
FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GEN CHEM

Method: 300.0 **Matrix: SO**

Sample ID: **SL-048-SA5A-SB-3.0-4.0** ***Collected:*** **2/7/2011 12:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.1	J	0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-049-SA5A-SB-2.0-3.0** ***Collected:*** **2/7/2011 3:19:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-160-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 10:23:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-161-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 2:33:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-162-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 11:54:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-163-SA5B-SB-3.5-4.5** ***Collected:*** **2/7/2011 3:36:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-048-SA5A-SB-3.0-4.0** ***Collected:*** **2/7/2011 12:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	378		0.603	MDL	10.8	PQL	mg/Kg	J	Q
POTASSIUM	1960		19.4	MDL	53.8	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-048-SA5A-SB-3.0-4.0** ***Collected:*** **2/7/2011 12:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	102	J	40.1	MDL	108	PQL	mg/Kg	J	Z
TIN	2.45	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	2.09	J	0.904	MDL	5.38	PQL	mg/Kg	U	B

Sample ID: **SL-049-SA5A-SB-2.0-3.0** ***Collected:*** **2/7/2011 3:19:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	517		0.619	MDL	11.0	PQL	mg/Kg	J	Q
POTASSIUM	3100		19.9	MDL	55.2	PQL	mg/Kg	J	Q
SODIUM	68.3	J	41.2	MDL	110	PQL	mg/Kg	J	Z
TIN	2.44	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.72	J	0.928	MDL	5.52	PQL	mg/Kg	U	B

Sample ID: **SL-160-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 10:23:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	224		0.606	MDL	10.8	PQL	mg/Kg	J	Q
POTASSIUM	1620		19.5	MDL	54.1	PQL	mg/Kg	J	Q
TIN	2.45	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	2.18	J	0.909	MDL	5.41	PQL	mg/Kg	U	B

Sample ID: **SL-161-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 2:33:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	255		0.607	MDL	10.8	PQL	mg/Kg	J	Q
POTASSIUM	1860		19.5	MDL	54.2	PQL	mg/Kg	J	Q
TIN	2.70	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	2.64	J	0.911	MDL	5.42	PQL	mg/Kg	U	B

Sample ID: **SL-162-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 11:54:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	183		0.613	MDL	10.9	PQL	mg/Kg	J	Q
POTASSIUM	1460		19.7	MDL	54.7	PQL	mg/Kg	J	Q
TIN	2.85	J	1.09	MDL	10.9	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-162-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 11:54:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	2.96	J	0.919	MDL	5.47	PQL	mg/Kg	J	Z

Sample ID: **SL-163-SA5B-SB-3.5-4.5** ***Collected:*** **2/7/2011 3:36:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	214		0.592	MDL	10.6	PQL	mg/Kg	J	Q
POTASSIUM	1840		19.0	MDL	52.8	PQL	mg/Kg	J	Q
TIN	2.83	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	2.42	J	0.887	MDL	5.28	PQL	mg/Kg	U	B

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-048-SA5A-SB-3.0-4.0** ***Collected:*** **2/7/2011 12:28:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.147	J	0.0659	MDL	0.220	PQL	mg/Kg	J	Z, Q
COPPER	8.40		0.0724	MDL	0.439	PQL	mg/Kg	J	A
NICKEL	16.3		0.110	MDL	0.439	PQL	mg/Kg	J	A

Sample ID: **SL-048-SA5A-SB-3.0-4.0** ***Collected:*** **2/7/2011 12:28:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.146	J	0.0439	MDL	0.439	PQL	mg/Kg	J	Z

Sample ID: **SL-048-SA5A-SB-3.0-4.0** ***Collected:*** **2/7/2011 12:28:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	57.3		0.119	MDL	0.439	PQL	mg/Kg	J	E

Sample ID: **SL-048-SA5A-SB-3.0-4.0** ***Collected:*** **2/7/2011 12:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.0580	J	0.0439	MDL	0.110	PQL	mg/Kg	J	Z
CHROMIUM	24.3		0.132	MDL	0.439	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-048-SA5A-SB-3.0-4.0 ***Collected:*** 2/7/2011 12:28:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0191	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-049-SA5A-SB-2.0-3.0 ***Collected:*** 2/7/2011 3:19:00 PM ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.128	J	0.0663	MDL	0.221	PQL	mg/Kg	J	Z, Q
COPPER	9.29		0.0729	MDL	0.442	PQL	mg/Kg	J	A
NICKEL	12.7		0.110	MDL	0.442	PQL	mg/Kg	J	A

Sample ID: SL-049-SA5A-SB-2.0-3.0 ***Collected:*** 2/7/2011 3:19:00 PM ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.110	J	0.0442	MDL	0.442	PQL	mg/Kg	J	Z

Sample ID: SL-049-SA5A-SB-2.0-3.0 ***Collected:*** 2/7/2011 3:19:00 PM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	90.5		0.119	MDL	0.442	PQL	mg/Kg	J	E

Sample ID: SL-049-SA5A-SB-2.0-3.0 ***Collected:*** 2/7/2011 3:19:00 PM ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	17.8		0.133	MDL	0.442	PQL	mg/Kg	J	A
SILVER	0.0343	J	0.0133	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-160-SA5B-SB-4.0-5.0 ***Collected:*** 2/7/2011 10:23:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.126	J	0.0656	MDL	0.219	PQL	mg/Kg	J	Z, Q
COPPER	7.54		0.0721	MDL	0.437	PQL	mg/Kg	J	A
NICKEL	13.7		0.109	MDL	0.437	PQL	mg/Kg	J	A

Sample ID: SL-160-SA5B-SB-4.0-5.0 ***Collected:*** 2/7/2011 10:23:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0841	J	0.0437	MDL	0.437	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-160-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 10:23:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	76.2		0.118	MDL	0.437	PQL	mg/Kg	J	E

Sample ID: **SL-160-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 10:23:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	20.9		0.131	MDL	0.437	PQL	mg/Kg	J	A

Sample ID: **SL-161-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 2:33:00 PM** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0919	J	0.0638	MDL	0.213	PQL	mg/Kg	J	Z, Q
COPPER	8.48		0.0702	MDL	0.425	PQL	mg/Kg	J	A
NICKEL	13.4		0.106	MDL	0.425	PQL	mg/Kg	J	A

Sample ID: **SL-161-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 2:33:00 PM** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0823	J	0.0425	MDL	0.425	PQL	mg/Kg	J	Z

Sample ID: **SL-161-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 2:33:00 PM** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	107		0.115	MDL	0.425	PQL	mg/Kg	J	E

Sample ID: **SL-161-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 2:33:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.105	J	0.0425	MDL	0.106	PQL	mg/Kg	J	Z
CHROMIUM	21.5		0.128	MDL	0.425	PQL	mg/Kg	J	A

Sample ID: **SL-162-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 11:54:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.121	J	0.0650	MDL	0.217	PQL	mg/Kg	J	Z, Q
COPPER	9.81		0.0715	MDL	0.434	PQL	mg/Kg	J	A
NICKEL	13.5		0.108	MDL	0.434	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-162-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 11:54:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0529	J	0.0434	MDL	0.434	PQL	mg/Kg	J	Z

Sample ID: **SL-162-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 11:54:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	81.3		0.117	MDL	0.434	PQL	mg/Kg	J	E

Sample ID: **SL-162-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 11:54:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	24.3		0.130	MDL	0.434	PQL	mg/Kg	J	A

Sample ID: **SL-163-SA5B-SB-3.5-4.5** ***Collected:*** **2/7/2011 3:36:00 PM** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.128	J	0.0622	MDL	0.207	PQL	mg/Kg	J	Z, Q
COPPER	8.33		0.0684	MDL	0.414	PQL	mg/Kg	J	A
NICKEL	13.5		0.104	MDL	0.414	PQL	mg/Kg	J	A

Sample ID: **SL-163-SA5B-SB-3.5-4.5** ***Collected:*** **2/7/2011 3:36:00 PM** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.122	J	0.0414	MDL	0.414	PQL	mg/Kg	J	Z

Sample ID: **SL-163-SA5B-SB-3.5-4.5** ***Collected:*** **2/7/2011 3:36:00 PM** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	110		0.112	MDL	0.414	PQL	mg/Kg	J	E

Sample ID: **SL-163-SA5B-SB-3.5-4.5** ***Collected:*** **2/7/2011 3:36:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	21.9		0.124	MDL	0.414	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-162-SA5B-SB-4.0-5.0 ***Collected:*** 2/7/2011 11:54:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.29	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-162-SA5B-SB-4.0-5.0 ***Collected:*** 2/7/2011 11:54:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0122	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-163-SA5B-SB-3.5-4.5 ***Collected:*** 2/7/2011 3:36:00 PM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0058	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-048-SA5A-SB-3.0-4.0 ***Collected:*** 2/7/2011 12:28:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L

Sample ID: SL-049-SA5A-SB-2.0-3.0 ***Collected:*** 2/7/2011 3:19:00 PM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **SL-160-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 10:23:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	2.3		0.43	MDL	1.9	PQL	ug/Kg	J	S
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5460	1.2	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z, S, L

Sample ID: **SL-161-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 2:33:00 PM** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	9.3		0.37	MDL	1.9	PQL	ug/Kg	J	S
AROCLOR 1260	3.1		0.43	MDL	1.9	PQL	ug/Kg	J	S
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5460	3.3	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z, S, L

Sample ID: **SL-162-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 11:54:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5460	2.4	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z, L

Sample ID: **SL-163-SA5B-SB-3.5-4.5** ***Collected:*** **2/7/2011 3:36:00 PM** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.1	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5460	1.3	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z, L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **SL-048-SA5A-SB-3.0-4.0** ***Collected:*** **2/7/2011 12:28:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	0.94	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-049-SA5A-SB-2.0-3.0** ***Collected:*** **2/7/2011 3:19:00 PM** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.78	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.1	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	0.90	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.91	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	0.92	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-160-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 10:23:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.40	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
ANTHRACENE	1.1	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.4	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.3	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.7	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.3	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	1.4	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
Di-n-butylphthalate	7.0	J	6.6	MDL	20	PQL	ug/Kg	J	Z
FLUORANTHENE	1.4	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
FLUORENE	0.79	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.4	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	0.90	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	1.4	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	1.5	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-161-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 2:33:00 PM** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.59	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **SL-161-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 2:33:00 PM** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.88	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.76	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	0.94	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.4	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	1.0	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	0.86	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	0.93	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-162-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 11:54:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(K)FLUORANTHENE	0.81	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	0.61	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.4	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-163-SA5B-SB-3.5-4.5** ***Collected:*** **2/7/2011 3:36:00 PM** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.41	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	0.83	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: **SL-048-SA5A-SB-3.0-4.0** ***Collected:*** **2/7/2011 12:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.91**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.3	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: **SL-049-SA5A-SB-2.0-3.0** ***Collected:*** **2/7/2011 3:19:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **0.9**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.82	J	0.24	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: **SL-160-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 10:23:00** ***Analysis Type:*** **RES** ***Dilution:*** **1.13**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.55	J	0.30	MDL	5.0	PQL	ug/Kg	U	B

Sample ID: **SL-161-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 2:33:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **1.02**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.63	J	0.27	MDL	4.5	PQL	ug/Kg	U	B

Sample ID: **SL-162-SA5B-SB-4.0-5.0** ***Collected:*** **2/7/2011 11:54:00** ***Analysis Type:*** **RES** ***Dilution:*** **1.06**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.13	J	0.07	MDL	4.8	PQL	ug/Kg	J	Z
m,p-Xylene	0.46	J	0.20	MDL	4.8	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.72	J	0.29	MDL	4.8	PQL	ug/Kg	U	B

Sample ID: **SL-163-SA5B-SB-3.5-4.5** ***Collected:*** **2/7/2011 3:36:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **1.14**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.75	J	0.29	MDL	4.9	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE077

Method Blank Outlier Report

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P04108BB222105	2/11/2011 9:05:00 PM	TIN	1.50 mg/Kg	SL-048-SA5A-SB-3.0-4.0 SL-049-SA5A-SB-2.0-3.0 SL-160-SA5B-SB-4.0-5.0 SL-161-SA5B-SB-4.0-5.0 SL-162-SA5B-SB-4.0-5.0 SL-163-SA5B-SB-3.5-4.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-048-SA5A-SB-3.0-4.0(RES)	TIN	2.45 mg/Kg	2.45U mg/Kg
SL-049-SA5A-SB-2.0-3.0(RES)	TIN	2.44 mg/Kg	2.44U mg/Kg
SL-160-SA5B-SB-4.0-5.0(RES)	TIN	2.45 mg/Kg	2.45U mg/Kg
SL-161-SA5B-SB-4.0-5.0(RES)	TIN	2.70 mg/Kg	2.70U mg/Kg
SL-162-SA5B-SB-4.0-5.0(RES)	TIN	2.85 mg/Kg	2.85U mg/Kg
SL-163-SA5B-SB-3.5-4.5(RES)	TIN	2.83 mg/Kg	2.83U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P04126BB221626A	2/22/2011 4:26:00 PM	COPPER	0.0662 mg/Kg	SL-048-SA5A-SB-3.0-4.0 SL-049-SA5A-SB-2.0-3.0 SL-160-SA5B-SB-4.0-5.0 SL-161-SA5B-SB-4.0-5.0 SL-162-SA5B-SB-4.0-5.0 SL-163-SA5B-SB-3.5-4.5

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB66B211537A	2/8/2011 3:37:00 PM	METHYLENE CHLORIDE TOLUENE	0.44 ug/Kg 0.09 ug/Kg	SL-048-SA5A-SB-3.0-4.0 SL-049-SA5A-SB-2.0-3.0 SL-160-SA5B-SB-4.0-5.0 SL-161-SA5B-SB-4.0-5.0 SL-162-SA5B-SB-4.0-5.0 SL-163-SA5B-SB-3.5-4.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-048-SA5A-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	1.3 ug/Kg	4.0U ug/Kg
SL-049-SA5A-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	0.82 ug/Kg	4.1U ug/Kg
SL-160-SA5B-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.55 ug/Kg	5.0U ug/Kg

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-161-SA5B-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.63 ug/Kg	4.5U ug/Kg
SL-162-SA5B-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.72 ug/Kg	4.8U ug/Kg
SL-163-SA5B-SB-3.5-4.5(RES)	METHYLENE CHLORIDE	0.75 ug/Kg	4.9U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-048-SA5A-SB-3.0-4.0MS **SL-048-SA5A-SB-3.0-4.0MSD** (SL-048-SA5A-SB-3.0-4.0 SL -049-SA5A-SB-2.0-3.0 SL -160-SA5B-SB-4.0-5.0 SL -161-SA5B-SB-4.0-5.0 SL -162-SA5B-SB-4.0-5.0 SL -163-SA5B-SB-3.5-4.5)	ANTIMONY	43	40	75.00-125.00	-	ANTIMONY	J (all detects) UJ (all non-detects)
SL-048-SA5A-SB-3.0-4.0MS **SL-048-SA5A-SB-3.0-4.0MSD** (SL-048-SA5A-SB-3.0-4.0 SL -049-SA5A-SB-2.0-3.0 SL -160-SA5B-SB-4.0-5.0 SL -161-SA5B-SB-4.0-5.0 SL -162-SA5B-SB-4.0-5.0 SL -163-SA5B-SB-3.5-4.5)	BARIUM	126	133	75.00-125.00	-	BARIUM	No Qual, >4x

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-048-SA5A-SB-3.0-4.0MS	ALUMINUM	1344	1349	75.00-125.00	-	ALUMINUM	J(all detects) Al, Ca, Fe, Mg, Mn, Ti No Qual, >4x
SL-048-SA5A-SB-3.0-4.0MSD	CALCIUM	203	162	75.00-125.00	-	CALCIUM	
(SL-048-SA5A-SB-3.0-4.0	IRON	784	458	75.00-125.00	-	IRON	
SL -049-SA5A-SB-2.0-3.0	MAGNESIUM	351	177	75.00-125.00	-	MAGNESIUM	
SL -160-SA5B-SB-4.0-5.0	MANGANESE	174	-	75.00-125.00	-	MANGANESE	
SL -161-SA5B-SB-4.0-5.0	PHOSPHORUS	139	-	75.00-125.00	-	PHOSPHORUS	
SL -162-SA5B-SB-4.0-5.0	POTASSIUM	137	-	75.00-125.00	-	POTASSIUM	
SL -163-SA5B-SB-3.5-4.5)	TITANIUM	396	303	75.00-125.00	-	TITANIUM	

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-048-SA5A-SB-3.0-4.0MS (SL-048-SA5A-SB-3.0-4.0 SL -049-SA5A-SB-2.0-3.0 SL -160-SA5B-SB-4.0-5.0 SL -161-SA5B-SB-4.0-5.0 SL -162-SA5B-SB-4.0-5.0 SL -163-SA5B-SB-3.5-4.5)	FLUORIDE	54	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-048-SA5A-SB-3.0-4.0DUP (SL-048-SA5A-SB-3.0-4.0 SL -049-SA5A-SB-2.0-3.0 SL -160-SA5B-SB-4.0-5.0 SL -161-SA5B-SB-4.0-5.0 SL -162-SA5B-SB-4.0-5.0 SL -163-SA5B-SB-3.5-4.5)	FLUORIDE	200	20.00	No Qual OK by difference

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-048-SA5A-SB-3.0-4.0DUP (SL-048-SA5A-SB-3.0-4.0 SL -049-SA5A-SB-2.0-3.0 SL -160-SA5B-SB-4.0-5.0 SL -161-SA5B-SB-4.0-5.0 SL -162-SA5B-SB-4.0-5.0 SL -163-SA5B-SB-3.5-4.5)	Zirconium	21	20.00	No Qual OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-048-SA5A-SB-3.0-4.0DUP (SL-048-SA5A-SB-3.0-4.0 SL -049-SA5A-SB-2.0-3.0 SL -160-SA5B-SB-4.0-5.0 SL -161-SA5B-SB-4.0-5.0 SL -162-SA5B-SB-4.0-5.0 SL -163-SA5B-SB-3.5-4.5)	BARIUM	21	20.00	J(all detects) UJ(all non-detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P9LALCSQ260051 (SL-048-SA5A-SB-3.0-4.0 SL-049-SA5A-SB-2.0-3.0 SL-160-SA5B-SB-4.0-5.0 SL-161-SA5B-SB-4.0-5.0 SL-162-SA5B-SB-4.0-5.0 SL-163-SA5B-SB-3.5-4.5)	PHENOL	113	-	58.00-112.00	-	PHENOL	J (all detects)

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10480AY241845A (SL-048-SA5A-SB-3.0-4.0 SL-049-SA5A-SB-2.0-3.0 SL-160-SA5B-SB-4.0-5.0 SL-161-SA5B-SB-4.0-5.0 SL-162-SA5B-SB-4.0-5.0 SL-163-SA5B-SB-3.5-4.5)	Aroclor 5442	-	63	75.00-125.00	-	Aroclor 5432, 5442, 5460	J(all detects) UJ(all non-detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-160-SA5B-SB-4.0-5.0	DECACHLOROBIPHENYL	137	45.00-120.00	All Target Analytes	J (all detects)
SL-161-SA5B-SB-4.0-5.0	DECACHLOROBIPHENYL	123	45.00-120.00	All Target Analytes	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-048-SA5A-SB-3.0-4.0	SODIUM	J	102	108	PQL	mg/Kg	J (all detects)
	TIN	J	2.45	10.8	PQL	mg/Kg	
	Zirconium	J	2.09	5.38	PQL	mg/Kg	
SL-049-SA5A-SB-2.0-3.0	SODIUM	J	68.3	110	PQL	mg/Kg	J (all detects)
	TIN	J	2.44	11.0	PQL	mg/Kg	
	Zirconium	J	1.72	5.52	PQL	mg/Kg	
SL-160-SA5B-SB-4.0-5.0	TIN	J	2.45	10.8	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.18	5.41	PQL	mg/Kg	
SL-161-SA5B-SB-4.0-5.0	TIN	J	2.70	10.8	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.64	5.42	PQL	mg/Kg	
SL-162-SA5B-SB-4.0-5.0	TIN	J	2.85	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.96	5.47	PQL	mg/Kg	
SL-163-SA5B-SB-3.5-4.5	TIN	J	2.83	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.42	5.28	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-048-SA5A-SB-3.0-4.0	ANTIMONY	J	0.147	0.220	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0580	0.110	PQL	mg/Kg	
	SELENIUM	J	0.146	0.439	PQL	mg/Kg	
	SILVER	J	0.0191	0.110	PQL	mg/Kg	
SL-049-SA5A-SB-2.0-3.0	ANTIMONY	J	0.128	0.221	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.110	0.442	PQL	mg/Kg	
	SILVER	J	0.0343	0.110	PQL	mg/Kg	
SL-160-SA5B-SB-4.0-5.0	ANTIMONY	J	0.126	0.219	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0841	0.437	PQL	mg/Kg	
SL-161-SA5B-SB-4.0-5.0	ANTIMONY	J	0.0919	0.213	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.105	0.106	PQL	mg/Kg	
	SELENIUM	J	0.0823	0.425	PQL	mg/Kg	
SL-162-SA5B-SB-4.0-5.0	ANTIMONY	J	0.121	0.217	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0529	0.434	PQL	mg/Kg	
SL-163-SA5B-SB-3.5-4.5	ANTIMONY	J	0.128	0.207	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.122	0.414	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-162-SA5B-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.29	1.1	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-162-SA5B-SB-4.0-5.0	MERCURY	J	0.0122	0.108	PQL	mg/Kg	J (all detects)
SL-163-SA5B-SB-3.5-4.5	MERCURY	J	0.0058	0.105	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-160-SA5B-SB-4.0-5.0	Aroclor 5460	J	1.2	3.6	PQL	ug/Kg	J (all detects)
SL-161-SA5B-SB-4.0-5.0	Aroclor 5460	J	3.3	3.7	PQL	ug/Kg	J (all detects)
SL-162-SA5B-SB-4.0-5.0	Aroclor 5460	J	2.4	3.7	PQL	ug/Kg	J (all detects)
SL-163-SA5B-SB-3.5-4.5	AROCLOR 1260 Aroclor 5460	J J	1.1 1.3	1.8 3.6	PQL PQL	ug/Kg ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-048-SA5A-SB-3.0-4.0	METHYLENE CHLORIDE	J	1.3	4.0	PQL	ug/Kg	J (all detects)
SL-049-SA5A-SB-2.0-3.0	METHYLENE CHLORIDE	J	0.82	4.1	PQL	ug/Kg	J (all detects)
SL-160-SA5B-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.55	5.0	PQL	ug/Kg	J (all detects)
SL-161-SA5B-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.63	4.5	PQL	ug/Kg	J (all detects)
SL-162-SA5B-SB-4.0-5.0	ETHYLBENZENE m,p-Xylene METHYLENE CHLORIDE	J J J	0.13 0.46 0.72	4.8 4.8 4.8	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-163-SA5B-SB-3.5-4.5	METHYLENE CHLORIDE	J	0.75	4.9	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-048-SA5A-SB-3.0-4.0	NAPHTHALENE	J	0.94	1.8	PQL	ug/Kg	J (all detects)
SL-049-SA5A-SB-2.0-3.0	BENZO(B)FLUORANTHENE BENZO(G,H,I)PERYLENE CHRYSENE INDENO(1,2,3-CD)PYRENE NAPHTHALENE	J J J J J	0.78 1.1 0.90 0.91 0.92	1.9 1.9 1.9 1.9 1.9	PQL PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE077 **Laboratory: LL**

EDD Filename: DE077_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-160-SA5B-SB-4.0-5.0	ACENAPHTHYLENE	J	0.40	1.8	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	1.1	1.8	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.4	1.8	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.1	1.8	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.3	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.7	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.3	1.8	PQL	ug/Kg	
	CHRYSENE	J	1.4	1.8	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.1	1.8	PQL	ug/Kg	
	Di-n-butylphthalate	J	7.0	20	PQL	ug/Kg	
	FLUORANTHENE	J	1.4	1.8	PQL	ug/Kg	
	FLUORENE	J	0.79	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.4	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	0.90	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	1.8	PQL	ug/Kg	
	PYRENE	J	1.5	1.8	PQL	ug/Kg	
SL-161-SA5B-SB-4.0-5.0	ANTHRACENE	J	0.59	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	0.88	1.8	PQL	ug/Kg	
	BENZO(A)PYRENE	J	0.76	1.8	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	0.94	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.4	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.1	1.8	PQL	ug/Kg	
	CHRYSENE	J	1.0	1.8	PQL	ug/Kg	
	FLUORANTHENE	J	0.86	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	0.93	1.8	PQL	ug/Kg	
	PYRENE	J	1.1	1.8	PQL	ug/Kg	
SL-162-SA5B-SB-4.0-5.0	BENZO(K)FLUORANTHENE	J	0.81	1.9	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.61	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.4	1.9	PQL	ug/Kg	
SL-163-SA5B-SB-3.5-4.5	CHRYSENE	J	0.41	1.8	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	0.83	1.8	PQL	ug/Kg	

LDC #: 25764A4 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/6/11
SDG #: DE077 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ba, Ca, Fe, Mg, Mn, Ti, Zn 75%)
VII.	Duplicate Sample Analysis	N	D, R (25 < 5xRL)
VIII.	Laboratory Control Samples (LCS)	N	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Cr: 11%, Cu: 16%, Ni: 21% (J/UJ/A)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-048-SA5A-SB-3.0-4.0	11		21		31	
2	SL-049-SA5A-SB-2.0-3.0	12		22		32	
3	SL-160-SA5B-SB-4.0-5.0	13		23		33	
4	SL-161-SA5B-SB-4.0-5.0	14		24		34	
5	SL-162-SA5B-SB-4.0-5.0	15		25		35	
6	SL-163-SA5B-SB-3.5-4.5	16		26		36	
7	(x1) MS	17		27		37	
8	↓ MSD	18		28		38	
9	↓ DUP	19		29		39	
10		20		30		40	

Notes:

LDC #: 25764A4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Reviewer: CB
2nd Reviewer: A

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: 100x x MS: 2xdil
Sample Concentration units, unless otherwise noted: mg/Kg
Associated Samples: All Reason Code: B

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	1	2	3	4	6						
Zr			5.8	2.9	2.1	1.7	2.2	2.6	2.4						

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

SAMPLE DELIVERY GROUP

DE083

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Feb-2011	TB-021611	6208353	TB	5030B	8015M	III
16-Feb-2011	TB-021611	6208353	TB	5030B	8260B	III
16-Feb-2011	TB-021611	6208353	TB	5030B	8260B SIM	III
16-Feb-2011	SL-032-SA5A-SS-0.0-0.5	6208348	N	3050B	6010B	III
16-Feb-2011	SL-032-SA5A-SS-0.0-0.5	6208348	N	3050B	6020	III
16-Feb-2011	SL-032-SA5A-SS-0.0-0.5	6208348	N	3060A	7199	III
16-Feb-2011	SL-032-SA5A-SS-0.0-0.5	6208348	N	3550B	8081A	III
16-Feb-2011	SL-032-SA5A-SS-0.0-0.5	6208348	N	3550B	8082	III
16-Feb-2011	SL-032-SA5A-SS-0.0-0.5	6208348	N	3550B	8151A	III
16-Feb-2011	SL-032-SA5A-SS-0.0-0.5	6208348	N	3550B	8270C	III
16-Feb-2011	SL-032-SA5A-SS-0.0-0.5	6208348	N	3550B	8270C SIM	III
16-Feb-2011	SL-032-SA5A-SS-0.0-0.5	6208348	N	Gen Prep	9045M	III
16-Feb-2011	SL-032-SA5A-SS-0.0-0.5	6208348	N	METHOD	300.0	III
16-Feb-2011	SL-032-SA5A-SS-0.0-0.5	6208348	N	METHOD	314.0	III
16-Feb-2011	SL-032-SA5A-SS-0.0-0.5	6208348	N	METHOD	7471A	III
16-Feb-2011	SL-041-SA5A-SS-0.0-0.5	6208349	N	3050B	6010B	III
16-Feb-2011	SL-041-SA5A-SS-0.0-0.5	6208349	N	3050B	6020	III
16-Feb-2011	SL-041-SA5A-SS-0.0-0.5	6208349	N	3060A	7199	III
16-Feb-2011	SL-041-SA5A-SS-0.0-0.5	6208349	N	3550B	8081A	III
16-Feb-2011	SL-041-SA5A-SS-0.0-0.5	6208349	N	3550B	8082	III
16-Feb-2011	SL-041-SA5A-SS-0.0-0.5	6208349	N	3550B	8151A	III
16-Feb-2011	SL-041-SA5A-SS-0.0-0.5	6208349	N	3550B	8270C	III
16-Feb-2011	SL-041-SA5A-SS-0.0-0.5	6208349	N	3550B	8270C SIM	III
16-Feb-2011	SL-041-SA5A-SS-0.0-0.5	6208349	N	Gen Prep	9045M	III
16-Feb-2011	SL-041-SA5A-SS-0.0-0.5	6208349	N	METHOD	300.0	III
16-Feb-2011	SL-041-SA5A-SS-0.0-0.5	6208349	N	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Feb-2011	SL-041-SA5A-SS-0.0-0.5	6208349	N	METHOD	7471A	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5	6208342	N	3050B	6010B	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5	6208342	N	3050B	6020	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5	6208342	N	3060A	7199	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5	6208342	N	3550B	8081A	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5	6208342	N	3550B	8082	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5	6208342	N	3550B	8151A	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5	6208342	N	3550B	8270C	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5	6208342	N	3550B	8270C SIM	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5	6208342	N	Gen Prep	9045M	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5	6208342	N	METHOD	300.0	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5	6208342	N	METHOD	314.0	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5	6208342	N	METHOD	7471A	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5DUP	P208342D220252	DUP	3050B	6010B	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5DUP	P208342D220603	DUP	3050B	6010B	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5DUP	P208342D220912	DUP	METHOD	7471A	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5DUP	P208342D221154A	DUP	3050B	6020	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5DUP	P208342D221154B	DUP	3050B	6020	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5DUP	P208342D221154C	DUP	3050B	6020	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5DUP	P208342D221154D	DUP	3050B	6020	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5DUP	P208342D221314A	DUP	3050B	6020	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5DUP	P208342D271434A	DUP	METHOD	314.0	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5DUP	P208342D271623A	DUP	3060A	7199	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MSD	P208342M220300	MSD	3050B	6010B	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MSD	P208342M220610	MSD	3050B	6010B	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MSD	P208342M220914	MSD	METHOD	7471A	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MSD	P208342M221200A	MSD	3050B	6020	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MSD	P208342M221200B	MSD	3050B	6020	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MSD	P208342M221200C	MSD	3050B	6020	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MSD	P208342M221200D	MSD	3050B	6020	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MSD	P208342M221319A	MSD	3050B	6020	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MSD	P208342M241753A	MSD	3550B	8151A	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MSD	P208342M260230	MSD	3550B	8270C SIM	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MS	P208342R220256	MS	3050B	6010B	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MS	P208342R220607	MS	3050B	6010B	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MS	P208342R220913	MS	METHOD	7471A	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MS	P208342R221157A	MS	3050B	6020	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MS	P208342R221157B	MS	3050B	6020	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MS	P208342R221157C	MS	3050B	6020	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MS	P208342R221157D	MS	3050B	6020	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MS	P208342R221316A	MS	3050B	6020	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MS	P208342R241726A	MS	3550B	8151A	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MS	P208342R260156	MS	3550B	8270C SIM	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MS	P208342R271458A	MS	METHOD	314.0	III
16-Feb-2011	SL-024-SA5A-SS-0.0-0.5MS	P208342R271540A	MS	3060A	7199	III
16-Feb-2011	SL-026-SA5A-SS-0.0-0.5	6208344	N	3050B	6010B	III
16-Feb-2011	SL-026-SA5A-SS-0.0-0.5	6208344	N	3050B	6020	III
16-Feb-2011	SL-026-SA5A-SS-0.0-0.5	6208344	N	3060A	7199	III
16-Feb-2011	SL-026-SA5A-SS-0.0-0.5	6208344	N	3550B	8081A	III
16-Feb-2011	SL-026-SA5A-SS-0.0-0.5	6208344	N	3550B	8082	III
16-Feb-2011	SL-026-SA5A-SS-0.0-0.5	6208344	N	3550B	8151A	III
16-Feb-2011	SL-026-SA5A-SS-0.0-0.5	6208344	N	3550B	8270C	III

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation
N = Normal Sample
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FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Feb-2011	SL-026-SA5A-SS-0.0-0.5	6208344	N	3550B	8270C SIM	III
16-Feb-2011	SL-026-SA5A-SS-0.0-0.5	6208344	N	Gen Prep	9045M	III
16-Feb-2011	SL-026-SA5A-SS-0.0-0.5	6208344	N	METHOD	300.0	III
16-Feb-2011	SL-026-SA5A-SS-0.0-0.5	6208344	N	METHOD	314.0	III
16-Feb-2011	SL-026-SA5A-SS-0.0-0.5	6208344	N	METHOD	6850	III
16-Feb-2011	SL-026-SA5A-SS-0.0-0.5	6208344	N	METHOD	7471A	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	3050B	6010B	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	3050B	6020	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	3060A	7199	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	3546	1625C	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	3550B	8015B	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	3550B	8015M	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	3550B	8082	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	3550B	8270C	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	3550B	8270C SIM	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	5035	8015M	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	5035	8260B	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	5035	8260B SIM	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	8330	8330A	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	Gen Prep	314.0	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	Gen Prep	9045M	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	METHOD	300.0	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	METHOD	7471A	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	METHOD	8015B	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	METHOD	8015M	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	METHOD	8315A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0	6208352	N	METHOD	9012B	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0DUP	P208352D272029B	DUP	METHOD	300.0	III
16-Feb-2011	SL-335-SA5B-SB-2.0-3.0MS	P208352R272044B	MS	METHOD	300.0	III
16-Feb-2011	SL-031-SA5A-SS-0.0-0.5	6208347	N	3050B	6010B	III
16-Feb-2011	SL-031-SA5A-SS-0.0-0.5	6208347	N	3050B	6020	III
16-Feb-2011	SL-031-SA5A-SS-0.0-0.5	6208347	N	3060A	7199	III
16-Feb-2011	SL-031-SA5A-SS-0.0-0.5	6208347	N	3550B	8081A	III
16-Feb-2011	SL-031-SA5A-SS-0.0-0.5	6208347	N	3550B	8082	III
16-Feb-2011	SL-031-SA5A-SS-0.0-0.5	6208347	N	3550B	8151A	III
16-Feb-2011	SL-031-SA5A-SS-0.0-0.5	6208347	N	3550B	8270C	III
16-Feb-2011	SL-031-SA5A-SS-0.0-0.5	6208347	N	3550B	8270C SIM	III
16-Feb-2011	SL-031-SA5A-SS-0.0-0.5	6208347	N	Gen Prep	9045M	III
16-Feb-2011	SL-031-SA5A-SS-0.0-0.5	6208347	N	METHOD	300.0	III
16-Feb-2011	SL-031-SA5A-SS-0.0-0.5	6208347	N	METHOD	314.0	III
16-Feb-2011	SL-031-SA5A-SS-0.0-0.5	6208347	N	METHOD	7471A	III
16-Feb-2011	SL-031-SA5A-SS-0.0-0.5DUP	P208347D291130A	DUP	Gen Prep	9045M	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	3050B	6010B	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	3050B	6020	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	3060A	7199	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	3546	1625C	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	3550B	8015B	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	3550B	8015M	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	3550B	8082	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	3550B	8270C	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	3550B	8270C SIM	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	5035	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	5035	8260B	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	5035	8260B SIM	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	8330	8330A	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	Gen Prep	9045M	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	METHOD	300.0	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	METHOD	314.0	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	METHOD	7471A	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	METHOD	8015B	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	METHOD	8015M	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	METHOD	8315A	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0	6208351	N	METHOD	9012B	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0MSD	P208351M322033A	MSD	METHOD	8015B	III
16-Feb-2011	SL-333-SA5B-SB-4.0-5.0MS	P208351R322018A	MS	METHOD	8015B	III
16-Feb-2011	SL-028-SA5A-SS-0.0-0.5	6208345	N	3050B	6010B	III
16-Feb-2011	SL-028-SA5A-SS-0.0-0.5	6208345	N	3050B	6020	III
16-Feb-2011	SL-028-SA5A-SS-0.0-0.5	6208345	N	3060A	7199	III
16-Feb-2011	SL-028-SA5A-SS-0.0-0.5	6208345	N	3550B	8081A	III
16-Feb-2011	SL-028-SA5A-SS-0.0-0.5	6208345	N	3550B	8082	III
16-Feb-2011	SL-028-SA5A-SS-0.0-0.5	6208345	N	3550B	8151A	III
16-Feb-2011	SL-028-SA5A-SS-0.0-0.5	6208345	N	3550B	8270C	III
16-Feb-2011	SL-028-SA5A-SS-0.0-0.5	6208345	N	3550B	8270C SIM	III
16-Feb-2011	SL-028-SA5A-SS-0.0-0.5	6208345	N	Gen Prep	9045M	III
16-Feb-2011	SL-028-SA5A-SS-0.0-0.5	6208345	N	METHOD	300.0	III
16-Feb-2011	SL-028-SA5A-SS-0.0-0.5	6208345	N	METHOD	314.0	III
16-Feb-2011	SL-028-SA5A-SS-0.0-0.5	6208345	N	METHOD	7471A	III
16-Feb-2011	SL-028-SA5A-SS-0.0-0.5MSD	P208345M242038A	MSD	3550B	8151A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Feb-2011	SL-028-SA5A-SS-0.0-0.5MS	P208345R242011A	MS	3550B	8151A	III
16-Feb-2011	SL-029-SA5A-SS-0.0-0.5	6208346	N	3050B	6010B	III
16-Feb-2011	SL-029-SA5A-SS-0.0-0.5	6208346	N	3050B	6020	III
16-Feb-2011	SL-029-SA5A-SS-0.0-0.5	6208346	N	3060A	7199	III
16-Feb-2011	SL-029-SA5A-SS-0.0-0.5	6208346	N	3550B	8081A	III
16-Feb-2011	SL-029-SA5A-SS-0.0-0.5	6208346	N	3550B	8082	III
16-Feb-2011	SL-029-SA5A-SS-0.0-0.5	6208346	N	3550B	8151A	III
16-Feb-2011	SL-029-SA5A-SS-0.0-0.5	6208346	N	3550B	8270C	III
16-Feb-2011	SL-029-SA5A-SS-0.0-0.5	6208346	N	3550B	8270C SIM	III
16-Feb-2011	SL-029-SA5A-SS-0.0-0.5	6208346	N	Gen Prep	9045M	III
16-Feb-2011	SL-029-SA5A-SS-0.0-0.5	6208346	N	METHOD	300.0	III
16-Feb-2011	SL-029-SA5A-SS-0.0-0.5	6208346	N	METHOD	314.0	III
16-Feb-2011	SL-029-SA5A-SS-0.0-0.5	6208346	N	METHOD	7471A	III
16-Feb-2011	SL-025-SA5A-SS-0.0-0.5	6208343	N	3050B	6010B	III
16-Feb-2011	SL-025-SA5A-SS-0.0-0.5	6208343	N	3050B	6020	III
16-Feb-2011	SL-025-SA5A-SS-0.0-0.5	6208343	N	3060A	7199	III
16-Feb-2011	SL-025-SA5A-SS-0.0-0.5	6208343	N	3550B	8081A	III
16-Feb-2011	SL-025-SA5A-SS-0.0-0.5	6208343	N	3550B	8082	III
16-Feb-2011	SL-025-SA5A-SS-0.0-0.5	6208343	N	3550B	8151A	III
16-Feb-2011	SL-025-SA5A-SS-0.0-0.5	6208343	N	3550B	8270C	III
16-Feb-2011	SL-025-SA5A-SS-0.0-0.5	6208343	N	3550B	8270C SIM	III
16-Feb-2011	SL-025-SA5A-SS-0.0-0.5	6208343	N	Gen Prep	9045M	III
16-Feb-2011	SL-025-SA5A-SS-0.0-0.5	6208343	N	METHOD	300.0	III
16-Feb-2011	SL-025-SA5A-SS-0.0-0.5	6208343	N	METHOD	314.0	III
16-Feb-2011	SL-025-SA5A-SS-0.0-0.5	6208343	N	METHOD	7471A	III
16-Feb-2011	SL-025-SA5A-SS-0.0-0.5DUP	P208343D271656A	DUP	METHOD	300.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Feb-2011	SL-025-SA5A-SS-0.0-0.5MS	P208343R271712A	MS	METHOD	300.0	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	3050B	6010B	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	3050B	6020	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	3060A	7199	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	3546	1625C	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	3550B	8015B	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	3550B	8015M	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	3550B	8082	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	3550B	8270C	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	3550B	8270C SIM	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	5035	8015M	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	5035	8260B	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	5035	8260B SIM	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	8330	8330A	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	Gen Prep	9045M	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	METHOD	300.0	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	METHOD	314.0	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	METHOD	7471A	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	METHOD	8015B	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	METHOD	8015M	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	METHOD	8315A	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0	6208350	N	METHOD	9012B	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0MSD	P208350M241750A	MSD	METHOD	8315A	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0MSD	P208350M320551A	MSD	3550B	8015M	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0MSD	P208350M321735A	MSD	METHOD	8015M	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0MS	P208350R241740A	MS	METHOD	8315A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0MS	P208350R320526A	MS	3550B	8015M	III
16-Feb-2011	SL-332-SA5B-SB-4.0-5.0MS	P208350R321718A	MS	METHOD	8015M	III

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation
N = Normal Sample
FD = Field Duplicate
TB = Trip Blank
FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: **SL-024-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.9		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-025-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.8		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: **SL-026-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-028-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 12:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.8		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-029-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.9		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-031-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 11:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-032-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:20:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-041-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.89	MDL	1.1	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

porting Batch ID: DE083 Laboratory: LL

lename: PrepDE083_v1 eQAPP Name: CDM_SSFL_110509

Category: GENCHEM

300.0 Matrix: SO

D: SL-332-SA5B-SB-4.0-5.0 Collected: 2/16/2011 4:16:00 Analysis Type: RES Dilution: 1

	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
E	2.9		0.88	MDL	1.1	PQL	mg/Kg	J	Q

D: SL-333-SA5B-SB-4.0-5.0 Collected: 2/16/2011 12:30:00 Analysis Type: RES Dilution: 1

	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
E	3.8		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Category: METALS

6010B Matrix: SO

D: SL-024-SA5A-SS-0.0-0.5 Collected: 2/16/2011 10:30:00 Analysis Type: REA Dilution: 1

	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
	20.7		0.23	MDL	2.1	PQL	mg/Kg	J	A

D: SL-024-SA5A-SS-0.0-0.5 Collected: 2/16/2011 10:30:00 Analysis Type: RES Dilution: 1

	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
	1.90	J	0.940	MDL	5.28	PQL	mg/Kg	J	Z
UM	3260		19.0	MDL	52.8	PQL	mg/Kg	J	Q
	67.6	J	39.4	MDL	106	PQL	mg/Kg	J	Z
	2.59	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
	2.20	J	0.887	MDL	5.28	PQL	mg/Kg	J	Z

D: SL-025-SA5A-SS-0.0-0.5 Collected: 2/16/2011 1:28:00 Analysis Type: REA Dilution: 1

	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
	20.3		0.25	MDL	2.3	PQL	mg/Kg	J	A

D: SL-025-SA5A-SS-0.0-0.5 Collected: 2/16/2011 1:28:00 Analysis Type: RES Dilution: 1

	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
	3.37	J	1.02	MDL	5.71	PQL	mg/Kg	J	Z
UM	3490		20.6	MDL	57.1	PQL	mg/Kg	J	Q
	81.4	J	42.6	MDL	114	PQL	mg/Kg	J	Z

a non-reportable result

ame and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-025-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.80	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	2.33	J	0.960	MDL	5.71	PQL	mg/Kg	J	Z

Sample ID: **SL-026-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:45:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	22.5		0.24	MDL	2.2	PQL	mg/Kg	J	A

Sample ID: **SL-026-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.55	J	0.970	MDL	5.45	PQL	mg/Kg	J	Z
POTASSIUM	3100		19.6	MDL	54.5	PQL	mg/Kg	J	Q
SODIUM	90.1	J	40.6	MDL	109	PQL	mg/Kg	J	Z
TIN	2.88	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.78	J	0.915	MDL	5.45	PQL	mg/Kg	U	B

Sample ID: **SL-028-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 12:55:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	17.1		0.23	MDL	2.1	PQL	mg/Kg	J	A

Sample ID: **SL-028-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 12:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.54	J	0.949	MDL	5.33	PQL	mg/Kg	J	Z
POTASSIUM	3520		19.2	MDL	53.3	PQL	mg/Kg	J	Q
SODIUM	81.4	J	39.8	MDL	107	PQL	mg/Kg	J	Z
TIN	2.61	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	2.24	J	0.895	MDL	5.33	PQL	mg/Kg	J	Z

Sample ID: **SL-029-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:10:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	20.7		0.25	MDL	2.2	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-029-SA5A-SS-0.0-0.5 ***Collected:*** 2/16/2011 1:10:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.67	J	0.998	MDL	5.61	PQL	mg/Kg	J	Z
POTASSIUM	3370		20.2	MDL	56.1	PQL	mg/Kg	J	Q
SODIUM	99.5	J	41.8	MDL	112	PQL	mg/Kg	J	Z
TIN	2.55	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	2.46	J	0.942	MDL	5.61	PQL	mg/Kg	J	Z

Sample ID: SL-031-SA5A-SS-0.0-0.5 ***Collected:*** 2/16/2011 11:10:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	16.3		0.25	MDL	2.2	PQL	mg/Kg	J	A

Sample ID: SL-031-SA5A-SS-0.0-0.5 ***Collected:*** 2/16/2011 11:10:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.06	J	0.996	MDL	5.59	PQL	mg/Kg	J	Z
POTASSIUM	3130		20.1	MDL	55.9	PQL	mg/Kg	J	Q
SODIUM	78.9	J	41.7	MDL	112	PQL	mg/Kg	J	Z
TIN	2.58	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	1.96	J	0.940	MDL	5.59	PQL	mg/Kg	J	Z

Sample ID: SL-032-SA5A-SS-0.0-0.5 ***Collected:*** 2/16/2011 9:20:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	27.1		0.24	MDL	2.1	PQL	mg/Kg	J	A

Sample ID: SL-032-SA5A-SS-0.0-0.5 ***Collected:*** 2/16/2011 9:20:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.54	J	0.956	MDL	5.37	PQL	mg/Kg	J	Z
POTASSIUM	4870		19.3	MDL	53.7	PQL	mg/Kg	J	Q
SODIUM	71.0	J	40.1	MDL	107	PQL	mg/Kg	J	Z
TIN	3.01	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	1.30	J	0.902	MDL	5.37	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-041-SA5A-SS-0.0-0.5 ***Collected:*** 2/16/2011 9:30:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	25.3		0.24	MDL	2.2	PQL	mg/Kg	J	A

Sample ID: SL-041-SA5A-SS-0.0-0.5 ***Collected:*** 2/16/2011 9:30:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.41	J	0.976	MDL	5.48	PQL	mg/Kg	J	Z
POTASSIUM	4360		19.7	MDL	54.8	PQL	mg/Kg	J	Q
SODIUM	66.6	J	40.9	MDL	110	PQL	mg/Kg	J	Z
TIN	2.50	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.39	J	0.921	MDL	5.48	PQL	mg/Kg	U	B

Sample ID: SL-332-SA5B-SB-4.0-5.0 ***Collected:*** 2/16/2011 4:16:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	15.6		0.23	MDL	2.1	PQL	mg/Kg	J	A

Sample ID: SL-332-SA5B-SB-4.0-5.0 ***Collected:*** 2/16/2011 4:16:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2500		19.2	MDL	53.4	PQL	mg/Kg	J	Q
TIN	2.49	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	0.914	J	0.897	MDL	5.34	PQL	mg/Kg	U	B

Sample ID: SL-333-SA5B-SB-4.0-5.0 ***Collected:*** 2/16/2011 12:30:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	13.2		0.25	MDL	2.3	PQL	mg/Kg	J	A

Sample ID: SL-333-SA5B-SB-4.0-5.0 ***Collected:*** 2/16/2011 12:30:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.04	J	1.01	MDL	5.66	PQL	mg/Kg	J	Z
POTASSIUM	2050		20.4	MDL	56.6	PQL	mg/Kg	J	Q
TIN	2.74	J	1.13	MDL	11.3	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-335-SA5B-SB-2.0-3.0** ***Collected:*** **2/16/2011 10:57:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	15.7		0.24	MDL	2.2	PQL	mg/Kg	J	A

Sample ID: **SL-335-SA5B-SB-2.0-3.0** ***Collected:*** **2/16/2011 10:57:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2990		19.5	MDL	54.2	PQL	mg/Kg	J	Q
TIN	2.87	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	0.965	J	0.910	MDL	5.42	PQL	mg/Kg	U	B

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-024-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:30:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.298		0.0427	MDL	0.107	PQL	mg/Kg	J	Q, E

Sample ID: **SL-024-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:30:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.253	J	0.0427	MDL	0.427	PQL	mg/Kg	J	Z, Q

Sample ID: **SL-024-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:30:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.08		0.0533	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: **SL-024-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:30:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	142		0.115	MDL	0.427	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-024-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.306		0.0640	MDL	0.213	PQL	mg/Kg	J	Q, E
ARSENIC	6.24		0.0853	MDL	0.427	PQL	mg/Kg	J	Q, E
CHROMIUM	26.5		0.128	MDL	0.427	PQL	mg/Kg	J	Q, A
COBALT	8.39		0.0213	MDL	0.107	PQL	mg/Kg	J	Q, E, A
COPPER	15.3		0.0704	MDL	0.427	PQL	mg/Kg	J	Q, E, A
LEAD	22.0		0.0111	MDL	0.213	PQL	mg/Kg	J	A
NICKEL	17.7		0.107	MDL	0.427	PQL	mg/Kg	J	Q, E, A
SILVER	0.0856	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.398		0.0320	MDL	0.107	PQL	mg/Kg	J	Q
VANADIUM	51.9		0.0235	MDL	0.107	PQL	mg/Kg	J	E
ZINC	89.9		0.597	MDL	3.20	PQL	mg/Kg	J	A

Sample ID: **SL-025-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:28:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.270	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z, Q

Sample ID: **SL-025-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:28:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.695		0.0566	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: **SL-025-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:28:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	173		0.122	MDL	0.453	PQL	mg/Kg	J	E, A

Sample ID: **SL-025-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.226	J	0.0679	MDL	0.226	PQL	mg/Kg	J	Q, E
ARSENIC	5.77		0.0905	MDL	0.453	PQL	mg/Kg	J	Q, E
CADMIUM	4.60		0.0453	MDL	0.113	PQL	mg/Kg	J	Q, E
CHROMIUM	32.4		0.136	MDL	0.453	PQL	mg/Kg	J	Q, A
COBALT	9.76		0.0226	MDL	0.113	PQL	mg/Kg	J	Q, E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

porting Batch ID: DE083 Laboratory: LL

lename: PrepDE083_v1 eQAPP Name: CDM_SSFL_110509

Category: METALS

: 6020 Matrix: SO

D: SL-025-SA5A-SS-0.0-0.5 Collected: 2/16/2011 1:28:00 Analysis Type: RES Dilution: 2

	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
	18.3		0.0747	MDL	0.453	PQL	mg/Kg	J	Q, E, A
	36.1		0.0118	MDL	0.226	PQL	mg/Kg	J	A
	26.5		0.113	MDL	0.453	PQL	mg/Kg	J	Q, E, A
	0.161		0.0136	MDL	0.113	PQL	mg/Kg	J	Q
M	0.409		0.0339	MDL	0.113	PQL	mg/Kg	J	Q
IM	54.5		0.0249	MDL	0.113	PQL	mg/Kg	J	E
	138		0.634	MDL	3.39	PQL	mg/Kg	J	A

D: SL-026-SA5A-SS-0.0-0.5 Collected: 2/16/2011 10:45:00 Analysis Type: REA Dilution: 2

	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
M	0.222		0.0432	MDL	0.108	PQL	mg/Kg	J	Q, E

D: SL-026-SA5A-SS-0.0-0.5 Collected: 2/16/2011 10:45:00 Analysis Type: REA2 Dilution: 2

	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
M	0.133	J	0.0432	MDL	0.432	PQL	mg/Kg	J	Z, Q

D: SL-026-SA5A-SS-0.0-0.5 Collected: 2/16/2011 10:45:00 Analysis Type: REA3 Dilution: 2

	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENUM	0.738		0.0540	MDL	0.108	PQL	mg/Kg	J	Q

D: SL-026-SA5A-SS-0.0-0.5 Collected: 2/16/2011 10:45:00 Analysis Type: REA4 Dilution: 2

	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
	138		0.117	MDL	0.432	PQL	mg/Kg	J	E, A

D: SL-026-SA5A-SS-0.0-0.5 Collected: 2/16/2011 10:45:00 Analysis Type: RES Dilution: 2

	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NY	0.283		0.0648	MDL	0.216	PQL	mg/Kg	J	Q, E
:	5.40		0.0863	MDL	0.432	PQL	mg/Kg	J	Q, E
UM	27.4		0.130	MDL	0.432	PQL	mg/Kg	J	Q, A
	8.67		0.0216	MDL	0.108	PQL	mg/Kg	J	Q, E, A

; a non-reportable result

lame and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-026-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	13.7		0.0712	MDL	0.432	PQL	mg/Kg	J	Q, E, A
LEAD	26.2		0.0112	MDL	0.216	PQL	mg/Kg	J	A
NICKEL	16.3		0.108	MDL	0.432	PQL	mg/Kg	J	Q, E, A
SILVER	0.0551	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z, Q
THALLIUM	0.376		0.0324	MDL	0.108	PQL	mg/Kg	J	Q
VANADIUM	56.9		0.0237	MDL	0.108	PQL	mg/Kg	J	E
ZINC	92.2		0.604	MDL	3.24	PQL	mg/Kg	J	A

Sample ID: **SL-028-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 12:55:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.196	J	0.0443	MDL	0.443	PQL	mg/Kg	J	Z, Q

Sample ID: **SL-028-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 12:55:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.949		0.0554	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: **SL-028-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 12:55:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	148		0.120	MDL	0.443	PQL	mg/Kg	J	E, A

Sample ID: **SL-028-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 12:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.209	J	0.0665	MDL	0.222	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.46		0.0887	MDL	0.443	PQL	mg/Kg	J	Q, E
CADMIUM	0.413		0.0443	MDL	0.111	PQL	mg/Kg	J	Q, E
CHROMIUM	28.0		0.133	MDL	0.443	PQL	mg/Kg	J	Q, A
COBALT	9.41		0.0222	MDL	0.111	PQL	mg/Kg	J	Q, E, A
COPPER	15.1		0.0732	MDL	0.443	PQL	mg/Kg	J	Q, E, A
LEAD	9.21		0.0115	MDL	0.222	PQL	mg/Kg	J	A
NICKEL	17.6		0.111	MDL	0.443	PQL	mg/Kg	J	Q, E, A
SILVER	0.0480	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-028-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 12:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.421		0.0333	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	51.3		0.0244	MDL	0.111	PQL	mg/Kg	J	E
ZINC	71.8		0.621	MDL	3.33	PQL	mg/Kg	J	A

Sample ID: **SL-029-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:10:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.165		0.0440	MDL	0.110	PQL	mg/Kg	UJ	Q, E, B

Sample ID: **SL-029-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:10:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.180	J	0.0440	MDL	0.440	PQL	mg/Kg	J	Z, Q

Sample ID: **SL-029-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:10:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.00		0.0550	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: **SL-029-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:10:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	119		0.119	MDL	0.440	PQL	mg/Kg	J	E, A

Sample ID: **SL-029-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.142	J	0.0660	MDL	0.220	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.10		0.0880	MDL	0.440	PQL	mg/Kg	J	Q, E
CHROMIUM	25.6		0.132	MDL	0.440	PQL	mg/Kg	J	Q, A
COBALT	7.58		0.0220	MDL	0.110	PQL	mg/Kg	J	Q, E, A
COPPER	13.0		0.0726	MDL	0.440	PQL	mg/Kg	J	Q, E, A
LEAD	12.8		0.0114	MDL	0.220	PQL	mg/Kg	J	A
NICKEL	15.0		0.110	MDL	0.440	PQL	mg/Kg	J	Q, E, A
SILVER	0.0535	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-029-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.333		0.0330	MDL	0.110	PQL	mg/Kg	J	Q
VANADIUM	46.0		0.0242	MDL	0.110	PQL	mg/Kg	J	E
ZINC	70.3		0.616	MDL	3.30	PQL	mg/Kg	J	A

Sample ID: **SL-031-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 11:10:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.450		0.0435	MDL	0.435	PQL	mg/Kg	J	Q

Sample ID: **SL-031-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 11:10:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.34		0.0543	MDL	0.109	PQL	mg/Kg	J	Q

Sample ID: **SL-031-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 11:10:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	126		0.117	MDL	0.435	PQL	mg/Kg	J	E, A

Sample ID: **SL-031-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 11:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.197	J	0.0652	MDL	0.217	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.08		0.0869	MDL	0.435	PQL	mg/Kg	J	Q, E
CADMIUM	0.324		0.0435	MDL	0.109	PQL	mg/Kg	J	Q, E
CHROMIUM	27.0		0.130	MDL	0.435	PQL	mg/Kg	J	Q, A
COBALT	9.56		0.0217	MDL	0.109	PQL	mg/Kg	J	Q, E, A
COPPER	14.8		0.0717	MDL	0.435	PQL	mg/Kg	J	Q, E, A
LEAD	11.1		0.0113	MDL	0.217	PQL	mg/Kg	J	A
NICKEL	17.6		0.109	MDL	0.435	PQL	mg/Kg	J	Q, E, A
SILVER	0.0658	J	0.0130	MDL	0.109	PQL	mg/Kg	J	Z, Q
THALLIUM	0.404		0.0326	MDL	0.109	PQL	mg/Kg	J	Q
VANADIUM	49.4		0.0239	MDL	0.109	PQL	mg/Kg	J	E
ZINC	148		0.608	MDL	3.26	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-032-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:20:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.259		0.0332	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: **SL-032-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:20:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.169	J	0.0442	MDL	0.442	PQL	mg/Kg	J	Z, Q

Sample ID: **SL-032-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:20:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.545		0.0553	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: **SL-032-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:20:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	120		0.119	MDL	0.442	PQL	mg/Kg	J	E, A

Sample ID: **SL-032-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:20:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.160	J	0.0664	MDL	0.221	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.19		0.0885	MDL	0.442	PQL	mg/Kg	J	Q, E
CADMIUM	0.223		0.0442	MDL	0.111	PQL	mg/Kg	J	Q, E
CHROMIUM	22.1		0.133	MDL	0.442	PQL	mg/Kg	J	Q, A
COBALT	6.97		0.0221	MDL	0.111	PQL	mg/Kg	J	Q, E, A
COPPER	11.6		0.0730	MDL	0.442	PQL	mg/Kg	J	Q, E, A
LEAD	11.6		0.0115	MDL	0.221	PQL	mg/Kg	J	A
NICKEL	13.9		0.111	MDL	0.442	PQL	mg/Kg	J	Q, E, A
SILVER	0.0620	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z, Q
VANADIUM	41.0		0.0243	MDL	0.111	PQL	mg/Kg	J	E
ZINC	72.8		0.619	MDL	3.32	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-041-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:30:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.225		0.0329	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: **SL-041-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:30:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.108	J	0.0439	MDL	0.439	PQL	mg/Kg	J	Z, Q

Sample ID: **SL-041-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:30:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.740		0.0548	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: **SL-041-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:30:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	136		0.118	MDL	0.439	PQL	mg/Kg	J	E, A

Sample ID: **SL-041-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0932	J	0.0658	MDL	0.219	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.03		0.0877	MDL	0.439	PQL	mg/Kg	J	Q, E
CADMIUM	0.297		0.0439	MDL	0.110	PQL	mg/Kg	J	Q, E
CHROMIUM	26.7		0.132	MDL	0.439	PQL	mg/Kg	J	Q, A
COBALT	7.87		0.0219	MDL	0.110	PQL	mg/Kg	J	Q, E, A
COPPER	13.9		0.0724	MDL	0.439	PQL	mg/Kg	J	Q, E, A
LEAD	11.1		0.0114	MDL	0.219	PQL	mg/Kg	J	A
NICKEL	16.1		0.110	MDL	0.439	PQL	mg/Kg	J	Q, E, A
SILVER	0.0431	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z, Q
VANADIUM	48.3		0.0241	MDL	0.110	PQL	mg/Kg	J	E
ZINC	86.1		0.614	MDL	3.29	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-332-SA5B-SB-4.0-5.0** ***Collected:*** **2/16/2011 4:16:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.231	J	0.0436	MDL	0.436	PQL	mg/Kg	J	Z, Q

Sample ID: **SL-332-SA5B-SB-4.0-5.0** ***Collected:*** **2/16/2011 4:16:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.582		0.0545	MDL	0.109	PQL	mg/Kg	J	Q

Sample ID: **SL-332-SA5B-SB-4.0-5.0** ***Collected:*** **2/16/2011 4:16:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	82.9		0.118	MDL	0.436	PQL	mg/Kg	J	E, A

Sample ID: **SL-332-SA5B-SB-4.0-5.0** ***Collected:*** **2/16/2011 4:16:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.136	J	0.0654	MDL	0.218	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.06		0.0871	MDL	0.436	PQL	mg/Kg	J	Q, E
CADMIUM	0.0881	J	0.0436	MDL	0.109	PQL	mg/Kg	J	Z, Q, E
CHROMIUM	16.8		0.131	MDL	0.436	PQL	mg/Kg	J	Q, A
COBALT	4.43		0.0218	MDL	0.109	PQL	mg/Kg	J	Q, E, A
COPPER	8.56		0.0719	MDL	0.436	PQL	mg/Kg	J	Q, E, A
LEAD	6.63		0.0113	MDL	0.218	PQL	mg/Kg	J	A
NICKEL	10.2		0.109	MDL	0.436	PQL	mg/Kg	J	Q, E, A
SILVER	0.0273	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z, Q
THALLIUM	0.288		0.0327	MDL	0.109	PQL	mg/Kg	J	Q
VANADIUM	45.0		0.0240	MDL	0.109	PQL	mg/Kg	J	E
ZINC	75.1		0.610	MDL	3.27	PQL	mg/Kg	J	A

Sample ID: **SL-333-SA5B-SB-4.0-5.0** ***Collected:*** **2/16/2011 12:30:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0977	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-333-SA5B-SB-4.0-5.0** ***Collected:*** **2/16/2011 12:30:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.217		0.0566	MDL	0.113	PQL	mg/Kg	UJ	Q, B

Sample ID: **SL-333-SA5B-SB-4.0-5.0** ***Collected:*** **2/16/2011 12:30:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	51.1		0.122	MDL	0.453	PQL	mg/Kg	J	E, A

Sample ID: **SL-333-SA5B-SB-4.0-5.0** ***Collected:*** **2/16/2011 12:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0824	J	0.0679	MDL	0.226	PQL	mg/Kg	J	Z, Q, E
ARSENIC	3.96		0.0905	MDL	0.453	PQL	mg/Kg	J	Q, E
CADMIUM	0.0453	U	0.0453	MDL	0.113	PQL	mg/Kg	UJ	E
CHROMIUM	11.9		0.136	MDL	0.453	PQL	mg/Kg	J	Q, A
COBALT	2.26		0.0226	MDL	0.113	PQL	mg/Kg	J	Q, E, A
COPPER	4.12		0.0747	MDL	0.453	PQL	mg/Kg	J	Q, E, A
LEAD	5.25		0.0118	MDL	0.226	PQL	mg/Kg	J	A
NICKEL	4.76		0.113	MDL	0.453	PQL	mg/Kg	J	Q, E, A
SILVER	0.0273	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z, Q
THALLIUM	0.300		0.0339	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	24.8		0.0249	MDL	0.113	PQL	mg/Kg	J	E
ZINC	58.1		0.634	MDL	3.39	PQL	mg/Kg	J	A

Sample ID: **SL-335-SA5B-SB-2.0-3.0** ***Collected:*** **2/16/2011 10:57:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.183	J	0.0429	MDL	0.429	PQL	mg/Kg	J	Z, Q

Sample ID: **SL-335-SA5B-SB-2.0-3.0** ***Collected:*** **2/16/2011 10:57:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.07		0.0536	MDL	0.107	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-335-SA5B-SB-2.0-3.0** ***Collected:*** **2/16/2011 10:57:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	63.5		0.116	MDL	0.429	PQL	mg/Kg	J	E, A

Sample ID: **SL-335-SA5B-SB-2.0-3.0** ***Collected:*** **2/16/2011 10:57:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.180	J	0.0644	MDL	0.215	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.14		0.0858	MDL	0.429	PQL	mg/Kg	J	Q, E
CADMIUM	0.0459	J	0.0429	MDL	0.107	PQL	mg/Kg	J	Z, Q, E
CHROMIUM	15.9		0.129	MDL	0.429	PQL	mg/Kg	J	Q, A
COBALT	3.95		0.0215	MDL	0.107	PQL	mg/Kg	J	Q, E, A
COPPER	4.80		0.0708	MDL	0.429	PQL	mg/Kg	J	Q, E, A
LEAD	6.93		0.0112	MDL	0.215	PQL	mg/Kg	J	A
NICKEL	6.20		0.107	MDL	0.429	PQL	mg/Kg	J	Q, E, A
SILVER	0.0203	J	0.0129	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.410		0.0322	MDL	0.107	PQL	mg/Kg	J	Q
VANADIUM	41.6		0.0236	MDL	0.107	PQL	mg/Kg	J	E
ZINC	64.7		0.601	MDL	3.22	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: **SL-024-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.45	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-026-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.43	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-028-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 12:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.50	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-029-SA5A-SS-0.0-0.5 *Collected:* 2/16/2011 1:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.74	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-031-SA5A-SS-0.0-0.5 *Collected:* 2/16/2011 11:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.40	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-041-SA5A-SS-0.0-0.5 *Collected:* 2/16/2011 9:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.28	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-333-SA5B-SB-4.0-5.0 *Collected:* 2/16/2011 12:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.24	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-025-SA5A-SS-0.0-0.5 *Collected:* 2/16/2011 1:28:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0221	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z

Sample ID: SL-026-SA5A-SS-0.0-0.5 *Collected:* 2/16/2011 10:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0438	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: **SL-332-SA5B-SB-4.0-5.0** ***Collected:*** **2/16/2011 4:16:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	6.6	U	6.6	MDL	14	PQL	mg/Kg	UJ	Q

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: **SL-024-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:30:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIELDRIN	0.17	J	0.072	MDL	0.37	PQL	ug/Kg	J	Z
ENDOSULFAN SULFATE	0.22	J	0.072	MDL	0.37	PQL	ug/Kg	J	Z

Sample ID: **SL-025-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:28:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DELTA-BHC	0.059	J	0.042	MDL	0.19	PQL	ug/Kg	J	Z
DIELDRIN	0.18	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.16	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z
MIREX	0.32	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z

Sample ID: **SL-026-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.10	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z
4,4'-DDE	0.32	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z
ENDOSULFAN SULFATE	0.13	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.20	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.056	J	0.038	MDL	0.19	PQL	ug/Kg	J	Z
MIREX	0.23	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z

Sample ID: **SL-028-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 12:55:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	0.083	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: **SL-029-SA5A-SS-0.0-0.5** *Collected:* **2/16/2011 1:10:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.15	J	0.075	MDL	0.39	PQL	ug/Kg	J	Z
4,4'-DDT	0.37	J	0.075	MDL	0.39	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.11	J	0.075	MDL	0.39	PQL	ug/Kg	J	Z
MIREX	0.23	J	0.075	MDL	0.39	PQL	ug/Kg	J	Z

Sample ID: **SL-031-SA5A-SS-0.0-0.5** *Collected:* **2/16/2011 11:10:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALPHA-BHC	0.13	J	0.038	MDL	0.19	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.12	J	0.041	MDL	0.19	PQL	ug/Kg	J	Z, S
ENDRIN ALDEHYDE	1.5		0.075	MDL	0.38	PQL	ug/Kg	J	S
HEPTACHLOR EPOXIDE	0.095	J	0.038	MDL	0.19	PQL	ug/Kg	J	Z, S

Sample ID: **SL-032-SA5A-SS-0.0-0.5** *Collected:* **2/16/2011 9:20:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.17	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
4,4'-DDT	0.27	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.093	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
MIREX	0.081	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **SL-024-SA5A-SS-0.0-0.5** *Collected:* **2/16/2011 10:30:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	5.7		0.72	MDL	3.7	PQL	ug/Kg	J	S
AROCLOR 1260	14		0.85	MDL	3.7	PQL	ug/Kg	J	S
Aroclor 5432	2.2	U	2.2	MDL	7.2	PQL	ug/Kg	UJ	L
Aroclor 5442	2.2	U	2.2	MDL	7.2	PQL	ug/Kg	UJ	L
Aroclor 5460	12		2.2	MDL	7.2	PQL	ug/Kg	J	S, L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **SL-025-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:28:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	6.2		0.91	MDL	4.0	PQL	ug/Kg	J	S
Aroclor 5460	10		2.3	MDL	7.7	PQL	ug/Kg	J	S

Sample ID: **SL-026-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	7.2		0.37	MDL	1.9	PQL	ug/Kg	J	S
AROCLOR 1260	6.1		0.44	MDL	1.9	PQL	ug/Kg	J	S
Aroclor 5460	7.1		1.1	MDL	3.7	PQL	ug/Kg	J	S

Sample ID: **SL-029-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.4	J	0.88	MDL	3.8	PQL	ug/Kg	J	Z

Sample ID: **SL-031-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 11:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.60	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z, S
AROCLOR 1260	1.2	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z, S

Sample ID: **SL-032-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:20:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.6	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
AROCLOR 1260	1.1	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5460	2.5	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z, L

Sample ID: **SL-041-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:30:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.2	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z, S
Aroclor 5460	2.1	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z, S

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8151A **Matrix: SO**

Sample ID: **SL-024-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-TP (Silvex)	0.31		0.082	MDL	0.18	PQL	ug/Kg	J	Q
DICAMBA	0.44	U	0.44	MDL	1.3	PQL	ug/Kg	R	Q
DINOSEB	0.87	U	0.87	MDL	2.6	PQL	ug/Kg	R	L

Sample ID: **SL-025-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.48	J	0.47	MDL	1.4	PQL	ug/Kg	J	Z
DINOSEB	0.93	U	0.93	MDL	2.8	PQL	ug/Kg	R	L

Sample ID: **SL-026-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.90	U	0.90	MDL	2.7	PQL	ug/Kg	R	L

Sample ID: **SL-028-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 12:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DALAPON	4.9	U	4.9	MDL	10	PQL	ug/Kg	R	Q
DINOSEB	0.89	U	0.89	MDL	2.7	PQL	ug/Kg	R	L
MCPP	170	J	83	MDL	280	PQL	ug/Kg	U	B

Sample ID: **SL-029-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.92	J	0.45	MDL	1.4	PQL	ug/Kg	J	Z
DINOSEB	0.91	U	0.91	MDL	2.7	PQL	ug/Kg	R	L

Sample ID: **SL-031-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 11:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.51	J	0.45	MDL	1.4	PQL	ug/Kg	J	Z
DINOSEB	0.90	U	0.90	MDL	2.7	PQL	ug/Kg	R	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8151A **Matrix: SO**

Sample ID: SL-032-SA5A-SS-0.0-0.5 ***Collected:*** 2/16/2011 9:20:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.88	U	0.88	MDL	2.7	PQL	ug/Kg	R	L

Sample ID: SL-041-SA5A-SS-0.0-0.5 ***Collected:*** 2/16/2011 9:30:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.89	U	0.89	MDL	2.7	PQL	ug/Kg	R	L

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-024-SA5A-SS-0.0-0.5 ***Collected:*** 2/16/2011 10:30:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	25	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-026-SA5A-SS-0.0-0.5 ***Collected:*** 2/16/2011 10:45:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	72	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	41	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: SL-028-SA5A-SS-0.0-0.5 ***Collected:*** 2/16/2011 12:55:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	35	J	18	MDL	370	PQL	ug/Kg	U	B

Sample ID: SL-031-SA5A-SS-0.0-0.5 ***Collected:*** 2/16/2011 11:10:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	38	J	19	MDL	190	PQL	ug/Kg	J	Z
ANTHRACENE	96	J	19	MDL	190	PQL	ug/Kg	J	Z
CARBAZOLE	140	J	19	MDL	190	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	180	J	19	MDL	190	PQL	ug/Kg	J	Z
DIBENZOFURAN	19	J	19	MDL	190	PQL	ug/Kg	J	Z
FLUORENE	26	J	19	MDL	190	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-333-SA5B-SB-4.0-5.0** ***Collected:*** **2/16/2011 12:30:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	20	J	19	MDL	190	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **SL-024-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:30:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.61	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.7	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	24		6.5	MDL	20	PQL	ug/Kg	U	B
Butylbenzylphthalate	9.6	J	6.5	MDL	20	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.77	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
Di-n-butylphthalate	10	J	6.5	MDL	20	PQL	ug/Kg	U	B

Sample ID: **SL-025-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:28:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.83	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.93	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	17	J	7.0	MDL	21	PQL	ug/Kg	U	B
Butylbenzylphthalate	8.8	J	7.0	MDL	21	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.95	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.5	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-026-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 10:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.81	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.87	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.82	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
ANTHRACENE	1.4	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	33		6.7	MDL	20	PQL	ug/Kg	U	B
Di-n-butylphthalate	25		6.7	MDL	20	PQL	ug/Kg	U	B
NAPHTHALENE	0.89	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **SL-028-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 12:55:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Butylbenzylphthalate	7.3	J	6.7	MDL	20	PQL	ug/Kg	J	Z
Di-n-butylphthalate	13	J	6.7	MDL	20	PQL	ug/Kg	U	B

Sample ID: **SL-029-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 1:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.69	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
Butylbenzylphthalate	19	J	6.8	MDL	20	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.91	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-butylphthalate	11	J	6.8	MDL	20	PQL	ug/Kg	U	B

Sample ID: **SL-031-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 11:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.0	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.2	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	15	J	6.8	MDL	20	PQL	ug/Kg	U	B
Butylbenzylphthalate	7.2	J	6.8	MDL	20	PQL	ug/Kg	J	Z
Di-n-butylphthalate	10	J	6.8	MDL	20	PQL	ug/Kg	U	B
NAPHTHALENE	1.4	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-032-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:20:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.53	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
ANTHRACENE	0.45	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.0	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.0	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.6	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.81	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	18	J	6.6	MDL	20	PQL	ug/Kg	U	B
Butylbenzylphthalate	8.2	J	6.6	MDL	20	PQL	ug/Kg	J	Z
Di-n-butylphthalate	11	J	6.6	MDL	20	PQL	ug/Kg	U	B
Di-n-octylphthalate	15	J	6.6	MDL	20	PQL	ug/Kg	J	Z
PHENANTHRENE	1.4	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **SL-032-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:20:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PYRENE	1.5	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-041-SA5A-SS-0.0-0.5** ***Collected:*** **2/16/2011 9:30:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.51	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
ANTHRACENE	0.38	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	0.84	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.86	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.89	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	21		6.6	MDL	20	PQL	ug/Kg	U	B
Butylbenzylphthalate	8.5	J	6.6	MDL	20	PQL	ug/Kg	J	Z
Di-n-butylphthalate	14	J	6.6	MDL	20	PQL	ug/Kg	U	B
INDENO(1,2,3-CD)PYRENE	0.77	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	1.6	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-332-SA5B-SB-4.0-5.0** ***Collected:*** **2/16/2011 4:16:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	21		6.6	MDL	20	PQL	ug/Kg	U	B
Butylbenzylphthalate	18	J	6.6	MDL	20	PQL	ug/Kg	J	Z
Di-n-butylphthalate	14	J	6.6	MDL	20	PQL	ug/Kg	U	B
PHENANTHRENE	1.2	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-333-SA5B-SB-4.0-5.0** ***Collected:*** **2/16/2011 12:30:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.62	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	0.82	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.7	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.1	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.79	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	19	J	6.9	MDL	21	PQL	ug/Kg	U	B
Butylbenzylphthalate	7.2	J	6.9	MDL	21	PQL	ug/Kg	J	Z
CHRYSENE	1.7	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-333-SA5B-SB-4.0-5.0 ***Collected:*** 2/16/2011 12:30:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-butylphthalate	8.4	J	6.9	MDL	21	PQL	ug/Kg	U	B

Sample ID: SL-335-SA5B-SB-2.0-3.0 ***Collected:*** 2/16/2011 10:57:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	15	J	6.6	MDL	20	PQL	ug/Kg	U	B

Method Category: VOA

Method: 8015B **Matrix: SO**

Sample ID: SL-335-SA5B-SB-2.0-3.0 ***Collected:*** 2/16/2011 10:57:00 ***Analysis Type:*** REA4 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	310	J	110	MDL	550	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-332-SA5B-SB-4.0-5.0 ***Collected:*** 2/16/2011 4:16:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 0.83

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	0.17	U	0.17	MDL	3.7	PQL	ug/Kg	UJ	L
CIS-1,3-DICHLOROPROPENE	0.15	U	0.15	MDL	3.7	PQL	ug/Kg	UJ	L
METHYLENE CHLORIDE	0.52	J	0.22	MDL	3.7	PQL	ug/Kg	U	B

Sample ID: SL-333-SA5B-SB-4.0-5.0 ***Collected:*** 2/16/2011 12:30:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 0.86

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	0.18	U	0.18	MDL	3.9	PQL	ug/Kg	UJ	L
CIS-1,3-DICHLOROPROPENE	0.16	U	0.16	MDL	3.9	PQL	ug/Kg	UJ	L
METHYLENE CHLORIDE	0.67	J	0.24	MDL	3.9	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: **SL-335-SA5B-SB-2.0-3.0** ***Collected:*** **2/16/2011 10:57:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **0.96**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
1,2,4-TRICHLOROBENZENE	0.19	U	0.19	MDL	4.2	PQL	ug/Kg	UJ	L
CIS-1,3-DICHLOROPROPENE	0.17	U	0.17	MDL	4.2	PQL	ug/Kg	UJ	L
METHYLENE CHLORIDE	0.68	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: PrepDE083_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE083

Method Blank Outlier Report

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: DE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P04808AB220232	2/21/2011 2:32:00 AM	PHOSPHORUS TIN	1.08 mg/Kg 1.35 mg/Kg	SL-024-SA5A-SS-0.0-0.5 SL-025-SA5A-SS-0.0-0.5 SL-026-SA5A-SS-0.0-0.5 SL-028-SA5A-SS-0.0-0.5 SL-029-SA5A-SS-0.0-0.5 SL-031-SA5A-SS-0.0-0.5 SL-032-SA5A-SS-0.0-0.5 SL-041-SA5A-SS-0.0-0.5 SL-332-SA5B-SB-4.0-5.0 SL-333-SA5B-SB-4.0-5.0 SL-335-SA5B-SB-2.0-3.0
P04808AB220550	2/22/2011 5:50:00 AM	LITHIUM	0.63 mg/Kg	SL-024-SA5A-SS-0.0-0.5 SL-025-SA5A-SS-0.0-0.5 SL-026-SA5A-SS-0.0-0.5 SL-028-SA5A-SS-0.0-0.5 SL-029-SA5A-SS-0.0-0.5 SL-031-SA5A-SS-0.0-0.5 SL-032-SA5A-SS-0.0-0.5 SL-041-SA5A-SS-0.0-0.5 SL-332-SA5B-SB-4.0-5.0 SL-333-SA5B-SB-4.0-5.0 SL-335-SA5B-SB-2.0-3.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-024-SA5A-SS-0.0-0.5(RES)	TIN	2.59 mg/Kg	2.59U mg/Kg
SL-025-SA5A-SS-0.0-0.5(RES)	TIN	2.80 mg/Kg	2.80U mg/Kg
SL-026-SA5A-SS-0.0-0.5(RES)	TIN	2.88 mg/Kg	2.88U mg/Kg
SL-028-SA5A-SS-0.0-0.5(RES)	TIN	2.61 mg/Kg	2.61U mg/Kg
SL-029-SA5A-SS-0.0-0.5(RES)	TIN	2.55 mg/Kg	2.55U mg/Kg
SL-031-SA5A-SS-0.0-0.5(RES)	TIN	2.58 mg/Kg	2.58U mg/Kg
SL-032-SA5A-SS-0.0-0.5(RES)	TIN	3.01 mg/Kg	3.01U mg/Kg
SL-041-SA5A-SS-0.0-0.5(RES)	TIN	2.50 mg/Kg	2.50U mg/Kg
SL-332-SA5B-SB-4.0-5.0(RES)	TIN	2.49 mg/Kg	2.49U mg/Kg
SL-333-SA5B-SB-4.0-5.0(RES)	TIN	2.74 mg/Kg	2.74U mg/Kg
SL-335-SA5B-SB-2.0-3.0(RES)	TIN	2.87 mg/Kg	2.87U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P04826AB221142A	2/28/2011 11:42:00 AM	COPPER LEAD	0.162 mg/Kg 0.0131 mg/Kg	SL-024-SA5A-SS-0.0-0.5 SL-025-SA5A-SS-0.0-0.5 SL-026-SA5A-SS-0.0-0.5 SL-028-SA5A-SS-0.0-0.5 SL-029-SA5A-SS-0.0-0.5 SL-031-SA5A-SS-0.0-0.5 SL-032-SA5A-SS-0.0-0.5 SL-041-SA5A-SS-0.0-0.5 SL-332-SA5B-SB-4.0-5.0 SL-333-SA5B-SB-4.0-5.0 SL-335-SA5B-SB-2.0-3.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: DE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8151A
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P54548AB241603A	2/24/2011 4:03:00 PM	2,4-DB MCPP	0.75 ug/Kg 210 ug/Kg	SL-032-SA5A-SS-0.0-0.5
P57575AB241849A	2/28/2011 6:49:00 PM	MCPP	350 ug/Kg	SL-024-SA5A-SS-0.0-0.5 SL-025-SA5A-SS-0.0-0.5 SL-026-SA5A-SS-0.0-0.5 SL-028-SA5A-SS-0.0-0.5 SL-029-SA5A-SS-0.0-0.5 SL-031-SA5A-SS-0.0-0.5 SL-041-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-028-SA5A-SS-0.0-0.5(RES)	MCPP	170 ug/Kg	280U ug/Kg

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB74B211252A	2/17/2011 12:52:00 PM	CHLOROFORM METHYLENE CHLORIDE TOLUENE	0.14 ug/Kg 0.39 ug/Kg 0.11 ug/Kg	SL-332-SA5B-SB-4.0-5.0 SL-333-SA5B-SB-4.0-5.0 SL-335-SA5B-SB-2.0-3.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-332-SA5B-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.52 ug/Kg	3.7U ug/Kg
SL-333-SA5B-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.67 ug/Kg	3.9U ug/Kg
SL-335-SA5B-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	0.68 ug/Kg	4.2U ug/Kg

Method: 8270C
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLG05B261510	2/26/2011 3:10:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	20 ug/Kg	SL-024-SA5A-SS-0.0-0.5 SL-025-SA5A-SS-0.0-0.5 SL-026-SA5A-SS-0.0-0.5 SL-028-SA5A-SS-0.0-0.5 SL-029-SA5A-SS-0.0-0.5 SL-031-SA5A-SS-0.0-0.5 SL-032-SA5A-SS-0.0-0.5 SL-041-SA5A-SS-0.0-0.5 SL-332-SA5B-SB-4.0-5.0 SL-333-SA5B-SB-4.0-5.0 SL-335-SA5B-SB-2.0-3.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-028-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	35 ug/Kg	370U ug/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: DE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLJ05B260014	2/25/2011 12:14:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE Di-n-butylphthalate	9.4 ug/Kg 6.5 ug/Kg	SL-024-SA5A-SS-0.0-0.5 SL-025-SA5A-SS-0.0-0.5 SL-026-SA5A-SS-0.0-0.5 SL-028-SA5A-SS-0.0-0.5 SL-029-SA5A-SS-0.0-0.5 SL-031-SA5A-SS-0.0-0.5 SL-032-SA5A-SS-0.0-0.5 SL-041-SA5A-SS-0.0-0.5 SL-332-SA5B-SB-4.0-5.0 SL-333-SA5B-SB-4.0-5.0 SL-335-SA5B-SB-2.0-3.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-024-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	24 ug/Kg	24U ug/Kg
SL-024-SA5A-SS-0.0-0.5(RES)	Di-n-butylphthalate	10 ug/Kg	20U ug/Kg
SL-025-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	17 ug/Kg	21U ug/Kg
SL-026-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	33 ug/Kg	33U ug/Kg
SL-026-SA5A-SS-0.0-0.5(RES)	Di-n-butylphthalate	25 ug/Kg	25U ug/Kg
SL-028-SA5A-SS-0.0-0.5(RES)	Di-n-butylphthalate	13 ug/Kg	20U ug/Kg
SL-029-SA5A-SS-0.0-0.5(RES)	Di-n-butylphthalate	11 ug/Kg	20U ug/Kg
SL-031-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	15 ug/Kg	20U ug/Kg
SL-031-SA5A-SS-0.0-0.5(RES)	Di-n-butylphthalate	10 ug/Kg	20U ug/Kg
SL-032-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	18 ug/Kg	20U ug/Kg
SL-032-SA5A-SS-0.0-0.5(RES)	Di-n-butylphthalate	11 ug/Kg	20U ug/Kg
SL-041-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	21 ug/Kg	21U ug/Kg
SL-041-SA5A-SS-0.0-0.5(RES)	Di-n-butylphthalate	14 ug/Kg	20U ug/Kg
SL-332-SA5B-SB-4.0-5.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	21 ug/Kg	21U ug/Kg
SL-332-SA5B-SB-4.0-5.0(RES)	Di-n-butylphthalate	14 ug/Kg	20U ug/Kg
SL-333-SA5B-SB-4.0-5.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	19 ug/Kg	21U ug/Kg
SL-333-SA5B-SB-4.0-5.0(RES)	Di-n-butylphthalate	8.4 ug/Kg	21U ug/Kg
SL-335-SA5B-SB-2.0-3.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	15 ug/Kg	20U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: DE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-024-SA5A-SS-0.0-0.5MS **SL-024-SA5A-SS-0.0-0.5MSD** (SL-024-SA5A-SS-0.0-0.5 SL -025-SA5A-SS-0.0-0.5 SL -026-SA5A-SS-0.0-0.5 SL -028-SA5A-SS-0.0-0.5 SL -029-SA5A-SS-0.0-0.5 SL -031-SA5A-SS-0.0-0.5 SL -032-SA5A-SS-0.0-0.5 SL -041-SA5A-SS-0.0-0.5 SL -332-SA5B-SB-4.0-5.0 SL -333-SA5B-SB-4.0-5.0 SL -335-SA5B-SB-2.0-3.0)	CHROMIUM COBALT COPPER LEAD NICKEL SILVER THALLIUM	- 140 - 135 131 138 -	165 154 148 242 160 156 143	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - - -	CHROMIUM COBALT COPPER LEAD NICKEL SILVER THALLIUM	J (all detects) Pb No Qual, >4x
SL-024-SA5A-SS-0.0-0.5MS **SL-024-SA5A-SS-0.0-0.5MSD** (SL-024-SA5A-SS-0.0-0.5 SL -025-SA5A-SS-0.0-0.5 SL -026-SA5A-SS-0.0-0.5 SL -028-SA5A-SS-0.0-0.5 SL -029-SA5A-SS-0.0-0.5 SL -031-SA5A-SS-0.0-0.5 SL -032-SA5A-SS-0.0-0.5 SL -041-SA5A-SS-0.0-0.5 SL -332-SA5B-SB-4.0-5.0 SL -333-SA5B-SB-4.0-5.0 SL -335-SA5B-SB-2.0-3.0)	ANTIMONY ARSENIC CADMIUM VANADIUM ZINC	41 48 138 59 58	63 - 182 143 183	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	29 (20.00) - 24 (20.00) - -	ANTIMONY ARSENIC CADMIUM VANADIUM ZINC	J(all detects) UJ(all non-detects) V, Zn No Qual, >4x
SL-024-SA5A-SS-0.0-0.5MS **SL-024-SA5A-SS-0.0-0.5MSD** (SL-024-SA5A-SS-0.0-0.5 SL -025-SA5A-SS-0.0-0.5 SL -026-SA5A-SS-0.0-0.5 SL -028-SA5A-SS-0.0-0.5 SL -029-SA5A-SS-0.0-0.5 SL -031-SA5A-SS-0.0-0.5 SL -032-SA5A-SS-0.0-0.5 SL -041-SA5A-SS-0.0-0.5 SL -332-SA5B-SB-4.0-5.0 SL -333-SA5B-SB-4.0-5.0 SL -335-SA5B-SB-2.0-3.0)	SELENIUM	128	157	75.00-125.00	-	SELENIUM	J(all detects)
SL-024-SA5A-SS-0.0-0.5MS **SL-024-SA5A-SS-0.0-0.5MSD** (SL-024-SA5A-SS-0.0-0.5 SL -025-SA5A-SS-0.0-0.5 SL -026-SA5A-SS-0.0-0.5 SL -028-SA5A-SS-0.0-0.5 SL -029-SA5A-SS-0.0-0.5 SL -031-SA5A-SS-0.0-0.5 SL -032-SA5A-SS-0.0-0.5 SL -041-SA5A-SS-0.0-0.5 SL -332-SA5B-SB-4.0-5.0 SL -333-SA5B-SB-4.0-5.0 SL -335-SA5B-SB-2.0-3.0)	MOLYBDENUM	136	156	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-024-SA5A-SS-0.0-0.5MS **SL-024-SA5A-SS-0.0-0.5MSD** (SL-024-SA5A-SS-0.0-0.5 SL -025-SA5A-SS-0.0-0.5 SL -026-SA5A-SS-0.0-0.5 SL -028-SA5A-SS-0.0-0.5 SL -029-SA5A-SS-0.0-0.5 SL -031-SA5A-SS-0.0-0.5 SL -032-SA5A-SS-0.0-0.5 SL -041-SA5A-SS-0.0-0.5 SL -332-SA5B-SB-4.0-5.0 SL -333-SA5B-SB-4.0-5.0 SL -335-SA5B-SB-2.0-3.0)	BARIUM	-20	168	75.00-125.00	-	BARIUM	No Qual, >4x

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: DE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-024-SA5A-SS-0.0-0.5MS	ALUMINUM	1237	1545	75.00-125.00	-	ALUMINUM	
SL-024-SA5A-SS-0.0-0.5MSD	CALCIUM	181	183	75.00-125.00	-	CALCIUM	
(SL-024-SA5A-SS-0.0-0.5	IRON	218	661	75.00-125.00	-	IRON	
SL-025-SA5A-SS-0.0-0.5	MAGNESIUM	147	230	75.00-125.00	-	MAGNESIUM	
SL-026-SA5A-SS-0.0-0.5	POTASSIUM	-	137	75.00-125.00	-	POTASSIUM	
SL-028-SA5A-SS-0.0-0.5	TITANIUM	291	312	75.00-125.00	-	TITANIUM	
SL-029-SA5A-SS-0.0-0.5							J(all detects)
SL-031-SA5A-SS-0.0-0.5							
SL-032-SA5A-SS-0.0-0.5							Al, Ca, Fe,
SL-041-SA5A-SS-0.0-0.5							Mg, Ti
SL-332-SA5B-SB-4.0-5.0							No Qual, >4x
SL-333-SA5B-SB-4.0-5.0							
SL-335-SA5B-SB-2.0-3.0)							

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-025-SA5A-SS-0.0-0.5MS	FLUORIDE	51	-	80.00-120.00	-	FLUORIDE	
(SL-024-SA5A-SS-0.0-0.5							
SL-025-SA5A-SS-0.0-0.5							
SL-026-SA5A-SS-0.0-0.5							
SL-028-SA5A-SS-0.0-0.5							J(all detects)
SL-029-SA5A-SS-0.0-0.5							UJ(all non-detects)
SL-031-SA5A-SS-0.0-0.5							
SL-032-SA5A-SS-0.0-0.5							
SL-041-SA5A-SS-0.0-0.5							
SL-332-SA5B-SB-4.0-5.0							
SL-333-SA5B-SB-4.0-5.0)							

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-332-SA5B-SB-4.0-5.0MSD (SL-332-SA5B-SB-4.0-5.0)	ETHYLENE GLYCOL	-	-	63.00-107.00	21 (20.00)	ETHYLENE GLYCOL	J(all detects)
SL-332-SA5B-SB-4.0-5.0MS **SL-332-SA5B-SB-4.0-5.0MSD** (SL-332-SA5B-SB-4.0-5.0)	DIETHYLENE GLYCOL	52	-	59.00-109.00	33 (20.00)	DIETHYLENE GLYCOL	J(all detects) UJ(all non-detects)
SL-332-SA5B-SB-4.0-5.0MS	EFH (C21-C30)	2133	5256	49.00-123.00	-	EFH (C21-C30)	No Qual
SL-332-SA5B-SB-4.0-5.0MSD (SL-332-SA5B-SB-4.0-5.0)	EFH (C30-C40)	16238	25509	49.00-123.00	-	EFH (C30-C40)	Diluted Out
SL-332-SA5B-SB-4.0-5.0MS	EFH (C12-C14)	0	0	49.00-123.00	-	EFH (C12-C14)	No Qual
SL-332-SA5B-SB-4.0-5.0MSD	EFH (C15-C20)	0	0	49.00-123.00	-	EFH (C15-C20)	Diluted Out
(SL-332-SA5B-SB-4.0-5.0)	EFH (C8-C11)	0	0	49.00-123.00	-	EFH (C8-C11)	

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: DE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8151A

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-024-SA5A-SS-0.0-0.5MS **SL-024-SA5A-SS-0.0-0.5MSD** (SL-024-SA5A-SS-0.0-0.5)	2,4-DB DALAPON MCPA	- 253 235	241 - -	20.00-170.00 12.00-86.00 31.00-184.00	108 (50.00) 116 (50.00) 90 (50.00)	2,4-DB DALAPON MCPA	J(all detects)
SL-024-SA5A-SS-0.0-0.5MS **SL-024-SA5A-SS-0.0-0.5MSD** (SL-024-SA5A-SS-0.0-0.5)	DICAMBA	-2	-222	33.00-120.00	126 (50.00)	DICAMBA	J(all detects) R(all non-detects)
SL-024-SA5A-SS-0.0-0.5MS (SL-024-SA5A-SS-0.0-0.5)	2,4,5-TP (Silvex)	7	-	10.00-183.00	-	2,4,5-TP (Silvex)	J(all detects) UJ(all non-detects)
SL-028-SA5A-SS-0.0-0.5MS **SL-028-SA5A-SS-0.0-0.5MSD** (SL-028-SA5A-SS-0.0-0.5)	DICAMBA	205	193	33.00-120.00	-	DICAMBA	J(all detects)
SL-028-SA5A-SS-0.0-0.5MS **SL-028-SA5A-SS-0.0-0.5MSD** (SL-028-SA5A-SS-0.0-0.5)	DALAPON	0	-	12.00-86.00	200 (50.00)	DALAPON	J(all detects) R(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: DE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-024-SA5A-SS-0.0-0.5DUP	ANTIMONY	55	20.00	
(SL-024-SA5A-SS-0.0-0.5	ARSENIC	23	20.00	
SL-025-SA5A-SS-0.0-0.5	BARIUM	21	20.00	
SL-026-SA5A-SS-0.0-0.5	CADMIUM	29	20.00	
SL-028-SA5A-SS-0.0-0.5	COBALT	27	20.00	
SL-029-SA5A-SS-0.0-0.5	COPPER	23	20.00	J (all detects)
SL-031-SA5A-SS-0.0-0.5	NICKEL	21	20.00	UJ (all non-detects)
SL-032-SA5A-SS-0.0-0.5	SILVER	81	20.00	
SL-041-SA5A-SS-0.0-0.5	THALLIUM	47	20.00	Sb, Cd, Ag, Tl
SL-332-SA5B-SB-4.0-5.0	VANADIUM	22	20.00	No Qual
SL-333-SA5B-SB-4.0-5.0				OK by difference
SL-335-SA5B-SB-2.0-3.0)				

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-024-SA5A-SS-0.0-0.5DUP	MERCURY	200	20.00	
(SL-024-SA5A-SS-0.0-0.5				
SL-025-SA5A-SS-0.0-0.5				
SL-026-SA5A-SS-0.0-0.5				
SL-028-SA5A-SS-0.0-0.5				
SL-029-SA5A-SS-0.0-0.5				No Qual
SL-031-SA5A-SS-0.0-0.5				OK by difference
SL-032-SA5A-SS-0.0-0.5				
SL-041-SA5A-SS-0.0-0.5				
SL-332-SA5B-SB-4.0-5.0				
SL-333-SA5B-SB-4.0-5.0				
SL-335-SA5B-SB-2.0-3.0)				

Method: 160.3M
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-032-SA5A-SS-0.0-0.5DUP	MOISTURE	35	20.00	
(SL-024-SA5A-SS-0.0-0.5				
SL-025-SA5A-SS-0.0-0.5				
SL-026-SA5A-SS-0.0-0.5				
SL-028-SA5A-SS-0.0-0.5				Not Validated
SL-029-SA5A-SS-0.0-0.5				
SL-031-SA5A-SS-0.0-0.5				
SL-032-SA5A-SS-0.0-0.5				
SL-041-SA5A-SS-0.0-0.5)				

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: DE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8330A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10537AQ240255A (SL-332-SA5B-SB-4.0-5.0 SL -333-SA5B-SB-4.0-5.0 SL -335-SA5B-SB-2.0-3.0)	2,4,6-TRINITROTOLUENE	121	-	80.00-120.00	-	2,4,6-TRINITROTOLUENE	J (all detects)

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10547AY240525A (SL-024-SA5A-SS-0.0-0.5 SL -032-SA5A-SS-0.0-0.5)	Aroclor 5442	-	71	75.00-125.00	-	Aroclor 5432, 5442, 5460	J(all detects) UJ(all non-detects)

Method: 8151A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10548AQ241631A (SL-032-SA5A-SS-0.0-0.5)	DINOSEB	7	-	10.00-136.00	-	DINOSEB	J(all detects) R(all non-detects)
P10575AQ241916A (SL-024-SA5A-SS-0.0-0.5 SL -025-SA5A-SS-0.0-0.5 SL -026-SA5A-SS-0.0-0.5 SL -028-SA5A-SS-0.0-0.5 SL -029-SA5A-SS-0.0-0.5 SL -031-SA5A-SS-0.0-0.5 SL -041-SA5A-SS-0.0-0.5)	DINOSEB	8	-	10.00-136.00	-	DINOSEB	J(all detects) R(all non-detects)

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSB74Q211326A (SL-332-SA5B-SB-4.0-5.0 SL -333-SA5B-SB-4.0-5.0 SL -335-SA5B-SB-2.0-3.0)	1,2,4-TRICHLOROBENZENE CIS-1,3-DICHLOROPROPENE	67 79	- -	68.00-120.00 80.00-120.00	- -	1,2,4-TRICHLOROBENZENE CIS-1,3-DICHLOROPROPENE	J(all detects) UJ(all non-detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: DE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015B
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-332-SA5B-SB-4.0-5.0	n-Triacontane-d62	427	50.00-150.00	All Target Analytes	J(all detects)
SL-333-SA5B-SB-4.0-5.0	n-Triacontane-d62	196	50.00-150.00	All Target Analytes	J(all detects)

Method: 8081A
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-031-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	1024	20.00-120.00	All Target Analytes	J(all detects)

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-024-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	141	45.00-120.00	All Target Analytes	J (all detects)
SL-025-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	130	45.00-120.00	All Target Analytes	J(all detects)
SL-026-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	130	45.00-120.00	All Target Analytes	J(all detects)
SL-031-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	144	45.00-120.00	All Target Analytes	J(all detects)
SL-041-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	135	45.00-120.00	All Target Analytes	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: DE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA5A-SS-0.0-0.5	BORON	J	1.90	5.28	PQL	mg/Kg	J (all detects)
	SODIUM	J	67.6	106	PQL	mg/Kg	
	TIN	J	2.59	10.6	PQL	mg/Kg	
	Zirconium	J	2.20	5.28	PQL	mg/Kg	
SL-025-SA5A-SS-0.0-0.5	BORON	J	3.37	5.71	PQL	mg/Kg	J (all detects)
	SODIUM	J	81.4	114	PQL	mg/Kg	
	TIN	J	2.80	11.4	PQL	mg/Kg	
	Zirconium	J	2.33	5.71	PQL	mg/Kg	
SL-026-SA5A-SS-0.0-0.5	BORON	J	1.55	5.45	PQL	mg/Kg	J (all detects)
	SODIUM	J	90.1	109	PQL	mg/Kg	
	TIN	J	2.88	10.9	PQL	mg/Kg	
	Zirconium	J	1.78	5.45	PQL	mg/Kg	
SL-028-SA5A-SS-0.0-0.5	BORON	J	2.54	5.33	PQL	mg/Kg	J (all detects)
	SODIUM	J	81.4	107	PQL	mg/Kg	
	TIN	J	2.61	10.7	PQL	mg/Kg	
	Zirconium	J	2.24	5.33	PQL	mg/Kg	
SL-029-SA5A-SS-0.0-0.5	BORON	J	2.67	5.61	PQL	mg/Kg	J (all detects)
	SODIUM	J	99.5	112	PQL	mg/Kg	
	TIN	J	2.55	11.2	PQL	mg/Kg	
	Zirconium	J	2.46	5.61	PQL	mg/Kg	
SL-031-SA5A-SS-0.0-0.5	BORON	J	2.06	5.59	PQL	mg/Kg	J (all detects)
	SODIUM	J	78.9	112	PQL	mg/Kg	
	TIN	J	2.58	11.2	PQL	mg/Kg	
	Zirconium	J	1.96	5.59	PQL	mg/Kg	
SL-032-SA5A-SS-0.0-0.5	BORON	J	1.54	5.37	PQL	mg/Kg	J (all detects)
	SODIUM	J	71.0	107	PQL	mg/Kg	
	TIN	J	3.01	10.7	PQL	mg/Kg	
	Zirconium	J	1.30	5.37	PQL	mg/Kg	
SL-041-SA5A-SS-0.0-0.5	BORON	J	1.41	5.48	PQL	mg/Kg	J (all detects)
	SODIUM	J	66.6	110	PQL	mg/Kg	
	TIN	J	2.50	11.0	PQL	mg/Kg	
	Zirconium	J	1.39	5.48	PQL	mg/Kg	
SL-332-SA5B-SB-4.0-5.0	TIN	J	2.49	10.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	0.914	5.34	PQL	mg/Kg	
SL-333-SA5B-SB-4.0-5.0	BORON	J	1.04	5.66	PQL	mg/Kg	J (all detects)
	TIN	J	2.74	11.3	PQL	mg/Kg	
SL-335-SA5B-SB-2.0-3.0	TIN	J	2.87	10.8	PQL	mg/Kg	J (all detects)
	Zirconium	J	0.965	5.42	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA5A-SS-0.0-0.5	SELENIUM	J	0.253	0.427	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0856	0.107	PQL	mg/Kg	
SL-025-SA5A-SS-0.0-0.5	SELENIUM	J	0.270	0.453	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: DE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-026-SA5A-SS-0.0-0.5	SELENIUM	J	0.133	0.432	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0551	0.108	PQL	mg/Kg	
SL-028-SA5A-SS-0.0-0.5	ANTIMONY	J	0.209	0.222	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.196	0.443	PQL	mg/Kg	
	SILVER	J	0.0480	0.111	PQL	mg/Kg	
SL-029-SA5A-SS-0.0-0.5	ANTIMONY	J	0.142	0.220	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.180	0.440	PQL	mg/Kg	
	SILVER	J	0.0535	0.110	PQL	mg/Kg	
SL-031-SA5A-SS-0.0-0.5	ANTIMONY	J	0.197	0.217	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0658	0.109	PQL	mg/Kg	
SL-032-SA5A-SS-0.0-0.5	ANTIMONY	J	0.160	0.221	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.169	0.442	PQL	mg/Kg	
	SILVER	J	0.0620	0.111	PQL	mg/Kg	
SL-041-SA5A-SS-0.0-0.5	ANTIMONY	J	0.0932	0.219	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.108	0.439	PQL	mg/Kg	
	SILVER	J	0.0431	0.110	PQL	mg/Kg	
SL-332-SA5B-SB-4.0-5.0	ANTIMONY	J	0.136	0.218	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0881	0.109	PQL	mg/Kg	
	SELENIUM	J	0.231	0.436	PQL	mg/Kg	
	SILVER	J	0.0273	0.109	PQL	mg/Kg	
SL-333-SA5B-SB-4.0-5.0	ANTIMONY	J	0.0824	0.226	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0977	0.453	PQL	mg/Kg	
	SILVER	J	0.0273	0.113	PQL	mg/Kg	
SL-335-SA5B-SB-2.0-3.0	ANTIMONY	J	0.180	0.215	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0459	0.107	PQL	mg/Kg	
	SELENIUM	J	0.183	0.429	PQL	mg/Kg	
	SILVER	J	0.0203	0.107	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.45	1.1	PQL	mg/Kg	J (all detects)
SL-026-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.43	1.1	PQL	mg/Kg	J (all detects)
SL-028-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.50	1.1	PQL	mg/Kg	J (all detects)
SL-029-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.74	1.1	PQL	mg/Kg	J (all detects)
SL-031-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.40	1.1	PQL	mg/Kg	J (all detects)
SL-041-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.28	1.1	PQL	mg/Kg	J (all detects)
SL-333-SA5B-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.24	1.1	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: DE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-025-SA5A-SS-0.0-0.5	MERCURY	J	0.0221	0.115	PQL	mg/Kg	J (all detects)
SL-026-SA5A-SS-0.0-0.5	MERCURY	J	0.0438	0.105	PQL	mg/Kg	J (all detects)

Method: 8015B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-335-SA5B-SB-2.0-3.0	METHANOL	J	310	550	PQL	ug/Kg	J (all detects)

Method: 8081A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA5A-SS-0.0-0.5	DIELDRIN	J	0.17	0.37	PQL	ug/Kg	J (all detects)
	ENDOSULFAN SULFATE	J	0.22	0.37	PQL	ug/Kg	
SL-025-SA5A-SS-0.0-0.5	DELTA-BHC	J	0.059	0.19	PQL	ug/Kg	J (all detects)
	DIELDRIN	J	0.18	0.40	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.16	0.40	PQL	ug/Kg	
	MIREX	J	0.32	0.40	PQL	ug/Kg	
SL-026-SA5A-SS-0.0-0.5	4,4'-DDD	J	0.10	0.38	PQL	ug/Kg	J (all detects)
	4,4'-DDE	J	0.32	0.38	PQL	ug/Kg	
	ENDOSULFAN SULFATE	J	0.13	0.38	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.20	0.38	PQL	ug/Kg	
	gamma-BHC (Lindane)	J	0.056	0.19	PQL	ug/Kg	
	MIREX	J	0.23	0.38	PQL	ug/Kg	
SL-028-SA5A-SS-0.0-0.5	4,4'-DDT	J	0.083	0.38	PQL	ug/Kg	J (all detects)
SL-029-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.15	0.39	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.37	0.39	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.11	0.39	PQL	ug/Kg	
	MIREX	J	0.23	0.39	PQL	ug/Kg	
SL-031-SA5A-SS-0.0-0.5	ALPHA-BHC	J	0.13	0.19	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.12	0.19	PQL	ug/Kg	
	HEPTACHLOR EPOXIDE	J	0.095	0.19	PQL	ug/Kg	
SL-032-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.17	0.38	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.27	0.38	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.093	0.38	PQL	ug/Kg	
	MIREX	J	0.081	0.38	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: DE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-029-SA5A-SS-0.0-0.5	AROCLOR 1260	J	1.4	3.8	PQL	ug/Kg	J (all detects)
SL-031-SA5A-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260	J J	0.60 1.2	1.9 1.9	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-032-SA5A-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	1.6 1.1 2.5	1.9 1.9 3.7	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-041-SA5A-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J J	1.2 2.1	1.9 3.7	PQL PQL	ug/Kg ug/Kg	J (all detects)

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-025-SA5A-SS-0.0-0.5	DICAMBA	J	0.48	1.4	PQL	ug/Kg	J (all detects)
SL-028-SA5A-SS-0.0-0.5	MCPP	J	170	280	PQL	ug/Kg	J (all detects)
SL-029-SA5A-SS-0.0-0.5	DICAMBA	J	0.92	1.4	PQL	ug/Kg	J (all detects)
SL-031-SA5A-SS-0.0-0.5	DICAMBA	J	0.51	1.4	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-332-SA5B-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.52	3.7	PQL	ug/Kg	J (all detects)
SL-333-SA5B-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.67	3.9	PQL	ug/Kg	J (all detects)
SL-335-SA5B-SB-2.0-3.0	METHYLENE CHLORIDE	J	0.68	4.2	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA5A-SS-0.0-0.5	CHRYSENE	J	25	180	PQL	ug/Kg	J (all detects)
SL-026-SA5A-SS-0.0-0.5	BENZO(A)PYRENE BENZO(G,H,I)PERYLENE	J J	72 41	190 190	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-028-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	35	370	PQL	ug/Kg	J (all detects)
SL-031-SA5A-SS-0.0-0.5	ACENAPHTHENE ANTHRACENE CARBAZOLE DIBENZO(A,H)ANTHRACENE DIBENZOFURAN FLUORENE	J J J J J J	38 96 140 180 19 26	190 190 190 190 190 190	PQL PQL PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: DE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-333-SA5B-SB-4.0-5.0	BENZO(A)PYRENE	J	20	190	PQL	ug/Kg	J (all detects)

Method: 8270C SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA5A-SS-0.0-0.5	ANTHRACENE	J	0.61	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	1.7	1.8	PQL	ug/Kg	
	Butylbenzylphthalate	J	9.6	20	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.77	1.8	PQL	ug/Kg	
	Di-n-butylphthalate	J	10	20	PQL	ug/Kg	
SL-025-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.83	1.9	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.93	1.9	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	17	21	PQL	ug/Kg	
	Butylbenzylphthalate	J	8.8	21	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.95	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.5	1.9	PQL	ug/Kg	
SL-026-SA5A-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.81	1.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.87	1.9	PQL	ug/Kg	
	ACENAPHTHYLENE	J	0.82	1.9	PQL	ug/Kg	
	ANTHRACENE	J	1.4	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	0.89	1.9	PQL	ug/Kg	
SL-028-SA5A-SS-0.0-0.5	Butylbenzylphthalate	J	7.3	20	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	13	20	PQL	ug/Kg	
SL-029-SA5A-SS-0.0-0.5	ANTHRACENE	J	0.69	1.9	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	19	20	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.91	1.9	PQL	ug/Kg	
	Di-n-butylphthalate	J	11	20	PQL	ug/Kg	
SL-031-SA5A-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	1.0	1.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.2	1.9	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	15	20	PQL	ug/Kg	
	Butylbenzylphthalate	J	7.2	20	PQL	ug/Kg	
	Di-n-butylphthalate	J	10	20	PQL	ug/Kg	
	NAPHTHALENE	J	1.4	1.9	PQL	ug/Kg	
SL-032-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	0.53	1.8	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.45	1.8	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.0	1.8	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.0	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.6	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.81	1.8	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	18	20	PQL	ug/Kg	
	Butylbenzylphthalate	J	8.2	20	PQL	ug/Kg	
	Di-n-butylphthalate	J	11	20	PQL	ug/Kg	
	Di-n-octylphthalate	J	15	20	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	1.8	PQL	ug/Kg	
	PYRENE	J	1.5	1.8	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE083 **Laboratory: LL**

EDD Filename: DE083_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-041-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	0.51	1.8	PQL	ug/Kg	
	ANTHRACENE	J	0.38	1.8	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	0.84	1.8	PQL	ug/Kg	
	BENZO(A)PYRENE	J	0.86	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.89	1.8	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	8.5	20	PQL	ug/Kg	
	Di-n-butylphthalate	J	14	20	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.77	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.6	1.8	PQL	ug/Kg	
SL-332-SA5B-SB-4.0-5.0	Butylbenzylphthalate	J	18	20	PQL	ug/Kg	
	Di-n-butylphthalate	J	14	20	PQL	ug/Kg	J (all detects)
	PHENANTHRENE	J	1.2	1.8	PQL	ug/Kg	
SL-333-SA5B-SB-4.0-5.0	ANTHRACENE	J	0.62	1.9	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	0.82	1.9	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.7	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.1	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.79	1.9	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	19	21	PQL	ug/Kg	
	Butylbenzylphthalate	J	7.2	21	PQL	ug/Kg	
	CHRYSENE	J	1.7	1.9	PQL	ug/Kg	
	Di-n-butylphthalate	J	8.4	21	PQL	ug/Kg	
SL-335-SA5B-SB-2.0-3.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	15	20	PQL	ug/Kg	J (all detects)

LDC #: 25764G4 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/6/11
SDG #: DE083 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ba, Ca, Fe, Pb, Mg, Mn, K, Ti, V, Zn >4X)
VII.	Duplicate Sample Analysis	N	D (Sb, Cd, Hg, Ag, Tl <4x RL)
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	J (UJ/A)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-024-SA5A-SS-0.0-0.5	11	SL-335-SA5B-SB-2.0-3.0	21		31	
2	SL-025-SA5A-SS-0.0-0.5	12	(#1) MS	22		32	
3	SL-026-SA5A-SS-0.0-0.5	13	MSD	23		33	
4	SL-028-SA5A-SS-0.0-0.5	14	DUP	24		34	
5	SL-029-SA5A-SS-0.0-0.5	15		25		35	
6	SL-031-SA5A-SS-0.0-0.5	16		26		36	
7	SL-032-SA5A-SS-0.0-0.5	17		27		37	
8	SL-041-SA5A-SS-0.0-0.5	18		28		38	
9	SL-332-SA5B-SB-4.0-5.0	19		29		39	
10	SL-333-SA5B-SB-4.0-5.0	20		30		40	

Notes:

LDC #: 25764G4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Reviewer: CK
2nd Reviewer:

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x x MS: 2xdil

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: All Reason Code: B

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	3	7	8	9	11						
Zr			3.9	1.95	1.8	1.3	1.4	0.91	0.97						

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 1, 3, 5 Reason Code: B

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	5										
Cd			0.21	0.21	0.17										

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 2, 10 Reason Code: B

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	10										
Mo			0.26	0.26	0.22										

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".

Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE083
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6208342BKG Serial Dilution Lab Sample ID: 6208342L
Batch ID(s): P04808A, P04826A
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		128556.8600		129047.7000		0		P
Antimony	121	1.4320		1.5065	B	5		MS
Arsenic	75	29.2500		23.4550		20		MS
Barium	137	663.6000		529.5000		20	E	MS
Beryllium	9	2.7110		3.1855		18		MS
Boron		17.9700	B	44.5000	U	100		P
Cadmium	111	1.3990		1.7755	B	27		MS
Calcium		22191.8900		23498.2500		6		P
Chromium	52	124.3000		102.1500		18	E	MS
Cobalt	59	39.3000		34.5500		12	E	MS
Copper	63	71.6400		58.4000		18	E	MS
Iron		159013.1400		168316.5000		6		P
Lead	208	103.0000		85.5500		17	E	MS
Lithium		195.4800		355.2500		82	E	P
Magnesium		34273.8600		36329.0500		6		P
Manganese		3021.7700		3188.0000		6		P
Molybdenum	98	5.0530		4.2200		16		MS
Nickel	60	83.0600		73.7000		11	E	MS
Phosphorus		4306.7400		4466.4500		4		P
Potassium		30900.9400		32447.5500		5		P
Selenium	78	1.1840	B	1.0625	B	10		MS
Silver	107	0.4013	B	0.4166	B	4		MS
Sodium		639.8100	B	1865.0000	U	100		P
Strontium		172.2100		182.7000		6		P
Thallium	203	1.8650		1.6055	B	14		MS
Tin		24.5300	B	50.0000	U	100		P
Titanium		10533.5100		11263.9000		7		P
Vanadium	51	243.1000		219.1500		10		MS
Zinc	66	421.4000		373.9500		11	E	MS
Zirconium		20.7900	B	42.0000	U	100		P

NOTE: An E in column Q indicates the presence of a chemical or physical interference in the matrix when the % difference is greater than 10%. This applies only when (I) is greater than or equal to 50x MDL for ICP, 100x MDL for ICP-MS (6020), 50x MDL for ICP-MS (200.8), or 25x MDL for GFAA.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ

FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

SAMPLE DELIVERY GROUP

DE084

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Feb-2011	TB-021711	6209570	TB	5030B	8015M	III
17-Feb-2011	TB-021711	6209570	TB	5030B	8260B	III
17-Feb-2011	TB-021711	6209570	TB	5030B	8260B SIM	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	3050B	6010B	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	3050B	6020	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	3060A	7199	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	3546	1625C	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	3550B	8015B	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	3550B	8015M	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	3550B	8082	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	3550B	8270C	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	3550B	8270C SIM	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	5035	8015M	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	5035	8260B	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	5035	8260B SIM	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	8330	8330A	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	Gen Prep	9045M	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	METHOD	300.0	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	METHOD	314.0	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	METHOD	7471A	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	METHOD	8015B	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	METHOD	8015M	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	METHOD	8315A	III
17-Feb-2011	SL-336-SA5B-SB-4.0-5.0	6209568	N	METHOD	9012B	III
17-Feb-2011	SL-022-SA5A-SS-0.0-0.5	6209558	N	3050B	6010B	III
17-Feb-2011	SL-022-SA5A-SS-0.0-0.5	6209558	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Feb-2011	SL-022-SA5A-SS-0.0-0.5	6209558	N	3060A	7199	III
17-Feb-2011	SL-022-SA5A-SS-0.0-0.5	6209558	N	3550B	8081A	III
17-Feb-2011	SL-022-SA5A-SS-0.0-0.5	6209558	N	3550B	8082	III
17-Feb-2011	SL-022-SA5A-SS-0.0-0.5	6209558	N	3550B	8151A	III
17-Feb-2011	SL-022-SA5A-SS-0.0-0.5	6209558	N	3550B	8270C	III
17-Feb-2011	SL-022-SA5A-SS-0.0-0.5	6209558	N	3550B	8270C SIM	III
17-Feb-2011	SL-022-SA5A-SS-0.0-0.5	6209558	N	Gen Prep	9045M	III
17-Feb-2011	SL-022-SA5A-SS-0.0-0.5	6209558	N	METHOD	300.0	III
17-Feb-2011	SL-022-SA5A-SS-0.0-0.5	6209558	N	METHOD	314.0	III
17-Feb-2011	SL-022-SA5A-SS-0.0-0.5	6209558	N	METHOD	7471A	III
17-Feb-2011	SL-022-SA5A-SS-0.0-0.5MSD	P209558M241902A	MSD	3550B	8081A	III
17-Feb-2011	SL-022-SA5A-SS-0.0-0.5MS	P209558R241848A	MS	3550B	8081A	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5	6209557	N	3050B	6010B	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5	6209557	N	3050B	6020	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5	6209557	N	3060A	7199	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5	6209557	N	3550B	8081A	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5	6209557	N	3550B	8082	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5	6209557	N	3550B	8151A	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5	6209557	N	3550B	8270C	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5	6209557	N	3550B	8270C SIM	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5	6209557	N	Gen Prep	9045M	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5	6209557	N	METHOD	300.0	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5	6209557	N	METHOD	314.0	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5	6209557	N	METHOD	7471A	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5DUP	P209557D220828	DUP	3050B	6010B	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5DUP	P209557D220933	DUP	METHOD	7471A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5DUP	P209557D221127A	DUP	3050B	6020	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5DUP	P209557D221127C	DUP	3050B	6020	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5DUP	P209557D221127D	DUP	3050B	6020	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5DUP	P209557D221627B	DUP	3050B	6020	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5DUP	P209557D271448A	DUP	METHOD	314.0	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5DUP	P209557D272216A	DUP	METHOD	300.0	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5DUP	P209557D291050A	DUP	Gen Prep	9045M	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MSD	P209557M220835	MSD	3050B	6010B	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MSD	P209557M220935	MSD	METHOD	7471A	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MSD	P209557M221133A	MSD	3050B	6020	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MSD	P209557M221133C	MSD	3050B	6020	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MSD	P209557M221133D	MSD	3050B	6020	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MSD	P209557M221631B	MSD	3050B	6020	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MSD	P209557M240916A	MSD	3550B	8082	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MSD	P209557M260416	MSD	3550B	8270C SIM	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MSD	P209557M260530	MSD	3550B	8270C	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MS	P209557R220831	MS	3050B	6010B	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MS	P209557R220934	MS	METHOD	7471A	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MS	P209557R221130A	MS	3050B	6020	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MS	P209557R221130C	MS	3050B	6020	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MS	P209557R221130D	MS	3050B	6020	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MS	P209557R221629B	MS	3050B	6020	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MS	P209557R240853A	MS	3550B	8082	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MS	P209557R260341	MS	3550B	8270C SIM	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MS	P209557R260504	MS	3550B	8270C	III
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MS	P209557R271512A	MS	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Feb-2011	SL-021-SA5A-SS-0.0-0.5MS	P209557R272231A	MS	METHOD	300.0	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	3050B	6010B	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	3050B	6020	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	3060A	7199	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	3546	1625C	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	3550B	8015B	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	3550B	8015M	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	3550B	8082	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	3550B	8270C	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	3550B	8270C SIM	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	5035	8015M	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	5035	8260B	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	5035	8260B SIM	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	8330	8330A	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	Gen Prep	9045M	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	METHOD	300.0	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	METHOD	314.0	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	METHOD	7471A	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	METHOD	8015B	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	METHOD	8015M	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	METHOD	8315A	III
17-Feb-2011	SL-337-SA5B-SB-3.0-4.0	6209569	N	METHOD	9012B	III
17-Feb-2011	SL-035-SA5A-SS-0.0-0.5	6209559	N	3050B	6010B	III
17-Feb-2011	SL-035-SA5A-SS-0.0-0.5	6209559	N	3050B	6020	III
17-Feb-2011	SL-035-SA5A-SS-0.0-0.5	6209559	N	3060A	7199	III
17-Feb-2011	SL-035-SA5A-SS-0.0-0.5	6209559	N	3550B	8081A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Feb-2011	SL-035-SA5A-SS-0.0-0.5	6209559	N	3550B	8082	III
17-Feb-2011	SL-035-SA5A-SS-0.0-0.5	6209559	N	3550B	8151A	III
17-Feb-2011	SL-035-SA5A-SS-0.0-0.5	6209559	N	3550B	8270C	III
17-Feb-2011	SL-035-SA5A-SS-0.0-0.5	6209559	N	3550B	8270C SIM	III
17-Feb-2011	SL-035-SA5A-SS-0.0-0.5	6209559	N	Gen Prep	9045M	III
17-Feb-2011	SL-035-SA5A-SS-0.0-0.5	6209559	N	METHOD	300.0	III
17-Feb-2011	SL-035-SA5A-SS-0.0-0.5	6209559	N	METHOD	314.0	III
17-Feb-2011	SL-035-SA5A-SS-0.0-0.5	6209559	N	METHOD	7471A	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	3050B	6010B	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	3050B	6020	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	3060A	7199	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	3546	1625C	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	3550B	8015B	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	3550B	8015M	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	3550B	8082	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	3550B	8270C	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	3550B	8270C SIM	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	5035	8015M	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	5035	8260B	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	5035	8260B SIM	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	8330	8330A	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	Gen Prep	9045M	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	METHOD	300.0	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	METHOD	314.0	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	METHOD	7471A	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	METHOD	8015B	III

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	METHOD	8015M	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	METHOD	8315A	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0	6209567	N	METHOD	9012B	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0DUP	P209567D270148B	DUP	METHOD	300.0	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0DUP	P209567D272000B	DUP	METHOD	314.0	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0MS	P209567R270204B	MS	METHOD	300.0	III
17-Feb-2011	SL-331-SA5B-SB-3.0-4.0MS	P209567R272024B	MS	METHOD	314.0	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	3050B	6010B	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	3050B	6020	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	3060A	7199	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	3546	1625C	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	3550B	8015B	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	3550B	8015M	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	3550B	8082	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	3550B	8270C	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	3550B	8270C SIM	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	5035	8015M	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	5035	8260B	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	5035	8260B SIM	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	8330	8330A	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	Gen Prep	9045M	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	METHOD	300.0	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	METHOD	314.0	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	METHOD	7471A	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	METHOD	8015B	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	METHOD	8015M	III

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	METHOD	8315A	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0	6209565	N	METHOD	9012B	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0DUP	P209565D271007A	DUP	METHOD	9012B	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0DUP	P209565D271831A	DUP	3060A	7199	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0MS	P209565R271008A	MS	METHOD	9012B	III
17-Feb-2011	SL-321-SA5B-SB-3.0-4.0MS	P209565R271800A	MS	3060A	7199	III
17-Feb-2011	SL-040-SA5A-SS-0.0-0.5	6209562	N	3050B	6010B	III
17-Feb-2011	SL-040-SA5A-SS-0.0-0.5	6209562	N	3050B	6020	III
17-Feb-2011	SL-040-SA5A-SS-0.0-0.5	6209562	N	3060A	7199	III
17-Feb-2011	SL-040-SA5A-SS-0.0-0.5	6209562	N	3550B	8081A	III
17-Feb-2011	SL-040-SA5A-SS-0.0-0.5	6209562	N	3550B	8082	III
17-Feb-2011	SL-040-SA5A-SS-0.0-0.5	6209562	N	3550B	8151A	III
17-Feb-2011	SL-040-SA5A-SS-0.0-0.5	6209562	N	3550B	8270C	III
17-Feb-2011	SL-040-SA5A-SS-0.0-0.5	6209562	N	3550B	8270C SIM	III
17-Feb-2011	SL-040-SA5A-SS-0.0-0.5	6209562	N	Gen Prep	9045M	III
17-Feb-2011	SL-040-SA5A-SS-0.0-0.5	6209562	N	METHOD	300.0	III
17-Feb-2011	SL-040-SA5A-SS-0.0-0.5	6209562	N	METHOD	314.0	III
17-Feb-2011	SL-040-SA5A-SS-0.0-0.5	6209562	N	METHOD	7471A	III
17-Feb-2011	SL-037-SA5A-SS-0.0-0.5	6209561	N	3050B	6010B	III
17-Feb-2011	SL-037-SA5A-SS-0.0-0.5	6209561	N	3050B	6020	III
17-Feb-2011	SL-037-SA5A-SS-0.0-0.5	6209561	N	3060A	7199	III
17-Feb-2011	SL-037-SA5A-SS-0.0-0.5	6209561	N	3550B	8081A	III
17-Feb-2011	SL-037-SA5A-SS-0.0-0.5	6209561	N	3550B	8082	III
17-Feb-2011	SL-037-SA5A-SS-0.0-0.5	6209561	N	3550B	8151A	III
17-Feb-2011	SL-037-SA5A-SS-0.0-0.5	6209561	N	3550B	8270C	III
17-Feb-2011	SL-037-SA5A-SS-0.0-0.5	6209561	N	3550B	8270C SIM	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Feb-2011	SL-037-SA5A-SS-0.0-0.5	6209561	N	Gen Prep	9045M	III
17-Feb-2011	SL-037-SA5A-SS-0.0-0.5	6209561	N	METHOD	300.0	III
17-Feb-2011	SL-037-SA5A-SS-0.0-0.5	6209561	N	METHOD	314.0	III
17-Feb-2011	SL-037-SA5A-SS-0.0-0.5	6209561	N	METHOD	6850	III
17-Feb-2011	SL-037-SA5A-SS-0.0-0.5	6209561	N	METHOD	7471A	III
17-Feb-2011	SL-036-SA5A-SS-0.0-0.5	6209560	N	3050B	6010B	III
17-Feb-2011	SL-036-SA5A-SS-0.0-0.5	6209560	N	3050B	6020	III
17-Feb-2011	SL-036-SA5A-SS-0.0-0.5	6209560	N	3060A	7199	III
17-Feb-2011	SL-036-SA5A-SS-0.0-0.5	6209560	N	3550B	8081A	III
17-Feb-2011	SL-036-SA5A-SS-0.0-0.5	6209560	N	3550B	8082	III
17-Feb-2011	SL-036-SA5A-SS-0.0-0.5	6209560	N	3550B	8151A	III
17-Feb-2011	SL-036-SA5A-SS-0.0-0.5	6209560	N	3550B	8270C	III
17-Feb-2011	SL-036-SA5A-SS-0.0-0.5	6209560	N	3550B	8270C SIM	III
17-Feb-2011	SL-036-SA5A-SS-0.0-0.5	6209560	N	Gen Prep	9045M	III
17-Feb-2011	SL-036-SA5A-SS-0.0-0.5	6209560	N	METHOD	300.0	III
17-Feb-2011	SL-036-SA5A-SS-0.0-0.5	6209560	N	METHOD	314.0	III
17-Feb-2011	SL-036-SA5A-SS-0.0-0.5	6209560	N	METHOD	7471A	III
17-Feb-2011	SL-050-SA5A-SS-0.0-0.5	6209563	N	3050B	6010B	III
17-Feb-2011	SL-050-SA5A-SS-0.0-0.5	6209563	N	3050B	6020	III
17-Feb-2011	SL-050-SA5A-SS-0.0-0.5	6209563	N	3060A	7199	III
17-Feb-2011	SL-050-SA5A-SS-0.0-0.5	6209563	N	3550B	8081A	III
17-Feb-2011	SL-050-SA5A-SS-0.0-0.5	6209563	N	3550B	8082	III
17-Feb-2011	SL-050-SA5A-SS-0.0-0.5	6209563	N	3550B	8151A	III
17-Feb-2011	SL-050-SA5A-SS-0.0-0.5	6209563	N	3550B	8270C	III
17-Feb-2011	SL-050-SA5A-SS-0.0-0.5	6209563	N	3550B	8270C SIM	III
17-Feb-2011	SL-050-SA5A-SS-0.0-0.5	6209563	N	Gen Prep	9045M	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Feb-2011	SL-050-SA5A-SS-0.0-0.5	6209563	N	METHOD	300.0	III
17-Feb-2011	SL-050-SA5A-SS-0.0-0.5	6209563	N	METHOD	314.0	III
17-Feb-2011	SL-050-SA5A-SS-0.0-0.5	6209563	N	METHOD	7471A	III
17-Feb-2011	SL-051-SA5A-SS-0.0-0.5	6209564	N	3050B	6010B	III
17-Feb-2011	SL-051-SA5A-SS-0.0-0.5	6209564	N	3050B	6020	III
17-Feb-2011	SL-051-SA5A-SS-0.0-0.5	6209564	N	3060A	7199	III
17-Feb-2011	SL-051-SA5A-SS-0.0-0.5	6209564	N	3550B	8081A	III
17-Feb-2011	SL-051-SA5A-SS-0.0-0.5	6209564	N	3550B	8082	III
17-Feb-2011	SL-051-SA5A-SS-0.0-0.5	6209564	N	3550B	8151A	III
17-Feb-2011	SL-051-SA5A-SS-0.0-0.5	6209564	N	3550B	8270C	III
17-Feb-2011	SL-051-SA5A-SS-0.0-0.5	6209564	N	3550B	8270C SIM	III
17-Feb-2011	SL-051-SA5A-SS-0.0-0.5	6209564	N	Gen Prep	9045M	III
17-Feb-2011	SL-051-SA5A-SS-0.0-0.5	6209564	N	METHOD	300.0	III
17-Feb-2011	SL-051-SA5A-SS-0.0-0.5	6209564	N	METHOD	314.0	III
17-Feb-2011	SL-051-SA5A-SS-0.0-0.5	6209564	N	METHOD	7471A	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	3050B	6010B	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	3050B	6020	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	3060A	7199	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	3546	1625C	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	3550B	8015B	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	3550B	8015M	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	3550B	8082	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	3550B	8270C	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	3550B	8270C SIM	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	5035	8015M	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	5035	8260B	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	5035	8260B SIM	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	8330	8330A	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	Gen Prep	9045M	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	METHOD	300.0	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	METHOD	314.0	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	METHOD	7471A	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	METHOD	8015B	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	METHOD	8015M	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	METHOD	8315A	III
17-Feb-2011	SL-322-SA5B-SB-3.0-4.0	6209566	N	METHOD	9012B	III

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IV = EPA Level 4 Data Validation
N = Normal Sample
FD = Field Duplicate
TB = Trip Blank
FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory:** LL

EDD Filename: DE084_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-021-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 9:40:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.5		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-022-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 9:25:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.1		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-035-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 10:40:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-036-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 1:58:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-037-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 1:28:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.86	U	0.86	MDL	1.1	PQL	mg/Kg	UJ	Q

Sample ID: SL-040-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 1:10:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-050-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 2:20:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-051-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 2:40:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.89	MDL	1.1	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-321-SA5B-SB-3.0-4.0 *Collected:* 2/17/2011 1:09:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	7.8		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-322-SA5B-SB-3.0-4.0 *Collected:* 2/17/2011 3:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.3		0.85	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: GENCHEM

Method: 314.0 **Matrix: SO**

Sample ID: SL-036-SA5A-SS-0.0-0.5 *Collected:* 2/17/2011 1:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	13.8	J	9.9	MDL	32.9	PQL	ug/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-021-SA5A-SS-0.0-0.5 *Collected:* 2/17/2011 9:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3140		20.0	MDL	55.7	PQL	mg/Kg	J	Q
SODIUM	80.8	J	41.5	MDL	111	PQL	mg/Kg	J	Z
TIN	2.65	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	3.82	J	0.935	MDL	5.57	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA5A-SS-0.0-0.5 *Collected:* 2/17/2011 9:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3290		19.4	MDL	53.8	PQL	mg/Kg	J	Q
SODIUM	96.9	J	40.1	MDL	108	PQL	mg/Kg	J	Z
TIN	2.76	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	2.71	J	0.903	MDL	5.38	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-035-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 10:40:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3590		18.7	MDL	52.0	PQL	mg/Kg	J	Q
SODIUM	91.6	J	38.8	MDL	104	PQL	mg/Kg	J	Z
TIN	2.46	J	1.04	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	2.72	J	0.874	MDL	5.20	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 1:58:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3560		19.6	MDL	54.3	PQL	mg/Kg	J	Q
SODIUM	89.1	J	40.5	MDL	109	PQL	mg/Kg	J	Z
TIN	2.64	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	3.54	J	0.913	MDL	5.43	PQL	mg/Kg	J	Z

Sample ID: SL-037-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 1:28:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3640		18.6	MDL	51.8	PQL	mg/Kg	J	Q
SODIUM	81.3	J	38.6	MDL	104	PQL	mg/Kg	J	Z
TIN	2.54	J	1.04	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	3.47	J	0.869	MDL	5.18	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 1:10:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3860		19.1	MDL	53.2	PQL	mg/Kg	J	Q
SODIUM	78.8	J	39.7	MDL	106	PQL	mg/Kg	J	Z
TIN	2.68	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	3.60	J	0.893	MDL	5.32	PQL	mg/Kg	J	Z

Sample ID: SL-050-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 2:20:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3440		19.5	MDL	54.0	PQL	mg/Kg	J	Q
SODIUM	81.1	J	40.3	MDL	108	PQL	mg/Kg	J	Z
TIN	2.39	J	1.08	MDL	10.8	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-050-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:20:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	3.09	J	0.908	MDL	5.40	PQL	mg/Kg	J	Z

Sample ID: **SL-051-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3990		19.4	MDL	53.8	PQL	mg/Kg	J	Q
SODIUM	90.0	J	40.1	MDL	108	PQL	mg/Kg	J	Z
TIN	2.56	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	3.84	J	0.903	MDL	5.38	PQL	mg/Kg	J	Z

Sample ID: **SL-321-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 1:09:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	4530		19.9	MDL	55.3	PQL	mg/Kg	J	Q
TIN	4.03	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	2.02	J	0.929	MDL	5.53	PQL	mg/Kg	J	Z

Sample ID: **SL-322-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 3:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2690		19.2	MDL	53.4	PQL	mg/Kg	J	Q
TIN	2.97	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	1.45	J	0.897	MDL	5.34	PQL	mg/Kg	J	Z

Sample ID: **SL-331-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 11:44:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3470		19.2	MDL	53.3	PQL	mg/Kg	J	Q
TIN	2.55	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	2.48	J	0.895	MDL	5.33	PQL	mg/Kg	J	Z

Sample ID: **SL-336-SA5B-SB-4.0-5.0** ***Collected:*** **2/17/2011 9:19:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3330		20.8	MDL	57.7	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-336-SA5B-SB-4.0-5.0 ***Collected:*** 2/17/2011 9:19:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.61	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	2.46	J	0.970	MDL	5.77	PQL	mg/Kg	J	Z

Sample ID: SL-337-SA5B-SB-3.0-4.0 ***Collected:*** 2/17/2011 10:33:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	4490		20.1	MDL	56.0	PQL	mg/Kg	J	Q
TIN	2.90	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	1.25	J	0.940	MDL	5.60	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-021-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 9:40:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.149	J	0.0437	MDL	0.437	PQL	mg/Kg	U	B

Sample ID: SL-021-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 9:40:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.722		0.0546	MDL	0.109	PQL	mg/Kg	J	Q

Sample ID: SL-021-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 9:40:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	123		0.118	MDL	0.437	PQL	mg/Kg	J	A

Sample ID: SL-021-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 9:40:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.288		0.0445	MDL	0.111	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-021-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 9:40:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.207	J	0.0655	MDL	0.218	PQL	mg/Kg	UJ	Q, E, B
ARSENIC	5.48		0.0873	MDL	0.437	PQL	mg/Kg	J	Q
BERYLLIUM	0.703		0.0175	MDL	0.109	PQL	mg/Kg	J	Q
CHROMIUM	20.7		0.131	MDL	0.437	PQL	mg/Kg	J	Q, A
COBALT	6.49		0.0218	MDL	0.109	PQL	mg/Kg	J	Q, A
COPPER	10.6		0.0721	MDL	0.437	PQL	mg/Kg	J	Q, A
LEAD	10.1		0.0114	MDL	0.218	PQL	mg/Kg	J	Q, A
NICKEL	13.6		0.109	MDL	0.437	PQL	mg/Kg	J	Q, A
SILVER	0.0688	J	0.0131	MDL	0.109	PQL	mg/Kg	UJ	Q, B
VANADIUM	39.0		0.0240	MDL	0.109	PQL	mg/Kg	J	Q, A
ZINC	66.1		0.611	MDL	3.28	PQL	mg/Kg	J	A

Sample ID: SL-022-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 9:25:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.127	J	0.0422	MDL	0.422	PQL	mg/Kg	U	B

Sample ID: SL-022-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 9:25:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.812		0.0527	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-022-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 9:25:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	127		0.114	MDL	0.422	PQL	mg/Kg	J	A

Sample ID: SL-022-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 9:25:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.107	J	0.0430	MDL	0.108	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-022-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 9:25:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.149	J	0.0632	MDL	0.211	PQL	mg/Kg	UJ	Q, E, B
ARSENIC	6.03		0.0843	MDL	0.422	PQL	mg/Kg	J	Q
BERYLLIUM	0.688		0.0169	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	21.9		0.126	MDL	0.422	PQL	mg/Kg	J	Q, A
COBALT	6.93		0.0211	MDL	0.105	PQL	mg/Kg	J	Q, A
COPPER	11.4		0.0696	MDL	0.422	PQL	mg/Kg	J	Q, A
LEAD	14.0		0.0110	MDL	0.211	PQL	mg/Kg	J	Q, A
NICKEL	14.3		0.105	MDL	0.422	PQL	mg/Kg	J	Q, A
SILVER	0.168		0.0126	MDL	0.105	PQL	mg/Kg	J	Q
VANADIUM	41.2		0.0232	MDL	0.105	PQL	mg/Kg	J	Q, A
ZINC	74.6		0.590	MDL	3.16	PQL	mg/Kg	J	A

Sample ID: **SL-035-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 10:40:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.131	J	0.0420	MDL	0.420	PQL	mg/Kg	U	B

Sample ID: **SL-035-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 10:40:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.887		0.0525	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: **SL-035-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 10:40:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	126		0.113	MDL	0.420	PQL	mg/Kg	J	A

Sample ID: **SL-035-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 10:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.234		0.0630	MDL	0.210	PQL	mg/Kg	UJ	Q, E, B
ARSENIC	4.68		0.0841	MDL	0.420	PQL	mg/Kg	J	Q
BERYLLIUM	0.597		0.0168	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	21.1		0.126	MDL	0.420	PQL	mg/Kg	J	Q, A
COBALT	7.14		0.0210	MDL	0.105	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-035-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 10:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	11.9		0.0693	MDL	0.420	PQL	mg/Kg	J	Q, A
LEAD	13.1		0.0109	MDL	0.210	PQL	mg/Kg	J	Q, A
NICKEL	14.0		0.105	MDL	0.420	PQL	mg/Kg	J	Q, A
SILVER	0.0723	J	0.0126	MDL	0.105	PQL	mg/Kg	UJ	Q, B
VANADIUM	38.0		0.0231	MDL	0.105	PQL	mg/Kg	J	Q, A
ZINC	69.5		0.588	MDL	3.15	PQL	mg/Kg	J	A

Sample ID: **SL-036-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:58:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.124	J	0.0435	MDL	0.435	PQL	mg/Kg	U	B

Sample ID: **SL-036-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:58:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.00		0.0543	MDL	0.109	PQL	mg/Kg	J	Q

Sample ID: **SL-036-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:58:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	166		0.117	MDL	0.435	PQL	mg/Kg	J	A

Sample ID: **SL-036-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:58:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.315		0.0652	MDL	0.217	PQL	mg/Kg	UJ	Q, E, B
ARSENIC	6.95		0.0869	MDL	0.435	PQL	mg/Kg	J	Q
BERYLLIUM	0.658		0.0174	MDL	0.109	PQL	mg/Kg	J	Q
CHROMIUM	28.1		0.130	MDL	0.435	PQL	mg/Kg	J	Q, A
COBALT	8.66		0.0217	MDL	0.109	PQL	mg/Kg	J	Q, A
COPPER	18.4		0.0717	MDL	0.435	PQL	mg/Kg	J	Q, A
LEAD	27.3		0.0113	MDL	0.217	PQL	mg/Kg	J	Q, A
NICKEL	18.9		0.109	MDL	0.435	PQL	mg/Kg	J	Q, A
SILVER	0.0837	J	0.0130	MDL	0.109	PQL	mg/Kg	UJ	Q, B
VANADIUM	54.8		0.0239	MDL	0.109	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-036-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:58:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	105		0.609	MDL	3.26	PQL	mg/Kg	J	A

Sample ID: **SL-037-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:28:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.116	J	0.0426	MDL	0.426	PQL	mg/Kg	U	B

Sample ID: **SL-037-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:28:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.21		0.0533	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: **SL-037-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:28:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	154		0.115	MDL	0.426	PQL	mg/Kg	J	A

Sample ID: **SL-037-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.276		0.0639	MDL	0.213	PQL	mg/Kg	UJ	Q, E, B
ARSENIC	7.26		0.0853	MDL	0.426	PQL	mg/Kg	J	Q
BERYLLIUM	0.684		0.0171	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	29.4		0.128	MDL	0.426	PQL	mg/Kg	J	Q, A
COBALT	8.75		0.0213	MDL	0.107	PQL	mg/Kg	J	Q, A
COPPER	17.6		0.0703	MDL	0.426	PQL	mg/Kg	J	Q, A
LEAD	39.0		0.0111	MDL	0.213	PQL	mg/Kg	J	Q, A
NICKEL	18.6		0.107	MDL	0.426	PQL	mg/Kg	J	Q, A
SILVER	0.0828	J	0.0128	MDL	0.107	PQL	mg/Kg	UJ	Q, B
VANADIUM	53.9		0.0234	MDL	0.107	PQL	mg/Kg	J	Q, A
ZINC	116		0.597	MDL	3.20	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-040-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:10:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.111	J	0.0430	MDL	0.430	PQL	mg/Kg	U	B

Sample ID: **SL-040-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:10:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.856		0.0537	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: **SL-040-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:10:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	130		0.116	MDL	0.430	PQL	mg/Kg	J	A

Sample ID: **SL-040-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:10:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.201		0.0425	MDL	0.106	PQL	mg/Kg	U	B

Sample ID: **SL-040-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.163	J	0.0644	MDL	0.215	PQL	mg/Kg	UJ	Q, E, B
ARSENIC	4.66		0.0859	MDL	0.430	PQL	mg/Kg	J	Q
BERYLLIUM	0.596		0.0172	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	22.6		0.129	MDL	0.430	PQL	mg/Kg	J	Q, A
COBALT	6.48		0.0215	MDL	0.107	PQL	mg/Kg	J	Q, A
COPPER	12.5		0.0709	MDL	0.430	PQL	mg/Kg	J	Q, A
LEAD	16.1		0.0112	MDL	0.215	PQL	mg/Kg	J	Q, A
NICKEL	14.5		0.107	MDL	0.430	PQL	mg/Kg	J	Q, A
SILVER	0.0487	J	0.0129	MDL	0.107	PQL	mg/Kg	UJ	Q, B
VANADIUM	38.9		0.0236	MDL	0.107	PQL	mg/Kg	J	Q, A
ZINC	70.6		0.601	MDL	3.22	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-050-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:20:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.133	J	0.0428	MDL	0.428	PQL	mg/Kg	U	B

Sample ID: **SL-050-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:20:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.782		0.0535	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: **SL-050-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:20:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	125		0.116	MDL	0.428	PQL	mg/Kg	J	A

Sample ID: **SL-050-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:20:00** ***Analysis Type:*** **REA5** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.227		0.0432	MDL	0.108	PQL	mg/Kg	U	B

Sample ID: **SL-050-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:20:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.150	J	0.0642	MDL	0.214	PQL	mg/Kg	UJ	Q, E, B
ARSENIC	5.56		0.0856	MDL	0.428	PQL	mg/Kg	J	Q
BERYLLIUM	0.634		0.0171	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	22.3		0.128	MDL	0.428	PQL	mg/Kg	J	Q, A
COBALT	6.58		0.0214	MDL	0.107	PQL	mg/Kg	J	Q, A
COPPER	11.8		0.0706	MDL	0.428	PQL	mg/Kg	J	Q, A
LEAD	10.6		0.0111	MDL	0.214	PQL	mg/Kg	J	Q, A
NICKEL	15.4		0.107	MDL	0.428	PQL	mg/Kg	J	Q, A
SILVER	0.0559	J	0.0128	MDL	0.107	PQL	mg/Kg	UJ	Q, B
VANADIUM	39.5		0.0235	MDL	0.107	PQL	mg/Kg	J	Q, A
ZINC	70.8		0.599	MDL	3.21	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-051-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:40:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.146	J	0.0430	MDL	0.430	PQL	mg/Kg	U	B

Sample ID: **SL-051-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:40:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.07		0.0538	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: **SL-051-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:40:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	150		0.116	MDL	0.430	PQL	mg/Kg	J	A

Sample ID: **SL-051-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:40:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.221		0.0434	MDL	0.109	PQL	mg/Kg	U	B

Sample ID: **SL-051-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.183	J	0.0645	MDL	0.215	PQL	mg/Kg	UJ	Q, E, B
ARSENIC	6.03		0.0860	MDL	0.430	PQL	mg/Kg	J	Q
BERYLLIUM	0.706		0.0172	MDL	0.108	PQL	mg/Kg	J	Q
CHROMIUM	27.2		0.129	MDL	0.430	PQL	mg/Kg	J	Q, A
COBALT	8.04		0.0215	MDL	0.108	PQL	mg/Kg	J	Q, A
COPPER	15.7		0.0710	MDL	0.430	PQL	mg/Kg	J	Q, A
LEAD	18.9		0.0112	MDL	0.215	PQL	mg/Kg	J	Q, A
NICKEL	18.1		0.108	MDL	0.430	PQL	mg/Kg	J	Q, A
SILVER	0.0712	J	0.0129	MDL	0.108	PQL	mg/Kg	UJ	Q, B
VANADIUM	46.5		0.0237	MDL	0.108	PQL	mg/Kg	J	Q, A
ZINC	95.8		0.602	MDL	3.23	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

eporting Batch ID: DE084 Laboratory: LL

ilename: DE084_v1 eQAPP Name: CDM_SSFL_110509

a Category: METALS

d: 6020 Matrix: SO

ID: SL-321-SA5B-SB-3.0-4.0 *Collected:* 2/17/2011 1:09:00 *Analysis Type:* REA *Dilution:* 2

e	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
UM	0.166	J	0.0447	MDL	0.447	PQL	mg/Kg	U	B

ID: SL-321-SA5B-SB-3.0-4.0 *Collected:* 2/17/2011 1:09:00 *Analysis Type:* REA2 *Dilution:* 2

e	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DENUM	0.788		0.0558	MDL	0.112	PQL	mg/Kg	J	Q

ID: SL-321-SA5B-SB-3.0-4.0 *Collected:* 2/17/2011 1:09:00 *Analysis Type:* REA3 *Dilution:* 2

e	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
I	164		0.121	MDL	0.447	PQL	mg/Kg	J	A

ID: SL-321-SA5B-SB-3.0-4.0 *Collected:* 2/17/2011 1:09:00 *Analysis Type:* REA4 *Dilution:* 2

e	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IM	0.0673	J	0.0451	MDL	0.113	PQL	mg/Kg	U	B

ID: SL-321-SA5B-SB-3.0-4.0 *Collected:* 2/17/2011 1:09:00 *Analysis Type:* RES *Dilution:* 2

e	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NY	0.121	J	0.0670	MDL	0.223	PQL	mg/Kg	UJ	Q, E, B
C	14.5		0.0893	MDL	0.447	PQL	mg/Kg	J	Q
IUM	1.28		0.0179	MDL	0.112	PQL	mg/Kg	J	Q
IUM	43.5		0.134	MDL	0.447	PQL	mg/Kg	J	Q, A
-	7.61		0.0223	MDL	0.112	PQL	mg/Kg	J	Q, A
R	31.8		0.0737	MDL	0.447	PQL	mg/Kg	J	Q, A
	19.4		0.0116	MDL	0.223	PQL	mg/Kg	J	Q, A
	18.1		0.112	MDL	0.447	PQL	mg/Kg	J	Q, A
	0.0549	J	0.0134	MDL	0.112	PQL	mg/Kg	UJ	Q, B
UM	74.5		0.0246	MDL	0.112	PQL	mg/Kg	J	Q, A
	180		0.625	MDL	3.35	PQL	mg/Kg	J	A

s a non-reportable result

Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-322-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 3:30:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0752	J	0.0419	MDL	0.419	PQL	mg/Kg	U	B

Sample ID: **SL-322-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 3:30:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.580		0.0524	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: **SL-322-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 3:30:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	80.7		0.113	MDL	0.419	PQL	mg/Kg	J	A

Sample ID: **SL-322-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 3:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0858	J	0.0628	MDL	0.209	PQL	mg/Kg	UJ	Q, E, B
ARSENIC	5.73		0.0838	MDL	0.419	PQL	mg/Kg	J	Q
BERYLLIUM	0.512		0.0168	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	9.28		0.126	MDL	0.419	PQL	mg/Kg	J	Q, A
COBALT	4.37		0.0209	MDL	0.105	PQL	mg/Kg	J	Q, A
COPPER	2.76		0.0691	MDL	0.419	PQL	mg/Kg	J	Q, A
LEAD	6.38		0.0109	MDL	0.209	PQL	mg/Kg	J	Q, A
NICKEL	4.37		0.105	MDL	0.419	PQL	mg/Kg	J	Q, A
SILVER	0.0188	J	0.0126	MDL	0.105	PQL	mg/Kg	UJ	Q, B
VANADIUM	24.6		0.0230	MDL	0.105	PQL	mg/Kg	J	Q, A
ZINC	80.6		0.587	MDL	3.14	PQL	mg/Kg	J	A

Sample ID: **SL-331-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 11:44:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.139	J	0.0431	MDL	0.431	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-331-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 11:44:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.910		0.0538	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: **SL-331-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 11:44:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	142		0.116	MDL	0.431	PQL	mg/Kg	J	A

Sample ID: **SL-331-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 11:44:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.0887	J	0.0418	MDL	0.105	PQL	mg/Kg	U	B

Sample ID: **SL-331-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 11:44:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.123	J	0.0646	MDL	0.215	PQL	mg/Kg	UJ	Q, E, B
ARSENIC	5.64		0.0861	MDL	0.431	PQL	mg/Kg	J	Q
BERYLLIUM	0.753		0.0172	MDL	0.108	PQL	mg/Kg	J	Q
CHROMIUM	20.6		0.129	MDL	0.431	PQL	mg/Kg	J	Q, A
COBALT	6.56		0.0215	MDL	0.108	PQL	mg/Kg	J	Q, A
COPPER	10.6		0.0710	MDL	0.431	PQL	mg/Kg	J	Q, A
LEAD	7.12		0.0112	MDL	0.215	PQL	mg/Kg	J	Q, A
NICKEL	13.7		0.108	MDL	0.431	PQL	mg/Kg	J	Q, A
SILVER	0.0504	J	0.0129	MDL	0.108	PQL	mg/Kg	UJ	Q, B
VANADIUM	38.1		0.0237	MDL	0.108	PQL	mg/Kg	J	Q, A
ZINC	75.6		0.603	MDL	3.23	PQL	mg/Kg	J	A

Sample ID: **SL-336-SA5B-SB-4.0-5.0** ***Collected:*** **2/17/2011 9:19:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.166	J	0.0444	MDL	0.444	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-336-SA5B-SB-4.0-5.0** ***Collected:*** **2/17/2011 9:19:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.73		0.0555	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: **SL-336-SA5B-SB-4.0-5.0** ***Collected:*** **2/17/2011 9:19:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	148		0.120	MDL	0.444	PQL	mg/Kg	J	A

Sample ID: **SL-336-SA5B-SB-4.0-5.0** ***Collected:*** **2/17/2011 9:19:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.143		0.0453	MDL	0.113	PQL	mg/Kg	U	B

Sample ID: **SL-336-SA5B-SB-4.0-5.0** ***Collected:*** **2/17/2011 9:19:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.140	J	0.0666	MDL	0.222	PQL	mg/Kg	UJ	Q, E, B
ARSENIC	5.94		0.0888	MDL	0.444	PQL	mg/Kg	J	Q
BERYLLIUM	0.716		0.0178	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	21.1		0.133	MDL	0.444	PQL	mg/Kg	J	Q, A
COBALT	6.78		0.0222	MDL	0.111	PQL	mg/Kg	J	Q, A
COPPER	11.7		0.0733	MDL	0.444	PQL	mg/Kg	J	Q, A
LEAD	8.49		0.0115	MDL	0.222	PQL	mg/Kg	J	Q, A
NICKEL	14.4		0.111	MDL	0.444	PQL	mg/Kg	J	Q, A
SILVER	0.0421	J	0.0133	MDL	0.111	PQL	mg/Kg	UJ	Q, B
VANADIUM	40.5		0.0244	MDL	0.111	PQL	mg/Kg	J	Q, A
ZINC	90.8		0.622	MDL	3.33	PQL	mg/Kg	J	A

Sample ID: **SL-337-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 10:33:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.138	J	0.0443	MDL	0.443	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-337-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 10:33:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.58		0.0554	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: **SL-337-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 10:33:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	140		0.120	MDL	0.443	PQL	mg/Kg	J	A

Sample ID: **SL-337-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 10:33:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.102	J	0.0452	MDL	0.113	PQL	mg/Kg	U	B

Sample ID: **SL-337-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 10:33:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.145	J	0.0665	MDL	0.222	PQL	mg/Kg	UJ	Q, E, B
ARSENIC	5.41		0.0887	MDL	0.443	PQL	mg/Kg	J	Q
BERYLLIUM	0.667		0.0177	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	19.8		0.133	MDL	0.443	PQL	mg/Kg	J	Q, A
COBALT	6.21		0.0222	MDL	0.111	PQL	mg/Kg	J	Q, A
COPPER	10.1		0.0731	MDL	0.443	PQL	mg/Kg	J	Q, A
LEAD	6.70		0.0115	MDL	0.222	PQL	mg/Kg	J	Q, A
NICKEL	12.9		0.111	MDL	0.443	PQL	mg/Kg	J	Q, A
SILVER	0.0585	J	0.0133	MDL	0.111	PQL	mg/Kg	UJ	Q, B
VANADIUM	37.0		0.0244	MDL	0.111	PQL	mg/Kg	J	Q, A
ZINC	79.9		0.621	MDL	3.32	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: **SL-021-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 9:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.42	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: **SL-035-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 10:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.45	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-036-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:58:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.54	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-037-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.50	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-040-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.39	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-321-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 1:09:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.23	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-331-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 11:44:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.60	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-337-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 10:33:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.49	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-022-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 9:25:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0113	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 1:58:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0080	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-037-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 1:28:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0117	J	0.0030	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-051-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 2:40:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0067	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-331-SA5B-SB-3.0-4.0 ***Collected:*** 2/17/2011 11:44:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	21.2	J	17.9	MDL	35.9	PQL	ng/Kg	J	Z

Sample ID: SL-336-SA5B-SB-4.0-5.0 ***Collected:*** 2/17/2011 9:19:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	24.7	J	19.1	MDL	38.1	PQL	ng/Kg	J	Z

Sample ID: SL-337-SA5B-SB-3.0-4.0 ***Collected:*** 2/17/2011 10:33:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	25.3	J	18.8	MDL	37.7	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-331-SA5B-SB-3.0-4.0 *Collected:* 2/17/2011 11:44:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.48	J	0.43	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-336-SA5B-SB-4.0-5.0 *Collected:* 2/17/2011 9:19:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	0.71	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-337-SA5B-SB-3.0-4.0 *Collected:* 2/17/2011 10:33:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	0.94	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C8-C11)	0.58	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: SL-021-SA5A-SS-0.0-0.5 *Collected:* 2/17/2011 9:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.11	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.11	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z

Sample ID: SL-022-SA5A-SS-0.0-0.5 *Collected:* 2/17/2011 9:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN ALDEHYDE	0.073	J	0.072	MDL	0.37	PQL	ug/Kg	J	Z
ENDRIN KETONE	0.11	J	0.072	MDL	0.37	PQL	ug/Kg	J	Z

Sample ID: SL-036-SA5A-SS-0.0-0.5 *Collected:* 2/17/2011 1:58:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIELDRIN	0.26	J	0.072	MDL	0.37	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.049	J	0.037	MDL	0.18	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: SL-037-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 1:28:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDOSULFAN II	0.15	J	0.071	MDL	0.37	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.28	J	0.071	MDL	0.37	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.092	J	0.037	MDL	0.18	PQL	ug/Kg	J	Z
MIREX	0.30	J	0.071	MDL	0.37	PQL	ug/Kg	J	Z

Sample ID: SL-040-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 1:10:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN KETONE	0.098	J	0.072	MDL	0.37	PQL	ug/Kg	J	Z

Sample ID: SL-050-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 2:20:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.20	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z
4,4'-DDT	0.24	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z

Sample ID: SL-051-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 2:40:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.18	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
4,4'-DDE	0.15	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
4,4'-DDT	0.31	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.12	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
ENDRIN KETONE	0.083	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-021-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 9:40:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.60	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **SL-022-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 9:25:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.2	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5460	3.3	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z, L

Sample ID: **SL-035-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 10:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L

Sample ID: **SL-036-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:58:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	5.4		0.86	MDL	3.7	PQL	ug/Kg	J	S
Aroclor 5432	2.2	U	2.2	MDL	7.2	PQL	ug/Kg	UJ	L
Aroclor 5442	2.2	U	2.2	MDL	7.2	PQL	ug/Kg	UJ	L
Aroclor 5460	8.6		2.2	MDL	7.2	PQL	ug/Kg	J	S, L

Sample ID: **SL-037-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	2.2	U	2.2	MDL	7.1	PQL	ug/Kg	UJ	L
Aroclor 5442	2.2	U	2.2	MDL	7.1	PQL	ug/Kg	UJ	L
Aroclor 5460	11		2.2	MDL	7.1	PQL	ug/Kg	J	L

Sample ID: **SL-040-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **SL-050-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:20:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.4	J	0.36	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5460	2.0	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z, L

Sample ID: **SL-051-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:40:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.99	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
AROCLOR 1260	1.2	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L

Sample ID: **SL-321-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 1:09:00** ***Analysis Type:*** **RES** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	L

Sample ID: **SL-322-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 3:30:00** ***Analysis Type:*** **RES** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	L

Sample ID: **SL-331-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 11:44:00** ***Analysis Type:*** **RES** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-336-SA5B-SB-4.0-5.0 ***Collected:*** 2/17/2011 9:19:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	L
Aroclor 5442	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	L
Aroclor 5460	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	L

Sample ID: SL-337-SA5B-SB-3.0-4.0 ***Collected:*** 2/17/2011 10:33:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	L

Method Category: SVOA

Method: 8151A **Matrix: SO**

Sample ID: SL-021-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 9:40:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	1.1	J	0.45	MDL	1.3	PQL	ug/Kg	J	Z
DINOSEB	0.89	U	0.89	MDL	2.7	PQL	ug/Kg	R	L
MCPP	410		84	MDL	280	PQL	ug/Kg	U	B

Sample ID: SL-022-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 9:25:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	1.2	J	0.43	MDL	1.3	PQL	ug/Kg	J	Z
DINOSEB	0.87	U	0.87	MDL	2.6	PQL	ug/Kg	R	L
MCPP	100	J	81	MDL	270	PQL	ug/Kg	U	B

Sample ID: SL-035-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 10:40:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.87	U	0.87	MDL	2.6	PQL	ug/Kg	R	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8151A **Matrix: SO**

Sample ID: SL-036-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 1:58:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.88	U	0.88	MDL	2.6	PQL	ug/Kg	R	L

Sample ID: SL-037-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 1:28:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.86	U	0.86	MDL	2.6	PQL	ug/Kg	R	L

Sample ID: SL-040-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 1:10:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.88	U	0.88	MDL	2.6	PQL	ug/Kg	R	L

Sample ID: SL-050-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 2:20:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.88	U	0.88	MDL	2.6	PQL	ug/Kg	R	L

Sample ID: SL-051-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 2:40:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.89	U	0.89	MDL	2.7	PQL	ug/Kg	R	L

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-021-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 9:40:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	1300	U	1300	MDL	3700	PQL	ug/Kg	UJ	Q
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	Q

Sample ID: SL-035-SA5A-SS-0.0-0.5 ***Collected:*** 2/17/2011 10:40:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	26	J	18	MDL	360	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-036-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:58:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	43	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: **SL-037-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:28:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	120	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: **SL-050-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:20:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	21	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: **SL-051-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:40:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	39	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: **SL-322-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 3:30:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	22	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: **SL-336-SA5B-SB-4.0-5.0** ***Collected:*** **2/17/2011 9:19:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	21	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: **SL-337-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 10:33:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	19	J	19	MDL	380	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **SL-035-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 10:40:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.78	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.35	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
ANTHRACENE	0.55	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.6	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	8.4	J	6.4	MDL	19	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.3	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	0.77	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-036-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:58:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.50	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
ANTHRACENE	1.2	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	8.2	J	6.5	MDL	20	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.86	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.7	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	0.75	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-037-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:28:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.56	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
ANTHRACENE	1.1	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	8.5	J	6.5	MDL	19	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.99	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	0.81	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-040-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.70	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
ANTHRACENE	1.2	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	22		6.6	MDL	20	PQL	ug/Kg	U	B
Butylbenzylphthalate	8.6	J	6.6	MDL	20	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.2	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **SL-040-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 1:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	0.90	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-051-SA5A-SS-0.0-0.5** ***Collected:*** **2/17/2011 2:40:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.85	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.5	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
Di-n-octylphthalate	11	J	6.6	MDL	20	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.7	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-336-SA5B-SB-4.0-5.0** ***Collected:*** **2/17/2011 9:19:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.76	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	0.66	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-337-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 10:33:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.41	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: **SL-321-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 1:09:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.94**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.4	J	0.26	MDL	4.3	PQL	ug/Kg	U	B

Sample ID: **SL-322-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 3:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.98**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.1	J	0.06	MDL	4.2	PQL	ug/Kg	J	Z
m,p-Xylene	0.27	J	0.18	MDL	4.2	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.54	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: **SL-331-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 11:44:00** ***Analysis Type:*** **RES** ***Dilution:*** **1.08**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZENE	0.18	J	0.12	MDL	4.6	PQL	ug/Kg	J	Z
ETHYLBENZENE	0.17	J	0.07	MDL	4.6	PQL	ug/Kg	J	Z
m,p-Xylene	0.56	J	0.20	MDL	4.6	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.80	J	0.28	MDL	4.6	PQL	ug/Kg	U	B
TOLUENE	0.14	J	0.09	MDL	4.6	PQL	ug/Kg	U	B

Sample ID: **SL-336-SA5B-SB-4.0-5.0** ***Collected:*** **2/17/2011 9:19:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.1	J	0.07	MDL	4.6	PQL	ug/Kg	J	Z
m,p-Xylene	0.30	J	0.20	MDL	4.6	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	2.8	J	0.28	MDL	4.6	PQL	ug/Kg	U	B

Sample ID: **SL-337-SA5B-SB-3.0-4.0** ***Collected:*** **2/17/2011 10:33:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.91**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHLOROFORM	0.14	J	0.12	MDL	4.1	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE084

Method Blank Outlier Report

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P05208BB220810	2/22/2011 8:10:00 AM	PHOSPHORUS	1.25 mg/Kg	SL-021-SA5A-SS-0.0-0.5
		TIN	1.43 mg/Kg	SL-022-SA5A-SS-0.0-0.5
				SL-035-SA5A-SS-0.0-0.5
				SL-036-SA5A-SS-0.0-0.5
				SL-037-SA5A-SS-0.0-0.5
				SL-040-SA5A-SS-0.0-0.5
				SL-050-SA5A-SS-0.0-0.5
				SL-051-SA5A-SS-0.0-0.5
				SL-321-SA5B-SB-3.0-4.0
				SL-322-SA5B-SB-3.0-4.0
				SL-331-SA5B-SB-3.0-4.0
				SL-336-SA5B-SB-4.0-5.0
				SL-337-SA5B-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-021-SA5A-SS-0.0-0.5(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-022-SA5A-SS-0.0-0.5(RES)	TIN	2.76 mg/Kg	2.76U mg/Kg
SL-035-SA5A-SS-0.0-0.5(RES)	TIN	2.46 mg/Kg	2.46U mg/Kg
SL-036-SA5A-SS-0.0-0.5(RES)	TIN	2.64 mg/Kg	2.64U mg/Kg
SL-037-SA5A-SS-0.0-0.5(RES)	TIN	2.54 mg/Kg	2.54U mg/Kg
SL-040-SA5A-SS-0.0-0.5(RES)	TIN	2.68 mg/Kg	2.68U mg/Kg
SL-050-SA5A-SS-0.0-0.5(RES)	TIN	2.39 mg/Kg	2.39U mg/Kg
SL-051-SA5A-SS-0.0-0.5(RES)	TIN	2.56 mg/Kg	2.56U mg/Kg
SL-321-SA5B-SB-3.0-4.0(RES)	TIN	4.03 mg/Kg	4.03U mg/Kg
SL-322-SA5B-SB-3.0-4.0(RES)	TIN	2.97 mg/Kg	2.97U mg/Kg
SL-331-SA5B-SB-3.0-4.0(RES)	TIN	2.55 mg/Kg	2.55U mg/Kg
SL-336-SA5B-SB-4.0-5.0(RES)	TIN	2.61 mg/Kg	2.61U mg/Kg
SL-337-SA5B-SB-3.0-4.0(RES)	TIN	2.90 mg/Kg	2.90U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P05226BB221114A	3/3/2011 11:14:00 AM	ANTIMONY	0.141 mg/Kg	SL-021-SA5A-SS-0.0-0.5
		BERYLLIUM	0.0417 mg/Kg	SL-022-SA5A-SS-0.0-0.5
		COBALT	0.0570 mg/Kg	SL-035-SA5A-SS-0.0-0.5
		COPPER	0.135 mg/Kg	SL-036-SA5A-SS-0.0-0.5
		LEAD	0.0459 mg/Kg	SL-037-SA5A-SS-0.0-0.5
		NICKEL	0.138 mg/Kg	SL-040-SA5A-SS-0.0-0.5
		SILVER	0.0256 mg/Kg	SL-050-SA5A-SS-0.0-0.5
		VANADIUM	0.0749 mg/Kg	SL-051-SA5A-SS-0.0-0.5
		ZINC	0.568 mg/Kg	SL-321-SA5B-SB-3.0-4.0
				SL-322-SA5B-SB-3.0-4.0
				SL-331-SA5B-SB-3.0-4.0
				SL-336-SA5B-SB-4.0-5.0
				SL-337-SA5B-SB-3.0-4.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P05226BB221114C	3/3/2011 11:14:00 AM	MOLYBDENUM	0.0824 mg/Kg	SL-021-SA5A-SS-0.0-0.5 SL-022-SA5A-SS-0.0-0.5 SL-035-SA5A-SS-0.0-0.5 SL-036-SA5A-SS-0.0-0.5 SL-037-SA5A-SS-0.0-0.5 SL-040-SA5A-SS-0.0-0.5 SL-050-SA5A-SS-0.0-0.5 SL-051-SA5A-SS-0.0-0.5 SL-321-SA5B-SB-3.0-4.0 SL-322-SA5B-SB-3.0-4.0 SL-331-SA5B-SB-3.0-4.0 SL-336-SA5B-SB-4.0-5.0 SL-337-SA5B-SB-3.0-4.0
P05226BB221114D	3/3/2011 11:14:00 AM	BARIUM	0.215 mg/Kg	SL-021-SA5A-SS-0.0-0.5 SL-022-SA5A-SS-0.0-0.5 SL-035-SA5A-SS-0.0-0.5 SL-036-SA5A-SS-0.0-0.5 SL-037-SA5A-SS-0.0-0.5 SL-040-SA5A-SS-0.0-0.5 SL-050-SA5A-SS-0.0-0.5 SL-051-SA5A-SS-0.0-0.5 SL-321-SA5B-SB-3.0-4.0 SL-322-SA5B-SB-3.0-4.0 SL-331-SA5B-SB-3.0-4.0 SL-336-SA5B-SB-4.0-5.0 SL-337-SA5B-SB-3.0-4.0
P05226BB221615B	3/3/2011 4:15:00 PM	SELENIUM	0.0571 mg/Kg	SL-021-SA5A-SS-0.0-0.5 SL-022-SA5A-SS-0.0-0.5 SL-035-SA5A-SS-0.0-0.5 SL-036-SA5A-SS-0.0-0.5 SL-037-SA5A-SS-0.0-0.5 SL-040-SA5A-SS-0.0-0.5 SL-050-SA5A-SS-0.0-0.5 SL-051-SA5A-SS-0.0-0.5 SL-321-SA5B-SB-3.0-4.0 SL-322-SA5B-SB-3.0-4.0 SL-331-SA5B-SB-3.0-4.0 SL-336-SA5B-SB-4.0-5.0 SL-337-SA5B-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-021-SA5A-SS-0.0-0.5(REA)	SELENIUM	0.149 mg/Kg	0.149U mg/Kg
SL-021-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.207 mg/Kg	0.207U mg/Kg
SL-021-SA5A-SS-0.0-0.5(RES)	SILVER	0.0688 mg/Kg	0.0688U mg/Kg
SL-022-SA5A-SS-0.0-0.5(REA)	SELENIUM	0.127 mg/Kg	0.127U mg/Kg
SL-022-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.149 mg/Kg	0.149U mg/Kg
SL-035-SA5A-SS-0.0-0.5(REA)	SELENIUM	0.131 mg/Kg	0.131U mg/Kg
SL-035-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.234 mg/Kg	0.234U mg/Kg
SL-035-SA5A-SS-0.0-0.5(RES)	SILVER	0.0723 mg/Kg	0.0723U mg/Kg
SL-036-SA5A-SS-0.0-0.5(REA)	SELENIUM	0.124 mg/Kg	0.124U mg/Kg
SL-036-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.315 mg/Kg	0.315U mg/Kg
SL-036-SA5A-SS-0.0-0.5(RES)	SILVER	0.0837 mg/Kg	0.0837U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-037-SA5A-SS-0.0-0.5(REA)	SELENIUM	0.116 mg/Kg	0.116U mg/Kg
SL-037-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.276 mg/Kg	0.276U mg/Kg
SL-037-SA5A-SS-0.0-0.5(RES)	SILVER	0.0828 mg/Kg	0.0828U mg/Kg
SL-040-SA5A-SS-0.0-0.5(REA)	SELENIUM	0.111 mg/Kg	0.111U mg/Kg
SL-040-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.163 mg/Kg	0.163U mg/Kg
SL-040-SA5A-SS-0.0-0.5(RES)	SILVER	0.0487 mg/Kg	0.0487U mg/Kg
SL-050-SA5A-SS-0.0-0.5(REA)	SELENIUM	0.133 mg/Kg	0.133U mg/Kg
SL-050-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.150 mg/Kg	0.150U mg/Kg
SL-050-SA5A-SS-0.0-0.5(RES)	SILVER	0.0559 mg/Kg	0.0559U mg/Kg
SL-051-SA5A-SS-0.0-0.5(REA)	SELENIUM	0.146 mg/Kg	0.146U mg/Kg
SL-051-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.183 mg/Kg	0.183U mg/Kg
SL-051-SA5A-SS-0.0-0.5(RES)	SILVER	0.0712 mg/Kg	0.0712U mg/Kg
SL-321-SA5B-SB-3.0-4.0(REA)	SELENIUM	0.166 mg/Kg	0.166U mg/Kg
SL-321-SA5B-SB-3.0-4.0(RES)	ANTIMONY	0.121 mg/Kg	0.121U mg/Kg
SL-321-SA5B-SB-3.0-4.0(RES)	SILVER	0.0549 mg/Kg	0.0549U mg/Kg
SL-322-SA5B-SB-3.0-4.0(REA)	SELENIUM	0.0752 mg/Kg	0.0752U mg/Kg
SL-322-SA5B-SB-3.0-4.0(RES)	ANTIMONY	0.0858 mg/Kg	0.0858U mg/Kg
SL-322-SA5B-SB-3.0-4.0(RES)	SILVER	0.0188 mg/Kg	0.0188U mg/Kg
SL-331-SA5B-SB-3.0-4.0(REA)	SELENIUM	0.139 mg/Kg	0.139U mg/Kg
SL-331-SA5B-SB-3.0-4.0(RES)	ANTIMONY	0.123 mg/Kg	0.123U mg/Kg
SL-331-SA5B-SB-3.0-4.0(RES)	SILVER	0.0504 mg/Kg	0.0504U mg/Kg
SL-336-SA5B-SB-4.0-5.0(REA)	SELENIUM	0.166 mg/Kg	0.166U mg/Kg
SL-336-SA5B-SB-4.0-5.0(RES)	ANTIMONY	0.140 mg/Kg	0.140U mg/Kg
SL-336-SA5B-SB-4.0-5.0(RES)	SILVER	0.0421 mg/Kg	0.0421U mg/Kg
SL-337-SA5B-SB-3.0-4.0(REA)	SELENIUM	0.138 mg/Kg	0.138U mg/Kg
SL-337-SA5B-SB-3.0-4.0(RES)	ANTIMONY	0.145 mg/Kg	0.145U mg/Kg
SL-337-SA5B-SB-3.0-4.0(RES)	SILVER	0.0585 mg/Kg	0.0585U mg/Kg

Method: 8151A
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P54548AB241603A	2/24/2011 4:03:00 PM	2,4-DB MCPP	0.75 ug/Kg 210 ug/Kg	SL-051-SA5A-SS-0.0-0.5

Method Blank Outlier Report

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8151A
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P57575AB241849A	2/28/2011 6:49:00 PM	MCPP	350 ug/Kg	SL-021-SA5A-SS-0.0-0.5 SL-022-SA5A-SS-0.0-0.5 SL-035-SA5A-SS-0.0-0.5 SL-036-SA5A-SS-0.0-0.5 SL-037-SA5A-SS-0.0-0.5 SL-040-SA5A-SS-0.0-0.5 SL-050-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-021-SA5A-SS-0.0-0.5(RES)	MCPP	410 ug/Kg	410U ug/Kg
SL-022-SA5A-SS-0.0-0.5(RES)	MCPP	100 ug/Kg	270U ug/Kg

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB76B211953A	2/18/2011 7:53:00 PM	METHYLENE CHLORIDE	0.30 ug/Kg	SL-321-SA5B-SB-3.0-4.0 SL-322-SA5B-SB-3.0-4.0 SL-336-SA5B-SB-4.0-5.0 SL-337-SA5B-SB-3.0-4.0
VBLKB77B212158A	2/24/2011 9:58:00 PM	ACETONE METHYLENE CHLORIDE TOLUENE	8.7 ug/Kg 1.1 ug/Kg 0.1 ug/Kg	SL-331-SA5B-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-321-SA5B-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	1.4 ug/Kg	4.3U ug/Kg
SL-322-SA5B-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	0.54 ug/Kg	4.2U ug/Kg
SL-331-SA5B-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	0.80 ug/Kg	4.6U ug/Kg
SL-331-SA5B-SB-3.0-4.0(RES)	TOLUENE	0.14 ug/Kg	4.6U ug/Kg
SL-336-SA5B-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.8 ug/Kg	4.6U ug/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLK05B262306	2/25/2011 11:06:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE Di-n-butylphthalate	9.5 ug/Kg 7.7 ug/Kg	SL-021-SA5A-SS-0.0-0.5 SL-022-SA5A-SS-0.0-0.5 SL-035-SA5A-SS-0.0-0.5 SL-036-SA5A-SS-0.0-0.5 SL-037-SA5A-SS-0.0-0.5 SL-040-SA5A-SS-0.0-0.5 SL-050-SA5A-SS-0.0-0.5 SL-051-SA5A-SS-0.0-0.5 SL-321-SA5B-SB-3.0-4.0 SL-322-SA5B-SB-3.0-4.0 SL-331-SA5B-SB-3.0-4.0 SL-336-SA5B-SB-4.0-5.0 SL-337-SA5B-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-040-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	22 ug/Kg	22U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-021-SA5A-SS-0.0-0.5MS **SL-021-SA5A-SS-0.0-0.5MSD** (SL-021-SA5A-SS-0.0-0.5 SL -022-SA5A-SS-0.0-0.5 SL -035-SA5A-SS-0.0-0.5 SL -036-SA5A-SS-0.0-0.5 SL -037-SA5A-SS-0.0-0.5 SL -040-SA5A-SS-0.0-0.5 SL -050-SA5A-SS-0.0-0.5 SL -051-SA5A-SS-0.0-0.5 SL -321-SA5B-SB-3.0-4.0 SL -322-SA5B-SB-3.0-4.0 SL -331-SA5B-SB-3.0-4.0 SL -336-SA5B-SB-4.0-5.0 SL -337-SA5B-SB-3.0-4.0)	ARSENIC BERYLLIUM CHROMIUM COBALT COPPER LEAD NICKEL SILVER VANADIUM ZINC	126 - 143 - 131 201 139 137 155 182	205 133 189 136 155 229 180 156 230 285	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - - - - - -	ARSENIC BERYLLIUM CHROMIUM COBALT COPPER LEAD NICKEL SILVER VANADIUM ZINC	J (all detects) Zn No Qual, >4x
SL-021-SA5A-SS-0.0-0.5MS **SL-021-SA5A-SS-0.0-0.5MSD** (SL-021-SA5A-SS-0.0-0.5 SL -022-SA5A-SS-0.0-0.5 SL -035-SA5A-SS-0.0-0.5 SL -036-SA5A-SS-0.0-0.5 SL -037-SA5A-SS-0.0-0.5 SL -040-SA5A-SS-0.0-0.5 SL -050-SA5A-SS-0.0-0.5 SL -051-SA5A-SS-0.0-0.5 SL -321-SA5B-SB-3.0-4.0 SL -322-SA5B-SB-3.0-4.0 SL -331-SA5B-SB-3.0-4.0 SL -336-SA5B-SB-4.0-5.0 SL -337-SA5B-SB-3.0-4.0)	ANTIMONY	48	73	75.00-125.00	34 (20.00)	ANTIMONY	J(all detects) UJ(all non-detects)
SL-021-SA5A-SS-0.0-0.5MS **SL-021-SA5A-SS-0.0-0.5MSD** (SL-021-SA5A-SS-0.0-0.5 SL -022-SA5A-SS-0.0-0.5 SL -035-SA5A-SS-0.0-0.5 SL -036-SA5A-SS-0.0-0.5 SL -037-SA5A-SS-0.0-0.5 SL -040-SA5A-SS-0.0-0.5 SL -050-SA5A-SS-0.0-0.5 SL -051-SA5A-SS-0.0-0.5 SL -321-SA5B-SB-3.0-4.0 SL -322-SA5B-SB-3.0-4.0 SL -331-SA5B-SB-3.0-4.0 SL -336-SA5B-SB-4.0-5.0 SL -337-SA5B-SB-3.0-4.0)	MOLYBDENUM	137	163	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-021-SA5A-SS-0.0-0.5MS **SL-021-SA5A-SS-0.0-0.5MSD** (SL-021-SA5A-SS-0.0-0.5 SL -022-SA5A-SS-0.0-0.5 SL -035-SA5A-SS-0.0-0.5 SL -036-SA5A-SS-0.0-0.5 SL -037-SA5A-SS-0.0-0.5 SL -040-SA5A-SS-0.0-0.5 SL -050-SA5A-SS-0.0-0.5 SL -051-SA5A-SS-0.0-0.5 SL -321-SA5B-SB-3.0-4.0 SL -322-SA5B-SB-3.0-4.0 SL -331-SA5B-SB-3.0-4.0 SL -336-SA5B-SB-4.0-5.0 SL -337-SA5B-SB-3.0-4.0)	BARIUM	237	420	75.00-125.00	-	BARIUM	No Qual, >4x

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-021-SA5A-SS-0.0-0.5MS	ALUMINUM	2302	2326	75.00-125.00	-	ALUMINUM	
SL-021-SA5A-SS-0.0-0.5MSD	CALCIUM	203	233	75.00-125.00	-	CALCIUM	
(SL-021-SA5A-SS-0.0-0.5	IRON	1348	2145	75.00-125.00	-	IRON	J(all detects)
SL-022-SA5A-SS-0.0-0.5	MAGNESIUM	274	278	75.00-125.00	-	MAGNESIUM	
SL-035-SA5A-SS-0.0-0.5	MANGANESE	-	139	75.00-125.00	-	MANGANESE	Al, Ca, Fe,
SL-036-SA5A-SS-0.0-0.5	POTASSIUM	141	150	75.00-125.00	-	POTASSIUM	Mg, Mn, Ti
SL-037-SA5A-SS-0.0-0.5	TITANIUM	312	339	75.00-125.00	-	TITANIUM	No Qual, >4x
SL-040-SA5A-SS-0.0-0.5							
SL-050-SA5A-SS-0.0-0.5							
SL-051-SA5A-SS-0.0-0.5							
SL-321-SA5B-SB-3.0-4.0							
SL-322-SA5B-SB-3.0-4.0							
SL-331-SA5B-SB-3.0-4.0							
SL-336-SA5B-SB-4.0-5.0							
SL-337-SA5B-SB-3.0-4.0)							

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-021-SA5A-SS-0.0-0.5MS (SL-021-SA5A-SS-0.0-0.5)	2,4,5-TRICHLOROPHENOL	111	-	78.00-109.00	-	2,4,5-TRICHLOROPHENOL	J(all detects)
SL-021-SA5A-SS-0.0-0.5MS	BENZIDINE	14	15	35.00-141.00	-	BENZIDINE	J(all detects)
SL-021-SA5A-SS-0.0-0.5MSD	BIS(2-CHLOROISOPROPYL) ET	1	-	55.00-142.00	195 (30.00)	BIS(2-CHLOROISOPROPYL) E	UJ(all non-detects)
(SL-021-SA5A-SS-0.0-0.5)							

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-021-SA5A-SS-0.0-0.5MS	FLUORIDE	50	-	80.00-120.00	-	FLUORIDE	
(SL-021-SA5A-SS-0.0-0.5							
SL-022-SA5A-SS-0.0-0.5							
SL-035-SA5A-SS-0.0-0.5							
SL-036-SA5A-SS-0.0-0.5							J(all detects)
SL-037-SA5A-SS-0.0-0.5							UJ(all non-detects)
SL-040-SA5A-SS-0.0-0.5							
SL-050-SA5A-SS-0.0-0.5							
SL-051-SA5A-SS-0.0-0.5							
SL-321-SA5B-SB-3.0-4.0							
SL-322-SA5B-SB-3.0-4.0)							

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-021-SA5A-SS-0.0-0.5DUP	FLUORIDE	40	20.00	
(SL-021-SA5A-SS-0.0-0.5	Nitrate-NO3	44	20.00	
SL -022-SA5A-SS-0.0-0.5				
SL -035-SA5A-SS-0.0-0.5				
SL -036-SA5A-SS-0.0-0.5				
SL -037-SA5A-SS-0.0-0.5				No Qual
SL -040-SA5A-SS-0.0-0.5				OK by difference
SL -050-SA5A-SS-0.0-0.5				
SL -051-SA5A-SS-0.0-0.5				
SL -321-SA5B-SB-3.0-4.0				
SL -322-SA5B-SB-3.0-4.0)				

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-021-SA5A-SS-0.0-0.5DUP	ANTIMONY	67	20.00	
(SL-021-SA5A-SS-0.0-0.5	SELENIUM	21	20.00	
SL -022-SA5A-SS-0.0-0.5	SILVER	44	20.00	
SL -035-SA5A-SS-0.0-0.5				
SL -036-SA5A-SS-0.0-0.5				
SL -037-SA5A-SS-0.0-0.5				
SL -040-SA5A-SS-0.0-0.5				No Qual
SL -050-SA5A-SS-0.0-0.5				OK by difference
SL -051-SA5A-SS-0.0-0.5				
SL -321-SA5B-SB-3.0-4.0				
SL -322-SA5B-SB-3.0-4.0				
SL -331-SA5B-SB-3.0-4.0				
SL -336-SA5B-SB-4.0-5.0				
SL -337-SA5B-SB-3.0-4.0)				

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-321-SA5B-SB-3.0-4.0DUP	HEXAVALENT CHROMIUM	59	20.00	
(SL-021-SA5A-SS-0.0-0.5				
SL -022-SA5A-SS-0.0-0.5				
SL -035-SA5A-SS-0.0-0.5				
SL -036-SA5A-SS-0.0-0.5				
SL -037-SA5A-SS-0.0-0.5				
SL -040-SA5A-SS-0.0-0.5				No Qual
SL -050-SA5A-SS-0.0-0.5				OK by difference
SL -051-SA5A-SS-0.0-0.5				
SL -321-SA5B-SB-3.0-4.0				
SL -322-SA5B-SB-3.0-4.0				
SL -331-SA5B-SB-3.0-4.0				
SL -336-SA5B-SB-4.0-5.0				
SL -337-SA5B-SB-3.0-4.0)				

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8330A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10537AQ240255A (SL-321-SA5B-SB-3.0-4.0 SL-322-SA5B-SB-3.0-4.0 SL-331-SA5B-SB-3.0-4.0 SL-336-SA5B-SB-4.0-5.0 SL-337-SA5B-SB-3.0-4.0)	2,4,6-TRINITROTOLUENE	121	-	80.00-120.00	-	2,4,6-TRINITROTOLUENE	J (all detects)

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10547AY240525A (SL-021-SA5A-SS-0.0-0.5 SL-022-SA5A-SS-0.0-0.5 SL-035-SA5A-SS-0.0-0.5 SL-036-SA5A-SS-0.0-0.5 SL-037-SA5A-SS-0.0-0.5 SL-040-SA5A-SS-0.0-0.5 SL-050-SA5A-SS-0.0-0.5 SL-051-SA5A-SS-0.0-0.5 SL-321-SA5B-SB-3.0-4.0 SL-322-SA5B-SB-3.0-4.0 SL-331-SA5B-SB-3.0-4.0 SL-336-SA5B-SB-4.0-5.0 SL-337-SA5B-SB-3.0-4.0)	Aroclor 5442	-	71	75.00-125.00	-	Aroclor 5432, 5442, 5460	J(all detects) UJ(all non-detects)

Method: 8151A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10548AQ241631A (SL-051-SA5A-SS-0.0-0.5)	DINOSEB	7	-	10.00-136.00	-	DINOSEB	J(all detects) R(all non-detects)
P10575AQ241916A (SL-021-SA5A-SS-0.0-0.5 SL-022-SA5A-SS-0.0-0.5 SL-035-SA5A-SS-0.0-0.5 SL-036-SA5A-SS-0.0-0.5 SL-037-SA5A-SS-0.0-0.5 SL-040-SA5A-SS-0.0-0.5 SL-050-SA5A-SS-0.0-0.5)	DINOSEB	8	-	10.00-136.00	-	DINOSEB	J(all detects) R(all non-detects)

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS1B77Y212045A (SL-331-SA5B-SB-3.0-4.0)	2-Chloro-1,1,1-trifluoroethane	-	124	78.00-120.00	-	2-Chloro-1,1,1-trifluoroethane	J(all detects)

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Surrogate Outlier Report

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-036-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	125	45.00-120.00	All Target Analytes	J (all detects)
SL-040-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	142	45.00-120.00	All Target Analytes	J(all detects)

Method: 8270C SIM
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-037-SA5A-SS-0.0-0.5	Nitrobenzene-d5	132	40.00-130.00	No Affected Compounds	No Qual One Out

Reporting Limit Outliers

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-331-SA5B-SB-3.0-4.0	N-NITROSODIMETHYLAMINE	J	21.2	35.9	PQL	ng/Kg	J (all detects)
SL-336-SA5B-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	24.7	38.1	PQL	ng/Kg	J (all detects)
SL-337-SA5B-SB-3.0-4.0	N-NITROSODIMETHYLAMINE	J	25.3	37.7	PQL	ng/Kg	J (all detects)

Method: 314.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA5A-SS-0.0-0.5	PERCHLORATE	J	13.8	32.9	PQL	ug/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA5A-SS-0.0-0.5	SODIUM	J	80.8	111	PQL	mg/Kg	J (all detects)
	TIN	J	2.65	11.1	PQL	mg/Kg	
	Zirconium	J	3.82	5.57	PQL	mg/Kg	
SL-022-SA5A-SS-0.0-0.5	SODIUM	J	96.9	108	PQL	mg/Kg	J (all detects)
	TIN	J	2.76	10.8	PQL	mg/Kg	
	Zirconium	J	2.71	5.38	PQL	mg/Kg	
SL-035-SA5A-SS-0.0-0.5	SODIUM	J	91.6	104	PQL	mg/Kg	J (all detects)
	TIN	J	2.46	10.4	PQL	mg/Kg	
	Zirconium	J	2.72	5.20	PQL	mg/Kg	
SL-036-SA5A-SS-0.0-0.5	SODIUM	J	89.1	109	PQL	mg/Kg	J (all detects)
	TIN	J	2.64	10.9	PQL	mg/Kg	
	Zirconium	J	3.54	5.43	PQL	mg/Kg	
SL-037-SA5A-SS-0.0-0.5	SODIUM	J	81.3	104	PQL	mg/Kg	J (all detects)
	TIN	J	2.54	10.4	PQL	mg/Kg	
	Zirconium	J	3.47	5.18	PQL	mg/Kg	
SL-040-SA5A-SS-0.0-0.5	SODIUM	J	78.8	106	PQL	mg/Kg	J (all detects)
	TIN	J	2.68	10.6	PQL	mg/Kg	
	Zirconium	J	3.60	5.32	PQL	mg/Kg	
SL-050-SA5A-SS-0.0-0.5	SODIUM	J	81.1	108	PQL	mg/Kg	J (all detects)
	TIN	J	2.39	10.8	PQL	mg/Kg	
	Zirconium	J	3.09	5.40	PQL	mg/Kg	
SL-051-SA5A-SS-0.0-0.5	SODIUM	J	90.0	108	PQL	mg/Kg	J (all detects)
	TIN	J	2.56	10.8	PQL	mg/Kg	
	Zirconium	J	3.84	5.38	PQL	mg/Kg	
SL-321-SA5B-SB-3.0-4.0	TIN	J	4.03	11.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.02	5.53	PQL	mg/Kg	
SL-322-SA5B-SB-3.0-4.0	TIN	J	2.97	10.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.45	5.34	PQL	mg/Kg	
SL-331-SA5B-SB-3.0-4.0	TIN	J	2.55	10.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.48	5.33	PQL	mg/Kg	

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-336-SA5B-SB-4.0-5.0	TIN	J	2.61	11.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.46	5.77	PQL	mg/Kg	
SL-337-SA5B-SB-3.0-4.0	TIN	J	2.90	11.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.25	5.60	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA5A-SS-0.0-0.5	ANTIMONY	J	0.207	0.218	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.149	0.437	PQL	mg/Kg	
	SILVER	J	0.0688	0.109	PQL	mg/Kg	
SL-022-SA5A-SS-0.0-0.5	ANTIMONY	J	0.149	0.211	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.107	0.108	PQL	mg/Kg	
	SELENIUM	J	0.127	0.422	PQL	mg/Kg	
SL-035-SA5A-SS-0.0-0.5	SELENIUM	J	0.131	0.420	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0723	0.105	PQL	mg/Kg	
SL-036-SA5A-SS-0.0-0.5	SELENIUM	J	0.124	0.435	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0837	0.109	PQL	mg/Kg	
SL-037-SA5A-SS-0.0-0.5	SELENIUM	J	0.116	0.426	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0828	0.107	PQL	mg/Kg	
SL-040-SA5A-SS-0.0-0.5	ANTIMONY	J	0.163	0.215	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.111	0.430	PQL	mg/Kg	
	SILVER	J	0.0487	0.107	PQL	mg/Kg	
SL-050-SA5A-SS-0.0-0.5	ANTIMONY	J	0.150	0.214	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.133	0.428	PQL	mg/Kg	
	SILVER	J	0.0559	0.107	PQL	mg/Kg	
SL-051-SA5A-SS-0.0-0.5	ANTIMONY	J	0.183	0.215	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.146	0.430	PQL	mg/Kg	
	SILVER	J	0.0712	0.108	PQL	mg/Kg	
SL-321-SA5B-SB-3.0-4.0	ANTIMONY	J	0.121	0.223	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0673	0.113	PQL	mg/Kg	
	SELENIUM	J	0.166	0.447	PQL	mg/Kg	
	SILVER	J	0.0549	0.112	PQL	mg/Kg	
SL-322-SA5B-SB-3.0-4.0	ANTIMONY	J	0.0858	0.209	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0752	0.419	PQL	mg/Kg	
	SILVER	J	0.0188	0.105	PQL	mg/Kg	
SL-331-SA5B-SB-3.0-4.0	ANTIMONY	J	0.123	0.215	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0887	0.105	PQL	mg/Kg	
	SELENIUM	J	0.139	0.431	PQL	mg/Kg	
	SILVER	J	0.0504	0.108	PQL	mg/Kg	
SL-336-SA5B-SB-4.0-5.0	ANTIMONY	J	0.140	0.222	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.166	0.444	PQL	mg/Kg	
	SILVER	J	0.0421	0.111	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-337-SA5B-SB-3.0-4.0	ANTIMONY	J	0.145	0.222	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.102	0.113	PQL	mg/Kg	
	SELENIUM	J	0.138	0.443	PQL	mg/Kg	
	SILVER	J	0.0585	0.111	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.42	1.1	PQL	mg/Kg	J (all detects)
SL-035-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.45	1.1	PQL	mg/Kg	J (all detects)
SL-036-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.54	1.1	PQL	mg/Kg	J (all detects)
SL-037-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.50	1.1	PQL	mg/Kg	J (all detects)
SL-040-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.39	1.1	PQL	mg/Kg	J (all detects)
SL-321-SA5B-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.23	1.1	PQL	mg/Kg	J (all detects)
SL-331-SA5B-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.60	1.1	PQL	mg/Kg	J (all detects)
SL-337-SA5B-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.49	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-022-SA5A-SS-0.0-0.5	MERCURY	J	0.0113	0.107	PQL	mg/Kg	J (all detects)
SL-036-SA5A-SS-0.0-0.5	MERCURY	J	0.0080	0.107	PQL	mg/Kg	J (all detects)
SL-037-SA5A-SS-0.0-0.5	MERCURY	J	0.0117	0.104	PQL	mg/Kg	J (all detects)
SL-051-SA5A-SS-0.0-0.5	MERCURY	J	0.0067	0.105	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-331-SA5B-SB-3.0-4.0	EFH (C30-C40)	J	0.48	1.3	PQL	mg/Kg	J (all detects)
SL-336-SA5B-SB-4.0-5.0	EFH (C8-C11)	J	0.71	1.4	PQL	mg/Kg	J (all detects)
SL-337-SA5B-SB-3.0-4.0	EFH (C21-C30)	J	0.94	1.4	PQL	mg/Kg	J (all detects)
	EFH (C8-C11)	J	0.58	1.4	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.11	0.38	PQL	ug/Kg	J (all detects)
	ENDRIN ALDEHYDE	J	0.11	0.38	PQL	ug/Kg	
SL-022-SA5A-SS-0.0-0.5	ENDRIN ALDEHYDE	J	0.073	0.37	PQL	ug/Kg	J (all detects)
	ENDRIN KETONE	J	0.11	0.37	PQL	ug/Kg	
SL-036-SA5A-SS-0.0-0.5	DIELDRIN	J	0.26	0.37	PQL	ug/Kg	J (all detects)
	HEPTACHLOR EPOXIDE	J	0.049	0.18	PQL	ug/Kg	
SL-037-SA5A-SS-0.0-0.5	ENDOSULFAN II	J	0.15	0.37	PQL	ug/Kg	J (all detects)
	ENDRIN ALDEHYDE	J	0.28	0.37	PQL	ug/Kg	
	HEPTACHLOR EPOXIDE	J	0.092	0.18	PQL	ug/Kg	
	MIREX	J	0.30	0.37	PQL	ug/Kg	
SL-040-SA5A-SS-0.0-0.5	ENDRIN KETONE	J	0.098	0.37	PQL	ug/Kg	J (all detects)
SL-050-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.20	0.37	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.24	0.37	PQL	ug/Kg	
SL-051-SA5A-SS-0.0-0.5	4,4'-DDD	J	0.18	0.38	PQL	ug/Kg	J (all detects)
	4,4'-DDE	J	0.15	0.38	PQL	ug/Kg	
	4,4'-DDT	J	0.31	0.38	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.12	0.38	PQL	ug/Kg	
	ENDRIN KETONE	J	0.083	0.38	PQL	ug/Kg	

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA5A-SS-0.0-0.5	AROCLOR 1260	J	0.60	1.9	PQL	ug/Kg	J (all detects)
SL-022-SA5A-SS-0.0-0.5	AROCLOR 1260	J	1.2	1.8	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	3.3	3.6	PQL	ug/Kg	
SL-050-SA5A-SS-0.0-0.5	AROCLOR 1254	J	1.4	1.9	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	2.0	3.6	PQL	ug/Kg	
SL-051-SA5A-SS-0.0-0.5	AROCLOR 1254	J	0.99	1.9	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	1.2	1.9	PQL	ug/Kg	

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA5A-SS-0.0-0.5	DICAMBA	J	1.1	1.3	PQL	ug/Kg	J (all detects)
SL-022-SA5A-SS-0.0-0.5	DICAMBA	J	1.2	1.3	PQL	ug/Kg	J (all detects)
	MCPP	J	100	270	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-321-SA5B-SB-3.0-4.0	METHYLENE CHLORIDE	J	1.4	4.3	PQL	ug/Kg	J (all detects)
SL-322-SA5B-SB-3.0-4.0	ETHYLBENZENE	J	0.1	4.2	PQL	ug/Kg	
	m,p-Xylene	J	0.27	4.2	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	0.54	4.2	PQL	ug/Kg	
SL-331-SA5B-SB-3.0-4.0	BENZENE	J	0.18	4.6	PQL	ug/Kg	
	ETHYLBENZENE	J	0.17	4.6	PQL	ug/Kg	
	m,p-Xylene	J	0.56	4.6	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	0.80	4.6	PQL	ug/Kg	
	TOLUENE	J	0.14	4.6	PQL	ug/Kg	
SL-336-SA5B-SB-4.0-5.0	ETHYLBENZENE	J	0.1	4.6	PQL	ug/Kg	
	m,p-Xylene	J	0.30	4.6	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	2.8	4.6	PQL	ug/Kg	
SL-337-SA5B-SB-3.0-4.0	CHLOROFORM	J	0.14	4.1	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-035-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	26	360	PQL	ug/Kg	J (all detects)
SL-036-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	43	360	PQL	ug/Kg	J (all detects)
SL-037-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	120	360	PQL	ug/Kg	J (all detects)
SL-050-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	21	370	PQL	ug/Kg	J (all detects)
SL-051-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	39	370	PQL	ug/Kg	J (all detects)
SL-322-SA5B-SB-3.0-4.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	22	360	PQL	ug/Kg	J (all detects)
SL-336-SA5B-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	21	380	PQL	ug/Kg	J (all detects)
SL-337-SA5B-SB-3.0-4.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	19	380	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-035-SA5A-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.78	1.8	PQL	ug/Kg	
	ACENAPHTHYLENE	J	0.35	1.8	PQL	ug/Kg	
	ANTHRACENE	J	0.55	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.6	1.8	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	8.4	19	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.3	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	0.77	1.8	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE084 **Laboratory: LL**

EDD Filename: DE084_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	0.50	1.8	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	1.2	1.8	PQL	ug/Kg	
	Butylbenzylphthalate	J	8.2	20	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.86	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.7	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	0.75	1.8	PQL	ug/Kg	
SL-037-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	0.56	1.8	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	1.1	1.8	PQL	ug/Kg	
	Butylbenzylphthalate	J	8.5	19	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.99	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	0.81	1.8	PQL	ug/Kg	
SL-040-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	0.70	1.8	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	1.2	1.8	PQL	ug/Kg	
	Butylbenzylphthalate	J	8.6	20	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.2	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	0.90	1.8	PQL	ug/Kg	
SL-051-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	0.85	1.8	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	1.5	1.8	PQL	ug/Kg	
	Di-n-octylphthalate	J	11	20	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.7	1.8	PQL	ug/Kg	
SL-336-SA5B-SB-4.0-5.0	BENZO(B)FLUORANTHENE	J	0.76	1.9	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.66	1.9	PQL	ug/Kg	
SL-337-SA5B-SB-3.0-4.0	CHRYSENE	J	0.41	1.9	PQL	ug/Kg	J (all detects)

LDC #: 25764H4 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/6/14

SDG #: DE084 ADR Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: CR

2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D(Al, Ba, Ca, Fe, Mg, Mn, Ti, Zn >4X)
VII.	Duplicate Sample Analysis	N	D (Sb, Se, Ag, <5xRL)
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-021-SA5A-SS-0.0-0.5	11	SL-331-SA5B-SB-3.0-4.0	21		31	
2	SL-022-SA5A-SS-0.0-0.5	12	SL-336-SA5B-SB-4.0-5.0	22		32	
3	SL-035-SA5A-SS-0.0-0.5	13	SL-337-SA5B-SB-3.0-4.0	23		33	
4	SL-036-SA5A-SS-0.0-0.5	14	(X) MS	24		34	
5	SL-037-SA5A-SS-0.0-0.5	15	MSD	25		35	
6	SL-040-SA5A-SS-0.0-0.5	16	DUP	26		36	
7	SL-050-SA5A-SS-0.0-0.5	17		27		37	
8	SL-051-SA5A-SS-0.0-0.5	18		28		38	
9	SL-321-SA5B-SB-3.0-4.0	19		29		39	
10	SL-322-SA5B-SB-3.0-4.0	20		30		40	

Notes: _____

LDC #: 25764H4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Page: 1 of 1
Reviewer: OR
2nd Reviewer:

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x x MS: 2xdil
Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 1, 3-5 Reason Code: B

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	1										
Cd			0.35	0.35	0.29										

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 6-13 Reason Code: B

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	6	7	8	9	11	12	13				
Cd			0.30	0.3	0.20	0.23	0.22	0.067	0.089	0.14	0.10				
Tl			0.10	0.1											

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE084
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6209557BKG Serial Dilution Lab Sample ID: 6209557L
Batch ID(s): P05208B, P05226B
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		133958.7000		145728.8500		9		P
Antimony	121	0.9483	B	1.6085	B	70		MS
Arsenic	75	25.1000		38.0850		52		MS
Barium	137	561.7000		835.5000		49	E	MS
Beryllium	9	3.2200		5.3950		68		MS
Boron		8.9000	U	44.5000	U			P
Calcium		20541.9900		22581.1500		10		P
Chromium	52	94.7400		162.7000		72	E	MS
Cobalt	59	29.7300		49.4200		66	E	MS
Copper	63	48.4600		82.6500		71	E	MS
Iron		173230.3700		173482.7500		0		P
Lead	208	46.1700		70.8500		53	E	MS
Lithium		196.1000		199.6000		2		P
Magnesium		33737.5200		36751.9000		9		P
Manganese		2846.9100		2928.6000		3		P
Molybdenum	98	3.3060		5.3350		61		MS
Nickel	60	62.1800		107.8000		73	E	MS
Phosphorus		3301.6400		3479.0500		5		P
Potassium		28186.3800		30518.4500		8		P
Selenium	78	0.6846	B	1.1500	B	68		MS
Silver	107	0.3152	B	0.4203	B	33		MS
Sodium		725.8200	B	1865.0000	U	100		P
Strontium		182.5400		189.7500		4		P
Tin		23.7700	B	50.0000	U	100		P
Titanium		9915.0700		10465.8000		6		P
Vanadium	51	178.8000		300.0500		68	E	MS
Zinc	66	302.6000		502.0000		66	E	MS
Zirconium		34.3200	B	56.9000	B	66		P

NOTE: An E in column Q indicates the presence of a chemical or physical interference in the matrix when the % difference is greater than 10%. This applies only when (I) is greater than or equal to 50x MDL for ICP, 100x MDL for ICP-MS (6020), 50x MDL for ICP-MS (200.8), or 25x MDL for GFAA.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ
FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

DE084 4668

SAMPLE DELIVERY GROUP

DE086

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Feb-2011	SL-049-SA5A-SS-0.0-0.5	6210667	N	3050B	6010B	III
18-Feb-2011	SL-049-SA5A-SS-0.0-0.5	6210667	N	3050B	6020	III
18-Feb-2011	SL-049-SA5A-SS-0.0-0.5	6210667	N	3060A	7199	III
18-Feb-2011	SL-049-SA5A-SS-0.0-0.5	6210667	N	3550B	8081A	III
18-Feb-2011	SL-049-SA5A-SS-0.0-0.5	6210667	N	3550B	8082	III
18-Feb-2011	SL-049-SA5A-SS-0.0-0.5	6210667	N	3550B	8151A	III
18-Feb-2011	SL-049-SA5A-SS-0.0-0.5	6210667	N	3550B	8270C	III
18-Feb-2011	SL-049-SA5A-SS-0.0-0.5	6210667	N	3550B	8270C SIM	III
18-Feb-2011	SL-049-SA5A-SS-0.0-0.5	6210667	N	Gen Prep	9045M	III
18-Feb-2011	SL-049-SA5A-SS-0.0-0.5	6210667	N	METHOD	300.0	III
18-Feb-2011	SL-049-SA5A-SS-0.0-0.5	6210667	N	METHOD	314.0	III
18-Feb-2011	SL-049-SA5A-SS-0.0-0.5	6210667	N	METHOD	7471A	III
18-Feb-2011	SL-100-SA5A-SS-0.0-0.5	6210676	N	3050B	6010B	III
18-Feb-2011	SL-100-SA5A-SS-0.0-0.5	6210676	N	3050B	6020	III
18-Feb-2011	SL-100-SA5A-SS-0.0-0.5	6210676	N	3060A	7199	III
18-Feb-2011	SL-100-SA5A-SS-0.0-0.5	6210676	N	3550B	8081A	III
18-Feb-2011	SL-100-SA5A-SS-0.0-0.5	6210676	N	3550B	8082	III
18-Feb-2011	SL-100-SA5A-SS-0.0-0.5	6210676	N	3550B	8151A	III
18-Feb-2011	SL-100-SA5A-SS-0.0-0.5	6210676	N	3550B	8270C	III
18-Feb-2011	SL-100-SA5A-SS-0.0-0.5	6210676	N	3550B	8270C SIM	III
18-Feb-2011	SL-100-SA5A-SS-0.0-0.5	6210676	N	Gen Prep	9045M	III
18-Feb-2011	SL-100-SA5A-SS-0.0-0.5	6210676	N	METHOD	300.0	III
18-Feb-2011	SL-100-SA5A-SS-0.0-0.5	6210676	N	METHOD	314.0	III
18-Feb-2011	SL-100-SA5A-SS-0.0-0.5	6210676	N	METHOD	7471A	III
18-Feb-2011	SL-100-SA5A-SS-0.0-0.5DUP	P210676D291145A	DUP	Gen Prep	9045M	III
18-Feb-2011	SL-102-SA5A-SS-0.0-0.5	6210678	N	3050B	6010B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Feb-2011	SL-102-SA5A-SS-0.0-0.5	6210678	N	3050B	6020	III
18-Feb-2011	SL-102-SA5A-SS-0.0-0.5	6210678	N	3060A	7199	III
18-Feb-2011	SL-102-SA5A-SS-0.0-0.5	6210678	N	3550B	8081A	III
18-Feb-2011	SL-102-SA5A-SS-0.0-0.5	6210678	N	3550B	8082	III
18-Feb-2011	SL-102-SA5A-SS-0.0-0.5	6210678	N	3550B	8151A	III
18-Feb-2011	SL-102-SA5A-SS-0.0-0.5	6210678	N	3550B	8270C	III
18-Feb-2011	SL-102-SA5A-SS-0.0-0.5	6210678	N	3550B	8270C SIM	III
18-Feb-2011	SL-102-SA5A-SS-0.0-0.5	6210678	N	Gen Prep	9045M	III
18-Feb-2011	SL-102-SA5A-SS-0.0-0.5	6210678	N	METHOD	300.0	III
18-Feb-2011	SL-102-SA5A-SS-0.0-0.5	6210678	N	METHOD	314.0	III
18-Feb-2011	SL-102-SA5A-SS-0.0-0.5	6210678	N	METHOD	7471A	III
18-Feb-2011	SL-101-SA5A-SS-0.0-0.5	6210677	N	3050B	6010B	III
18-Feb-2011	SL-101-SA5A-SS-0.0-0.5	6210677	N	3050B	6020	III
18-Feb-2011	SL-101-SA5A-SS-0.0-0.5	6210677	N	3060A	7199	III
18-Feb-2011	SL-101-SA5A-SS-0.0-0.5	6210677	N	3550B	8081A	III
18-Feb-2011	SL-101-SA5A-SS-0.0-0.5	6210677	N	3550B	8082	III
18-Feb-2011	SL-101-SA5A-SS-0.0-0.5	6210677	N	3550B	8151A	III
18-Feb-2011	SL-101-SA5A-SS-0.0-0.5	6210677	N	3550B	8270C	III
18-Feb-2011	SL-101-SA5A-SS-0.0-0.5	6210677	N	3550B	8270C SIM	III
18-Feb-2011	SL-101-SA5A-SS-0.0-0.5	6210677	N	Gen Prep	9045M	III
18-Feb-2011	SL-101-SA5A-SS-0.0-0.5	6210677	N	METHOD	300.0	III
18-Feb-2011	SL-101-SA5A-SS-0.0-0.5	6210677	N	METHOD	314.0	III
18-Feb-2011	SL-101-SA5A-SS-0.0-0.5	6210677	N	METHOD	7471A	III
18-Feb-2011	DUP01-SA5A-QC-021811	6210666	FD	3050B	6010B	III
18-Feb-2011	DUP01-SA5A-QC-021811	6210666	FD	3050B	6020	III
18-Feb-2011	DUP01-SA5A-QC-021811	6210666	FD	3060A	7199	III

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation
N = Normal Sample
FD = Field Duplicate
TB = Trip Blank
FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Feb-2011	DUP01-SA5A-QC-021811	6210666	FD	3550B	8081A	III
18-Feb-2011	DUP01-SA5A-QC-021811	6210666	FD	3550B	8082	III
18-Feb-2011	DUP01-SA5A-QC-021811	6210666	FD	3550B	8151A	III
18-Feb-2011	DUP01-SA5A-QC-021811	6210666	FD	3550B	8270C	III
18-Feb-2011	DUP01-SA5A-QC-021811	6210666	FD	3550B	8270C SIM	III
18-Feb-2011	DUP01-SA5A-QC-021811	6210666	FD	Gen Prep	9045M	III
18-Feb-2011	DUP01-SA5A-QC-021811	6210666	FD	METHOD	300.0	III
18-Feb-2011	DUP01-SA5A-QC-021811	6210666	FD	METHOD	314.0	III
18-Feb-2011	DUP01-SA5A-QC-021811	6210666	FD	METHOD	7471A	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5	6210672	N	3050B	6010B	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5	6210672	N	3050B	6020	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5	6210672	N	3060A	7199	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5	6210672	N	3550B	8081A	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5	6210672	N	3550B	8082	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5	6210672	N	3550B	8151A	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5	6210672	N	3550B	8270C	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5	6210672	N	3550B	8270C SIM	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5	6210672	N	Gen Prep	9045M	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5	6210672	N	METHOD	300.0	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5	6210672	N	METHOD	314.0	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5	6210672	N	METHOD	6850	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5	6210672	N	METHOD	7471A	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MS	6210673	MS	3050B	6010B	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MS	6210673	MS	3050B	6020	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MS	6210673	MS	3060A	7199	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MS	6210673	MS	3550B	8081A	III

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation
N = Normal Sample
FD = Field Duplicate
TB = Trip Blank
FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MS	6210673	MS	3550B	8082	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MS	6210673	MS	3550B	8151A	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MS	6210673	MS	3550B	8270C	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MS	6210673	MS	3550B	8270C SIM	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MS	6210673	MS	METHOD	300.0	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MS	6210673	MS	METHOD	314.0	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MS	6210673	MS	METHOD	6850	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MS	6210673	MS	METHOD	7471A	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MSD	6210674	MSD	3050B	6010B	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MSD	6210674	MSD	3050B	6020	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MSD	6210674	MSD	3550B	8081A	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MSD	6210674	MSD	3550B	8082	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MSD	6210674	MSD	3550B	8151A	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MSD	6210674	MSD	3550B	8270C	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MSD	6210674	MSD	3550B	8270C SIM	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MSD	6210674	MSD	METHOD	6850	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5MSD	6210674	MSD	METHOD	7471A	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5DUP	6210675	DUP	3050B	6010B	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5DUP	6210675	DUP	3050B	6020	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5DUP	6210675	DUP	3060A	7199	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5DUP	6210675	DUP	Gen Prep	9045M	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5DUP	6210675	DUP	METHOD	300.0	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5DUP	6210675	DUP	METHOD	314.0	III
18-Feb-2011	SL-099-SA5A-SS-0.0-0.5DUP	6210675	DUP	METHOD	7471A	III
18-Feb-2011	SL-241-SA5A-SS-0.0-0.5	6210679	N	3050B	6010B	III
18-Feb-2011	SL-241-SA5A-SS-0.0-0.5	6210679	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Feb-2011	SL-241-SA5A-SS-0.0-0.5	6210679	N	3060A	7199	III
18-Feb-2011	SL-241-SA5A-SS-0.0-0.5	6210679	N	3550B	8081A	III
18-Feb-2011	SL-241-SA5A-SS-0.0-0.5	6210679	N	3550B	8082	III
18-Feb-2011	SL-241-SA5A-SS-0.0-0.5	6210679	N	3550B	8151A	III
18-Feb-2011	SL-241-SA5A-SS-0.0-0.5	6210679	N	3550B	8270C	III
18-Feb-2011	SL-241-SA5A-SS-0.0-0.5	6210679	N	3550B	8270C SIM	III
18-Feb-2011	SL-241-SA5A-SS-0.0-0.5	6210679	N	Gen Prep	9045M	III
18-Feb-2011	SL-241-SA5A-SS-0.0-0.5	6210679	N	METHOD	300.0	III
18-Feb-2011	SL-241-SA5A-SS-0.0-0.5	6210679	N	METHOD	314.0	III
18-Feb-2011	SL-241-SA5A-SS-0.0-0.5	6210679	N	METHOD	7471A	III
18-Feb-2011	SL-241-SA5A-SS-0.0-0.5DUP	P210679D270626B	DUP	METHOD	314.0	III
18-Feb-2011	SL-241-SA5A-SS-0.0-0.5DUP	P210679D270738B	DUP	METHOD	300.0	III
18-Feb-2011	SL-241-SA5A-SS-0.0-0.5MS	P210679R270650B	MS	METHOD	314.0	III
18-Feb-2011	SL-241-SA5A-SS-0.0-0.5MS	P210679R270753B	MS	METHOD	300.0	III
18-Feb-2011	SL-098-SA5A-SS-0.0-0.5	6210671	N	3050B	6010B	III
18-Feb-2011	SL-098-SA5A-SS-0.0-0.5	6210671	N	3050B	6020	III
18-Feb-2011	SL-098-SA5A-SS-0.0-0.5	6210671	N	3060A	7199	III
18-Feb-2011	SL-098-SA5A-SS-0.0-0.5	6210671	N	3550B	8081A	III
18-Feb-2011	SL-098-SA5A-SS-0.0-0.5	6210671	N	3550B	8082	III
18-Feb-2011	SL-098-SA5A-SS-0.0-0.5	6210671	N	3550B	8151A	III
18-Feb-2011	SL-098-SA5A-SS-0.0-0.5	6210671	N	3550B	8270C	III
18-Feb-2011	SL-098-SA5A-SS-0.0-0.5	6210671	N	3550B	8270C SIM	III
18-Feb-2011	SL-098-SA5A-SS-0.0-0.5	6210671	N	Gen Prep	9045M	III
18-Feb-2011	SL-098-SA5A-SS-0.0-0.5	6210671	N	METHOD	300.0	III
18-Feb-2011	SL-098-SA5A-SS-0.0-0.5	6210671	N	METHOD	314.0	III
18-Feb-2011	SL-098-SA5A-SS-0.0-0.5	6210671	N	METHOD	7471A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Feb-2011	SL-242-SA5A-SS-0.0-0.5	6210680	N	3050B	6010B	III
18-Feb-2011	SL-242-SA5A-SS-0.0-0.5	6210680	N	3050B	6020	III
18-Feb-2011	SL-242-SA5A-SS-0.0-0.5	6210680	N	3060A	7199	III
18-Feb-2011	SL-242-SA5A-SS-0.0-0.5	6210680	N	3550B	8081A	III
18-Feb-2011	SL-242-SA5A-SS-0.0-0.5	6210680	N	3550B	8082	III
18-Feb-2011	SL-242-SA5A-SS-0.0-0.5	6210680	N	3550B	8151A	III
18-Feb-2011	SL-242-SA5A-SS-0.0-0.5	6210680	N	3550B	8270C	III
18-Feb-2011	SL-242-SA5A-SS-0.0-0.5	6210680	N	3550B	8270C SIM	III
18-Feb-2011	SL-242-SA5A-SS-0.0-0.5	6210680	N	Gen Prep	9045M	III
18-Feb-2011	SL-242-SA5A-SS-0.0-0.5	6210680	N	METHOD	300.0	III
18-Feb-2011	SL-242-SA5A-SS-0.0-0.5	6210680	N	METHOD	314.0	III
18-Feb-2011	SL-242-SA5A-SS-0.0-0.5	6210680	N	METHOD	7471A	III
18-Feb-2011	SL-052-SA5A-SS-0.0-0.5	6210668	N	3050B	6010B	III
18-Feb-2011	SL-052-SA5A-SS-0.0-0.5	6210668	N	3050B	6020	III
18-Feb-2011	SL-052-SA5A-SS-0.0-0.5	6210668	N	3060A	7199	III
18-Feb-2011	SL-052-SA5A-SS-0.0-0.5	6210668	N	3550B	8081A	III
18-Feb-2011	SL-052-SA5A-SS-0.0-0.5	6210668	N	3550B	8082	III
18-Feb-2011	SL-052-SA5A-SS-0.0-0.5	6210668	N	3550B	8151A	III
18-Feb-2011	SL-052-SA5A-SS-0.0-0.5	6210668	N	3550B	8270C	III
18-Feb-2011	SL-052-SA5A-SS-0.0-0.5	6210668	N	3550B	8270C SIM	III
18-Feb-2011	SL-052-SA5A-SS-0.0-0.5	6210668	N	Gen Prep	9045M	III
18-Feb-2011	SL-052-SA5A-SS-0.0-0.5	6210668	N	METHOD	300.0	III
18-Feb-2011	SL-052-SA5A-SS-0.0-0.5	6210668	N	METHOD	314.0	III
18-Feb-2011	SL-052-SA5A-SS-0.0-0.5	6210668	N	METHOD	7471A	III
18-Feb-2011	SL-096-SA5A-SS-0.0-0.5	6210670	N	3050B	6010B	III
18-Feb-2011	SL-096-SA5A-SS-0.0-0.5	6210670	N	3050B	6020	III

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation
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FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Feb-2011	SL-096-SA5A-SS-0.0-0.5	6210670	N	3060A	7199	III
18-Feb-2011	SL-096-SA5A-SS-0.0-0.5	6210670	N	3550B	8081A	III
18-Feb-2011	SL-096-SA5A-SS-0.0-0.5	6210670	N	3550B	8082	III
18-Feb-2011	SL-096-SA5A-SS-0.0-0.5	6210670	N	3550B	8151A	III
18-Feb-2011	SL-096-SA5A-SS-0.0-0.5	6210670	N	3550B	8270C	III
18-Feb-2011	SL-096-SA5A-SS-0.0-0.5	6210670	N	3550B	8270C SIM	III
18-Feb-2011	SL-096-SA5A-SS-0.0-0.5	6210670	N	Gen Prep	9045M	III
18-Feb-2011	SL-096-SA5A-SS-0.0-0.5	6210670	N	METHOD	300.0	III
18-Feb-2011	SL-096-SA5A-SS-0.0-0.5	6210670	N	METHOD	314.0	III
18-Feb-2011	SL-096-SA5A-SS-0.0-0.5	6210670	N	METHOD	7471A	III
18-Feb-2011	SL-053-SA5A-SS-0.0-0.5	6210669	N	3050B	6010B	III
18-Feb-2011	SL-053-SA5A-SS-0.0-0.5	6210669	N	3050B	6020	III
18-Feb-2011	SL-053-SA5A-SS-0.0-0.5	6210669	N	3060A	7199	III
18-Feb-2011	SL-053-SA5A-SS-0.0-0.5	6210669	N	3550B	8081A	III
18-Feb-2011	SL-053-SA5A-SS-0.0-0.5	6210669	N	3550B	8082	III
18-Feb-2011	SL-053-SA5A-SS-0.0-0.5	6210669	N	3550B	8151A	III
18-Feb-2011	SL-053-SA5A-SS-0.0-0.5	6210669	N	3550B	8270C	III
18-Feb-2011	SL-053-SA5A-SS-0.0-0.5	6210669	N	3550B	8270C SIM	III
18-Feb-2011	SL-053-SA5A-SS-0.0-0.5	6210669	N	Gen Prep	9045M	III
18-Feb-2011	SL-053-SA5A-SS-0.0-0.5	6210669	N	METHOD	300.0	III
18-Feb-2011	SL-053-SA5A-SS-0.0-0.5	6210669	N	METHOD	314.0	III
18-Feb-2011	SL-053-SA5A-SS-0.0-0.5	6210669	N	METHOD	7471A	III

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation
N = Normal Sample
FD = Field Duplicate
TB = Trip Blank
FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory:** LL

EDD Filename: DE086_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: DUP01-SA5A-QC-021811 ***Collected:*** 2/18/2011 10:35:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.5		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-049-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 8:25:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-052-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 11:28:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-053-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 1:20:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.5		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-096-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 12:56:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.99	J	0.94	MDL	1.2	PQL	mg/Kg	J	Z, Q

Sample ID: SL-098-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 11:05:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-099-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 10:35:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-100-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 8:50:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.95	MDL	1.2	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-101-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 9:45:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.5		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-102-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 9:18:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.0		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-241-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 10:50:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-242-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 11:18:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: DUP01-SA5A-QC-021811 ***Collected:*** 2/18/2011 10:35:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.61	J	0.988	MDL	5.55	PQL	mg/Kg	J	Z
POTASSIUM	3260		20.0	MDL	55.5	PQL	mg/Kg	J	Q
SODIUM	80.0	J	41.4	MDL	111	PQL	mg/Kg	J	Z
TIN	2.65	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	3.40	J	0.932	MDL	5.55	PQL	mg/Kg	J	Z

Sample ID: SL-049-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 8:25:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.87	J	0.976	MDL	5.48	PQL	mg/Kg	J	Z
POTASSIUM	3810		19.7	MDL	54.8	PQL	mg/Kg	J	Q
SODIUM	88.3	J	40.9	MDL	110	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-049-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 8:25:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.45	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.25	J	0.921	MDL	5.48	PQL	mg/Kg	J	Z

Sample ID: **SL-052-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 11:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.23	J	0.978	MDL	5.49	PQL	mg/Kg	J	Z
POTASSIUM	3910		19.8	MDL	54.9	PQL	mg/Kg	J	Q
SODIUM	93.4	J	41.0	MDL	110	PQL	mg/Kg	J	Z
TIN	2.60	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.46	J	0.923	MDL	5.49	PQL	mg/Kg	J	Z

Sample ID: **SL-053-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 1:20:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.18	J	0.946	MDL	5.32	PQL	mg/Kg	J	Z
POTASSIUM	3910		19.1	MDL	53.2	PQL	mg/Kg	J	Q
SODIUM	83.1	J	39.7	MDL	106	PQL	mg/Kg	J	Z
TIN	2.67	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	3.27	J	0.893	MDL	5.32	PQL	mg/Kg	J	Z

Sample ID: **SL-096-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 12:56:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.82	J	1.01	MDL	5.69	PQL	mg/Kg	J	Z
POTASSIUM	3490		20.5	MDL	56.9	PQL	mg/Kg	J	Q
SODIUM	91.3	J	42.5	MDL	114	PQL	mg/Kg	J	Z
TIN	2.72	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	3.10	J	0.956	MDL	5.69	PQL	mg/Kg	J	Z

Sample ID: **SL-098-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 11:05:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.31	J	0.988	MDL	5.55	PQL	mg/Kg	J	Z
POTASSIUM	3370		20.0	MDL	55.5	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-098-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 11:05:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	85.6	J	41.4	MDL	111	PQL	mg/Kg	J	Z
TIN	2.98	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	2.84	J	0.933	MDL	5.55	PQL	mg/Kg	J	Z

Sample ID: **SL-099-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 10:35:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.57	J	0.963	MDL	5.41	PQL	mg/Kg	J	Z
POTASSIUM	3150		19.5	MDL	54.1	PQL	mg/Kg	J	Q
SODIUM	77.2	J	40.4	MDL	108	PQL	mg/Kg	J	Z
TIN	2.62	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	3.42	J	0.909	MDL	5.41	PQL	mg/Kg	J	Z

Sample ID: **SL-100-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 8:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.48	J	1.02	MDL	5.74	PQL	mg/Kg	J	Z
POTASSIUM	3660		20.7	MDL	57.4	PQL	mg/Kg	J	Q
SODIUM	84.1	J	42.8	MDL	115	PQL	mg/Kg	J	Z
TIN	2.67	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	2.54	J	0.964	MDL	5.74	PQL	mg/Kg	J	Z

Sample ID: **SL-101-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 9:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.50	J	0.956	MDL	5.37	PQL	mg/Kg	J	Z
POTASSIUM	3610		19.3	MDL	53.7	PQL	mg/Kg	J	Q
SODIUM	87.1	J	40.1	MDL	107	PQL	mg/Kg	J	Z
TIN	2.65	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	3.02	J	0.902	MDL	5.37	PQL	mg/Kg	J	Z

Sample ID: **SL-102-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 9:18:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.59	J	0.989	MDL	5.56	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-102-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 9:18:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3030		20.0	MDL	55.6	PQL	mg/Kg	J	Q
SODIUM	83.3	J	41.5	MDL	111	PQL	mg/Kg	J	Z
TIN	2.45	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	2.72	J	0.934	MDL	5.56	PQL	mg/Kg	J	Z

Sample ID: SL-241-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 10:50:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.62	J	1.01	MDL	5.68	PQL	mg/Kg	J	Z
POTASSIUM	3190		20.4	MDL	56.8	PQL	mg/Kg	J	Q
SODIUM	79.9	J	42.4	MDL	114	PQL	mg/Kg	J	Z
TIN	2.67	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	3.13	J	0.954	MDL	5.68	PQL	mg/Kg	J	Z

Sample ID: SL-242-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 11:18:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.28	J	0.955	MDL	5.36	PQL	mg/Kg	J	Z
POTASSIUM	3820		19.3	MDL	53.6	PQL	mg/Kg	J	Q
SODIUM	94.6	J	40.0	MDL	107	PQL	mg/Kg	J	Z
TIN	2.54	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	3.79	J	0.901	MDL	5.36	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: DUP01-SA5A-QC-021811 ***Collected:*** 2/18/2011 10:35:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.183	J	0.0444	MDL	0.444	PQL	mg/Kg	U	B

Sample ID: DUP01-SA5A-QC-021811 ***Collected:*** 2/18/2011 10:35:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.881		0.0555	MDL	0.111	PQL	mg/Kg	J	Q, E

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory:** LL

EDD Filename: DE086_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP01-SA5A-QC-021811 ***Collected:*** 2/18/2011 10:35:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.203	J	0.0666	MDL	0.222	PQL	mg/Kg	UJ	Q, B
ARSENIC	7.14		0.0888	MDL	0.444	PQL	mg/Kg	J	Q
BERYLLIUM	0.942		0.0178	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	26.9		0.133	MDL	0.444	PQL	mg/Kg	J	Q
COBALT	10.4		0.0222	MDL	0.111	PQL	mg/Kg	J	E
COPPER	11.5		0.0733	MDL	0.444	PQL	mg/Kg	J	Q
NICKEL	18.6		0.111	MDL	0.444	PQL	mg/Kg	J	Q
SILVER	0.0822	J	0.0133	MDL	0.111	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.433		0.0333	MDL	0.111	PQL	mg/Kg	UJ	Q, B
VANADIUM	50.7		0.0244	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: SL-049-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 8:25:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.152	J	0.0434	MDL	0.434	PQL	mg/Kg	U	B

Sample ID: SL-049-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 8:25:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.735		0.0543	MDL	0.109	PQL	mg/Kg	J	Q, E

Sample ID: SL-049-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 8:25:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.137	J	0.0652	MDL	0.217	PQL	mg/Kg	UJ	Q, B
ARSENIC	4.98		0.0869	MDL	0.434	PQL	mg/Kg	J	Q
BERYLLIUM	0.578		0.0174	MDL	0.109	PQL	mg/Kg	J	Q
CHROMIUM	23.0		0.130	MDL	0.434	PQL	mg/Kg	J	Q
COBALT	6.73		0.0217	MDL	0.109	PQL	mg/Kg	J	E
COPPER	12.6		0.0717	MDL	0.434	PQL	mg/Kg	J	Q
NICKEL	16.1		0.109	MDL	0.434	PQL	mg/Kg	J	Q
SILVER	0.0666	J	0.0130	MDL	0.109	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.308		0.0326	MDL	0.109	PQL	mg/Kg	UJ	Q, B
VANADIUM	40.4		0.0239	MDL	0.109	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory:** LL

EDD Filename: DE086_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-052-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 11:28:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.157	J	0.0440	MDL	0.440	PQL	mg/Kg	U	B

Sample ID: SL-052-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 11:28:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.897		0.0549	MDL	0.110	PQL	mg/Kg	J	Q, E

Sample ID: SL-052-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 11:28:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.135	J	0.0659	MDL	0.220	PQL	mg/Kg	UJ	Q, B
ARSENIC	6.25		0.0879	MDL	0.440	PQL	mg/Kg	J	Q
BERYLLIUM	0.837		0.0176	MDL	0.110	PQL	mg/Kg	J	Q
CHROMIUM	28.4		0.132	MDL	0.440	PQL	mg/Kg	J	Q
COBALT	8.54		0.0220	MDL	0.110	PQL	mg/Kg	J	E
COPPER	15.6		0.0725	MDL	0.440	PQL	mg/Kg	J	Q
NICKEL	19.8		0.110	MDL	0.440	PQL	mg/Kg	J	Q
SILVER	0.0631	J	0.0132	MDL	0.110	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.393		0.0330	MDL	0.110	PQL	mg/Kg	UJ	Q, B
VANADIUM	49.1		0.0242	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: SL-053-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 1:20:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.163	J	0.0421	MDL	0.421	PQL	mg/Kg	U	B

Sample ID: SL-053-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 1:20:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.739		0.0527	MDL	0.105	PQL	mg/Kg	J	Q, E

Sample ID: SL-053-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 1:20:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.160	J	0.0632	MDL	0.211	PQL	mg/Kg	UJ	Q, B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory:** LL

EDD Filename: DE086_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-053-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 1:20:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	5.44		0.0843	MDL	0.421	PQL	mg/Kg	J	Q
BERYLLIUM	0.667		0.0169	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	23.8		0.126	MDL	0.421	PQL	mg/Kg	J	Q
COBALT	7.02		0.0211	MDL	0.105	PQL	mg/Kg	J	E
COPPER	13.3		0.0695	MDL	0.421	PQL	mg/Kg	J	Q
NICKEL	17.4		0.105	MDL	0.421	PQL	mg/Kg	J	Q
SILVER	0.0660	J	0.0126	MDL	0.105	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.311		0.0316	MDL	0.105	PQL	mg/Kg	UJ	Q, B
VANADIUM	42.4		0.0232	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-096-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 12:56:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.157	J	0.0451	MDL	0.451	PQL	mg/Kg	U	B

Sample ID: SL-096-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 12:56:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.915		0.0564	MDL	0.113	PQL	mg/Kg	J	Q, E

Sample ID: SL-096-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 12:56:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.218	J	0.0676	MDL	0.225	PQL	mg/Kg	UJ	Q, B
ARSENIC	6.11		0.0902	MDL	0.451	PQL	mg/Kg	J	Q
BERYLLIUM	0.671		0.0180	MDL	0.113	PQL	mg/Kg	J	Q
CHROMIUM	28.9		0.135	MDL	0.451	PQL	mg/Kg	J	Q
COBALT	10.2		0.0225	MDL	0.113	PQL	mg/Kg	J	E
COPPER	22.2		0.0744	MDL	0.451	PQL	mg/Kg	J	Q
NICKEL	19.5		0.113	MDL	0.451	PQL	mg/Kg	J	Q
SILVER	0.0918	J	0.0135	MDL	0.113	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.357		0.0338	MDL	0.113	PQL	mg/Kg	UJ	Q, B
VANADIUM	51.5		0.0248	MDL	0.113	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-098-SA5A-SS-0.0-0.5 *Collected:* 2/18/2011 11:05:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.135	J	0.0444	MDL	0.444	PQL	mg/Kg	U	B

Sample ID: SL-098-SA5A-SS-0.0-0.5 *Collected:* 2/18/2011 11:05:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.830		0.0555	MDL	0.111	PQL	mg/Kg	J	Q, E

Sample ID: SL-098-SA5A-SS-0.0-0.5 *Collected:* 2/18/2011 11:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.773		0.0666	MDL	0.222	PQL	mg/Kg	UJ	Q, B
ARSENIC	5.62		0.0888	MDL	0.444	PQL	mg/Kg	J	Q
BERYLLIUM	0.649		0.0178	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	27.3		0.133	MDL	0.444	PQL	mg/Kg	J	Q
COBALT	7.75		0.0222	MDL	0.111	PQL	mg/Kg	J	E
COPPER	15.5		0.0733	MDL	0.444	PQL	mg/Kg	J	Q
NICKEL	18.5		0.111	MDL	0.444	PQL	mg/Kg	J	Q
SILVER	0.251		0.0133	MDL	0.111	PQL	mg/Kg	J	Q
THALLIUM	0.397		0.0333	MDL	0.111	PQL	mg/Kg	UJ	Q, B
VANADIUM	44.7		0.0244	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: SL-099-SA5A-SS-0.0-0.5 *Collected:* 2/18/2011 10:35:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.159	J	0.0425	MDL	0.425	PQL	mg/Kg	U	B

Sample ID: SL-099-SA5A-SS-0.0-0.5 *Collected:* 2/18/2011 10:35:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.782		0.0531	MDL	0.106	PQL	mg/Kg	J	Q, E

Sample ID: SL-099-SA5A-SS-0.0-0.5 *Collected:* 2/18/2011 10:35:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.124	J	0.0637	MDL	0.212	PQL	mg/Kg	UJ	Q, B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-099-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 10:35:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.17		0.0849	MDL	0.425	PQL	mg/Kg	J	Q
BERYLLIUM	0.774		0.0170	MDL	0.106	PQL	mg/Kg	J	Q
CHROMIUM	23.1		0.127	MDL	0.425	PQL	mg/Kg	J	Q
COBALT	17.4		0.0212	MDL	0.106	PQL	mg/Kg	J	E
COPPER	10.2		0.0700	MDL	0.425	PQL	mg/Kg	J	Q
NICKEL	16.7		0.106	MDL	0.425	PQL	mg/Kg	J	Q
SILVER	0.0663	J	0.0127	MDL	0.106	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.334		0.0318	MDL	0.106	PQL	mg/Kg	UJ	Q, B
VANADIUM	42.5		0.0233	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: **SL-100-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 8:50:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.157	J	0.0468	MDL	0.468	PQL	mg/Kg	U	B

Sample ID: **SL-100-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 8:50:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.789		0.0585	MDL	0.117	PQL	mg/Kg	J	Q, E

Sample ID: **SL-100-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 8:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.102	J	0.0702	MDL	0.234	PQL	mg/Kg	UJ	Q, B
ARSENIC	5.23		0.0936	MDL	0.468	PQL	mg/Kg	J	Q
BERYLLIUM	0.602		0.0187	MDL	0.117	PQL	mg/Kg	J	Q
CHROMIUM	22.3		0.140	MDL	0.468	PQL	mg/Kg	J	Q
COBALT	6.94		0.0234	MDL	0.117	PQL	mg/Kg	J	E
COPPER	13.9		0.0772	MDL	0.468	PQL	mg/Kg	J	Q
NICKEL	15.8		0.117	MDL	0.468	PQL	mg/Kg	J	Q
SILVER	0.135		0.0140	MDL	0.117	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.325		0.0351	MDL	0.117	PQL	mg/Kg	UJ	Q, B
VANADIUM	39.4		0.0257	MDL	0.117	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-101-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 9:45:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.146	J	0.0434	MDL	0.434	PQL	mg/Kg	U	B

Sample ID: SL-101-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 9:45:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.854		0.0542	MDL	0.108	PQL	mg/Kg	J	Q, E

Sample ID: SL-101-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 9:45:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.123	J	0.0651	MDL	0.217	PQL	mg/Kg	UJ	Q, B
ARSENIC	5.74		0.0868	MDL	0.434	PQL	mg/Kg	J	Q
BERYLLIUM	0.673		0.0174	MDL	0.108	PQL	mg/Kg	J	Q
CHROMIUM	24.9		0.130	MDL	0.434	PQL	mg/Kg	J	Q
COBALT	7.32		0.0217	MDL	0.108	PQL	mg/Kg	J	E
COPPER	12.0		0.0716	MDL	0.434	PQL	mg/Kg	J	Q
NICKEL	16.2		0.108	MDL	0.434	PQL	mg/Kg	J	Q
SILVER	0.0680	J	0.0130	MDL	0.108	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.326		0.0325	MDL	0.108	PQL	mg/Kg	UJ	Q, B
VANADIUM	43.2		0.0239	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-102-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 9:18:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.124	J	0.0440	MDL	0.440	PQL	mg/Kg	U	B

Sample ID: SL-102-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 9:18:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.608		0.0550	MDL	0.110	PQL	mg/Kg	J	Q, E

Sample ID: SL-102-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 9:18:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.103	J	0.0660	MDL	0.220	PQL	mg/Kg	UJ	Q, B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-102-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 9:18:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	4.92		0.0881	MDL	0.440	PQL	mg/Kg	J	Q
BERYLLIUM	0.625		0.0176	MDL	0.110	PQL	mg/Kg	J	Q
CHROMIUM	19.7		0.132	MDL	0.440	PQL	mg/Kg	J	Q
COBALT	6.30		0.0220	MDL	0.110	PQL	mg/Kg	J	E
COPPER	10.1		0.0727	MDL	0.440	PQL	mg/Kg	J	Q
NICKEL	13.5		0.110	MDL	0.440	PQL	mg/Kg	J	Q
SILVER	0.0872	J	0.0132	MDL	0.110	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.314		0.0330	MDL	0.110	PQL	mg/Kg	UJ	Q, B
VANADIUM	35.6		0.0242	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: **SL-241-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 10:50:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.234	J	0.0459	MDL	0.459	PQL	mg/Kg	U	B

Sample ID: **SL-241-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 10:50:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.10		0.0574	MDL	0.115	PQL	mg/Kg	J	Q, E

Sample ID: **SL-241-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 10:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.276		0.0688	MDL	0.229	PQL	mg/Kg	UJ	Q, B
ARSENIC	9.29		0.0918	MDL	0.459	PQL	mg/Kg	J	Q
BERYLLIUM	0.708		0.0184	MDL	0.115	PQL	mg/Kg	J	Q
CHROMIUM	23.8		0.138	MDL	0.459	PQL	mg/Kg	J	Q
COBALT	7.73		0.0229	MDL	0.115	PQL	mg/Kg	J	E
COPPER	16.7		0.0757	MDL	0.459	PQL	mg/Kg	J	Q
NICKEL	17.4		0.115	MDL	0.459	PQL	mg/Kg	J	Q
SILVER	0.176		0.0138	MDL	0.115	PQL	mg/Kg	J	Q
THALLIUM	0.381		0.0344	MDL	0.115	PQL	mg/Kg	UJ	Q, B
VANADIUM	44.7		0.0252	MDL	0.115	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-242-SA5A-SS-0.0-0.5 *Collected:* 2/18/2011 11:18:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.144	J	0.0433	MDL	0.433	PQL	mg/Kg	U	B

Sample ID: SL-242-SA5A-SS-0.0-0.5 *Collected:* 2/18/2011 11:18:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.832		0.0542	MDL	0.108	PQL	mg/Kg	J	Q, E

Sample ID: SL-242-SA5A-SS-0.0-0.5 *Collected:* 2/18/2011 11:18:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0996	J	0.0650	MDL	0.217	PQL	mg/Kg	UJ	Q, B
ARSENIC	5.83		0.0867	MDL	0.433	PQL	mg/Kg	J	Q
BERYLLIUM	0.774		0.0173	MDL	0.108	PQL	mg/Kg	J	Q
CHROMIUM	26.8		0.130	MDL	0.433	PQL	mg/Kg	J	Q
COBALT	8.35		0.0217	MDL	0.108	PQL	mg/Kg	J	E
COPPER	14.9		0.0715	MDL	0.433	PQL	mg/Kg	J	Q
NICKEL	19.6		0.108	MDL	0.433	PQL	mg/Kg	J	Q
SILVER	0.0619	J	0.0130	MDL	0.108	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.382		0.0325	MDL	0.108	PQL	mg/Kg	UJ	Q, B
VANADIUM	47.2		0.0238	MDL	0.108	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: DUP01-SA5A-QC-021811 *Collected:* 2/18/2011 10:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.27	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-049-SA5A-SS-0.0-0.5 *Collected:* 2/18/2011 8:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.34	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: **SL-052-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 11:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.71	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-096-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 12:56:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.99	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: **SL-098-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 11:05:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.67	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-099-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 10:35:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.58	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-100-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 8:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.44	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: **SL-101-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 9:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.60	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-102-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 9:18:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.51	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-242-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 11:18:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.36	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory:** LL

EDD Filename: DE086_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS
Method: 7199 **Matrix:** SO

Method Category: METALS
Method: 7471A **Matrix:** SO

Sample ID: DUP01-SA5A-QC-021811 ***Collected:*** 2/18/2011 10:35:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0030	U	0.0030	MDL	0.105	PQL	mg/Kg	UJ	FD

Sample ID: SL-098-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 11:05:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0157	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-099-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 10:35:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0031	J	0.0030	MDL	0.104	PQL	mg/Kg	J	Z, FD

Sample ID: SL-100-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 8:50:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0036	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z

Sample ID: SL-241-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 10:50:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0070	J	0.0032	MDL	0.113	PQL	mg/Kg	J	Z

Method Category: SVOA
Method: 8081A **Matrix:** SO

Sample ID: DUP01-SA5A-QC-021811 ***Collected:*** 2/18/2011 10:35:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.14	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z, FD
ENDRIN ALDEHYDE	0.11	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z, FD
ENDRIN KETONE	0.13	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z, FD

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: **SL-052-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 11:28:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.095	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
4,4'-DDT	0.29	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
DELTA-BHC	0.11	J	0.040	MDL	0.18	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.12	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z

Sample ID: **SL-053-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 1:20:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.13	J	0.072	MDL	0.37	PQL	ug/Kg	J	Z
4,4'-DDT	0.30	J	0.072	MDL	0.37	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.077	J	0.072	MDL	0.37	PQL	ug/Kg	J	Z

Sample ID: **SL-096-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 12:56:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN ALDEHYDE	0.20	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z

Sample ID: **SL-098-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 11:05:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDOSULFAN II	0.28	J	0.075	MDL	0.38	PQL	ug/Kg	J	Z

Sample ID: **SL-099-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 10:35:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.081	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z, Q, FD
4,4'-DDT	0.31	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z, Q
ENDRIN ALDEHYDE	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	FD
ENDRIN KETONE	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	FD

Sample ID: **SL-100-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 8:50:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.44		0.078	MDL	0.40	PQL	ug/Kg	J	S
DELTA-BHC	0.099	J	0.043	MDL	0.20	PQL	ug/Kg	J	Z, S

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: **SL-102-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 9:18:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
4,4'-DDD	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	S
4,4'-DDE	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	S
4,4'-DDT	0.096	U	0.096	MDL	0.39	PQL	ug/Kg	UJ	S
ALDRIN	0.075	U	0.075	MDL	0.19	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.039	U	0.039	MDL	0.19	PQL	ug/Kg	UJ	S
BETA-BHC	0.068	U	0.068	MDL	0.19	PQL	ug/Kg	UJ	S
Chlordane	0.91	U	0.91	MDL	3.9	PQL	ug/Kg	UJ	S
DELTA-BHC	0.041	U	0.041	MDL	0.19	PQL	ug/Kg	UJ	S
DIELDRIN	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.050	U	0.050	MDL	0.19	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	S
ENDRIN	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.039	U	0.039	MDL	0.19	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.068	U	0.068	MDL	0.19	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.039	U	0.039	MDL	0.19	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.39	U	0.39	MDL	1.9	PQL	ug/Kg	UJ	S
MIREX	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	S
TOXAPHENE	2.5	U	2.5	MDL	7.5	PQL	ug/Kg	UJ	S

Sample ID: **SL-241-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 10:50:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
DELTA-BHC	0.068	J	0.042	MDL	0.19	PQL	ug/Kg	J	Z
DIELDRIN	0.23	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.18	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.24	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z
MIREX	0.35	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **DUP01-SA5A-QC-021811** ***Collected:*** **2/18/2011 10:35:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.78	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
AROCLOR 1260	0.56	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5460	1.6	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z, L

Sample ID: **SL-049-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 8:25:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.84	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
AROCLOR 1260	0.84	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5460	1.8	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z, L

Sample ID: **SL-052-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 11:28:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.2	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
AROCLOR 1260	1.3	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5460	3.0	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z, L

Sample ID: **SL-053-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 1:20:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L

Sample ID: **SL-096-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 12:56:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **SL-096-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 12:56:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5442	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	L
Aroclor 5460	8.3		1.2	MDL	3.9	PQL	ug/Kg	J	L

Sample ID: **SL-098-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 11:05:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	7.9		0.37	MDL	1.9	PQL	ug/Kg	J	S
AROCLOR 1260	9.1		0.44	MDL	1.9	PQL	ug/Kg	J	S
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5460	9.3		1.1	MDL	3.7	PQL	ug/Kg	J	S, L

Sample ID: **SL-099-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 10:35:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.75	J	0.36	MDL	1.9	PQL	ug/Kg	J	Z
AROCLOR 1260	0.93	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5460	2.0	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z, L

Sample ID: **SL-100-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 8:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	L
Aroclor 5442	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	L
Aroclor 5460	3.8	J	1.2	MDL	3.9	PQL	ug/Kg	J	Z, L

Sample ID: **SL-101-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 9:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.4	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5460	1.5	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z, L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-102-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 9:18:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5460	1.7	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z, L

Sample ID: SL-241-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 10:50:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	L
Aroclor 5442	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	L
Aroclor 5460	19		1.2	MDL	3.8	PQL	ug/Kg	J	L

Sample ID: SL-242-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 11:18:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L

Method Category: SVOA

Method: 8151A **Matrix: SO**

Sample ID: DUP01-SA5A-QC-021811 ***Collected:*** 2/18/2011 10:35:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	190	U	190	MDL	280	PQL	ug/Kg	UJ	FD

Sample ID: SL-052-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 11:28:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICHLOROPROP	1.3	J	0.89	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-098-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 11:05:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.52	J	0.45	MDL	1.4	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8151A **Matrix: SO**

Sample ID: SL-099-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 10:35:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	550		84	MDL	280	PQL	ug/Kg	J	FD

Sample ID: SL-101-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 9:45:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.86	J	0.44	MDL	1.3	PQL	ug/Kg	J	Z

Sample ID: SL-241-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 10:50:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.77	J	0.46	MDL	1.4	PQL	ug/Kg	J	Z

Sample ID: SL-242-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 11:18:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.77	J	0.44	MDL	1.3	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-053-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 1:20:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	27	J	18	MDL	360	PQL	ug/Kg	J	Z, S

Sample ID: SL-096-SA5A-SS-0.0-0.5 ***Collected:*** 2/18/2011 12:56:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	140	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	85	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	66	J	19	MDL	190	PQL	ug/Kg	J	Z
CARBAZOLE	37	J	19	MDL	190	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	22	J	19	MDL	190	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	52	J	19	MDL	190	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-098-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 11:05:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	150	J	19	MDL	380	PQL	ug/Kg	J	Z
FLUORANTHENE	20	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: **SL-099-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 10:35:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	1300	U	1300	MDL	3600	PQL	ug/Kg	R	Q

Sample ID: **SL-241-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 10:50:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	27	J	19	MDL	390	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **DUP01-SA5A-QC-021811** ***Collected:*** **2/18/2011 10:35:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.79	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	6.7	MDL	20	PQL	ug/Kg	J	Z, FD
Butylbenzylphthalate	9.9	J	6.7	MDL	20	PQL	ug/Kg	J	Z, FD
CHRYSENE	1.1	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	1.2	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	0.82	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z, FD
PYRENE	1.0	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-049-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 8:25:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.76	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.8	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.81	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	1.8	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **SL-049-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 8:25:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHENANTHRENE	1.2	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.6	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-052-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 11:28:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	11	J	6.7	MDL	20	PQL	ug/Kg	J	Z
Butylbenzylphthalate	9.0	J	6.7	MDL	20	PQL	ug/Kg	J	Z
CHRYSENE	1.5	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-053-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 1:20:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.87	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.4	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.6	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	11	J	6.6	MDL	20	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.75	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
Di-n-butylphthalate	8.3	J	6.6	MDL	20	PQL	ug/Kg	U	B
Di-n-octylphthalate	8.0	J	6.6	MDL	20	PQL	ug/Kg	J	Z
NAPHTHALENE	1.2	J	0.73	MDL	1.8	PQL	ug/Kg	U	B

Sample ID: **SL-096-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 12:56:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **5**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	8.3	J	2.0	MDL	9.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	51	J	35	MDL	110	PQL	ug/Kg	J	Z
Di-n-butylphthalate	38	J	35	MDL	110	PQL	ug/Kg	U	B
Di-n-octylphthalate	42	J	35	MDL	110	PQL	ug/Kg	J	Z

Sample ID: **SL-098-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 11:05:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **5**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	4.0	J	3.8	MDL	9.4	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	4.6	J	3.8	MDL	9.4	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **SL-098-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 11:05:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **5**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Butylbenzylphthalate	57	J	34	MDL	100	PQL	ug/Kg	J	Z
Di-n-butylphthalate	39	J	34	MDL	100	PQL	ug/Kg	U	B
PHENANTHRENE	7.5	J	3.8	MDL	9.4	PQL	ug/Kg	J	Z

Sample ID: **SL-099-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 10:35:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.92	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.92	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	350		6.6	MDL	20	PQL	ug/Kg	J	FD
Butylbenzylphthalate	6.6	U	6.6	MDL	20	PQL	ug/Kg	UJ	FD
CHRYSENE	1.0	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	0.74	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	FD
PYRENE	0.74	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-100-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 8:50:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.2	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.3	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.8	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.99	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	17	J	7.1	MDL	21	PQL	ug/Kg	J	Z
Butylbenzylphthalate	12	J	7.1	MDL	21	PQL	ug/Kg	J	Z
FLUORENE	1.2	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: **SL-101-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 9:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.37	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.0	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.94	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **SL-101-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 9:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(K)FLUORANTHENE	0.80	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	15	J	6.6	MDL	20	PQL	ug/Kg	J	Z
Butylbenzylphthalate	10	J	6.6	MDL	20	PQL	ug/Kg	J	Z
FLUORENE	0.92	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.92	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-102-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 9:18:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.78	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.89	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.77	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	14	J	6.8	MDL	20	PQL	ug/Kg	J	Z
CHRYSENE	1.8	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.4	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.8	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-241-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 10:50:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.60	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
Butylbenzylphthalate	12	J	7.0	MDL	21	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.6	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-242-SA5A-SS-0.0-0.5** ***Collected:*** **2/18/2011 11:18:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	10	J	6.6	MDL	20	PQL	ug/Kg	J	Z
Butylbenzylphthalate	8.9	J	6.6	MDL	20	PQL	ug/Kg	J	Z
Di-n-octylphthalate	7.7	J	6.6	MDL	20	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DE086

Method Blank Outlier Report

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P05308BB220934	2/23/2011 9:34:00 AM	PHOSPHORUS	1.34 mg/Kg	DUP01-SA5A-QC-021811
		TIN	1.44 mg/Kg	SL-049-SA5A-SS-0.0-0.5
				SL-052-SA5A-SS-0.0-0.5
				SL-053-SA5A-SS-0.0-0.5
				SL-096-SA5A-SS-0.0-0.5
				SL-098-SA5A-SS-0.0-0.5
				SL-099-SA5A-SS-0.0-0.5
				SL-100-SA5A-SS-0.0-0.5
				SL-101-SA5A-SS-0.0-0.5
				SL-102-SA5A-SS-0.0-0.5
				SL-241-SA5A-SS-0.0-0.5
				SL-242-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP01-SA5A-QC-021811(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-049-SA5A-SS-0.0-0.5(RES)	TIN	2.45 mg/Kg	2.45U mg/Kg
SL-052-SA5A-SS-0.0-0.5(RES)	TIN	2.60 mg/Kg	2.60U mg/Kg
SL-053-SA5A-SS-0.0-0.5(RES)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-096-SA5A-SS-0.0-0.5(RES)	TIN	2.72 mg/Kg	2.72U mg/Kg
SL-098-SA5A-SS-0.0-0.5(RES)	TIN	2.98 mg/Kg	2.98U mg/Kg
SL-099-SA5A-SS-0.0-0.5(RES)	TIN	2.62 mg/Kg	2.62U mg/Kg
SL-100-SA5A-SS-0.0-0.5(RES)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-101-SA5A-SS-0.0-0.5(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-102-SA5A-SS-0.0-0.5(RES)	TIN	2.45 mg/Kg	2.45U mg/Kg
SL-241-SA5A-SS-0.0-0.5(RES)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-242-SA5A-SS-0.0-0.5(RES)	TIN	2.54 mg/Kg	2.54U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P05326AB221358A	3/3/2011 1:58:00 PM	ANTIMONY	0.189 mg/Kg	DUP01-SA5A-QC-021811
		BERYLLIUM	0.0329 mg/Kg	SL-049-SA5A-SS-0.0-0.5
		COBALT	0.0518 mg/Kg	SL-052-SA5A-SS-0.0-0.5
		COPPER	0.0816 mg/Kg	SL-053-SA5A-SS-0.0-0.5
		LEAD	0.0436 mg/Kg	SL-096-SA5A-SS-0.0-0.5
		NICKEL	0.124 mg/Kg	SL-098-SA5A-SS-0.0-0.5
		SILVER	0.0302 mg/Kg	SL-099-SA5A-SS-0.0-0.5
		THALLIUM	0.0958 mg/Kg	SL-100-SA5A-SS-0.0-0.5
		VANADIUM	0.0669 mg/Kg	SL-101-SA5A-SS-0.0-0.5
				SL-102-SA5A-SS-0.0-0.5
				SL-241-SA5A-SS-0.0-0.5
				SL-242-SA5A-SS-0.0-0.5

Method Blank Outlier Report

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P05326AB221358B	3/3/2011 1:58:00 PM	SELENIUM	0.0501 mg/Kg	DUP01-SA5A-QC-021811 SL-049-SA5A-SS-0.0-0.5 SL-052-SA5A-SS-0.0-0.5 SL-053-SA5A-SS-0.0-0.5 SL-096-SA5A-SS-0.0-0.5 SL-098-SA5A-SS-0.0-0.5 SL-099-SA5A-SS-0.0-0.5 SL-100-SA5A-SS-0.0-0.5 SL-101-SA5A-SS-0.0-0.5 SL-102-SA5A-SS-0.0-0.5 SL-241-SA5A-SS-0.0-0.5 SL-242-SA5A-SS-0.0-0.5
P05326AB221358C	3/3/2011 1:58:00 PM	MOLYBDENUM	0.0538 mg/Kg	DUP01-SA5A-QC-021811 SL-049-SA5A-SS-0.0-0.5 SL-052-SA5A-SS-0.0-0.5 SL-053-SA5A-SS-0.0-0.5 SL-096-SA5A-SS-0.0-0.5 SL-098-SA5A-SS-0.0-0.5 SL-099-SA5A-SS-0.0-0.5 SL-100-SA5A-SS-0.0-0.5 SL-101-SA5A-SS-0.0-0.5 SL-102-SA5A-SS-0.0-0.5 SL-241-SA5A-SS-0.0-0.5 SL-242-SA5A-SS-0.0-0.5
P05326AB221358D	3/3/2011 1:58:00 PM	BARIUM	0.110 mg/Kg	DUP01-SA5A-QC-021811 SL-049-SA5A-SS-0.0-0.5 SL-052-SA5A-SS-0.0-0.5 SL-053-SA5A-SS-0.0-0.5 SL-096-SA5A-SS-0.0-0.5 SL-098-SA5A-SS-0.0-0.5 SL-099-SA5A-SS-0.0-0.5 SL-100-SA5A-SS-0.0-0.5 SL-101-SA5A-SS-0.0-0.5 SL-102-SA5A-SS-0.0-0.5 SL-241-SA5A-SS-0.0-0.5 SL-242-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP01-SA5A-QC-021811(REA2)	SELENIUM	0.183 mg/Kg	0.183U mg/Kg
DUP01-SA5A-QC-021811(RES)	ANTIMONY	0.203 mg/Kg	0.203U mg/Kg
DUP01-SA5A-QC-021811(RES)	SILVER	0.0822 mg/Kg	0.0822U mg/Kg
DUP01-SA5A-QC-021811(RES)	THALLIUM	0.433 mg/Kg	0.433U mg/Kg
SL-049-SA5A-SS-0.0-0.5(REA2)	SELENIUM	0.152 mg/Kg	0.152U mg/Kg
SL-049-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.137 mg/Kg	0.137U mg/Kg
SL-049-SA5A-SS-0.0-0.5(RES)	SILVER	0.0666 mg/Kg	0.0666U mg/Kg
SL-049-SA5A-SS-0.0-0.5(RES)	THALLIUM	0.308 mg/Kg	0.308U mg/Kg
SL-052-SA5A-SS-0.0-0.5(REA2)	SELENIUM	0.157 mg/Kg	0.157U mg/Kg
SL-052-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.135 mg/Kg	0.135U mg/Kg
SL-052-SA5A-SS-0.0-0.5(RES)	SILVER	0.0631 mg/Kg	0.0631U mg/Kg
SL-052-SA5A-SS-0.0-0.5(RES)	THALLIUM	0.393 mg/Kg	0.393U mg/Kg
SL-053-SA5A-SS-0.0-0.5(REA2)	SELENIUM	0.163 mg/Kg	0.163U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-053-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.160 mg/Kg	0.160U mg/Kg
SL-053-SA5A-SS-0.0-0.5(RES)	SILVER	0.0660 mg/Kg	0.0660U mg/Kg
SL-053-SA5A-SS-0.0-0.5(RES)	THALLIUM	0.311 mg/Kg	0.311U mg/Kg
SL-096-SA5A-SS-0.0-0.5(REA2)	SELENIUM	0.157 mg/Kg	0.157U mg/Kg
SL-096-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.218 mg/Kg	0.218U mg/Kg
SL-096-SA5A-SS-0.0-0.5(RES)	SILVER	0.0918 mg/Kg	0.0918U mg/Kg
SL-096-SA5A-SS-0.0-0.5(RES)	THALLIUM	0.357 mg/Kg	0.357U mg/Kg
SL-098-SA5A-SS-0.0-0.5(REA2)	SELENIUM	0.135 mg/Kg	0.135U mg/Kg
SL-098-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.773 mg/Kg	0.773U mg/Kg
SL-098-SA5A-SS-0.0-0.5(RES)	THALLIUM	0.397 mg/Kg	0.397U mg/Kg
SL-099-SA5A-SS-0.0-0.5(REA2)	SELENIUM	0.159 mg/Kg	0.159U mg/Kg
SL-099-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.124 mg/Kg	0.124U mg/Kg
SL-099-SA5A-SS-0.0-0.5(RES)	SILVER	0.0663 mg/Kg	0.0663U mg/Kg
SL-099-SA5A-SS-0.0-0.5(RES)	THALLIUM	0.334 mg/Kg	0.334U mg/Kg
SL-100-SA5A-SS-0.0-0.5(REA2)	SELENIUM	0.157 mg/Kg	0.157U mg/Kg
SL-100-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.102 mg/Kg	0.102U mg/Kg
SL-100-SA5A-SS-0.0-0.5(RES)	SILVER	0.135 mg/Kg	0.135U mg/Kg
SL-100-SA5A-SS-0.0-0.5(RES)	THALLIUM	0.325 mg/Kg	0.325U mg/Kg
SL-101-SA5A-SS-0.0-0.5(REA2)	SELENIUM	0.146 mg/Kg	0.146U mg/Kg
SL-101-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.123 mg/Kg	0.123U mg/Kg
SL-101-SA5A-SS-0.0-0.5(RES)	SILVER	0.0680 mg/Kg	0.0680U mg/Kg
SL-101-SA5A-SS-0.0-0.5(RES)	THALLIUM	0.326 mg/Kg	0.326U mg/Kg
SL-102-SA5A-SS-0.0-0.5(REA2)	SELENIUM	0.124 mg/Kg	0.124U mg/Kg
SL-102-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.103 mg/Kg	0.103U mg/Kg
SL-102-SA5A-SS-0.0-0.5(RES)	SILVER	0.0872 mg/Kg	0.0872U mg/Kg
SL-102-SA5A-SS-0.0-0.5(RES)	THALLIUM	0.314 mg/Kg	0.314U mg/Kg
SL-241-SA5A-SS-0.0-0.5(REA2)	SELENIUM	0.234 mg/Kg	0.234U mg/Kg
SL-241-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.276 mg/Kg	0.276U mg/Kg
SL-241-SA5A-SS-0.0-0.5(RES)	THALLIUM	0.381 mg/Kg	0.381U mg/Kg
SL-242-SA5A-SS-0.0-0.5(REA2)	SELENIUM	0.144 mg/Kg	0.144U mg/Kg
SL-242-SA5A-SS-0.0-0.5(RES)	ANTIMONY	0.0996 mg/Kg	0.0996U mg/Kg
SL-242-SA5A-SS-0.0-0.5(RES)	SILVER	0.0619 mg/Kg	0.0619U mg/Kg
SL-242-SA5A-SS-0.0-0.5(RES)	THALLIUM	0.382 mg/Kg	0.382U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLK05B262220	2/27/2011 10:20:00 PM	Di-n-butylphthalate NAPHTHALENE	6.1 ug/Kg 1.1 ug/Kg	DUP01-SA5A-QC-021811 SL-049-SA5A-SS-0.0-0.5 SL-052-SA5A-SS-0.0-0.5 SL-053-SA5A-SS-0.0-0.5 SL-096-SA5A-SS-0.0-0.5 SL-098-SA5A-SS-0.0-0.5 SL-099-SA5A-SS-0.0-0.5 SL-100-SA5A-SS-0.0-0.5 SL-101-SA5A-SS-0.0-0.5 SL-102-SA5A-SS-0.0-0.5 SL-241-SA5A-SS-0.0-0.5 SL-242-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-053-SA5A-SS-0.0-0.5(RES)	Di-n-butylphthalate	8.3 ug/Kg	20U ug/Kg
SL-053-SA5A-SS-0.0-0.5(RES)	NAPHTHALENE	1.2 ug/Kg	1.8U ug/Kg
SL-096-SA5A-SS-0.0-0.5(RES)	Di-n-butylphthalate	38 ug/Kg	110U ug/Kg
SL-098-SA5A-SS-0.0-0.5(RES)	Di-n-butylphthalate	39 ug/Kg	100U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-099-SA5A-SS-0.0-0.5MS **SL-099-SA5A-SS-0.0-0.5MSD** (DUP01-SA5A-QC-021811 SL-049-SA5A-SS-0.0-0.5 SL-052-SA5A-SS-0.0-0.5 SL-053-SA5A-SS-0.0-0.5 SL-096-SA5A-SS-0.0-0.5 SL-098-SA5A-SS-0.0-0.5 SL-099-SA5A-SS-0.0-0.5 SL-100-SA5A-SS-0.0-0.5 SL-101-SA5A-SS-0.0-0.5 SL-102-SA5A-SS-0.0-0.5 SL-241-SA5A-SS-0.0-0.5 SL-242-SA5A-SS-0.0-0.5)	ARSENIC BERYLLIUM CHROMIUM COPPER NICKEL SILVER THALLIUM VANADIUM	151 126 152 130 136 134 126 180	- - 134 - 131 128 - 143	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - - - -	ARSENIC BERYLLIUM CHROMIUM COPPER NICKEL SILVER THALLIUM VANADIUM	J (all detects)
SL-099-SA5A-SS-0.0-0.5MS **SL-099-SA5A-SS-0.0-0.5MSD** (DUP01-SA5A-QC-021811 SL-049-SA5A-SS-0.0-0.5 SL-052-SA5A-SS-0.0-0.5 SL-053-SA5A-SS-0.0-0.5 SL-096-SA5A-SS-0.0-0.5 SL-098-SA5A-SS-0.0-0.5 SL-099-SA5A-SS-0.0-0.5 SL-100-SA5A-SS-0.0-0.5 SL-101-SA5A-SS-0.0-0.5 SL-102-SA5A-SS-0.0-0.5 SL-241-SA5A-SS-0.0-0.5 SL-242-SA5A-SS-0.0-0.5)	ANTIMONY	46	48	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)
SL-099-SA5A-SS-0.0-0.5MS **SL-099-SA5A-SS-0.0-0.5MSD** (DUP01-SA5A-QC-021811 SL-049-SA5A-SS-0.0-0.5 SL-052-SA5A-SS-0.0-0.5 SL-053-SA5A-SS-0.0-0.5 SL-096-SA5A-SS-0.0-0.5 SL-098-SA5A-SS-0.0-0.5 SL-099-SA5A-SS-0.0-0.5 SL-100-SA5A-SS-0.0-0.5 SL-101-SA5A-SS-0.0-0.5 SL-102-SA5A-SS-0.0-0.5 SL-241-SA5A-SS-0.0-0.5 SL-242-SA5A-SS-0.0-0.5)	MOLYBDENUM	133	126	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-099-SA5A-SS-0.0-0.5MS (DUP01-SA5A-QC-021811 SL-049-SA5A-SS-0.0-0.5 SL-052-SA5A-SS-0.0-0.5 SL-053-SA5A-SS-0.0-0.5 SL-096-SA5A-SS-0.0-0.5 SL-098-SA5A-SS-0.0-0.5 SL-099-SA5A-SS-0.0-0.5 SL-100-SA5A-SS-0.0-0.5 SL-101-SA5A-SS-0.0-0.5 SL-102-SA5A-SS-0.0-0.5 SL-241-SA5A-SS-0.0-0.5 SL-242-SA5A-SS-0.0-0.5)	BARIUM	166	-	75.00-125.00	-	BARIUM	No Qual, >4x

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-099-SA5A-SS-0.0-0.5MS	ALUMINUM	2126	1985	75.00-125.00	-	ALUMINUM	
SL-099-SA5A-SS-0.0-0.5MSD	CALCIUM	170	177	75.00-125.00	-	CALCIUM	
(DUP01-SA5A-QC-021811	IRON	1931	1123	75.00-125.00	-	IRON	J(all detects)
SL-049-SA5A-SS-0.0-0.5	MAGNESIUM	201	210	75.00-125.00	-	MAGNESIUM	
SL-052-SA5A-SS-0.0-0.5	MANGANESE	182	178	75.00-125.00	-	MANGANESE	Al, Ca, Fe,
SL-053-SA5A-SS-0.0-0.5	POTASSIUM	128	127	75.00-125.00	-	POTASSIUM	Mg, Mn, Ti
SL-096-SA5A-SS-0.0-0.5	TITANIUM	287	278	75.00-125.00	-	TITANIUM	No Qual. >4x
SL-098-SA5A-SS-0.0-0.5							
SL-099-SA5A-SS-0.0-0.5							
SL-100-SA5A-SS-0.0-0.5							
SL-101-SA5A-SS-0.0-0.5							
SL-102-SA5A-SS-0.0-0.5							
SL-241-SA5A-SS-0.0-0.5							
SL-242-SA5A-SS-0.0-0.5)							

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-099-SA5A-SS-0.0-0.5MS	BENZIDINE	0	0	35.00-141.00	-	BENZIDINE	J(all detects)
SL-099-SA5A-SS-0.0-0.5MSD							R(all non-detects)
(SL-099-SA5A-SS-0.0-0.5)							

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-099-SA5A-SS-0.0-0.5MS	BIS(2-ETHYLHEXYL)PHTHALAT	-801	-787	39.00-167.00	-	BIS(2-ETHYLHEXYL)PHTHALA	No Qual, >4x
SL-099-SA5A-SS-0.0-0.5MSD							
(SL-099-SA5A-SS-0.0-0.5)							

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-099-SA5A-SS-0.0-0.5MS	FLUORIDE	56	-	80.00-120.00	-	FLUORIDE	
(DUP01-SA5A-QC-021811							
SL-049-SA5A-SS-0.0-0.5							
SL-052-SA5A-SS-0.0-0.5							
SL-053-SA5A-SS-0.0-0.5							J(all detects)
SL-096-SA5A-SS-0.0-0.5							UJ(all non-detects)
SL-098-SA5A-SS-0.0-0.5							
SL-099-SA5A-SS-0.0-0.5							
SL-100-SA5A-SS-0.0-0.5							
SL-101-SA5A-SS-0.0-0.5							
SL-102-SA5A-SS-0.0-0.5)							
SL-241-SA5A-SS-0.0-0.5MS	FLUORIDE	56	-	80.00-120.00	-	FLUORIDE	J(all detects)
(SL-241-SA5A-SS-0.0-0.5							UJ(all non-detects)
SL-242-SA5A-SS-0.0-0.5)							

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8081A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-099-SA5A-SS-0.0-0.5MSD (SL-099-SA5A-SS-0.0-0.5)	4,4'-DDD 4,4'-DDE 4,4'-DDT	- - -	- 172 -	16.00-163.00 18.00-161.00 10.00-176.00	54 (50.00) - 52 (50.00)	4,4'-DDD 4,4'-DDE 4,4'-DDT	J(all detects)

Method: 8151A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-099-SA5A-SS-0.0-0.5MSD (SL-099-SA5A-SS-0.0-0.5)	DALAPON DINOSEB	- -	- -	12.00-86.00 1.00-44.00	80 (50.00) 63 (35.00)	DALAPON DINOSEB	J(all detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-099-SA5A-SS-0.0-0.5DUP (DUP01-SA5A-QC-021811 SL-049-SA5A-SS-0.0-0.5 SL-052-SA5A-SS-0.0-0.5 SL-053-SA5A-SS-0.0-0.5 SL-096-SA5A-SS-0.0-0.5 SL-098-SA5A-SS-0.0-0.5 SL-099-SA5A-SS-0.0-0.5 SL-100-SA5A-SS-0.0-0.5 SL-101-SA5A-SS-0.0-0.5 SL-102-SA5A-SS-0.0-0.5 SL-241-SA5A-SS-0.0-0.5 SL-242-SA5A-SS-0.0-0.5)	BORON	24	20.00	No Qual OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-099-SA5A-SS-0.0-0.5DUP (DUP01-SA5A-QC-021811 SL-049-SA5A-SS-0.0-0.5 SL-052-SA5A-SS-0.0-0.5 SL-053-SA5A-SS-0.0-0.5 SL-096-SA5A-SS-0.0-0.5 SL-098-SA5A-SS-0.0-0.5 SL-099-SA5A-SS-0.0-0.5 SL-100-SA5A-SS-0.0-0.5 SL-101-SA5A-SS-0.0-0.5 SL-102-SA5A-SS-0.0-0.5 SL-241-SA5A-SS-0.0-0.5 SL-242-SA5A-SS-0.0-0.5)	ANTIMONY	31	20.00	J(all detects) UJ(all non-detects) Sb, Se No Qual OK by difference
	COBALT	84	20.00	
	MOLYBDENUM	22	20.00	
	SELENIUM	31	20.00	

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-099-SA5A-SS-0.0-0.5DUP (DUP01-SA5A-QC-021811 SL-049-SA5A-SS-0.0-0.5 SL-052-SA5A-SS-0.0-0.5 SL-053-SA5A-SS-0.0-0.5 SL-096-SA5A-SS-0.0-0.5 SL-098-SA5A-SS-0.0-0.5 SL-099-SA5A-SS-0.0-0.5 SL-100-SA5A-SS-0.0-0.5 SL-101-SA5A-SS-0.0-0.5 SL-102-SA5A-SS-0.0-0.5 SL-241-SA5A-SS-0.0-0.5 SL-242-SA5A-SS-0.0-0.5)	MERCURY	200	20.00	No Qual OK by difference

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P05326AQ221401A (DUP01 -SA5A -QC -021811 SL -049 -SA5A -SS -0.0 -0.5 SL -052 -SA5A -SS -0.0 -0.5 SL -053 -SA5A -SS -0.0 -0.5 SL -096 -SA5A -SS -0.0 -0.5 SL -098 -SA5A -SS -0.0 -0.5 SL -099 -SA5A -SS -0.0 -0.5 SL -100 -SA5A -SS -0.0 -0.5 SL -101 -SA5A -SS -0.0 -0.5 SL -102 -SA5A -SS -0.0 -0.5 SL -241 -SA5A -SS -0.0 -0.5 SL -242 -SA5A -SS -0.0 -0.5)	ANTIMONY	73	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10550AQ240849A **P10550AY240830A** (DUP01 -SA5A -QC -021811 SL -049 -SA5A -SS -0.0 -0.5 SL -052 -SA5A -SS -0.0 -0.5 SL -053 -SA5A -SS -0.0 -0.5 SL -096 -SA5A -SS -0.0 -0.5 SL -098 -SA5A -SS -0.0 -0.5 SL -099 -SA5A -SS -0.0 -0.5 SL -100 -SA5A -SS -0.0 -0.5 SL -101 -SA5A -SS -0.0 -0.5 SL -102 -SA5A -SS -0.0 -0.5 SL -241 -SA5A -SS -0.0 -0.5 SL -242 -SA5A -SS -0.0 -0.5)	Aroclor 5442	62	69	75.00-125.00	-	Aroclor 5432, 5442, 5460	J(all detects) UJ(all non-detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8081A
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-100-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	183	20.00-120.00	All Target Analytes	J(all detects)
SL-102-SA5A-SS-0.0-0.5	TETRACHLORO-M-XYLENE	26	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-098-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	164	45.00-120.00	All Target Analytes	J(all detects)

Method: 8270C
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-053-SA5A-SS-0.0-0.5	2,4,6-TRIBROMOPHENOL	194	35.00-130.00	All Target Analytes	J (all detects)
	2-FLUOROBIPHENYL	169	45.00-130.00		
	2-FLUOROPHENOL	172	25.00-130.00		
	Nitrobenzene-d5	154	40.00-130.00		
	PHENOL-D6	170	25.00-120.00		
	Terphenyl-d14	158	45.00-135.00		
SL-099-SA5A-SS-0.0-0.5	2,4,6-TRIBROMOPHENOL	147	35.00-130.00	All Target Analytes	J(all detects)
	2-FLUOROBIPHENYL	143	45.00-130.00		
	2-FLUOROPHENOL	143	25.00-130.00		
	PHENOL-D6	138	25.00-120.00		
	Terphenyl-d14	147	45.00-135.00		

Field Duplicate RPD Report

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-099-SA5A-SS-0.0-0.5	DUP01-SA5A-QC-021811			
MOISTURE	9.4	9.9	5		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-099-SA5A-SS-0.0-0.5	DUP01-SA5A-QC-021811			
FLUORIDE	1.6	1.5	6	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-099-SA5A-SS-0.0-0.5	DUP01-SA5A-QC-021811			
ALUMINUM	16300	17700	8	50.00	No Qualifiers Applied
BORON	2.57	2.61	2	50.00	
CALCIUM	2300	2460	7	50.00	
IRON	20200	22100	9	50.00	
LITHIUM	21.8	23.6	8	50.00	
MAGNESIUM	3870	4090	6	50.00	
MANGANESE	298	312	5	50.00	
PHOSPHORUS	333	341	2	50.00	
POTASSIUM	3150	3260	3	50.00	
SODIUM	77.2	80.0	4	50.00	
STRONTIUM	18.8	19.9	6	50.00	
TIN	2.62	2.65	1	50.00	
TITANIUM	988	1070	8	50.00	
Zirconium	3.42	3.40	1	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-099-SA5A-SS-0.0-0.5	DUP01-SA5A-QC-021811			
ANTIMONY	0.124	0.203	48	50.00	No Qualifiers Applied
ARSENIC	6.17	7.14	15	50.00	
BARIUM	126	142	12	50.00	
BERYLLIUM	0.774	0.942	20	50.00	
CADMIUM	0.189	0.220	15	50.00	
CHROMIUM	23.1	26.9	15	50.00	
COBALT	17.4	10.4	50	50.00	
COPPER	10.2	11.5	12	50.00	
LEAD	12.9	13.9	7	50.00	
MOLYBDENUM	0.782	0.881	12	50.00	
NICKEL	16.7	18.6	11	50.00	
SELENIUM	0.159	0.183	14	50.00	
SILVER	0.0663	0.0822	21	50.00	
THALLIUM	0.334	0.433	26	50.00	
VANADIUM	42.5	50.7	18	50.00	
ZINC	54.7	54.1	1	50.00	

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-099-SA5A-SS-0.0-0.5	DUP01-SA5A-QC-021811			
HEXAVALENT CHROMIUM	0.58	0.27	73	50.00	No Qualifiers Applied

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-099-SA5A-SS-0.0-0.5	DUP01-SA5A-QC-021811			
MERCURY	0.0031	0.105 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 8081A
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-099-SA5A-SS-0.0-0.5	DUP01-SA5A-QC-021811			
4,4'-DDT	0.31	0.42	30	50.00	No Qualifiers Applied
4,4'-DDE	0.081	0.14	53	50.00	J(all detects) UJ(all non-detects)
ENDRIN ALDEHYDE	0.37 U	0.11	200	50.00	
ENDRIN KETONE	0.37 U	0.13	200	50.00	

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-099-SA5A-SS-0.0-0.5	DUP01-SA5A-QC-021811			
AROCLOR 1254	0.75	0.78	4	50.00	No Qualifiers Applied
AROCLOR 1260	0.93	0.56	50	50.00	
Aroclor 5460	2.0	1.6	22	50.00	

Method: 8151A
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-099-SA5A-SS-0.0-0.5	DUP01-SA5A-QC-021811			
MCPA	550	280 U	200	50.00	J(all detects) UJ(all non-detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-099-SA5A-SS-0.0-0.5	DUP01-SA5A-QC-021811			
BENZO(B)FLUORANTHENE	0.92	1.1	18	50.00	No Qualifiers Applied
BENZO(G,H,I)PERYLENE	0.92	0.79	15	50.00	
CHRYSENE	1.0	1.1	10	50.00	
FLUORANTHENE	0.74	1.2	47	50.00	
PYRENE	0.74	1.0	30	50.00	
BIS(2-ETHYLHEXYL)PHTHALATE	350	13	186	50.00	J(all detects) UJ(all non-detects)
Butylbenzylphthalate	20 U	9.9	200	50.00	
PHENANTHRENE	1.8 U	0.82	200	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-099-SA5A-SS-0.0-0.5	DUP01-SA5A-QC-021811			
PH	6.93	6.56	5	50.00	No Qualifiers Applied

Method: ASTM D1498
Matrix: SO

Analyte	Concentration (mV)		Sample RPD	eQAPP RPD	Flag
	SL-099-SA5A-SS-0.0-0.5	DUP01-SA5A-QC-021811			
Oxidation Reduction Potential	503	413	20		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-096-SA5A-SS-0.0-0.5	FLUORIDE	J	0.99	1.2	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5A-QC-021811	BORON	J	2.61	5.55	PQL	mg/Kg	J (all detects)
	SODIUM	J	80.0	111	PQL	mg/Kg	
	TIN	J	2.65	11.1	PQL	mg/Kg	
	Zirconium	J	3.40	5.55	PQL	mg/Kg	
SL-049-SA5A-SS-0.0-0.5	BORON	J	1.87	5.48	PQL	mg/Kg	J (all detects)
	SODIUM	J	88.3	110	PQL	mg/Kg	
	TIN	J	2.45	11.0	PQL	mg/Kg	
	Zirconium	J	3.25	5.48	PQL	mg/Kg	
SL-052-SA5A-SS-0.0-0.5	BORON	J	2.23	5.49	PQL	mg/Kg	J (all detects)
	SODIUM	J	93.4	110	PQL	mg/Kg	
	TIN	J	2.60	11.0	PQL	mg/Kg	
	Zirconium	J	3.46	5.49	PQL	mg/Kg	
SL-053-SA5A-SS-0.0-0.5	BORON	J	2.18	5.32	PQL	mg/Kg	J (all detects)
	SODIUM	J	83.1	106	PQL	mg/Kg	
	TIN	J	2.67	10.6	PQL	mg/Kg	
	Zirconium	J	3.27	5.32	PQL	mg/Kg	
SL-096-SA5A-SS-0.0-0.5	BORON	J	2.82	5.69	PQL	mg/Kg	J (all detects)
	SODIUM	J	91.3	114	PQL	mg/Kg	
	TIN	J	2.72	11.4	PQL	mg/Kg	
	Zirconium	J	3.10	5.69	PQL	mg/Kg	
SL-098-SA5A-SS-0.0-0.5	BORON	J	2.31	5.55	PQL	mg/Kg	J (all detects)
	SODIUM	J	85.6	111	PQL	mg/Kg	
	TIN	J	2.98	11.1	PQL	mg/Kg	
	Zirconium	J	2.84	5.55	PQL	mg/Kg	
SL-099-SA5A-SS-0.0-0.5	BORON	J	2.57	5.41	PQL	mg/Kg	J (all detects)
	SODIUM	J	77.2	108	PQL	mg/Kg	
	TIN	J	2.62	10.8	PQL	mg/Kg	
	Zirconium	J	3.42	5.41	PQL	mg/Kg	
SL-100-SA5A-SS-0.0-0.5	BORON	J	2.48	5.74	PQL	mg/Kg	J (all detects)
	SODIUM	J	84.1	115	PQL	mg/Kg	
	TIN	J	2.67	11.5	PQL	mg/Kg	
	Zirconium	J	2.54	5.74	PQL	mg/Kg	
SL-101-SA5A-SS-0.0-0.5	BORON	J	2.50	5.37	PQL	mg/Kg	J (all detects)
	SODIUM	J	87.1	107	PQL	mg/Kg	
	TIN	J	2.65	10.7	PQL	mg/Kg	
	Zirconium	J	3.02	5.37	PQL	mg/Kg	
SL-102-SA5A-SS-0.0-0.5	BORON	J	2.59	5.56	PQL	mg/Kg	J (all detects)
	SODIUM	J	83.3	111	PQL	mg/Kg	
	TIN	J	2.45	11.1	PQL	mg/Kg	
	Zirconium	J	2.72	5.56	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-241-SA5A-SS-0.0-0.5	BORON	J	2.62	5.68	PQL	mg/Kg	J (all detects)
	SODIUM	J	79.9	114	PQL	mg/Kg	
	TIN	J	2.67	11.4	PQL	mg/Kg	
	Zirconium	J	3.13	5.68	PQL	mg/Kg	
SL-242-SA5A-SS-0.0-0.5	BORON	J	2.28	5.36	PQL	mg/Kg	J (all detects)
	SODIUM	J	94.6	107	PQL	mg/Kg	
	TIN	J	2.54	10.7	PQL	mg/Kg	
	Zirconium	J	3.79	5.36	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5A-QC-021811	ANTIMONY	J	0.203	0.222	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.183	0.444	PQL	mg/Kg	
	SILVER	J	0.0822	0.111	PQL	mg/Kg	
SL-049-SA5A-SS-0.0-0.5	ANTIMONY	J	0.137	0.217	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.152	0.434	PQL	mg/Kg	
	SILVER	J	0.0666	0.109	PQL	mg/Kg	
SL-052-SA5A-SS-0.0-0.5	ANTIMONY	J	0.135	0.220	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.157	0.440	PQL	mg/Kg	
	SILVER	J	0.0631	0.110	PQL	mg/Kg	
SL-053-SA5A-SS-0.0-0.5	ANTIMONY	J	0.160	0.211	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.163	0.421	PQL	mg/Kg	
	SILVER	J	0.0660	0.105	PQL	mg/Kg	
SL-096-SA5A-SS-0.0-0.5	ANTIMONY	J	0.218	0.225	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.157	0.451	PQL	mg/Kg	
	SILVER	J	0.0918	0.113	PQL	mg/Kg	
SL-098-SA5A-SS-0.0-0.5	SELENIUM	J	0.135	0.444	PQL	mg/Kg	J (all detects)
SL-099-SA5A-SS-0.0-0.5	ANTIMONY	J	0.124	0.212	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.159	0.425	PQL	mg/Kg	
	SILVER	J	0.0663	0.106	PQL	mg/Kg	
SL-100-SA5A-SS-0.0-0.5	ANTIMONY	J	0.102	0.234	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.157	0.468	PQL	mg/Kg	
SL-101-SA5A-SS-0.0-0.5	ANTIMONY	J	0.123	0.217	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.146	0.434	PQL	mg/Kg	
	SILVER	J	0.0680	0.108	PQL	mg/Kg	
SL-102-SA5A-SS-0.0-0.5	ANTIMONY	J	0.103	0.220	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.124	0.440	PQL	mg/Kg	
	SILVER	J	0.0872	0.110	PQL	mg/Kg	
SL-241-SA5A-SS-0.0-0.5	SELENIUM	J	0.234	0.459	PQL	mg/Kg	J (all detects)
SL-242-SA5A-SS-0.0-0.5	ANTIMONY	J	0.0996	0.217	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.144	0.433	PQL	mg/Kg	
	SILVER	J	0.0619	0.108	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5A-QC-021811	HEXAVALENT CHROMIUM	J	0.27	1.1	PQL	mg/Kg	J (all detects)
SL-049-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.34	1.1	PQL	mg/Kg	J (all detects)
SL-052-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.71	1.1	PQL	mg/Kg	J (all detects)
SL-096-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.99	1.2	PQL	mg/Kg	J (all detects)
SL-098-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.67	1.1	PQL	mg/Kg	J (all detects)
SL-099-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.58	1.1	PQL	mg/Kg	J (all detects)
SL-100-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.44	1.2	PQL	mg/Kg	J (all detects)
SL-101-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.60	1.1	PQL	mg/Kg	J (all detects)
SL-102-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.51	1.1	PQL	mg/Kg	J (all detects)
SL-242-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.36	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-098-SA5A-SS-0.0-0.5	MERCURY	J	0.0157	0.112	PQL	mg/Kg	J (all detects)
SL-099-SA5A-SS-0.0-0.5	MERCURY	J	0.0031	0.104	PQL	mg/Kg	J (all detects)
SL-100-SA5A-SS-0.0-0.5	MERCURY	J	0.0036	0.115	PQL	mg/Kg	J (all detects)
SL-241-SA5A-SS-0.0-0.5	MERCURY	J	0.0070	0.113	PQL	mg/Kg	J (all detects)

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5A-QC-021811	4,4'-DDE	J	0.14	0.38	PQL	ug/Kg	J (all detects)
	ENDRIN ALDEHYDE	J	0.11	0.38	PQL	ug/Kg	
	ENDRIN KETONE	J	0.13	0.38	PQL	ug/Kg	
SL-052-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.095	0.38	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.29	0.38	PQL	ug/Kg	
	DELTA-BHC	J	0.11	0.18	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.12	0.38	PQL	ug/Kg	
SL-053-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.13	0.37	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.30	0.37	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.077	0.37	PQL	ug/Kg	
SL-096-SA5A-SS-0.0-0.5	ENDRIN ALDEHYDE	J	0.20	0.40	PQL	ug/Kg	J (all detects)
SL-098-SA5A-SS-0.0-0.5	ENDOSULFAN II	J	0.28	0.38	PQL	ug/Kg	J (all detects)
SL-099-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.081	0.37	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.31	0.37	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-100-SA5A-SS-0.0-0.5	DELTA-BHC	J	0.099	0.20	PQL	ug/Kg	J (all detects)
SL-241-SA5A-SS-0.0-0.5	DELTA-BHC	J	0.068	0.19	PQL	ug/Kg	J (all detects)
	DIELDRIN	J	0.23	0.39	PQL	ug/Kg	
	ENDOSULFAN II	J	0.18	0.39	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.24	0.39	PQL	ug/Kg	
	MIREX	J	0.35	0.39	PQL	ug/Kg	

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5A-QC-021811	AROCLOR 1254	J	0.78	1.9	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.56	1.9	PQL	ug/Kg	
	Aroclor 5460	J	1.6	3.7	PQL	ug/Kg	
SL-049-SA5A-SS-0.0-0.5	AROCLOR 1254	J	0.84	1.9	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.84	1.9	PQL	ug/Kg	
	Aroclor 5460	J	1.8	3.7	PQL	ug/Kg	
SL-052-SA5A-SS-0.0-0.5	AROCLOR 1254	J	1.2	1.9	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	1.3	1.9	PQL	ug/Kg	
	Aroclor 5460	J	3.0	3.7	PQL	ug/Kg	
SL-099-SA5A-SS-0.0-0.5	AROCLOR 1254	J	0.75	1.9	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.93	1.9	PQL	ug/Kg	
	Aroclor 5460	J	2.0	3.6	PQL	ug/Kg	
SL-100-SA5A-SS-0.0-0.5	Aroclor 5460	J	3.8	3.9	PQL	ug/Kg	J (all detects)
SL-101-SA5A-SS-0.0-0.5	AROCLOR 1254	J	1.4	1.9	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	1.5	3.7	PQL	ug/Kg	
SL-102-SA5A-SS-0.0-0.5	Aroclor 5460	J	1.7	3.7	PQL	ug/Kg	J (all detects)

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-052-SA5A-SS-0.0-0.5	DICHLOROPROP	J	1.3	1.9	PQL	ug/Kg	J (all detects)
SL-098-SA5A-SS-0.0-0.5	DICAMBA	J	0.52	1.4	PQL	ug/Kg	J (all detects)
SL-101-SA5A-SS-0.0-0.5	DICAMBA	J	0.86	1.3	PQL	ug/Kg	J (all detects)
SL-241-SA5A-SS-0.0-0.5	DICAMBA	J	0.77	1.4	PQL	ug/Kg	J (all detects)
SL-242-SA5A-SS-0.0-0.5	DICAMBA	J	0.77	1.3	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-053-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	360	PQL	ug/Kg	J (all detects)
SL-096-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	140	190	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	85	190	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	66	190	PQL	ug/Kg	
	CARBAZOLE	J	37	190	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	22	190	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	52	190	PQL	ug/Kg	
SL-098-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	150	380	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	20	190	PQL	ug/Kg	
SL-241-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	390	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5A-QC-021811	BENZO(B)FLUORANTHENE	J	1.1	1.8	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.79	1.8	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	20	PQL	ug/Kg	
	Butylbenzylphthalate	J	9.9	20	PQL	ug/Kg	
	CHRYSENE	J	1.1	1.8	PQL	ug/Kg	
	FLUORANTHENE	J	1.2	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	0.82	1.8	PQL	ug/Kg	
	PYRENE	J	1.0	1.8	PQL	ug/Kg	
SL-049-SA5A-SS-0.0-0.5	BENZO(A)PYRENE	J	0.76	1.9	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.8	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.81	1.9	PQL	ug/Kg	
	CHRYSENE	J	1.8	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	1.9	PQL	ug/Kg	
	PYRENE	J	1.6	1.9	PQL	ug/Kg	
SL-052-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	11	20	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	9.0	20	PQL	ug/Kg	
	CHRYSENE	J	1.5	1.8	PQL	ug/Kg	
SL-053-SA5A-SS-0.0-0.5	ANTHRACENE	J	0.87	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	1.4	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.6	1.8	PQL	ug/Kg	
	Butylbenzylphthalate	J	11	20	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.75	1.8	PQL	ug/Kg	
	Di-n-butylphthalate	J	8.3	20	PQL	ug/Kg	
	Di-n-octylphthalate	J	8.0	20	PQL	ug/Kg	
	NAPHTHALENE	J	1.2	1.8	PQL	ug/Kg	
SL-096-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	8.3	9.8	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	51	110	PQL	ug/Kg	
	Di-n-butylphthalate	J	38	110	PQL	ug/Kg	
	Di-n-octylphthalate	J	42	110	PQL	ug/Kg	
SL-098-SA5A-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	4.0	9.4	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	4.6	9.4	PQL	ug/Kg	
	Butylbenzylphthalate	J	57	100	PQL	ug/Kg	
	Di-n-butylphthalate	J	39	100	PQL	ug/Kg	
	PHENANTHRENE	J	7.5	9.4	PQL	ug/Kg	

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE086 **Laboratory: LL**

EDD Filename: DE086_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-099-SA5A-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	0.92	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.92	1.8	PQL	ug/Kg	
	CHRYSENE	J	1.0	1.8	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	0.74	1.8	PQL	ug/Kg	
	PYRENE	J	0.74	1.8	PQL	ug/Kg	
SL-100-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.2	2.0	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.3	2.0	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.8	2.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.99	2.0	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	17	21	PQL	ug/Kg	
	Butylbenzylphthalate	J	12	21	PQL	ug/Kg	
	FLUORENE	J	1.2	2.0	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	2.0	PQL	ug/Kg	
SL-101-SA5A-SS-0.0-0.5	ANTHRACENE	J	0.37	1.8	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.0	1.8	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.1	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.94	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.80	1.8	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	15	20	PQL	ug/Kg	
	Butylbenzylphthalate	J	10	20	PQL	ug/Kg	
	FLUORENE	J	0.92	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.92	1.8	PQL	ug/Kg	
SL-102-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.78	1.9	PQL	ug/Kg	
	BENZO(A)PYRENE	J	0.89	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.77	1.9	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	14	20	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	1.8	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	1.9	PQL	ug/Kg	
	PYRENE	J	1.8	1.9	PQL	ug/Kg	
SL-241-SA5A-SS-0.0-0.5	ANTHRACENE	J	0.60	1.9	PQL	ug/Kg	
	Butylbenzylphthalate	J	12	21	PQL	ug/Kg	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	1.6	1.9	PQL	ug/Kg	
SL-242-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	10	20	PQL	ug/Kg	
	Butylbenzylphthalate	J	8.9	20	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	7.7	20	PQL	ug/Kg	

LDC #: 25764M4 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/6/11

SDG #: DE086 ADR Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: CC

2nd Reviewer: C

METHOD: Metals (EPA SW 846 Method 6010B/6020~~A~~/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	ICS/CCB hits → No Qual
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D(Al, Ba, Ca, Fe, Mg, Mn, Ti, ~~K~~ >4x)
VII.	Duplicate Sample Analysis	N	D(Sb, B, Hg, Se (5xRL)
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: Soil

1	DUP01-SA5A-QC-021811	11	SL-241-SA5A-SS-0.0-0.05	21		31	
2	SL-049-SA5A-SS-0.0-0.05	12	SL-242-SA5A-SS-0.0-0.05	22		32	
3	SL-052-SA5A-SS-0.0-0.05	13	SL-099-SA5A-SS-0.0-0.05MS	23		33	
4	SL-053-SA5A-SS-0.0-0.05	14	SL-099-SA5A-SS-0.0-0.05MSD	24		34	
5	SL-096-SA5A-SS-0.0-0.05	15	SL-099-SA5A-SS-0.0-0.05DUP	25		35	
6	SL-098-SA5A-SS-0.0-0.05	16		26		36	
7	SL-099-SA5A-SS-0.0-0.05	17		27		37	
8	SL-100-SA5A-SS-0.0-0.05	18		28		38	
9	SL-101-SA5A-SS-0.0-0.05	19		29		39	
10	SL-102-SA5A-SS-0.0-0.05	20		30		40	

Notes: _____

SAMPLE DELIVERY GROUP

DX087

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Feb-2011	SL-062-SA5A-SS-0.0-0.5	6211471	N	3050B	6010B	III
21-Feb-2011	SL-062-SA5A-SS-0.0-0.5	6211471	N	3050B	6020	III
21-Feb-2011	SL-062-SA5A-SS-0.0-0.5	6211471	N	3060A	7199	III
21-Feb-2011	SL-062-SA5A-SS-0.0-0.5	6211471	N	3550B	8081A	III
21-Feb-2011	SL-062-SA5A-SS-0.0-0.5	6211471	N	3550B	8082	III
21-Feb-2011	SL-062-SA5A-SS-0.0-0.5	6211471	N	3550B	8151A	III
21-Feb-2011	SL-062-SA5A-SS-0.0-0.5	6211471	N	3550B	8270C	III
21-Feb-2011	SL-062-SA5A-SS-0.0-0.5	6211471	N	3550B	8270C SIM	III
21-Feb-2011	SL-062-SA5A-SS-0.0-0.5	6211471	N	Gen Prep	9045M	III
21-Feb-2011	SL-062-SA5A-SS-0.0-0.5	6211471	N	METHOD	300.0	III
21-Feb-2011	SL-062-SA5A-SS-0.0-0.5	6211471	N	METHOD	314.0	III
21-Feb-2011	SL-062-SA5A-SS-0.0-0.5	6211471	N	METHOD	7471A	III
21-Feb-2011	SL-064-SA5A-SS-0.0-0.5	6211473	N	3050B	6010B	III
21-Feb-2011	SL-064-SA5A-SS-0.0-0.5	6211473	N	3050B	6020	III
21-Feb-2011	SL-064-SA5A-SS-0.0-0.5	6211473	N	3060A	7199	III
21-Feb-2011	SL-064-SA5A-SS-0.0-0.5	6211473	N	3550B	8081A	III
21-Feb-2011	SL-064-SA5A-SS-0.0-0.5	6211473	N	3550B	8082	III
21-Feb-2011	SL-064-SA5A-SS-0.0-0.5	6211473	N	3550B	8151A	III
21-Feb-2011	SL-064-SA5A-SS-0.0-0.5	6211473	N	3550B	8270C	III
21-Feb-2011	SL-064-SA5A-SS-0.0-0.5	6211473	N	3550B	8270C SIM	III
21-Feb-2011	SL-064-SA5A-SS-0.0-0.5	6211473	N	Gen Prep	9045M	III
21-Feb-2011	SL-064-SA5A-SS-0.0-0.5	6211473	N	METHOD	300.0	III
21-Feb-2011	SL-064-SA5A-SS-0.0-0.5	6211473	N	METHOD	314.0	III
21-Feb-2011	SL-064-SA5A-SS-0.0-0.5	6211473	N	METHOD	7471A	III
21-Feb-2011	SL-064-SA5A-SS-0.0-0.5DUP	P211473D270047B	DUP	METHOD	314.0	III
21-Feb-2011	SL-064-SA5A-SS-0.0-0.5DUP	P211473D270920B	DUP	METHOD	300.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Feb-2011	SL-064-SA5A-SS-0.0-0.5MS	P211473R270111B	MS	METHOD	314.0	III
21-Feb-2011	SL-064-SA5A-SS-0.0-0.5MS	P211473R270934B	MS	METHOD	300.0	III
21-Feb-2011	SL-063-SA5A-SS-0.0-0.5	6211472	N	3050B	6010B	III
21-Feb-2011	SL-063-SA5A-SS-0.0-0.5	6211472	N	3050B	6020	III
21-Feb-2011	SL-063-SA5A-SS-0.0-0.5	6211472	N	3060A	7199	III
21-Feb-2011	SL-063-SA5A-SS-0.0-0.5	6211472	N	3550B	8081A	III
21-Feb-2011	SL-063-SA5A-SS-0.0-0.5	6211472	N	3550B	8082	III
21-Feb-2011	SL-063-SA5A-SS-0.0-0.5	6211472	N	3550B	8151A	III
21-Feb-2011	SL-063-SA5A-SS-0.0-0.5	6211472	N	3550B	8270C	III
21-Feb-2011	SL-063-SA5A-SS-0.0-0.5	6211472	N	3550B	8270C SIM	III
21-Feb-2011	SL-063-SA5A-SS-0.0-0.5	6211472	N	Gen Prep	9045M	III
21-Feb-2011	SL-063-SA5A-SS-0.0-0.5	6211472	N	METHOD	300.0	III
21-Feb-2011	SL-063-SA5A-SS-0.0-0.5	6211472	N	METHOD	314.0	III
21-Feb-2011	SL-063-SA5A-SS-0.0-0.5	6211472	N	METHOD	6850	III
21-Feb-2011	SL-063-SA5A-SS-0.0-0.5	6211472	N	METHOD	7471A	III
21-Feb-2011	SL-063-SA5A-SS-0.0-0.5DUP	P211472D291230B	DUP	Gen Prep	9045M	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	3050B	6010B	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	3050B	6020	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	3060A	7199	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	3546	1625C	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	3550B	8015B	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	3550B	8015M	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	3550B	8082	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	3550B	8270C	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	3550B	8270C SIM	III *
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	5035	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	5035	8260B	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	5035	8260B SIM	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	8330	8330A	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	Gen Prep	9045M	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	METHOD	300.0	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	METHOD	314.0	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	METHOD	7471A	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	METHOD	8015B	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	METHOD	8015M	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	METHOD	8315A	III
21-Feb-2011	SL-028-SA5A-SB-3.5-4.5	6211476	N	METHOD	9012B	III
21-Feb-2011	SL-061-SA5A-SS-0.0-0.5	6211470	N	3050B	6010B	III
21-Feb-2011	SL-061-SA5A-SS-0.0-0.5	6211470	N	3050B	6020	III
21-Feb-2011	SL-061-SA5A-SS-0.0-0.5	6211470	N	3060A	7199	III
21-Feb-2011	SL-061-SA5A-SS-0.0-0.5	6211470	N	3550B	8081A	III
21-Feb-2011	SL-061-SA5A-SS-0.0-0.5	6211470	N	3550B	8082	III
21-Feb-2011	SL-061-SA5A-SS-0.0-0.5	6211470	N	3550B	8151A	III
21-Feb-2011	SL-061-SA5A-SS-0.0-0.5	6211470	N	3550B	8270C	III
21-Feb-2011	SL-061-SA5A-SS-0.0-0.5	6211470	N	3550B	8270C SIM	III
21-Feb-2011	SL-061-SA5A-SS-0.0-0.5	6211470	N	Gen Prep	9045M	III
21-Feb-2011	SL-061-SA5A-SS-0.0-0.5	6211470	N	METHOD	300.0	III
21-Feb-2011	SL-061-SA5A-SS-0.0-0.5	6211470	N	METHOD	314.0	III
21-Feb-2011	SL-061-SA5A-SS-0.0-0.5	6211470	N	METHOD	7471A	III
21-Feb-2011	SL-060-SA5A-SS-0.0-0.5	6211469	N	3050B	6010B	III
21-Feb-2011	SL-060-SA5A-SS-0.0-0.5	6211469	N	3050B	6020	III
21-Feb-2011	SL-060-SA5A-SS-0.0-0.5	6211469	N	3060A	7199	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Feb-2011	SL-060-SA5A-SS-0.0-0.5	6211469	N	3550B	8081A	III
21-Feb-2011	SL-060-SA5A-SS-0.0-0.5	6211469	N	3550B	8082	III
21-Feb-2011	SL-060-SA5A-SS-0.0-0.5	6211469	N	3550B	8151A	III
21-Feb-2011	SL-060-SA5A-SS-0.0-0.5	6211469	N	3550B	8270C	III
21-Feb-2011	SL-060-SA5A-SS-0.0-0.5	6211469	N	3550B.	8270C SIM	III
21-Feb-2011	SL-060-SA5A-SS-0.0-0.5	6211469	N	Gen Prep	9045M	III
21-Feb-2011	SL-060-SA5A-SS-0.0-0.5	6211469	N	METHOD	300.0	III
21-Feb-2011	SL-060-SA5A-SS-0.0-0.5	6211469	N	METHOD	314.0	III
21-Feb-2011	SL-060-SA5A-SS-0.0-0.5	6211469	N	METHOD	7471A	III
21-Feb-2011	SL-059-SA5A-SS-0.0-0.5	6211468	N	3050B	6010B	III
21-Feb-2011	SL-059-SA5A-SS-0.0-0.5	6211468	N	3050B	6020	III
21-Feb-2011	SL-059-SA5A-SS-0.0-0.5	6211468	N	3060A	7199	III
21-Feb-2011	SL-059-SA5A-SS-0.0-0.5	6211468	N	3550B	8081A	III
21-Feb-2011	SL-059-SA5A-SS-0.0-0.5	6211468	N	3550B	8082	III
21-Feb-2011	SL-059-SA5A-SS-0.0-0.5	6211468	N	3550B	8151A	III
21-Feb-2011	SL-059-SA5A-SS-0.0-0.5	6211468	N	3550B	8270C	III
21-Feb-2011	SL-059-SA5A-SS-0.0-0.5	6211468	N	3550B	8270C SIM	III
21-Feb-2011	SL-059-SA5A-SS-0.0-0.5	6211468	N	Gen Prep	9045M	III
21-Feb-2011	SL-059-SA5A-SS-0.0-0.5	6211468	N	METHOD	300.0	III
21-Feb-2011	SL-059-SA5A-SS-0.0-0.5	6211468	N	METHOD	314.0	III
21-Feb-2011	SL-059-SA5A-SS-0.0-0.5	6211468	N	METHOD	7471A	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	3050B	6010B	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	3050B	6020	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	3060A	7199	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	3546	1625C	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	3550B	8015B	III

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	3550B	8015M	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	3550B	8082	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	3550B	8270C	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	3550B	8270C SIM	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	5035	8015M	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	5035	8260B	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	5035	8260B SIM	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	8330	8330A	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	Gen Prep	9045M	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	METHOD	300.0	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	METHOD	314.0	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	METHOD	7471A	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	METHOD	8015B	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	METHOD	8015M	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	METHOD	8315A	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5	6211475	N	METHOD	9012B	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5MSD	P211475M241947A	MSD	METHOD	8315A	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5MSD	P211475M261626	MSD	3546	1625C	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5MSD	P211475M321615A	MSD	METHOD	8015M	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5MS	P211475R241937A	MS	METHOD	8315A	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5MS	P211475R261609	MS	3546	1625C	III
21-Feb-2011	SL-025-SA5A-SB-4.5-5.5MS	P211475R321557A	MS	METHOD	8015M	III
21-Feb-2011	SL-057-SA5A-SS-0.0-0.5	6211466	N	3050B	6010B	III
21-Feb-2011	SL-057-SA5A-SS-0.0-0.5	6211466	N	3050B	6020	III
21-Feb-2011	SL-057-SA5A-SS-0.0-0.5	6211466	N	3060A	7199	III
21-Feb-2011	SL-057-SA5A-SS-0.0-0.5	6211466	N	3550B	8081A	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Feb-2011	SL-057-SA5A-SS-0.0-0.5	6211466	N	3550B	8082	III
21-Feb-2011	SL-057-SA5A-SS-0.0-0.5	6211466	N	3550B	8151A	III
21-Feb-2011	SL-057-SA5A-SS-0.0-0.5	6211466	N	3550B	8270C	III
21-Feb-2011	SL-057-SA5A-SS-0.0-0.5	6211466	N	3550B	8270C SIM	III
21-Feb-2011	SL-057-SA5A-SS-0.0-0.5	6211466	N	Gen Prep	9045M	III
21-Feb-2011	SL-057-SA5A-SS-0.0-0.5	6211466	N	METHOD	300.0	III
21-Feb-2011	SL-057-SA5A-SS-0.0-0.5	6211466	N	METHOD	314.0	III
21-Feb-2011	SL-057-SA5A-SS-0.0-0.5	6211466	N	METHOD	7471A	III
21-Feb-2011	SL-058-SA5A-SS-0.0-0.5	6211467	N	3050B	6010B	III
21-Feb-2011	SL-058-SA5A-SS-0.0-0.5	6211467	N	3050B	6020	III
21-Feb-2011	SL-058-SA5A-SS-0.0-0.5	6211467	N	3060A	7199	III
21-Feb-2011	SL-058-SA5A-SS-0.0-0.5	6211467	N	3550B	8081A	III
21-Feb-2011	SL-058-SA5A-SS-0.0-0.5	6211467	N	3550B	8082	III
21-Feb-2011	SL-058-SA5A-SS-0.0-0.5	6211467	N	3550B	8151A	III
21-Feb-2011	SL-058-SA5A-SS-0.0-0.5	6211467	N	3550B	8270C	III
21-Feb-2011	SL-058-SA5A-SS-0.0-0.5	6211467	N	3550B	8270C SIM	III
21-Feb-2011	SL-058-SA5A-SS-0.0-0.5	6211467	N	Gen Prep	9045M	III
21-Feb-2011	SL-058-SA5A-SS-0.0-0.5	6211467	N	METHOD	300.0	III
21-Feb-2011	SL-058-SA5A-SS-0.0-0.5	6211467	N	METHOD	314.0	III
21-Feb-2011	SL-058-SA5A-SS-0.0-0.5	6211467	N	METHOD	7471A	III
21-Feb-2011	SL-056-SA5A-SS-0.0-0.5	6211465	N	3050B	6010B	III
21-Feb-2011	SL-056-SA5A-SS-0.0-0.5	6211465	N	3050B	6020	III
21-Feb-2011	SL-056-SA5A-SS-0.0-0.5	6211465	N	3060A	7199	III
21-Feb-2011	SL-056-SA5A-SS-0.0-0.5	6211465	N	3550B	8081A	III
21-Feb-2011	SL-056-SA5A-SS-0.0-0.5	6211465	N	3550B	8082	III
21-Feb-2011	SL-056-SA5A-SS-0.0-0.5	6211465	N	3550B	8151A	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Feb-2011	SL-056-SA5A-SS-0.0-0.5	6211465	N	3550B	8270C	III
21-Feb-2011	SL-056-SA5A-SS-0.0-0.5	6211465	N	3550B	8270C SIM	III
21-Feb-2011	SL-056-SA5A-SS-0.0-0.5	6211465	N	Gen Prep	9045M	III
21-Feb-2011	SL-056-SA5A-SS-0.0-0.5	6211465	N	METHOD	300.0	III
21-Feb-2011	SL-056-SA5A-SS-0.0-0.5	6211465	N	METHOD	314.0	III
21-Feb-2011	SL-056-SA5A-SS-0.0-0.5	6211465	N	METHOD	7471A	III
21-Feb-2011	SL-055-SA5A-SS-0.0-0.5	6211464	N	3050B	6010B	III
21-Feb-2011	SL-055-SA5A-SS-0.0-0.5	6211464	N	3050B	6020	III
21-Feb-2011	SL-055-SA5A-SS-0.0-0.5	6211464	N	3060A	7199	III
21-Feb-2011	SL-055-SA5A-SS-0.0-0.5	6211464	N	3550B	8081A	III
21-Feb-2011	SL-055-SA5A-SS-0.0-0.5	6211464	N	3550B	8082	III
21-Feb-2011	SL-055-SA5A-SS-0.0-0.5	6211464	N	3550B	8151A	III
21-Feb-2011	SL-055-SA5A-SS-0.0-0.5	6211464	N	3550B	8270C	III
21-Feb-2011	SL-055-SA5A-SS-0.0-0.5	6211464	N	3550B	8270C SIM	III
21-Feb-2011	SL-055-SA5A-SS-0.0-0.5	6211464	N	Gen Prep	9045M	III
21-Feb-2011	SL-055-SA5A-SS-0.0-0.5	6211464	N	METHOD	300.0	III
21-Feb-2011	SL-055-SA5A-SS-0.0-0.5	6211464	N	METHOD	314.0	III
21-Feb-2011	SL-055-SA5A-SS-0.0-0.5	6211464	N	METHOD	6850	III
21-Feb-2011	SL-055-SA5A-SS-0.0-0.5	6211464	N	METHOD	7471A	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5	6211463	N	3050B	6010B	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5	6211463	N	3050B	6020	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5	6211463	N	3060A	7199	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5	6211463	N	3550B	8081A	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5	6211463	N	3550B	8082	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5	6211463	N	3550B	8151A	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5	6211463	N	3550B	8270C	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5	6211463	N	3550B	8270C SIM	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5	6211463	N	Gen Prep	9045M	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5	6211463	N	METHOD	300.0	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5	6211463	N	METHOD	314.0	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5	6211463	N	METHOD	7471A	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5DUP	P211463D220848	DUP	METHOD	7471A	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5DUP	P211463D221509A	DUP	3050B	6020	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5DUP	P211463D221536B	DUP	3050B	6020	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5DUP	P211463D221536C	DUP	3050B	6020	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5DUP	P211463D221536D	DUP	3050B	6020	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5DUP	P211463D222343	DUP	3050B	6010B	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5DUP	P211463D270532A	DUP	METHOD	300.0	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5DUP	P211463D271934A	DUP	METHOD	314.0	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5DUP	P211463D291230A	DUP	Gen Prep	9045M	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MSD	P211463M220852	MSD	METHOD	7471A	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MSD	P211463M221513A	MSD	3050B	6020	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MSD	P211463M221542B	MSD	3050B	6020	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MSD	P211463M221542C	MSD	3050B	6020	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MSD	P211463M221542D	MSD	3050B	6020	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MSD	P211463M222352	MSD	3050B	6010B	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MSD	P211463M240403A	MSD	3550B	8151A	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MSD	P211463M240809A	MSD	3550B	8081A	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MSD	P211463M241132A	MSD	3550B	8082	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MSD	P211463M260435	MSD	3550B	8270C	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MSD	P211463M262115	MSD	3550B	8270C SIM	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MS	P211463R220851	MS	METHOD	7471A	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MS	P211463R221511A	MS	3050B	6020	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MS	P211463R221539B	MS	3050B	6020	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MS	P211463R221539C	MS	3050B	6020	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MS	P211463R221539D	MS	3050B	6020	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MS	P211463R222348	MS	3050B	6010B	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MS	P211463R240336A	MS	3550B	8151A	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MS	P211463R240755A	MS	3550B	8081A	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MS	P211463R241114A	MS	3550B	8082	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MS	P211463R260410	MS	3550B	8270C	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MS	P211463R260454	MS	3550B	8270C SIM	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MS	P211463R270615A	MS	METHOD	300.0	III
21-Feb-2011	SL-054-SA5A-SS-0.0-0.5MS	P211463R271958A	MS	METHOD	314.0	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	3050B	6010B	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	3050B	6020	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	3060A	7199	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	3546	1625C	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	3550B	8015B	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	3550B	8015M	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	3550B	8082	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	3550B	8270C	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	3550B	8270C SIM	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	5035	8015M	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	5035	8260B	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	5035	8260B SIM	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	8330	8330A	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	Gen Prep	9045M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	METHOD	300.0	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	METHOD	314.0	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	METHOD	7471A	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	METHOD	8015B	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	METHOD	8015M	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	METHOD	8315A	III
21-Feb-2011	SL-029-SA5A-SB-3.0-4.0	6211477	N	METHOD	9012B	III
21-Feb-2011	SL-095-SA5A-SS-0.0-0.5	6211474	N	3050B	6010B	III
21-Feb-2011	SL-095-SA5A-SS-0.0-0.5	6211474	N	3050B	6020	III
21-Feb-2011	SL-095-SA5A-SS-0.0-0.5	6211474	N	3060A	7199	III
21-Feb-2011	SL-095-SA5A-SS-0.0-0.5	6211474	N	3550B	8081A	III
21-Feb-2011	SL-095-SA5A-SS-0.0-0.5	6211474	N	3550B	8082	III
21-Feb-2011	SL-095-SA5A-SS-0.0-0.5	6211474	N	3550B	8151A	III
21-Feb-2011	SL-095-SA5A-SS-0.0-0.5	6211474	N	3550B	8270C	III
21-Feb-2011	SL-095-SA5A-SS-0.0-0.5	6211474	N	3550B	8270C SIM	III
21-Feb-2011	SL-095-SA5A-SS-0.0-0.5	6211474	N	Gen Prep	9045M	III
21-Feb-2011	SL-095-SA5A-SS-0.0-0.5	6211474	N	METHOD	300.0	III
21-Feb-2011	SL-095-SA5A-SS-0.0-0.5	6211474	N	METHOD	314.0	III
21-Feb-2011	SL-095-SA5A-SS-0.0-0.5	6211474	N	METHOD	7471A	III
21-Feb-2011	TB-022111	6211479	TB	5030B	8015M	III
21-Feb-2011	TB-022111	6211479	TB	5030B	8260B	III
21-Feb-2011	TB-022111	6211479	TB	5030B	8260B SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-025-SA5A-SB-4.5-5.5 *Collected:* 2/21/2011 11:44:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.4		0.92	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.2	J	0.92	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA5A-SB-3.5-4.5 *Collected:* 2/21/2011 10:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.6		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-029-SA5A-SB-3.0-4.0 *Collected:* 2/21/2011 2:48:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	8.7		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-054-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.97	J	0.94	MDL	1.2	PQL	mg/Kg	J	Z, Q

Sample ID: SL-055-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:27:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.94	U	0.94	MDL	1.2	PQL	mg/Kg	UJ	Q

Sample ID: SL-056-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-057-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 12:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.94	MDL	1.2	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-058-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 1:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-059-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 11:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.1	J	0.96	MDL	1.2	PQL	mg/Kg	J	Z, Q

Sample ID: SL-060-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.8		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-061-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-062-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.1	J	0.94	MDL	1.2	PQL	mg/Kg	J	Z, Q

Sample ID: SL-063-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.94	U	0.94	MDL	1.2	PQL	mg/Kg	UJ	Q

Sample ID: SL-064-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-095-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.1	J	0.98	MDL	1.2	PQL	mg/Kg	J	Z, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 Matrix: SO

Method Category: METALS

Method: 6010B Matrix: SO

Sample ID: SL-025-SA5A-SB-4.5-5.5 *Collected:* 2/21/2011 11:44:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	683		20.0	MDL	55.7	PQL	mg/Kg	J	Q
TIN	2.57	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.15	J	0.935	MDL	5.57	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA5A-SB-3.5-4.5 *Collected:* 2/21/2011 10:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1060		19.7	MDL	54.6	PQL	mg/Kg	J	Q
TIN	3.06	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.42	J	0.917	MDL	5.46	PQL	mg/Kg	J	Z

Sample ID: SL-029-SA5A-SB-3.0-4.0 *Collected:* 2/21/2011 2:48:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1780		18.6	MDL	51.7	PQL	mg/Kg	J	Q
TIN	2.73	J	1.03	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	1.65	J	0.868	MDL	5.17	PQL	mg/Kg	J	Z

Sample ID: SL-054-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.62	J	1.03	MDL	5.81	PQL	mg/Kg	J	Z
POTASSIUM	3680		20.9	MDL	58.1	PQL	mg/Kg	J	Q
SODIUM	77.0	J	43.3	MDL	116	PQL	mg/Kg	J	Z
TIN	2.97	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	2.05	J	0.976	MDL	5.81	PQL	mg/Kg	J	Z

Sample ID: SL-055-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:27:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.50	J	1.03	MDL	5.79	PQL	mg/Kg	J	Z
POTASSIUM	3980		20.8	MDL	57.9	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-055-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:27:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	70.5	J	43.2	MDL	116	PQL	mg/Kg	J	Z
TIN	2.59	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	1.80	J	0.972	MDL	5.79	PQL	mg/Kg	J	Z

Sample ID: SL-056-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.51	J	1.03	MDL	5.80	PQL	mg/Kg	J	Z
POTASSIUM	3560		20.9	MDL	58.0	PQL	mg/Kg	J	Q
SODIUM	72.5	J	43.2	MDL	116	PQL	mg/Kg	J	Z
TIN	2.69	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	1.24	J	0.974	MDL	5.80	PQL	mg/Kg	J	Z

Sample ID: SL-057-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 12:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.92	J	1.02	MDL	5.75	PQL	mg/Kg	J	Z
POTASSIUM	3770		20.7	MDL	57.5	PQL	mg/Kg	J	Q
SODIUM	86.7	J	42.9	MDL	115	PQL	mg/Kg	J	Z
TIN	2.88	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	1.40	J	0.967	MDL	5.75	PQL	mg/Kg	J	Z

Sample ID: SL-058-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 1:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.86	J	1.03	MDL	5.77	PQL	mg/Kg	J	Z
POTASSIUM	3900		20.8	MDL	57.7	PQL	mg/Kg	J	Q
SODIUM	73.4	J	43.0	MDL	115	PQL	mg/Kg	J	Z
TIN	2.92	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	1.43	J	0.969	MDL	5.77	PQL	mg/Kg	J	Z

Sample ID: SL-059-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 11:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.88	J	1.04	MDL	5.83	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-059-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 11:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	4210		21.0	MDL	58.3	PQL	mg/Kg	J	Q
SODIUM	67.3	J	43.5	MDL	117	PQL	mg/Kg	J	Z
TIN	2.91	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	1.52	J	0.979	MDL	5.83	PQL	mg/Kg	J	Z

Sample ID: SL-060-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.92	J	0.992	MDL	5.57	PQL	mg/Kg	J	Z
POTASSIUM	4020		20.1	MDL	55.7	PQL	mg/Kg	J	Q
SODIUM	72.6	J	41.6	MDL	111	PQL	mg/Kg	J	Z
TIN	2.97	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.77	J	0.936	MDL	5.57	PQL	mg/Kg	J	Z

Sample ID: SL-061-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.98	J	1.03	MDL	5.76	PQL	mg/Kg	J	Z
POTASSIUM	4000		20.7	MDL	57.6	PQL	mg/Kg	J	Q
SODIUM	79.2	J	43.0	MDL	115	PQL	mg/Kg	J	Z
TIN	2.97	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	1.40	J	0.968	MDL	5.76	PQL	mg/Kg	J	Z

Sample ID: SL-062-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.53	J	1.01	MDL	5.70	PQL	mg/Kg	J	Z
POTASSIUM	3270		20.5	MDL	57.0	PQL	mg/Kg	J	Q
SODIUM	91.1	J	42.5	MDL	114	PQL	mg/Kg	J	Z
TIN	3.05	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	1.32	J	0.957	MDL	5.70	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-063-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.86	J	1.03	MDL	5.80	PQL	mg/Kg	J	Z
POTASSIUM	4070		20.9	MDL	58.0	PQL	mg/Kg	J	Q
SODIUM	77.8	J	43.3	MDL	116	PQL	mg/Kg	J	Z
TIN	3.17	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	1.50	J	0.975	MDL	5.80	PQL	mg/Kg	J	Z

Sample ID: SL-064-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.88	J	1.01	MDL	5.69	PQL	mg/Kg	J	Z
POTASSIUM	4000		20.5	MDL	56.9	PQL	mg/Kg	J	Q
SODIUM	65.6	J	42.4	MDL	114	PQL	mg/Kg	J	Z
TIN	3.00	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	1.29	J	0.955	MDL	5.69	PQL	mg/Kg	J	Z

Sample ID: SL-095-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.00	J	1.06	MDL	5.96	PQL	mg/Kg	J	Z
POTASSIUM	3170		21.4	MDL	59.6	PQL	mg/Kg	J	Q
SODIUM	70.0	J	44.4	MDL	119	PQL	mg/Kg	J	Z
TIN	2.82	J	1.19	MDL	11.9	PQL	mg/Kg	U	B
Zirconium	1.32	J	1.00	MDL	5.96	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-025-SA5A-SB-4.5-5.5 *Collected:* 2/21/2011 11:44:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.100	J	0.0450	MDL	0.450	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-025-SA5A-SB-4.5-5.5 *Collected:* 2/21/2011 11:44:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.433		0.0562	MDL	0.112	PQL	mg/Kg	J	E

Sample ID: SL-025-SA5A-SB-4.5-5.5 *Collected:* 2/21/2011 11:44:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0907	J	0.0675	MDL	0.225	PQL	mg/Kg	J	Z, Q
ARSENIC	4.68		0.0899	MDL	0.450	PQL	mg/Kg	J	E, Q
COPPER	3.82		0.0742	MDL	0.450	PQL	mg/Kg	J	A
LEAD	6.23		0.0117	MDL	0.225	PQL	mg/Kg	J	Q, E
NICKEL	6.48		0.112	MDL	0.450	PQL	mg/Kg	J	A
SILVER	0.0242	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z
VANADIUM	31.2		0.0247	MDL	0.112	PQL	mg/Kg	J	Q, E

Sample ID: SL-028-SA5A-SB-3.5-4.5 *Collected:* 2/21/2011 10:20:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0929	J	0.0432	MDL	0.432	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA5A-SB-3.5-4.5 *Collected:* 2/21/2011 10:20:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.578		0.0541	MDL	0.108	PQL	mg/Kg	J	E

Sample ID: SL-028-SA5A-SB-3.5-4.5 *Collected:* 2/21/2011 10:20:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0922	J	0.0649	MDL	0.216	PQL	mg/Kg	J	Z, Q
ARSENIC	5.47		0.0865	MDL	0.432	PQL	mg/Kg	J	E, Q
CADMIUM	0.0719	J	0.0432	MDL	0.108	PQL	mg/Kg	J	Z
COPPER	5.73		0.0714	MDL	0.432	PQL	mg/Kg	J	A
LEAD	6.16		0.0112	MDL	0.216	PQL	mg/Kg	J	Q, E
NICKEL	10.3		0.108	MDL	0.432	PQL	mg/Kg	J	A
SILVER	0.0456	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	37.6		0.0238	MDL	0.108	PQL	mg/Kg	J	Q, E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-029-SA5A-SB-3.0-4.0 *Collected:* 2/21/2011 2:48:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.146	J	0.0418	MDL	0.418	PQL	mg/Kg	J	Z

Sample ID: SL-029-SA5A-SB-3.0-4.0 *Collected:* 2/21/2011 2:48:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.839		0.0522	MDL	0.104	PQL	mg/Kg	J	E

Sample ID: SL-029-SA5A-SB-3.0-4.0 *Collected:* 2/21/2011 2:48:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.103	J	0.0626	MDL	0.209	PQL	mg/Kg	J	Z, Q
ARSENIC	8.78		0.0835	MDL	0.418	PQL	mg/Kg	J	E, Q
CADMIUM	0.0423	J	0.0418	MDL	0.104	PQL	mg/Kg	J	Z
COPPER	7.22		0.0689	MDL	0.418	PQL	mg/Kg	J	A
LEAD	7.82		0.0109	MDL	0.209	PQL	mg/Kg	J	Q, E
NICKEL	9.65		0.104	MDL	0.418	PQL	mg/Kg	J	A
SILVER	0.0318	J	0.0125	MDL	0.104	PQL	mg/Kg	J	Z
VANADIUM	46.8		0.0230	MDL	0.104	PQL	mg/Kg	J	Q, E

Sample ID: SL-054-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:45:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.239	J	0.0451	MDL	0.451	PQL	mg/Kg	J	Z

Sample ID: SL-054-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:45:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.13		0.0564	MDL	0.113	PQL	mg/Kg	J	E

Sample ID: SL-054-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:45:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.449		0.0677	MDL	0.226	PQL	mg/Kg	J	Q
ARSENIC	8.05		0.0903	MDL	0.451	PQL	mg/Kg	J	E, Q
COPPER	10.1		0.0745	MDL	0.451	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-054-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:45:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	12.6		0.0117	MDL	0.226	PQL	mg/Kg	J	Q, E
NICKEL	15.0		0.113	MDL	0.451	PQL	mg/Kg	J	A
SILVER	0.0599	J	0.0135	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	41.9		0.0248	MDL	0.113	PQL	mg/Kg	J	Q, E

Sample ID: SL-055-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:27:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.122	J	0.0458	MDL	0.459	PQL	mg/Kg	J	Z

Sample ID: SL-055-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:27:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.562		0.0573	MDL	0.115	PQL	mg/Kg	J	E

Sample ID: SL-055-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:27:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.106	J	0.0688	MDL	0.229	PQL	mg/Kg	J	Z, Q
ARSENIC	4.34		0.0917	MDL	0.459	PQL	mg/Kg	J	E, Q
COPPER	11.0		0.0757	MDL	0.459	PQL	mg/Kg	J	A
LEAD	21.8		0.0119	MDL	0.229	PQL	mg/Kg	J	Q, E
NICKEL	13.6		0.115	MDL	0.459	PQL	mg/Kg	J	A
SILVER	0.0528	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	34.5		0.0252	MDL	0.115	PQL	mg/Kg	J	Q, E

Sample ID: SL-056-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:00:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.137	J	0.0468	MDL	0.468	PQL	mg/Kg	J	Z

Sample ID: SL-056-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:00:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.609		0.0585	MDL	0.117	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-056-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:00:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.109	J	0.0703	MDL	0.234	PQL	mg/Kg	J	Z, Q
ARSENIC	4.65		0.0937	MDL	0.468	PQL	mg/Kg	J	E, Q
COPPER	9.70		0.0773	MDL	0.468	PQL	mg/Kg	J	A
LEAD	10.1		0.0122	MDL	0.234	PQL	mg/Kg	J	Q, E
NICKEL	12.3		0.117	MDL	0.468	PQL	mg/Kg	J	A
SILVER	0.0505	J	0.0141	MDL	0.117	PQL	mg/Kg	J	Z
VANADIUM	33.0		0.0258	MDL	0.117	PQL	mg/Kg	J	Q, E

Sample ID: SL-057-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 12:00:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.154	J	0.0460	MDL	0.460	PQL	mg/Kg	J	Z

Sample ID: SL-057-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 12:00:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.731		0.0575	MDL	0.115	PQL	mg/Kg	J	E

Sample ID: SL-057-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 12:00:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.157	J	0.0690	MDL	0.230	PQL	mg/Kg	J	Z, Q
ARSENIC	6.52		0.0921	MDL	0.460	PQL	mg/Kg	J	E, Q
COPPER	12.6		0.0759	MDL	0.460	PQL	mg/Kg	J	A
LEAD	12.7		0.0120	MDL	0.230	PQL	mg/Kg	J	Q, E
NICKEL	17.6		0.115	MDL	0.460	PQL	mg/Kg	J	A
SILVER	0.0667	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	41.4		0.0253	MDL	0.115	PQL	mg/Kg	J	Q, E

Sample ID: SL-058-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 1:40:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.146	J	0.0461	MDL	0.461	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-058-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 1:40:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.565		0.0577	MDL	0.115	PQL	mg/Kg	J	E

Sample ID: SL-058-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 1:40:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.124	J	0.0692	MDL	0.231	PQL	mg/Kg	J	Z, Q
ARSENIC	5.75		0.0923	MDL	0.461	PQL	mg/Kg	J	E, Q
COPPER	11.7		0.0761	MDL	0.461	PQL	mg/Kg	J	A
LEAD	9.40		0.0120	MDL	0.231	PQL	mg/Kg	J	Q, E
NICKEL	15.3		0.115	MDL	0.461	PQL	mg/Kg	J	A
SILVER	0.0432	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	37.3		0.0254	MDL	0.115	PQL	mg/Kg	J	Q, E

Sample ID: SL-059-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 11:20:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.157	J	0.0475	MDL	0.475	PQL	mg/Kg	J	Z

Sample ID: SL-059-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 11:20:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.586		0.0594	MDL	0.119	PQL	mg/Kg	J	E

Sample ID: SL-059-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 11:20:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.122	J	0.0713	MDL	0.238	PQL	mg/Kg	J	Z, Q
ARSENIC	5.33		0.0951	MDL	0.475	PQL	mg/Kg	J	E, Q
COPPER	11.6		0.0784	MDL	0.475	PQL	mg/Kg	J	A
LEAD	10.8		0.0124	MDL	0.238	PQL	mg/Kg	J	Q, E
NICKEL	15.1		0.119	MDL	0.475	PQL	mg/Kg	J	A
SILVER	0.0711	J	0.0143	MDL	0.119	PQL	mg/Kg	J	Z
VANADIUM	36.4		0.0261	MDL	0.119	PQL	mg/Kg	J	Q, E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-060-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:55:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.159	J	0.0459	MDL	0.459	PQL	mg/Kg	J	Z

Sample ID: SL-060-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:55:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.762		0.0574	MDL	0.115	PQL	mg/Kg	J	E

Sample ID: SL-060-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:55:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.152	J	0.0688	MDL	0.229	PQL	mg/Kg	J	Z, Q
ARSENIC	6.62		0.0918	MDL	0.459	PQL	mg/Kg	J	E, Q
COPPER	11.9		0.0757	MDL	0.459	PQL	mg/Kg	J	A
LEAD	11.2		0.0119	MDL	0.229	PQL	mg/Kg	J	Q, E
NICKEL	17.3		0.115	MDL	0.459	PQL	mg/Kg	J	A
SILVER	0.0630	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	46.4		0.0252	MDL	0.115	PQL	mg/Kg	J	Q, E

Sample ID: SL-061-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:35:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.163	J	0.0461	MDL	0.461	PQL	mg/Kg	J	Z

Sample ID: SL-061-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:35:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.528		0.0576	MDL	0.115	PQL	mg/Kg	J	E

Sample ID: SL-061-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:35:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.154	J	0.0691	MDL	0.230	PQL	mg/Kg	J	Z, Q
ARSENIC	6.68		0.0922	MDL	0.461	PQL	mg/Kg	J	E, Q
COPPER	12.3		0.0760	MDL	0.461	PQL	mg/Kg	J	A
LEAD	9.43		0.0120	MDL	0.230	PQL	mg/Kg	J	Q, E

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-061-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:35:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	16.6		0.115	MDL	0.461	PQL	mg/Kg	J	A
SILVER	0.0482	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	41.3		0.0253	MDL	0.115	PQL	mg/Kg	J	Q, E

Sample ID: SL-062-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:05:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.247	J	0.0456	MDL	0.456	PQL	mg/Kg	J	Z

Sample ID: SL-062-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:05:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.591		0.0570	MDL	0.114	PQL	mg/Kg	J	E

Sample ID: SL-062-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.160	J	0.0684	MDL	0.228	PQL	mg/Kg	J	Z, Q
ARSENIC	7.41		0.0912	MDL	0.456	PQL	mg/Kg	J	E, Q
COPPER	15.2		0.0752	MDL	0.456	PQL	mg/Kg	J	A
LEAD	13.0		0.0119	MDL	0.228	PQL	mg/Kg	J	Q, E
NICKEL	20.6		0.114	MDL	0.456	PQL	mg/Kg	J	A
SILVER	0.0599	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z
VANADIUM	45.8		0.0251	MDL	0.114	PQL	mg/Kg	J	Q, E

Sample ID: SL-063-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:58:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.158	J	0.0464	MDL	0.464	PQL	mg/Kg	J	Z

Sample ID: SL-063-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:58:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.757		0.0580	MDL	0.116	PQL	mg/Kg	J	E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-063-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:58:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.115	J	0.0696	MDL	0.232	PQL	mg/Kg	J	Z, Q
ARSENIC	6.66		0.0929	MDL	0.464	PQL	mg/Kg	J	E, Q
COPPER	12.5		0.0766	MDL	0.464	PQL	mg/Kg	J	A
LEAD	14.8		0.0121	MDL	0.232	PQL	mg/Kg	J	Q, E
NICKEL	18.4		0.116	MDL	0.464	PQL	mg/Kg	J	A
SILVER	0.0772	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z
VANADIUM	41.1		0.0255	MDL	0.116	PQL	mg/Kg	J	Q, E

Sample ID: SL-064-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:35:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.120	J	0.0451	MDL	0.451	PQL	mg/Kg	J	Z

Sample ID: SL-064-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:35:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.529		0.0563	MDL	0.113	PQL	mg/Kg	J	E

Sample ID: SL-064-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:35:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.118	J	0.0676	MDL	0.225	PQL	mg/Kg	J	Z, Q
ARSENIC	5.90		0.0901	MDL	0.451	PQL	mg/Kg	J	E, Q
COPPER	10.8		0.0743	MDL	0.451	PQL	mg/Kg	J	A
LEAD	10.0		0.0117	MDL	0.225	PQL	mg/Kg	J	Q, E
NICKEL	15.1		0.113	MDL	0.451	PQL	mg/Kg	J	A
SILVER	0.0517	J	0.0135	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	36.1		0.0248	MDL	0.113	PQL	mg/Kg	J	Q, E

Sample ID: SL-095-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 3:00:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.157	J	0.0486	MDL	0.486	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-095-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 3:00:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.709		0.0607	MDL	0.121	PQL	mg/Kg	J	E

Sample ID: SL-095-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 3:00:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.149	J	0.0729	MDL	0.243	PQL	mg/Kg	J	Z, Q
ARSENIC	4.76		0.0972	MDL	0.486	PQL	mg/Kg	J	E, Q
COPPER	12.0		0.0802	MDL	0.486	PQL	mg/Kg	J	A
LEAD	29.4		0.0126	MDL	0.243	PQL	mg/Kg	J	Q, E
NICKEL	13.9		0.121	MDL	0.486	PQL	mg/Kg	J	A
SILVER	0.0876	J	0.0146	MDL	0.121	PQL	mg/Kg	J	Z
VANADIUM	37.4		0.0267	MDL	0.121	PQL	mg/Kg	J	Q, E

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-025-SA5A-SB-4.5-5.5 *Collected:* 2/21/2011 11:44:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.31	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA5A-SB-3.5-4.5 *Collected:* 2/21/2011 10:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.36	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-029-SA5A-SB-3.0-4.0 *Collected:* 2/21/2011 2:48:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.96	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-054-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.72	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-055-SA5A-SS-0.0-0.5 **Collected:** 2/21/2011 2:27:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.50	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-057-SA5A-SS-0.0-0.5 **Collected:** 2/21/2011 12:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.43	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-058-SA5A-SS-0.0-0.5 **Collected:** 2/21/2011 1:40:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.62	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-059-SA5A-SS-0.0-0.5 **Collected:** 2/21/2011 11:20:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.54	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-060-SA5A-SS-0.0-0.5 **Collected:** 2/21/2011 10:55:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.46	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-061-SA5A-SS-0.0-0.5 **Collected:** 2/21/2011 10:35:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.62	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-062-SA5A-SS-0.0-0.5 **Collected:** 2/21/2011 9:05:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.53	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-063-SA5A-SS-0.0-0.5 **Collected:** 2/21/2011 9:58:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.63	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 7199 **Matrix:** SO

Sample ID: SL-064-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.36	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-095-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.50	J	0.25	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: METALS **Method:** 7471A **Matrix:** SO

Sample ID: SL-028-SA5A-SB-3.5-4.5 *Collected:* 2/21/2011 10:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0042	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-029-SA5A-SB-3.0-4.0 *Collected:* 2/21/2011 2:48:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0054	J	0.0029	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-055-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:27:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0105	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-056-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0062	J	0.0032	MDL	0.113	PQL	mg/Kg	J	Z

Sample ID: SL-057-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 12:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0094	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: SL-058-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 1:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0071	J	0.0033	MDL	0.116	PQL	mg/Kg	J	Z

Sample ID: SL-059-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 11:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0134	J	0.0032	MDL	0.113	PQL	mg/Kg	J	Z

Sample ID: SL-060-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0132	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-061-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0056	J	0.0032	MDL	0.113	PQL	mg/Kg	J	Z

Sample ID: SL-062-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0105	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-063-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0138	J	0.0033	MDL	0.117	PQL	mg/Kg	J	Z

Sample ID: SL-064-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0099	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-095-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0232	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS
Method: 7471A **Matrix:** SO

Method Category: SVOA
Method: 8015M **Matrix:** SO

Sample ID: SL-025-SA5A-SB-4.5-5.5 *Collected:* 2/21/2011 11:44:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.48	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA5A-SB-3.5-4.5 *Collected:* 2/21/2011 10:20:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.48	J	0.45	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-029-SA5A-SB-3.0-4.0 *Collected:* 2/21/2011 2:48:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	0.59	J	0.43	MDL	1.3	PQL	mg/Kg	J	Z

Method Category: SVOA
Method: 8081A **Matrix:** SO

Sample ID: SL-054-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.22	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z
4,4'-DDT	0.32	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z
MIREX	0.14	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z

Sample ID: SL-055-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:27:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.086	J	0.078	MDL	0.40	PQL	ug/Kg	J	Z
4,4'-DDT	0.24	J	0.078	MDL	0.40	PQL	ug/Kg	J	Z
MIREX	0.17	J	0.078	MDL	0.40	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-056-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.13	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z
4,4'-DDT	0.38	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.11	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z

Sample ID: SL-057-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 12:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.38	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z
ENDRIN KETONE	0.11	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z

Sample ID: SL-058-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 1:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.087	J	0.078	MDL	0.40	PQL	ug/Kg	J	Z
4,4'-DDT	0.22	J	0.078	MDL	0.40	PQL	ug/Kg	J	Z

Sample ID: SL-059-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 11:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.30	J	0.079	MDL	0.41	PQL	ug/Kg	J	Z
4,4'-DDT	0.38	J	0.079	MDL	0.41	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.14	J	0.079	MDL	0.41	PQL	ug/Kg	J	Z

Sample ID: SL-060-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN ALDEHYDE	0.15	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z
ENDRIN KETONE	0.083	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z
MIREX	0.079	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z

Sample ID: SL-061-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	0.36	J	0.078	MDL	0.40	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-062-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.094	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z
4,4'-DDT	0.28	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z

Sample ID: SL-063-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:58:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.37	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.16	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z

Sample ID: SL-064-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.15	J	0.077	MDL	0.39	PQL	ug/Kg	J	Z
4,4'-DDT	0.35	J	0.077	MDL	0.39	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.10	J	0.077	MDL	0.39	PQL	ug/Kg	J	Z

Sample ID: SL-095-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 3:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN ALDEHYDE	0.19	J	0.081	MDL	0.42	PQL	ug/Kg	J	Z
ENDRIN KETONE	0.24	J	0.081	MDL	0.42	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.15	J	0.042	MDL	0.20	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.053	J	0.042	MDL	0.20	PQL	ug/Kg	J	Z
MIREX	0.20	J	0.081	MDL	0.42	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-054-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.72	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
AROCLOR 1260	1.0	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5460	2.9	J	1.2	MDL	3.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-055-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:27:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	S
AROCLOR 1221	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	S
AROCLOR 1232	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	S
AROCLOR 1242	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	S
AROCLOR 1248	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	S
AROCLOR 1254	1.8	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z, S
AROCLOR 1260	1.8	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z, S
Aroclor 1262	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	S
Aroclor 1268	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	S
Aroclor 5432	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	S
Aroclor 5442	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	S
Aroclor 5460	3.6	J	1.2	MDL	3.9	PQL	ug/Kg	J	Z, S

Sample ID: SL-056-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.4	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5460	2.0	J	1.2	MDL	3.9	PQL	ug/Kg	J	Z

Sample ID: SL-058-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 1:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.1	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5460	2.5	J	1.2	MDL	3.9	PQL	ug/Kg	J	Z

Sample ID: SL-059-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 11:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.7	J	0.47	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5460	3.7	J	1.2	MDL	4.0	PQL	ug/Kg	J	Z

Sample ID: SL-060-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.3	J	0.45	MDL	2.0	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-060-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	1.8	J	1.2	MDL	3.8	PQL	ug/Kg	J	Z

Sample ID: SL-061-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.58	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5460	3.3	J	1.2	MDL	3.9	PQL	ug/Kg	J	Z

Sample ID: SL-062-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.5	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-064-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.54	J	0.38	MDL	2.0	PQL	ug/Kg	J	Z
AROCLOR 1260	0.72	J	0.45	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5460	1.6	J	1.2	MDL	3.8	PQL	ug/Kg	J	Z

Sample ID: SL-095-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 3:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	4.9		0.81	MDL	4.2	PQL	ug/Kg	J	S
AROCLOR 1260	5.5		0.96	MDL	4.2	PQL	ug/Kg	J	S
Aroclor 5460	12		2.5	MDL	8.1	PQL	ug/Kg	J	S

Method Category: SVOA

Method: 8151A **Matrix:** SO

Sample ID: SL-055-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:27:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.69	J	0.47	MDL	1.4	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8151A Matrix: SO

Sample ID: SL-056-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.47	J	0.47	MDL	1.4	PQL	ug/Kg	J	Z

Sample ID: SL-058-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 1:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.50	J	0.47	MDL	1.4	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C Matrix: SO

Sample ID: SL-028-SA5A-SB-3.5-4.5 *Collected:* 2/21/2011 10:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	20	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-054-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	1400	U	1400	MDL	3900	PQL	ug/Kg	R	Q
BIS(2-ETHYLHEXYL)PHTHALATE	29	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-055-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:27:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	32	J	20	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-056-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	31	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-057-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 12:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	25	J	19	MDL	390	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C Matrix: SO

Sample ID: SL-059-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 11:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	26	J	20	MDL	400	PQL	ug/Kg	J	Z

Sample ID: SL-060-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	28	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-061-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	130	J	20	MDL	390	PQL	ug/Kg	J	Z
Butylbenzylphthalate	29	J	20	MDL	200	PQL	ug/Kg	J	Z

Sample ID: SL-063-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:58:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	33	J	19	MDL	390	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM Matrix: SO

Sample ID: SL-025-SA5A-SB-4.5-5.5 *Collected:* 2/21/2011 11:44:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	9.6	J	6.9	MDL	21	PQL	ug/Kg	J	Z
Di-n-octylphthalate	11	J	6.9	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-028-SA5A-SB-3.5-4.5 *Collected:* 2/21/2011 10:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	11	J	6.7	MDL	20	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-029-SA5A-SB-3.0-4.0 *Collected:* 2/21/2011 2:48:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	11	J	6.5	MDL	19	PQL	ug/Kg	J	Z
Di-n-octylphthalate	11	J	6.5	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-055-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:27:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.96	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.79	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
ANTHRACENE	0.58	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	0.79	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.95	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.2	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	12	J	7.1	MDL	21	PQL	ug/Kg	J	Z
NAPHTHALENE	1.0	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-056-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 2:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.54	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
ANTHRACENE	0.46	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.7	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	12	J	7.0	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-057-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 12:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	12	J	7.0	MDL	21	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.8	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
NAPHTHALENE	1.1	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-058-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 1:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.5	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.5	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-058-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 1:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	1.8	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-059-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 11:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.51	J	0.40	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	12	J	7.2	MDL	22	PQL	ug/Kg	J	Z
FLUORANTHENE	0.84	J	0.80	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-060-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.78	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	1.6	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
ANTHRACENE	1.3	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.2	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.1	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.0	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	11	J	7.0	MDL	21	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.89	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.3	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-061-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 10:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.82	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	1.5	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
ANTHRACENE	1.0	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	0.94	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.84	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.0	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	11	J	7.1	MDL	21	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.0	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
NAPHTHALENE	1.0	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-062-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	10	J	7.0	MDL	21	PQL	ug/Kg	J	Z
Di-n-octylphthalate	11	J	7.0	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-063-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:58:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	1.3	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
ANTHRACENE	0.57	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.8	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.8	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.5	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	12	J	7.0	MDL	21	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.2	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
NAPHTHALENE	0.90	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-064-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 9:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	0.95	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.46	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.6	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.80	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	1.6	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	12	J	7.0	MDL	21	PQL	ug/Kg	J	Z
PHENANTHRENE	1.2	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.6	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-095-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 3:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.83	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.97	J	0.41	MDL	2.0	PQL	ug/Kg	J	Z
ANTHRACENE	1.9	J	0.41	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.9	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.7	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-095-SA5A-SS-0.0-0.5 *Collected:* 2/21/2011 3:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	13	J	7.4	MDL	22	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.5	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z
NAPHTHALENE	1.6	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-025-SA5A-SB-4.5-5.5 *Collected:* 2/21/2011 11:44:00 *Analysis Type:* RES *Dilution:* 0.89

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.1	J	0.25	MDL	4.1	PQL	ug/Kg	U	B
TOLUENE	0.1	J	0.08	MDL	4.1	PQL	ug/Kg	J	Z

Sample ID: SL-028-SA5A-SB-3.5-4.5 *Collected:* 2/21/2011 10:20:00 *Analysis Type:* RES *Dilution:* 0.93

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.2	J	0.25	MDL	4.1	PQL	ug/Kg	U	B
TOLUENE	0.1	J	0.08	MDL	4.1	PQL	ug/Kg	J	Z

Sample ID: SL-029-SA5A-SB-3.0-4.0 *Collected:* 2/21/2011 2:48:00 *Analysis Type:* RES *Dilution:* 0.83

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.75	J	0.21	MDL	3.6	PQL	ug/Kg	U	B
TOLUENE	0.08	J	0.07	MDL	3.6	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE087 **Laboratory: LL**

EDD Filename: DE087_v2 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE087 **Laboratory: LL**

EDD Filename: DE087_v2 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE087

Method Blank Outlier Report

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P05408CB222324	3/1/2011 11:24:00 PM	PHOSPHORUS TIN	1.26 mg/Kg 1.60 mg/Kg	SL-025-SA5A-SB-4.5-5.5 SL-028-SA5A-SB-3.5-4.5 SL-029-SA5A-SB-3.0-4.0 SL-054-SA5A-SS-0.0-0.5 SL-055-SA5A-SS-0.0-0.5 SL-056-SA5A-SS-0.0-0.5 SL-057-SA5A-SS-0.0-0.5 SL-058-SA5A-SS-0.0-0.5 SL-059-SA5A-SS-0.0-0.5 SL-060-SA5A-SS-0.0-0.5 SL-061-SA5A-SS-0.0-0.5 SL-062-SA5A-SS-0.0-0.5 SL-063-SA5A-SS-0.0-0.5 SL-064-SA5A-SS-0.0-0.5 SL-095-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-025-SA5A-SB-4.5-5.5(RES)	TIN	2.57 mg/Kg	2.57U mg/Kg
SL-028-SA5A-SB-3.5-4.5(RES)	TIN	3.06 mg/Kg	3.06U mg/Kg
SL-029-SA5A-SB-3.0-4.0(RES)	TIN	2.73 mg/Kg	2.73U mg/Kg
SL-054-SA5A-SS-0.0-0.5(RES)	TIN	2.97 mg/Kg	2.97U mg/Kg
SL-055-SA5A-SS-0.0-0.5(RES)	TIN	2.59 mg/Kg	2.59U mg/Kg
SL-056-SA5A-SS-0.0-0.5(RES)	TIN	2.69 mg/Kg	2.69U mg/Kg
SL-057-SA5A-SS-0.0-0.5(RES)	TIN	2.88 mg/Kg	2.88U mg/Kg
SL-058-SA5A-SS-0.0-0.5(RES)	TIN	2.92 mg/Kg	2.92U mg/Kg
SL-059-SA5A-SS-0.0-0.5(RES)	TIN	2.91 mg/Kg	2.91U mg/Kg
SL-060-SA5A-SS-0.0-0.5(RES)	TIN	2.97 mg/Kg	2.97U mg/Kg
SL-061-SA5A-SS-0.0-0.5(RES)	TIN	2.97 mg/Kg	2.97U mg/Kg
SL-062-SA5A-SS-0.0-0.5(RES)	TIN	3.05 mg/Kg	3.05U mg/Kg
SL-063-SA5A-SS-0.0-0.5(RES)	TIN	3.17 mg/Kg	3.17U mg/Kg
SL-064-SA5A-SS-0.0-0.5(RES)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-095-SA5A-SS-0.0-0.5(RES)	TIN	2.82 mg/Kg	2.82U mg/Kg

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB78B210235A	2/25/2011 2:35:00 AM	METHYLENE CHLORIDE	0.60 ug/Kg	SL-025-SA5A-SB-4.5-5.5 SL-028-SA5A-SB-3.5-4.5 SL-029-SA5A-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-025-SA5A-SB-4.5-5.5(RES)	METHYLENE CHLORIDE	1.1 ug/Kg	4.1U ug/Kg
SL-028-SA5A-SB-3.5-4.5(RES)	METHYLENE CHLORIDE	1.2 ug/Kg	4.1U ug/Kg
SL-029-SA5A-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	0.75 ug/Kg	3.6U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE087 | Laboratory: LL

EDD Filename: DE087_v2 | eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-054-SA5A-SS-0.0-0.5MS	ANTIMONY	2	3	75.00-125.00	-	ANTIMONY	
SL-054-SA5A-SS-0.0-0.5MSD	ARSENIC	-64	-65	75.00-125.00	-	ARSENIC	
(SL-025-SA5A-SB-4.5-5.5	VANADIUM	26	26	75.00-125.00	-	VANADIUM	
SL -028-SA5A-SB-3.5-4.5							J (all detects)
SL -029-SA5A-SB-3.0-4.0							R (all non-detects)
SL -054-SA5A-SS-0.0-0.5							
SL -055-SA5A-SS-0.0-0.5							Sb, As
SL -056-SA5A-SS-0.0-0.5							J (all detects)
SL -057-SA5A-SS-0.0-0.5							UJ (all non-detects)
SL -058-SA5A-SS-0.0-0.5							
SL -059-SA5A-SS-0.0-0.5							Post Spike = (Sb)
SL -060-SA5A-SS-0.0-0.5							85% and (As)
SL -061-SA5A-SS-0.0-0.5							109%
SL -062-SA5A-SS-0.0-0.5							
SL -063-SA5A-SS-0.0-0.5							
SL -064-SA5A-SS-0.0-0.5							
SL -095-SA5A-SS-0.0-0.5)							
SL-054-SA5A-SS-0.0-0.5MS	LEAD	39	43	75.00-125.00	-	LEAD	
SL-054-SA5A-SS-0.0-0.5MSD	ZINC	-	62	75.00-125.00	-	ZINC	
(SL-025-SA5A-SB-4.5-5.5							
SL -028-SA5A-SB-3.5-4.5							
SL -029-SA5A-SB-3.0-4.0							
SL -054-SA5A-SS-0.0-0.5							
SL -055-SA5A-SS-0.0-0.5							
SL -056-SA5A-SS-0.0-0.5							
SL -057-SA5A-SS-0.0-0.5							J(all detects)
SL -058-SA5A-SS-0.0-0.5							UJ(all non-detects)
SL -059-SA5A-SS-0.0-0.5							
SL -060-SA5A-SS-0.0-0.5							Zn No Qual, >4x
SL -061-SA5A-SS-0.0-0.5							
SL -062-SA5A-SS-0.0-0.5							
SL -063-SA5A-SS-0.0-0.5							
SL -064-SA5A-SS-0.0-0.5							
SL -095-SA5A-SS-0.0-0.5)							
SL-054-SA5A-SS-0.0-0.5MS	BARIUM	57	57	75.00-125.00	-	BARIUM	
SL-054-SA5A-SS-0.0-0.5MSD							
(SL-025-SA5A-SB-4.5-5.5							
SL -028-SA5A-SB-3.5-4.5							
SL -029-SA5A-SB-3.0-4.0							
SL -054-SA5A-SS-0.0-0.5							
SL -055-SA5A-SS-0.0-0.5							
SL -056-SA5A-SS-0.0-0.5							
SL -057-SA5A-SS-0.0-0.5							No Qual, >4x
SL -058-SA5A-SS-0.0-0.5							
SL -059-SA5A-SS-0.0-0.5							
SL -060-SA5A-SS-0.0-0.5							
SL -061-SA5A-SS-0.0-0.5							
SL -062-SA5A-SS-0.0-0.5							
SL -063-SA5A-SS-0.0-0.5							
SL -064-SA5A-SS-0.0-0.5							
SL -095-SA5A-SS-0.0-0.5)							

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-054-SA5A-SS-0.0-0.5MS	ALUMINUM	1896	1556	75.00-125.00	-	ALUMINUM	
SL-054-SA5A-SS-0.0-0.5MSD	CALCIUM	185	158	75.00-125.00	-	CALCIUM	
(SL-025-SA5A-SB-4.5-5.5	IRON	1028	524	75.00-125.00	-	IRON	
SL -028-SA5A-SB-3.5-4.5	MAGNESIUM	191	153	75.00-125.00	-	MAGNESIUM	
SL -029-SA5A-SB-3.0-4.0	POTASSIUM	143	-	75.00-125.00	-	POTASSIUM	
SL -054-SA5A-SS-0.0-0.5	TITANIUM	366	258	75.00-125.00	-	TITANIUM	J(all detects)
SL -055-SA5A-SS-0.0-0.5							
SL -056-SA5A-SS-0.0-0.5							Al, Ca, Fe, Mg, Ti No Qual, >4x
SL -057-SA5A-SS-0.0-0.5							
SL -058-SA5A-SS-0.0-0.5							
SL -059-SA5A-SS-0.0-0.5							
SL -060-SA5A-SS-0.0-0.5							
SL -061-SA5A-SS-0.0-0.5							
SL -062-SA5A-SS-0.0-0.5							
SL -063-SA5A-SS-0.0-0.5							
SL -064-SA5A-SS-0.0-0.5							
SL -095-SA5A-SS-0.0-0.5)							

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-054-SA5A-SS-0.0-0.5MSD (SL-054-SA5A-SS-0.0-0.5)	ANILINE	-	-	35.00-95.00	47 (30.00)	ANILINE	J(all detects)
SL-054-SA5A-SS-0.0-0.5MS SL-054-SA5A-SS-0.0-0.5MSD (SL-054-SA5A-SS-0.0-0.5)	BENZIDINE	0	0	35.00-141.00	-	BENZIDINE	J(all detects) R(all non-detects)

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-054-SA5A-SS-0.0-0.5MS (SL-054-SA5A-SS-0.0-0.5	FLUORIDE	44	-	80.00-120.00	-	FLUORIDE	
SL -055-SA5A-SS-0.0-0.5							
SL -056-SA5A-SS-0.0-0.5							
SL -057-SA5A-SS-0.0-0.5							
SL -058-SA5A-SS-0.0-0.5							J(all detects) UJ(all non-detects)
SL -059-SA5A-SS-0.0-0.5							
SL -060-SA5A-SS-0.0-0.5							
SL -061-SA5A-SS-0.0-0.5							
SL -062-SA5A-SS-0.0-0.5							
SL -063-SA5A-SS-0.0-0.5)							
SL-064-SA5A-SS-0.0-0.5MS (SL-025-SA5A-SB-4.5-5.5	FLUORIDE	56	-	80.00-120.00	-	FLUORIDE	
SL -028-SA5A-SB-3.5-4.5							
SL -029-SA5A-SB-3.0-4.0							J(all detects) UJ(all non-detects)
SL -064-SA5A-SS-0.0-0.5							
SL -095-SA5A-SS-0.0-0.5)							

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method: 314.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-054-SA5A-SS-0.0-0.5MS (SL-054-SA5A-SS-0.0-0.5 SL-055-SA5A-SS-0.0-0.5 SL-056-SA5A-SS-0.0-0.5 SL-057-SA5A-SS-0.0-0.5 SL-058-SA5A-SS-0.0-0.5 SL-059-SA5A-SS-0.0-0.5 SL-060-SA5A-SS-0.0-0.5 SL-061-SA5A-SS-0.0-0.5 SL-062-SA5A-SS-0.0-0.5 SL-063-SA5A-SS-0.0-0.5)	PERCHLORATE	121	-	80.00-120.00	-	PERCHLORATE	J(all detects)

Method: 8151A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-054-SA5A-SS-0.0-0.5MSD (SL-054-SA5A-SS-0.0-0.5)	MCPP	-	-	10.00-184.00	68 (50.00)	MCPP	J(all detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-064-SA5A-SS-0.0-0.5DUP (SL-025-SA5A-SB-4.5-5.5 SL -028-SA5A-SB-3.5-4.5 SL -029-SA5A-SB-3.0-4.0 SL -064-SA5A-SS-0.0-0.5 SL -095-SA5A-SS-0.0-0.5)	FLUORIDE	200	20.00	No Qual OK by difference
SL-054-SA5A-SS-0.0-0.5DUP (SL-054-SA5A-SS-0.0-0.5 SL -055-SA5A-SS-0.0-0.5 SL -056-SA5A-SS-0.0-0.5 SL -057-SA5A-SS-0.0-0.5 SL -058-SA5A-SS-0.0-0.5 SL -059-SA5A-SS-0.0-0.5 SL -060-SA5A-SS-0.0-0.5 SL -061-SA5A-SS-0.0-0.5 SL -062-SA5A-SS-0.0-0.5 SL -063-SA5A-SS-0.0-0.5)	FLUORIDE	200	20.00	No Qual OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-054-SA5A-SS-0.0-0.5DUP (SL-025-SA5A-SB-4.5-5.5 SL -028-SA5A-SB-3.5-4.5 SL -029-SA5A-SB-3.0-4.0 SL -054-SA5A-SS-0.0-0.5 SL -055-SA5A-SS-0.0-0.5 SL -056-SA5A-SS-0.0-0.5 SL -057-SA5A-SS-0.0-0.5 SL -058-SA5A-SS-0.0-0.5 SL -059-SA5A-SS-0.0-0.5 SL -060-SA5A-SS-0.0-0.5 SL -061-SA5A-SS-0.0-0.5 SL -062-SA5A-SS-0.0-0.5 SL -063-SA5A-SS-0.0-0.5 SL -064-SA5A-SS-0.0-0.5 SL -095-SA5A-SS-0.0-0.5)	ANTIMONY	137	20.00	J(all detects) UJ(all non-detects)
	ARSENIC	62	20.00	
	CADMIUM	39	20.00	
	LEAD	26	20.00	
	MOLYBDENUM	63	20.00	
	SELENIUM	70	20.00	
	SILVER	26	20.00	
	VANADIUM	24	20.00	Sb, Cd, Se, Ag No Qual OK by difference

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method: 8151A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10598AQ240241A (SL-054-SA5A-SS-0.0-0.5 SL-055-SA5A-SS-0.0-0.5 SL-056-SA5A-SS-0.0-0.5 SL-057-SA5A-SS-0.0-0.5 SL-058-SA5A-SS-0.0-0.5 SL-059-SA5A-SS-0.0-0.5 SL-060-SA5A-SS-0.0-0.5 SL-061-SA5A-SS-0.0-0.5 SL-062-SA5A-SS-0.0-0.5 SL-063-SA5A-SS-0.0-0.5 SL-064-SA5A-SS-0.0-0.5 SL-095-SA5A-SS-0.0-0.5)	DINOSEB	39	-	10.00-36.00	-	DINOSEB	J (all detects)

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Surrogate Outlier Report

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-055-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	40 37	45.00-120.00 53.00-139.00	All Target Analytes	J (all detects) UJ (all non-detects)
SL-095-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	151 150	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-025-SA5A-SB-4.5-5.5	Nitrate-NO3	J	1.2	1.7	PQL	mg/Kg	J (all detects)
SL-054-SA5A-SS-0.0-0.5	FLUORIDE	J	0.97	1.2	PQL	mg/Kg	J (all detects)
SL-059-SA5A-SS-0.0-0.5	FLUORIDE	J	1.1	1.2	PQL	mg/Kg	J (all detects)
SL-062-SA5A-SS-0.0-0.5	FLUORIDE	J	1.1	1.2	PQL	mg/Kg	J (all detects)
SL-095-SA5A-SS-0.0-0.5	FLUORIDE	J	1.1	1.2	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-025-SA5A-SB-4.5-5.5	TIN	J	2.57	11.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.15	5.57	PQL	mg/Kg	
SL-028-SA5A-SB-3.5-4.5	TIN	J	3.06	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.42	5.46	PQL	mg/Kg	
SL-029-SA5A-SB-3.0-4.0	TIN	J	2.73	10.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.65	5.17	PQL	mg/Kg	
SL-054-SA5A-SS-0.0-0.5	BORON	J	2.62	5.81	PQL	mg/Kg	J (all detects)
	SODIUM	J	77.0	116	PQL	mg/Kg	
	TIN	J	2.97	11.6	PQL	mg/Kg	
	Zirconium	J	2.05	5.81	PQL	mg/Kg	
SL-055-SA5A-SS-0.0-0.5	BORON	J	2.50	5.79	PQL	mg/Kg	J (all detects)
	SODIUM	J	70.5	116	PQL	mg/Kg	
	TIN	J	2.59	11.6	PQL	mg/Kg	
	Zirconium	J	1.80	5.79	PQL	mg/Kg	
SL-056-SA5A-SS-0.0-0.5	BORON	J	3.51	5.80	PQL	mg/Kg	J (all detects)
	SODIUM	J	72.5	116	PQL	mg/Kg	
	TIN	J	2.69	11.6	PQL	mg/Kg	
	Zirconium	J	1.24	5.80	PQL	mg/Kg	
SL-057-SA5A-SS-0.0-0.5	BORON	J	1.92	5.75	PQL	mg/Kg	J (all detects)
	SODIUM	J	86.7	115	PQL	mg/Kg	
	TIN	J	2.88	11.5	PQL	mg/Kg	
	Zirconium	J	1.40	5.75	PQL	mg/Kg	
SL-058-SA5A-SS-0.0-0.5	BORON	J	1.86	5.77	PQL	mg/Kg	J (all detects)
	SODIUM	J	73.4	115	PQL	mg/Kg	
	TIN	J	2.92	11.5	PQL	mg/Kg	
	Zirconium	J	1.43	5.77	PQL	mg/Kg	
SL-059-SA5A-SS-0.0-0.5	BORON	J	1.88	5.83	PQL	mg/Kg	J (all detects)
	SODIUM	J	67.3	117	PQL	mg/Kg	
	TIN	J	2.91	11.7	PQL	mg/Kg	
	Zirconium	J	1.52	5.83	PQL	mg/Kg	
SL-060-SA5A-SS-0.0-0.5	BORON	J	1.92	5.57	PQL	mg/Kg	J (all detects)
	SODIUM	J	72.6	111	PQL	mg/Kg	
	TIN	J	2.97	11.1	PQL	mg/Kg	
	Zirconium	J	1.77	5.57	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-061-SA5A-SS-0.0-0.5	BORON	J	1.98	5.76	PQL	mg/Kg	J (all detects)
	SODIUM	J	79.2	115	PQL	mg/Kg	
	TIN	J	2.97	11.5	PQL	mg/Kg	
	Zirconium	J	1.40	5.76	PQL	mg/Kg	
SL-062-SA5A-SS-0.0-0.5	BORON	J	1.53	5.70	PQL	mg/Kg	J (all detects)
	SODIUM	J	91.1	114	PQL	mg/Kg	
	TIN	J	3.05	11.4	PQL	mg/Kg	
	Zirconium	J	1.32	5.70	PQL	mg/Kg	
SL-063-SA5A-SS-0.0-0.5	BORON	J	1.86	5.80	PQL	mg/Kg	J (all detects)
	SODIUM	J	77.8	116	PQL	mg/Kg	
	TIN	J	3.17	11.6	PQL	mg/Kg	
	Zirconium	J	1.50	5.80	PQL	mg/Kg	
SL-064-SA5A-SS-0.0-0.5	BORON	J	1.88	5.69	PQL	mg/Kg	J (all detects)
	SODIUM	J	65.6	114	PQL	mg/Kg	
	TIN	J	3.00	11.4	PQL	mg/Kg	
	Zirconium	J	1.29	5.69	PQL	mg/Kg	
SL-095-SA5A-SS-0.0-0.5	BORON	J	2.00	5.96	PQL	mg/Kg	J (all detects)
	SODIUM	J	70.0	119	PQL	mg/Kg	
	TIN	J	2.82	11.9	PQL	mg/Kg	
	Zirconium	J	1.32	5.96	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-025-SA5A-SB-4.5-5.5	ANTIMONY	J	0.0907	0.225	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.100	0.450	PQL	mg/Kg	
	SILVER	J	0.0242	0.112	PQL	mg/Kg	
SL-028-SA5A-SB-3.5-4.5	ANTIMONY	J	0.0922	0.216	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0719	0.108	PQL	mg/Kg	
	SELENIUM	J	0.0929	0.432	PQL	mg/Kg	
	SILVER	J	0.0456	0.108	PQL	mg/Kg	
SL-029-SA5A-SB-3.0-4.0	ANTIMONY	J	0.103	0.209	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0423	0.104	PQL	mg/Kg	
	SELENIUM	J	0.146	0.418	PQL	mg/Kg	
	SILVER	J	0.0318	0.104	PQL	mg/Kg	
SL-054-SA5A-SS-0.0-0.5	SELENIUM	J	0.239	0.451	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0599	0.113	PQL	mg/Kg	
SL-055-SA5A-SS-0.0-0.5	ANTIMONY	J	0.106	0.229	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.122	0.459	PQL	mg/Kg	
	SILVER	J	0.0528	0.115	PQL	mg/Kg	
SL-056-SA5A-SS-0.0-0.5	ANTIMONY	J	0.109	0.234	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.137	0.468	PQL	mg/Kg	
	SILVER	J	0.0505	0.117	PQL	mg/Kg	
SL-057-SA5A-SS-0.0-0.5	ANTIMONY	J	0.157	0.230	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.154	0.460	PQL	mg/Kg	
	SILVER	J	0.0667	0.115	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-058-SA5A-SS-0.0-0.5	ANTIMONY	J	0.124	0.231	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.146	0.461	PQL	mg/Kg	
	SILVER	J	0.0432	0.115	PQL	mg/Kg	
SL-059-SA5A-SS-0.0-0.5	ANTIMONY	J	0.122	0.238	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.157	0.475	PQL	mg/Kg	
	SILVER	J	0.0711	0.119	PQL	mg/Kg	
SL-060-SA5A-SS-0.0-0.5	ANTIMONY	J	0.152	0.229	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.159	0.459	PQL	mg/Kg	
	SILVER	J	0.0630	0.115	PQL	mg/Kg	
SL-061-SA5A-SS-0.0-0.5	ANTIMONY	J	0.154	0.230	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.163	0.461	PQL	mg/Kg	
	SILVER	J	0.0482	0.115	PQL	mg/Kg	
SL-062-SA5A-SS-0.0-0.5	ANTIMONY	J	0.160	0.228	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.247	0.456	PQL	mg/Kg	
	SILVER	J	0.0599	0.114	PQL	mg/Kg	
SL-063-SA5A-SS-0.0-0.5	ANTIMONY	J	0.115	0.232	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.158	0.464	PQL	mg/Kg	
	SILVER	J	0.0772	0.116	PQL	mg/Kg	
SL-064-SA5A-SS-0.0-0.5	ANTIMONY	J	0.118	0.225	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.120	0.451	PQL	mg/Kg	
	SILVER	J	0.0517	0.113	PQL	mg/Kg	
SL-095-SA5A-SS-0.0-0.5	ANTIMONY	J	0.149	0.243	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.157	0.486	PQL	mg/Kg	
	SILVER	J	0.0876	0.121	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-025-SA5A-SB-4.5-5.5	HEXAVALENT CHROMIUM	J	0.31	1.1	PQL	mg/Kg	J (all detects)
SL-028-SA5A-SB-3.5-4.5	HEXAVALENT CHROMIUM	J	0.36	1.1	PQL	mg/Kg	J (all detects)
SL-029-SA5A-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.96	1.1	PQL	mg/Kg	J (all detects)
SL-054-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.72	1.2	PQL	mg/Kg	J (all detects)
SL-055-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.50	1.2	PQL	mg/Kg	J (all detects)
SL-057-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.43	1.2	PQL	mg/Kg	J (all detects)
SL-058-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.62	1.2	PQL	mg/Kg	J (all detects)
SL-059-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.54	1.2	PQL	mg/Kg	J (all detects)
SL-060-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.46	1.2	PQL	mg/Kg	J (all detects)
SL-061-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.62	1.2	PQL	mg/Kg	J (all detects)
SL-062-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.53	1.2	PQL	mg/Kg	J (all detects)
SL-063-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.63	1.2	PQL	mg/Kg	J (all detects)
SL-064-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.36	1.2	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-095-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.50	1.2	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-028-SA5A-SB-3.5-4.5	MERCURY	J	0.0042	0.111	PQL	mg/Kg	J (all detects)
SL-029-SA5A-SB-3.0-4.0	MERCURY	J	0.0054	0.101	PQL	mg/Kg	J (all detects)
SL-055-SA5A-SS-0.0-0.5	MERCURY	J	0.0105	0.112	PQL	mg/Kg	J (all detects)
SL-056-SA5A-SS-0.0-0.5	MERCURY	J	0.0062	0.113	PQL	mg/Kg	J (all detects)
SL-057-SA5A-SS-0.0-0.5	MERCURY	J	0.0094	0.115	PQL	mg/Kg	J (all detects)
SL-058-SA5A-SS-0.0-0.5	MERCURY	J	0.0071	0.116	PQL	mg/Kg	J (all detects)
SL-059-SA5A-SS-0.0-0.5	MERCURY	J	0.0134	0.113	PQL	mg/Kg	J (all detects)
SL-060-SA5A-SS-0.0-0.5	MERCURY	J	0.0132	0.111	PQL	mg/Kg	J (all detects)
SL-061-SA5A-SS-0.0-0.5	MERCURY	J	0.0056	0.113	PQL	mg/Kg	J (all detects)
SL-062-SA5A-SS-0.0-0.5	MERCURY	J	0.0105	0.114	PQL	mg/Kg	J (all detects)
SL-063-SA5A-SS-0.0-0.5	MERCURY	J	0.0138	0.117	PQL	mg/Kg	J (all detects)
SL-064-SA5A-SS-0.0-0.5	MERCURY	J	0.0099	0.112	PQL	mg/Kg	J (all detects)
SL-095-SA5A-SS-0.0-0.5	MERCURY	J	0.0232	0.115	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-025-SA5A-SB-4.5-5.5	EFH (C30-C40)	J	0.48	1.4	PQL	mg/Kg	J (all detects)
SL-028-SA5A-SB-3.5-4.5	EFH (C30-C40)	J	0.48	1.3	PQL	mg/Kg	J (all detects)
SL-029-SA5A-SB-3.0-4.0	EFH (C8-C11)	J	0.59	1.3	PQL	mg/Kg	J (all detects)

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-054-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.22	0.40	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.32	0.40	PQL	ug/Kg	
	MIREX	J	0.14	0.40	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-055-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.086	0.40	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.24	0.40	PQL	ug/Kg	
	MIREX	J	0.17	0.40	PQL	ug/Kg	
SL-056-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.13	0.40	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.38	0.40	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.11	0.40	PQL	ug/Kg	
SL-057-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.38	0.40	PQL	ug/Kg	J (all detects)
	ENDRIN KETONE	J	0.11	0.40	PQL	ug/Kg	
SL-058-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.087	0.40	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.22	0.40	PQL	ug/Kg	
SL-059-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.30	0.41	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.38	0.41	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.14	0.41	PQL	ug/Kg	
SL-060-SA5A-SS-0.0-0.5	ENDRIN ALDEHYDE	J	0.15	0.39	PQL	ug/Kg	J (all detects)
	ENDRIN KETONE	J	0.083	0.39	PQL	ug/Kg	
	MIREX	J	0.079	0.39	PQL	ug/Kg	
SL-061-SA5A-SS-0.0-0.5	4,4'-DDT	J	0.36	0.40	PQL	ug/Kg	J (all detects)
SL-062-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.094	0.40	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.28	0.40	PQL	ug/Kg	
SL-063-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.37	0.40	PQL	ug/Kg	J (all detects)
	ENDRIN ALDEHYDE	J	0.16	0.40	PQL	ug/Kg	
SL-064-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.15	0.39	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.35	0.39	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.10	0.39	PQL	ug/Kg	
SL-095-SA5A-SS-0.0-0.5	ENDRIN ALDEHYDE	J	0.19	0.42	PQL	ug/Kg	J (all detects)
	ENDRIN KETONE	J	0.24	0.42	PQL	ug/Kg	
	gamma-BHC (Lindane)	J	0.15	0.20	PQL	ug/Kg	
	HEPTACHLOR EPOXIDE	J	0.053	0.20	PQL	ug/Kg	
	MIREX	J	0.20	0.42	PQL	ug/Kg	

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-054-SA5A-SS-0.0-0.5	AROCLOR 1254	J	0.72	2.0	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	1.0	2.0	PQL	ug/Kg	
	Aroclor 5460	J	2.9	3.9	PQL	ug/Kg	
SL-055-SA5A-SS-0.0-0.5	AROCLOR 1254	J	1.8	2.0	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	1.8	2.0	PQL	ug/Kg	
	Aroclor 5460	J	3.6	3.9	PQL	ug/Kg	
SL-056-SA5A-SS-0.0-0.5	AROCLOR 1260	J	1.4	2.0	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	2.0	3.9	PQL	ug/Kg	
SL-058-SA5A-SS-0.0-0.5	AROCLOR 1260	J	1.1	2.0	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	2.5	3.9	PQL	ug/Kg	
SL-059-SA5A-SS-0.0-0.5	AROCLOR 1260	J	1.7	2.0	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	3.7	4.0	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-060-SA5A-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J J	1.3 1.8	2.0 3.8	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-061-SA5A-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J J	0.58 3.3	2.0 3.9	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-062-SA5A-SS-0.0-0.5	AROCLOR 1260	J	1.5	2.0	PQL	ug/Kg	J (all detects)
SL-064-SA5A-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	0.54 0.72 1.6	2.0 2.0 3.8	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-055-SA5A-SS-0.0-0.5	DICAMBA	J	0.69	1.4	PQL	ug/Kg	J (all detects)
SL-056-SA5A-SS-0.0-0.5	DICAMBA	J	0.47	1.4	PQL	ug/Kg	J (all detects)
SL-058-SA5A-SS-0.0-0.5	DICAMBA	J	0.50	1.4	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-025-SA5A-SB-4.5-5.5	METHYLENE CHLORIDE TOLUENE	J J	1.1 0.1	4.1 4.1	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-028-SA5A-SB-3.5-4.5	METHYLENE CHLORIDE TOLUENE	J J	1.2 0.1	4.1 4.1	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-029-SA5A-SB-3.0-4.0	METHYLENE CHLORIDE TOLUENE	J J	0.75 0.08	3.6 3.6	PQL PQL	ug/Kg ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-028-SA5A-SB-3.5-4.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	370	PQL	ug/Kg	J (all detects)
SL-054-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	29	390	PQL	ug/Kg	J (all detects)
SL-055-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	32	390	PQL	ug/Kg	J (all detects)
SL-056-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	31	390	PQL	ug/Kg	J (all detects)
SL-057-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	390	PQL	ug/Kg	J (all detects)
SL-059-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	26	400	PQL	ug/Kg	J (all detects)
SL-060-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	28	390	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-061-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	130	390	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	29	200	PQL	ug/Kg	
SL-063-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	33	390	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-025-SA5A-SB-4.5-5.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.6	21	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	11	21	PQL	ug/Kg	
SL-028-SA5A-SB-3.5-4.5	Di-n-octylphthalate	J	11	20	PQL	ug/Kg	J (all detects)
SL-029-SA5A-SB-3.0-4.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	11	19	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	11	19	PQL	ug/Kg	
SL-055-SA5A-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.96	2.0	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	0.79	2.0	PQL	ug/Kg	
	ANTHRACENE	J	0.58	2.0	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	0.79	2.0	PQL	ug/Kg	
	BENZO(A)PYRENE	J	0.95	2.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.2	2.0	PQL	ug/Kg	
	Di-n-octylphthalate	J	12	21	PQL	ug/Kg	
	NAPHTHALENE	J	1.0	2.0	PQL	ug/Kg	
SL-056-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	0.54	2.0	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.46	2.0	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.7	2.0	PQL	ug/Kg	
	Di-n-octylphthalate	J	12	21	PQL	ug/Kg	
SL-057-SA5A-SS-0.0-0.5	Di-n-octylphthalate	J	12	21	PQL	ug/Kg	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	1.8	2.0	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	2.0	PQL	ug/Kg	
SL-058-SA5A-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.5	2.0	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.5	2.0	PQL	ug/Kg	
	CHRYSENE	J	1.8	2.0	PQL	ug/Kg	
SL-059-SA5A-SS-0.0-0.5	CHRYSENE	J	0.51	2.0	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	12	22	PQL	ug/Kg	
	FLUORANTHENE	J	0.84	2.0	PQL	ug/Kg	
SL-060-SA5A-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.78	1.9	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	1.6	1.9	PQL	ug/Kg	
	ANTHRACENE	J	1.3	1.9	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.2	1.9	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.1	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.0	1.9	PQL	ug/Kg	
	Di-n-octylphthalate	J	11	21	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.89	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.3	1.9	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE087 Laboratory: LL

EDD Filename: DE087_v2 eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-061-SA5A-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.82	2.0	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	1.5	2.0	PQL	ug/Kg	
	ANTHRACENE	J	1.0	2.0	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	0.94	2.0	PQL	ug/Kg	
	BENZO(A)PYRENE	J	0.84	2.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.0	2.0	PQL	ug/Kg	
	Di-n-octylphthalate	J	11	21	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.0	2.0	PQL	ug/Kg	
	NAPHTHALENE	J	1.0	2.0	PQL	ug/Kg	
SL-062-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	10	21	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	11	21	PQL	ug/Kg	
SL-063-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	1.3	2.0	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.57	2.0	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.8	2.0	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.8	2.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.5	2.0	PQL	ug/Kg	
	Di-n-octylphthalate	J	12	21	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.2	2.0	PQL	ug/Kg	
	NAPHTHALENE	J	0.90	2.0	PQL	ug/Kg	
SL-064-SA5A-SS-0.0-0.5	ACENAPHTHENE	J	0.95	1.9	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	0.46	1.9	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.6	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.80	1.9	PQL	ug/Kg	
	CHRYSENE	J	1.6	1.9	PQL	ug/Kg	
	Di-n-octylphthalate	J	12	21	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	1.9	PQL	ug/Kg	
	PYRENE	J	1.6	1.9	PQL	ug/Kg	
SL-095-SA5A-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.83	2.0	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	0.97	2.0	PQL	ug/Kg	
	ANTHRACENE	J	1.9	2.0	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.9	2.0	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.7	2.0	PQL	ug/Kg	
	Di-n-octylphthalate	J	13	22	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.5	2.0	PQL	ug/Kg	
	NAPHTHALENE	J	1.6	2.0	PQL	ug/Kg	

LDC #: 25911A4 **VALIDATION COMPLETENESS WORKSHEET** Date: 6/25/1)
SDG #: DE087 ADR
Laboratory: Lancaster Laboratories Reviewer: W
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	N	
III.	Calibration	N	
IV.	Blanks	A	No qual by rel/lcs
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	Al, Ba, Ca, Fe, Mg, Ti, Zn >4X.
VII.	Duplicate Sample Analysis	N	Sb, Cd, Se, Ag, <5x RL.
VIII.	Laboratory Control Samples (LCS)	N A	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Cu, Ni. J/nJ
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	N	
XV	Field Blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: ϕ

1	SL-054-SA5A-SS-0.0-0.5	11	SL-064-SA5A-SS-0.0-0.5	21		31	
2	SL-055-SA5A-SS-0.0-0.5	12	SL-095-SA5A-SS-0.0-0.5	22		32	
3	SL-056-SA5A-SS-0.0-0.5	13	SL-025-SA5A-SS-4.5-5.5	23		33	
4	SL-057-SA5A-SS-0.0-0.5	14	SL-028-SA5A-SS-3.5-4.5	24		34	
5	SL-058-SA5A-SS-0.0-0.5	15	SL-029-SA5A-SS-3.0-4.0	25		35	
6	SL-059-SA5A-SS-0.0-0.5	16		26		36	
7	SL-060-SA5A-SS-0.0-0.5	17		27		37	
8	SL-061-SA5A-SS-0.0-0.5	18		28		38	
9	SL-062-SA5A-SS-0.0-0.5	19		29		39	
10	SL-063-SA5A-SS-0.0-0.5	20		30		40	

Notes: _____

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE087
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6211463BKG Matrix Spike Lab Sample ID: 6211463MS Matrix Spike Duplicate Lab Sample ID: 6211463MSD
% Solids for Sample: 85.2
Batch Id(s): P05408C, P05426A, P05411B

		BKG Sample		MS Sample		MSD Sample		MS Spike	MSD Spike		MS		MSD				Control Limit		
Analyte	Mass	Result	C	Result	C	Result	C	Added	Added	Units	%R	Q	%R	Q	RPD	Q	%R	RPD	M
Aluminum		14262.8527		18626.9194		17809.0547		230.1390	227.9046	MG/KG	1896		1556		4			20	P
Antimony	121	0.4489		0.4832		0.4930		1.3945	1.3945	MG/KG	2	N	3	N	2		75 - 125	20	MS
Arsenic	75	8.0534		6.5728		6.5449		2.3242	2.3242	MG/KG	-64	N	-65	N	0		75 - 125	20	MS
Barium	137	119.1766		125.8309		125.8077		11.6209	11.6209	MG/KG	57		57		0			20	MS
Beryllium	9	0.6697		1.4503		1.4742		0.9297	0.9297	MG/KG	84		87		2		75 - 125	20	MS
Boron		2.6228	B	234.5531		228.9735		230.1390	227.9046	MG/KG	101		99		2		84 - 115	20	P
Cadmium	111	0.2630		1.3499		1.3796		1.1621	1.1621	MG/KG	94		96		2		75 - 125	20	MS
Calcium		2351.8152		3203.0747		3072.5477		460.2780	455.8093	MG/KG	185		158		4			20	P
Chromium	52	20.7024		30.2143		30.3073		11.6209	11.6209	MG/KG	82		83		0		75 - 125	20	MS
Cobalt	59	6.4215		56.5007		56.2218		58.1044	58.1044	MG/KG	86		86		0		75 - 125	20	MS
Copper	63	10.0623		20.9757		20.6247		11.6209	11.6209	MG/KG	94		91		2		75 - 125	20	MS
Iron		19020.1099		20203.4187		19617.3925		115.0695	113.9523	MG/KG	1028		524		3			20	P
Lead	208	12.6196		13.9915		14.1287		3.4863	3.4863	MG/KG	39	N	43	N	1		75 - 125	20	MS
Lithium		19.5545		136.5679		134.2666		115.0695	113.9523	MG/KG	102		101		2		82 - 114	20	P
Magnesium		3886.8870		4325.4660		4235.4768		230.1390	227.9046	MG/KG	191		153		2			20	P
Manganese		356.5786		419.2454		404.3256		57.5348	56.9762	MG/KG	109		84		4			20	P
Mercury		0.0035	U	0.2264		0.2010		0.1919	0.1914	MG/KG	118		105		12		65 - 135	20	CV
Molybdenum	98	1.1268		11.8510		11.5093		11.6209	11.6209	MG/KG	92		89		3		75 - 125	20	MS
Nickel	60	15.0302		24.2644		24.2876		11.6209	11.6209	MG/KG	79		80		0		75 - 125	20	MS
Phosphorus		352.0813		481.0354		475.9082		115.0695	113.9523	MG/KG	112		109		1		75 - 125	20	P
Potassium		3678.7745		5328.8974		5065.3368		1150.6950	1139.5232	MG/KG	143	N	122		5		75 - 125	20	P
Selenium	78	0.2395	B	2.3567		2.3590		2.3242	2.3242	MG/KG	91		91		0		75 - 125	20	MS
Silver	107	0.0599	B	11.8510		11.6116		11.6209	11.6209	MG/KG	101		99		2		75 - 125	20	MS
Sodium		76.9639	B	1218.2397		1196.2977		1150.6950	1139.5232	MG/KG	99		98		2		75 - 125	20	P
Strontium		22.5189		139.0811		134.4672		115.0695	113.9523	MG/KG	101		98		3		75 - 115	20	P
Thallium	203	0.2871		0.7256		0.7370		0.4648	0.4648	MG/KG	94		97		2		75 - 125	20	MS
Tin		2.9668	B	414.4401		409.3897		460.2780	455.8093	MG/KG	89		89		1		80 - 110	20	P
Titanium		1071.6009		1492.7345		1365.7699		115.0695	113.9523	MG/KG	366		258		9			20	P
Vanadium	51	41.8698		44.8566		44.9263		11.6209	11.6209	MG/KG	26	N	26	N	0		75 - 125	20	MS
Zinc	66	54.0132		63.3338		61.2188		11.6209	11.6209	MG/KG	80		62		3			20	MS
Zirconium		2.0511	B	109.7257		108.5384		115.0695	113.9523	MG/KG	94		93		1		75 - 125	20	P

METHODS:
P = ICP Atomic Emission Spectrometer CV = Cold Vapor
MS = ICP Mass Spectrometry AF = Cold Vapor Atomic Fluorescence

CONCENTRATION QUALIFIERS:
U= Below MDL, B= Below LOQ
FLAGS:
N = Matrix Spike OOS, * = Duplicate OOS

Sb: Post Spike 85% J/UJ V: J/R

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 6
DUPLICATES
SDG No.: DE087
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6211463BKG
% Solids for Duplicate: 85.2
Batch ID(s): P05408C, P05426A, P05411B
Concentration Units: MG/KG

Duplicate Lab Sample ID: 6211463DUP
% Solids for Sample: 85.2

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			14262.8527		13924.5026		2		P
Antimony	121	0.2	0.4489		0.0832	B	137	*	MS
Arsenic	75		8.0534		4.2346		62	*	MS
Barium	137		119.1766		108.1423		10		MS
Beryllium	9	0.1	0.6697		0.5519		19		MS
Boron			2.6228	B	2.3044	B	13		P
Cadmium	111	0.1	0.2630		0.1772		39		MS
Calcium			2351.8152		2341.8840		0		P
Chromium	52		20.7024		18.8645		9		MS
Cobalt	59		6.4215		5.5740		14		MS
Copper	63		10.0623		9.8799		2		MS
Iron			19020.1099		18834.0062		1		P
Lead	208		12.6196		9.7648		26	*	MS
Lithium			19.5545		18.5353		5		P
Magnesium			3886.8870		3764.7945		3		P
Manganese			356.5786		364.4482		2		P
Mercury			0.0035	U	0.0035	U			CV
Molybdenum	98		1.1268		0.5839		63	*	MS
Nickel	60		15.0302		13.0627		14		MS
Phosphorus			352.0813		363.1444		3		P
Potassium			3678.7745		3593.6097		2		P
Selenium	78		0.2395	B	0.1149	B	70		MS
Silver	107		0.0599	B	0.0460	B	26		MS
Sodium			76.9639	B	74.6223	B	3		P
Strontium			22.5189		22.1262		2		P
Thallium	203	0.1	0.2871		0.2633		9		MS
Tin			2.9668	B	2.6205	B	12		P
Titanium			1071.6009		1036.2537		3		P
Vanadium	51		41.8698		32.7948		24	*	MS
Zinc	66		54.0132		51.4591		5		MS
Zirconium			2.0511	B	2.0720	B	1		P

NOTE: An asterisk (*) in column "Q" indicates poor duplicate precision (RPD > 20% OR |(S) - (D)| > LOQ for values < 5x LOQ).
The data are considered to be valid because the laboratory control sample is within the control limits. See the Laboratory Control Sample.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ
FLAGS:
* = Duplicate Out of Spec

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE087
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6211463BKG Serial Dilution Lab Sample ID: 6211463L
Batch ID(s): P05408C, P05426A
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		122734.7000		122724.7500		0		P
Antimony	121	1.9890		1.5595	B	22		MS
Arsenic	75	35.6800		32.1650		10		MS
Barium	137	528.0000		527.0000		0		MS
Beryllium	9	2.9670		3.0745		4		MS
Boron		22.5700	B	44.5000	U	100		P
Cadmium	111	1.1650		1.0425	B	11		MS
Calcium		20237.8400		21178.4500		5		P
Chromium	52	91.7200		101.2500		10		MS
Cobalt	59	28.4500		29.3750		3		MS
Copper	63	44.5800		50.5000		13	E	MS
Iron		163671.8500		170754.0000		4		P
Lead	208	55.9100		57.5000		3		MS
Lithium		168.2700		175.8000		4		P
Magnesium		33447.4400		34624.2500		4		P
Manganese		3068.4300		3217.3500		5		P
Molybdenum	98	4.9920		5.1900		4		MS
Nickel	60	66.5900		75.7000		14	E	MS
Phosphorus		3029.7300		3112.9000		3		P
Potassium		31656.5900		33098.1500		5		P
Selenium	78	1.0610	B	1.3025	B	23		MS
Silver	107	0.2653	B	0.3000	U	100		MS
Sodium		662.2900	B	1865.0000	U	100		P
Strontium		193.7800		201.5500		4		P
Thallium	203	1.2720		1.1015	B	13		MS
Tin		25.5300	B	50.0000	U	100		P
Titanium		9221.3400		9716.6500		5		P
Vanadium	51	185.5000		202.1500		9		MS
Zinc	66	239.3000		240.7000		1		MS
Zirconium		17.6500	B	42.0000	U	100		P

NOTE: An E in column Q indicates the presence of a chemical or physical interference in the matrix when the % difference is greater than 10%. This applies only when (I) is greater than or equal to 50x MDL for ICP, 100x MDL for ICP-MS (6020), 50x MDL for ICP-MS (200.8), or 25x MDL for GFAA.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ

FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

SAMPLE DELIVERY GROUP

DE088

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Feb-2011	SL-196-SA5A-SS-0.0-0.5	6213421	N	3050B	6010B	III
22-Feb-2011	SL-196-SA5A-SS-0.0-0.5	6213421	N	3050B	6020	III
22-Feb-2011	SL-196-SA5A-SS-0.0-0.5	6213421	N	3060A	7199	III
22-Feb-2011	SL-196-SA5A-SS-0.0-0.5	6213421	N	3550B	8081A	III
22-Feb-2011	SL-196-SA5A-SS-0.0-0.5	6213421	N	3550B	8082	III
22-Feb-2011	SL-196-SA5A-SS-0.0-0.5	6213421	N	3550B	8151A	III
22-Feb-2011	SL-196-SA5A-SS-0.0-0.5	6213421	N	3550B	8270C	III
22-Feb-2011	SL-196-SA5A-SS-0.0-0.5	6213421	N	3550B	8270C SIM	III
22-Feb-2011	SL-196-SA5A-SS-0.0-0.5	6213421	N	Gen Prep	9045M	III
22-Feb-2011	SL-196-SA5A-SS-0.0-0.5	6213421	N	METHOD	300.0	III
22-Feb-2011	SL-196-SA5A-SS-0.0-0.5	6213421	N	METHOD	314.0	III
22-Feb-2011	SL-196-SA5A-SS-0.0-0.5	6213421	N	METHOD	7471A	III
22-Feb-2011	SL-031-SA5A-SB-4.0-5.0	6213432	N	3050B	6010B	III
22-Feb-2011	SL-031-SA5A-SB-4.0-5.0	6213432	N	3050B	6020	III
22-Feb-2011	SL-031-SA5A-SB-4.0-5.0	6213432	N	3060A	7199	III
22-Feb-2011	SL-031-SA5A-SB-4.0-5.0	6213432	N	3550B	8082	III
22-Feb-2011	SL-031-SA5A-SB-4.0-5.0	6213432	N	3550B	8270C	III
22-Feb-2011	SL-031-SA5A-SB-4.0-5.0	6213432	N	3550B	8270C SIM	III
22-Feb-2011	SL-031-SA5A-SB-4.0-5.0	6213432	N	5035	8260B	III
22-Feb-2011	SL-031-SA5A-SB-4.0-5.0	6213432	N	5035	8260B SIM	III
22-Feb-2011	SL-031-SA5A-SB-4.0-5.0	6213432	N	Gen Prep	9045M	III
22-Feb-2011	SL-031-SA5A-SB-4.0-5.0	6213432	N	METHOD	300.0	III
22-Feb-2011	SL-031-SA5A-SB-4.0-5.0	6213432	N	METHOD	314.0	III
22-Feb-2011	SL-031-SA5A-SB-4.0-5.0	6213432	N	METHOD	7471A	III
22-Feb-2011	SL-197-SA5A-SS-0.0-0.5	6213422	N	3050B	6010B	III
22-Feb-2011	SL-197-SA5A-SS-0.0-0.5	6213422	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Feb-2011	SL-197-SA5A-SS-0.0-0.5	6213422	N	3060A	7199	III
22-Feb-2011	SL-197-SA5A-SS-0.0-0.5	6213422	N	3550B	8081A	III
22-Feb-2011	SL-197-SA5A-SS-0.0-0.5	6213422	N	3550B	8082	III
22-Feb-2011	SL-197-SA5A-SS-0.0-0.5	6213422	N	3550B	8151A	III
22-Feb-2011	SL-197-SA5A-SS-0.0-0.5	6213422	N	3550B	8270C	III
22-Feb-2011	SL-197-SA5A-SS-0.0-0.5	6213422	N	3550B	8270C SIM	III
22-Feb-2011	SL-197-SA5A-SS-0.0-0.5	6213422	N	Gen Prep	9045M	III
22-Feb-2011	SL-197-SA5A-SS-0.0-0.5	6213422	N	METHOD	300.0	III
22-Feb-2011	SL-197-SA5A-SS-0.0-0.5	6213422	N	METHOD	314.0	III
22-Feb-2011	SL-197-SA5A-SS-0.0-0.5	6213422	N	METHOD	7471A	III
22-Feb-2011	SL-175-SA5A-SS-0.0-0.3	6213415	N	3050B	6010B	III
22-Feb-2011	SL-175-SA5A-SS-0.0-0.3	6213415	N	3050B	6020	III
22-Feb-2011	SL-175-SA5A-SS-0.0-0.3	6213415	N	3060A	7199	III
22-Feb-2011	SL-175-SA5A-SS-0.0-0.3	6213415	N	3550B	8081A	III
22-Feb-2011	SL-175-SA5A-SS-0.0-0.3	6213415	N	3550B	8082	III
22-Feb-2011	SL-175-SA5A-SS-0.0-0.3	6213415	N	3550B	8151A	III
22-Feb-2011	SL-175-SA5A-SS-0.0-0.3	6213415	N	3550B	8270C	III
22-Feb-2011	SL-175-SA5A-SS-0.0-0.3	6213415	N	3550B	8270C SIM	III
22-Feb-2011	SL-175-SA5A-SS-0.0-0.3	6213415	N	Gen Prep	9045M	III
22-Feb-2011	SL-175-SA5A-SS-0.0-0.3	6213415	N	METHOD	300.0	III
22-Feb-2011	SL-175-SA5A-SS-0.0-0.3	6213415	N	METHOD	314.0	III
22-Feb-2011	SL-175-SA5A-SS-0.0-0.3	6213415	N	METHOD	6850	III
22-Feb-2011	SL-175-SA5A-SS-0.0-0.3	6213415	N	METHOD	7471A	III
22-Feb-2011	DUP-02-SA5A-QC-022211	6213414	FD	3050B	6010B	III
22-Feb-2011	DUP-02-SA5A-QC-022211	6213414	FD	3050B	6020	III
22-Feb-2011	DUP-02-SA5A-QC-022211	6213414	FD	3060A	7199	III

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation
N = Normal Sample
FD = Field Duplicate
TB = Trip Blank
FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Feb-2011	DUP-02-SA5A-QC-022211	6213414	FD	3550B	8081A	III
22-Feb-2011	DUP-02-SA5A-QC-022211	6213414	FD	3550B	8082	III
22-Feb-2011	DUP-02-SA5A-QC-022211	6213414	FD	3550B	8151A	III
22-Feb-2011	DUP-02-SA5A-QC-022211	6213414	FD	3550B	8270C	III
22-Feb-2011	DUP-02-SA5A-QC-022211	6213414	FD	3550B	8270C SIM	III
22-Feb-2011	DUP-02-SA5A-QC-022211	6213414	FD	Gen Prep	9045M	III
22-Feb-2011	DUP-02-SA5A-QC-022211	6213414	FD	METHOD	300.0	III
22-Feb-2011	DUP-02-SA5A-QC-022211	6213414	FD	METHOD	314.0	III
22-Feb-2011	DUP-02-SA5A-QC-022211	6213414	FD	METHOD	7471A	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5	6213417	N	3050B	6010B	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5	6213417	N	3050B	6020	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5	6213417	N	3060A	7199	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5	6213417	N	3550B	8081A	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5	6213417	N	3550B	8082	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5	6213417	N	3550B	8151A	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5	6213417	N	3550B	8270C	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5	6213417	N	3550B	8270C SIM	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5	6213417	N	Gen Prep	9045M	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5	6213417	N	METHOD	300.0	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5	6213417	N	METHOD	314.0	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5	6213417	N	METHOD	7471A	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MS	6213418	MS	3050B	6010B	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MS	6213418	MS	3050B	6020	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MS	6213418	MS	3060A	7199	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MS	6213418	MS	3550B	8081A	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MS	6213418	MS	3550B	8082	III

III = EPA Level 3 Data Review
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FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MS	6213418	MS	3550B	8151A	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MS	6213418	MS	3550B	8270C	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MS	6213418	MS	3550B	8270C SIM	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MS	6213418	MS	METHOD	300.0	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MS	6213418	MS	METHOD	314.0	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MS	6213418	MS	METHOD	7471A	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MSD	6213419	MSD	3050B	6010B	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MSD	6213419	MSD	3050B	6020	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MSD	6213419	MSD	3550B	8081A	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MSD	6213419	MSD	3550B	8082	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MSD	6213419	MSD	3550B	8151A	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MSD	6213419	MSD	3550B	8270C	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MSD	6213419	MSD	3550B	8270C SIM	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5MSD	6213419	MSD	METHOD	7471A	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5DUP	6213420	DUP	3050B	6010B	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5DUP	6213420	DUP	3050B	6020	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5DUP	6213420	DUP	3060A	7199	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5DUP	6213420	DUP	Gen Prep	9045M	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5DUP	6213420	DUP	METHOD	300.0	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5DUP	6213420	DUP	METHOD	314.0	III
22-Feb-2011	SL-181-SA5A-SS-0.0-0.5DUP	6213420	DUP	METHOD	7471A	III
22-Feb-2011	SL-180-SA5A-SS-0.0-0.5	6213416	N	3050B	6010B	III
22-Feb-2011	SL-180-SA5A-SS-0.0-0.5	6213416	N	3050B	6020	III
22-Feb-2011	SL-180-SA5A-SS-0.0-0.5	6213416	N	3060A	7199	III
22-Feb-2011	SL-180-SA5A-SS-0.0-0.5	6213416	N	3550B	8081A	III
22-Feb-2011	SL-180-SA5A-SS-0.0-0.5	6213416	N	3550B	8082	III

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FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Feb-2011	SL-180-SA5A-SS-0.0-0.5	6213416	N	3550B	8151A	III
22-Feb-2011	SL-180-SA5A-SS-0.0-0.5	6213416	N	3550B	8270C	III
22-Feb-2011	SL-180-SA5A-SS-0.0-0.5	6213416	N	3550B	8270C SIM	III
22-Feb-2011	SL-180-SA5A-SS-0.0-0.5	6213416	N	Gen Prep	9045M	III
22-Feb-2011	SL-180-SA5A-SS-0.0-0.5	6213416	N	METHOD	300.0	III
22-Feb-2011	SL-180-SA5A-SS-0.0-0.5	6213416	N	METHOD	314.0	III
22-Feb-2011	SL-180-SA5A-SS-0.0-0.5	6213416	N	METHOD	7471A	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	3050B	6010B	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	3050B	6020	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	3060A	7199	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	3546	1625C	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	3550B	8015B	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	3550B	8015M	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	3550B	8082	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	3550B	8270C	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	3550B	8270C SIM	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	5035	8015M	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	5035	8260B	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	5035	8260B SIM	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	8330	8330A	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	Gen Prep	9045M	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	METHOD	300.0	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	METHOD	314.0	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	METHOD	6850	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	METHOD	7471A	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	METHOD	8015B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	METHOD	8015M	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	METHOD	8315A	III
22-Feb-2011	SL-026-SA5A-SB-3.5-4.5	6213431	N	METHOD	9012B	III
22-Feb-2011	SL-214-SA5A-SS-0.0-0.5	6213426	N	3050B	6010B	III
22-Feb-2011	SL-214-SA5A-SS-0.0-0.5	6213426	N	3050B	6020	III
22-Feb-2011	SL-214-SA5A-SS-0.0-0.5	6213426	N	3060A	7199	III
22-Feb-2011	SL-214-SA5A-SS-0.0-0.5	6213426	N	3550B	8081A	III
22-Feb-2011	SL-214-SA5A-SS-0.0-0.5	6213426	N	3550B	8082	III
22-Feb-2011	SL-214-SA5A-SS-0.0-0.5	6213426	N	3550B	8151A	III
22-Feb-2011	SL-214-SA5A-SS-0.0-0.5	6213426	N	3550B	8270C	III
22-Feb-2011	SL-214-SA5A-SS-0.0-0.5	6213426	N	3550B	8270C SIM	III
22-Feb-2011	SL-214-SA5A-SS-0.0-0.5	6213426	N	Gen Prep	9045M	III
22-Feb-2011	SL-214-SA5A-SS-0.0-0.5	6213426	N	METHOD	300.0	III
22-Feb-2011	SL-214-SA5A-SS-0.0-0.5	6213426	N	METHOD	314.0	III
22-Feb-2011	SL-214-SA5A-SS-0.0-0.5	6213426	N	METHOD	6850	III
22-Feb-2011	SL-214-SA5A-SS-0.0-0.5	6213426	N	METHOD	7471A	III
22-Feb-2011	SL-214-SA5A-SS-0.0-0.5DUP	P213426D291320B	DUP	Gen Prep	9045M	III
22-Feb-2011	SL-024-SA5A-SB-2.5-3.5	6213430	N	3050B	6010B	III
22-Feb-2011	SL-024-SA5A-SB-2.5-3.5	6213430	N	3050B	6020	III
22-Feb-2011	SL-024-SA5A-SB-2.5-3.5	6213430	N	3060A	7199	III
22-Feb-2011	SL-024-SA5A-SB-2.5-3.5	6213430	N	3550B	8082	III
22-Feb-2011	SL-024-SA5A-SB-2.5-3.5	6213430	N	3550B	8270C	III
22-Feb-2011	SL-024-SA5A-SB-2.5-3.5	6213430	N	3550B	8270C SIM	III
22-Feb-2011	SL-024-SA5A-SB-2.5-3.5	6213430	N	5035	8260B	III
22-Feb-2011	SL-024-SA5A-SB-2.5-3.5	6213430	N	5035	8260B SIM	III
22-Feb-2011	SL-024-SA5A-SB-2.5-3.5	6213430	N	Gen Prep	9045M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Feb-2011	SL-024-SA5A-SB-2.5-3.5	6213430	N	METHOD	300.0	III
22-Feb-2011	SL-024-SA5A-SB-2.5-3.5	6213430	N	METHOD	314.0	III
22-Feb-2011	SL-024-SA5A-SB-2.5-3.5	6213430	N	METHOD	7471A	III
22-Feb-2011	SL-215-SA5A-SS-0.0-0.5	6213427	N	3050B	6010B	III
22-Feb-2011	SL-215-SA5A-SS-0.0-0.5	6213427	N	3050B	6020	III
22-Feb-2011	SL-215-SA5A-SS-0.0-0.5	6213427	N	3060A	7199	III
22-Feb-2011	SL-215-SA5A-SS-0.0-0.5	6213427	N	3550B	8081A	III
22-Feb-2011	SL-215-SA5A-SS-0.0-0.5	6213427	N	3550B	8082	III
22-Feb-2011	SL-215-SA5A-SS-0.0-0.5	6213427	N	3550B	8151A	III
22-Feb-2011	SL-215-SA5A-SS-0.0-0.5	6213427	N	3550B	8270C	III
22-Feb-2011	SL-215-SA5A-SS-0.0-0.5	6213427	N	3550B	8270C SIM	III
22-Feb-2011	SL-215-SA5A-SS-0.0-0.5	6213427	N	Gen Prep	9045M	III
22-Feb-2011	SL-215-SA5A-SS-0.0-0.5	6213427	N	METHOD	300.0	III
22-Feb-2011	SL-215-SA5A-SS-0.0-0.5	6213427	N	METHOD	314.0	III
22-Feb-2011	SL-215-SA5A-SS-0.0-0.5	6213427	N	METHOD	7471A	III
22-Feb-2011	SL-215-SA5A-SS-0.0-0.5DUP	P213427D271533B	DUP	METHOD	300.0	III
22-Feb-2011	SL-215-SA5A-SS-0.0-0.5DUP	P213427D271827B	DUP	METHOD	314.0	III
22-Feb-2011	SL-215-SA5A-SS-0.0-0.5MS	P213427R271548B	MS	METHOD	300.0	III
22-Feb-2011	SL-215-SA5A-SS-0.0-0.5MS	P213427R271851B	MS	METHOD	314.0	III
22-Feb-2011	SL-210-SA5A-SS-0.0-0.5	6213423	N	3050B	6010B	III
22-Feb-2011	SL-210-SA5A-SS-0.0-0.5	6213423	N	3050B	6020	III
22-Feb-2011	SL-210-SA5A-SS-0.0-0.5	6213423	N	3060A	7199	III
22-Feb-2011	SL-210-SA5A-SS-0.0-0.5	6213423	N	3550B	8081A	III
22-Feb-2011	SL-210-SA5A-SS-0.0-0.5	6213423	N	3550B	8082	III
22-Feb-2011	SL-210-SA5A-SS-0.0-0.5	6213423	N	3550B	8151A	III
22-Feb-2011	SL-210-SA5A-SS-0.0-0.5	6213423	N	3550B	8270C	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Feb-2011	SL-210-SA5A-SS-0.0-0.5	6213423	N	3550B	8270C SIM	III
22-Feb-2011	SL-210-SA5A-SS-0.0-0.5	6213423	N	Gen Prep	9045M	III
22-Feb-2011	SL-210-SA5A-SS-0.0-0.5	6213423	N	METHOD	300.0	III
22-Feb-2011	SL-210-SA5A-SS-0.0-0.5	6213423	N	METHOD	314.0	III
22-Feb-2011	SL-210-SA5A-SS-0.0-0.5	6213423	N	METHOD	7471A	III
22-Feb-2011	SL-211-SA5A-SS-0.0-0.5	6213424	N	3050B	6010B	III
22-Feb-2011	SL-211-SA5A-SS-0.0-0.5	6213424	N	3050B	6020	III
22-Feb-2011	SL-211-SA5A-SS-0.0-0.5	6213424	N	3060A	7199	III
22-Feb-2011	SL-211-SA5A-SS-0.0-0.5	6213424	N	3550B	8081A	III
22-Feb-2011	SL-211-SA5A-SS-0.0-0.5	6213424	N	3550B	8082	III
22-Feb-2011	SL-211-SA5A-SS-0.0-0.5	6213424	N	3550B	8151A	III
22-Feb-2011	SL-211-SA5A-SS-0.0-0.5	6213424	N	3550B	8270C	III
22-Feb-2011	SL-211-SA5A-SS-0.0-0.5	6213424	N	3550B	8270C SIM	III
22-Feb-2011	SL-211-SA5A-SS-0.0-0.5	6213424	N	Gen Prep	9045M	III
22-Feb-2011	SL-211-SA5A-SS-0.0-0.5	6213424	N	METHOD	300.0	III
22-Feb-2011	SL-211-SA5A-SS-0.0-0.5	6213424	N	METHOD	314.0	III
22-Feb-2011	SL-211-SA5A-SS-0.0-0.5	6213424	N	METHOD	7471A	III
22-Feb-2011	SL-212-SA5A-SS-0.0-0.5	6213425	N	3050B	6010B	III
22-Feb-2011	SL-212-SA5A-SS-0.0-0.5	6213425	N	3050B	6020	III
22-Feb-2011	SL-212-SA5A-SS-0.0-0.5	6213425	N	3060A	7199	III
22-Feb-2011	SL-212-SA5A-SS-0.0-0.5	6213425	N	3550B	8081A	III
22-Feb-2011	SL-212-SA5A-SS-0.0-0.5	6213425	N	3550B	8082	III
22-Feb-2011	SL-212-SA5A-SS-0.0-0.5	6213425	N	3550B	8151A	III
22-Feb-2011	SL-212-SA5A-SS-0.0-0.5	6213425	N	3550B	8270C	III
22-Feb-2011	SL-212-SA5A-SS-0.0-0.5	6213425	N	3550B	8270C SIM	III
22-Feb-2011	SL-212-SA5A-SS-0.0-0.5	6213425	N	Gen Prep	9045M	III

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Feb-2011	SL-212-SA5A-SS-0.0-0.5	6213425	N	METHOD	300.0	III
22-Feb-2011	SL-212-SA5A-SS-0.0-0.5	6213425	N	METHOD	314.0	III
22-Feb-2011	SL-212-SA5A-SS-0.0-0.5	6213425	N	METHOD	7471A	III
22-Feb-2011	SL-217-SA5A-SS-0.0-0.5	6213428	N	3050B	6010B	III
22-Feb-2011	SL-217-SA5A-SS-0.0-0.5	6213428	N	3050B	6020	III
22-Feb-2011	SL-217-SA5A-SS-0.0-0.5	6213428	N	3060A	7199	III
22-Feb-2011	SL-217-SA5A-SS-0.0-0.5	6213428	N	3550B	8081A	III
22-Feb-2011	SL-217-SA5A-SS-0.0-0.5	6213428	N	3550B	8082	III
22-Feb-2011	SL-217-SA5A-SS-0.0-0.5	6213428	N	3550B	8151A	III
22-Feb-2011	SL-217-SA5A-SS-0.0-0.5	6213428	N	3550B	8270C	III
22-Feb-2011	SL-217-SA5A-SS-0.0-0.5	6213428	N	3550B	8270C SIM	III
22-Feb-2011	SL-217-SA5A-SS-0.0-0.5	6213428	N	Gen Prep	9045M	III
22-Feb-2011	SL-217-SA5A-SS-0.0-0.5	6213428	N	METHOD	300.0	III
22-Feb-2011	SL-217-SA5A-SS-0.0-0.5	6213428	N	METHOD	314.0	III
22-Feb-2011	SL-217-SA5A-SS-0.0-0.5	6213428	N	METHOD	7471A	III
22-Feb-2011	SL-218-SA5A-SS-0.0-0.5	6213429	N	3050B	6010B	III
22-Feb-2011	SL-218-SA5A-SS-0.0-0.5	6213429	N	3050B	6020	III
22-Feb-2011	SL-218-SA5A-SS-0.0-0.5	6213429	N	3060A	7199	III
22-Feb-2011	SL-218-SA5A-SS-0.0-0.5	6213429	N	3550B	8081A	III
22-Feb-2011	SL-218-SA5A-SS-0.0-0.5	6213429	N	3550B	8082	III
22-Feb-2011	SL-218-SA5A-SS-0.0-0.5	6213429	N	3550B	8151A	III
22-Feb-2011	SL-218-SA5A-SS-0.0-0.5	6213429	N	3550B	8270C	III
22-Feb-2011	SL-218-SA5A-SS-0.0-0.5	6213429	N	3550B	8270C SIM	III
22-Feb-2011	SL-218-SA5A-SS-0.0-0.5	6213429	N	Gen Prep	9045M	III
22-Feb-2011	SL-218-SA5A-SS-0.0-0.5	6213429	N	METHOD	300.0	III
22-Feb-2011	SL-218-SA5A-SS-0.0-0.5	6213429	N	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Feb-2011	SL-218-SA5A-SS-0.0-0.5	6213429	N	METHOD	7471A	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	3050B	6010B	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	3050B	6020	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	3060A	7199	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	3546	1625C	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	3550B	8015B	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	3550B	8015M	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	3550B	8082	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	3550B	8270C	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	3550B	8270C SIM	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	5035	8015M	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	5035	8260B	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	5035	8260B SIM	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	8330	8330A	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	Gen Prep	9045M	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	METHOD	300.0	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	METHOD	314.0	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	METHOD	6850	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	METHOD	7471A	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	METHOD	8015B	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	METHOD	8015M	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	METHOD	8315A	III
22-Feb-2011	SL-035-SA5A-SB-4.0-5.0	6213433	N	METHOD	9012B	III
22-Feb-2011	TB-022211	6213434	TB	5030B	8015M	III
22-Feb-2011	TB-022211	6213434	TB	5030B	8260B	III
22-Feb-2011	TB-022211	6213434	TB	5030B	8260B SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: **DUP-02-SA5A-QC-022211** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: **SL-024-SA5A-SB-2.5-3.5** ***Collected:*** **2/22/2011 12:35:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.2		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-026-SA5A-SB-3.5-4.5** ***Collected:*** **2/22/2011 11:19:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.8		0.84	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: **SL-031-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 9:04:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	16.2		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-035-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 4:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	9.3		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-175-SA5A-SS-0.0-0.3** ***Collected:*** **2/22/2011 9:52:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.98	J	0.92	MDL	1.1	PQL	mg/Kg	J	Z, Q

Sample ID: **SL-180-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:35:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.6		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: **SL-181-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.93	MDL	1.2	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-196-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 8:40:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.5		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-197-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 9:08:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-210-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 1:13:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.3		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-211-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 1:36:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-212-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 2:14:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.2		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-214-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 12:28:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.2		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-215-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 12:55:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.6		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-217-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 2:46:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.94	MDL	1.2	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: **SL-218-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 3:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Method Category: GENCHEM

Method: 314.0 **Matrix: SO**

Sample ID: **SL-035-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 4:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	25.7	J	9.9	MDL	33.1	PQL	ug/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **DUP-02-SA5A-QC-022211** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	22.7		0.25	MDL	2.3	PQL	mg/Kg	J	A
PHOSPHORUS	518		0.632	MDL	11.3	PQL	mg/Kg	J	Q, E
Zirconium	3.38	J	0.948	MDL	5.64	PQL	mg/Kg	J	Z

Sample ID: **DUP-02-SA5A-QC-022211** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.80	J	1.00	MDL	5.64	PQL	mg/Kg	J	Z
TIN	3.53	J	1.13	MDL	11.3	PQL	mg/Kg	U	B

Sample ID: **SL-024-SA5A-SB-2.5-3.5** ***Collected:*** **2/22/2011 12:35:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	38.4		0.24	MDL	2.2	PQL	mg/Kg	J	A
PHOSPHORUS	210		0.613	MDL	10.9	PQL	mg/Kg	J	Q, E
Zirconium	4.44	J	0.919	MDL	5.47	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-024-SA5A-SB-2.5-3.5 ***Collected:*** 2/22/2011 12:35:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.27	J	0.955	MDL	5.37	PQL	mg/Kg	J	Z
TIN	3.58	J	1.07	MDL	10.7	PQL	mg/Kg	U	B

Sample ID: SL-026-SA5A-SB-3.5-4.5 ***Collected:*** 2/22/2011 11:19:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	26.5		0.23	MDL	2.1	PQL	mg/Kg	J	A
PHOSPHORUS	105		0.586	MDL	10.5	PQL	mg/Kg	J	Q, E
Zirconium	4.42	J	0.880	MDL	5.24	PQL	mg/Kg	J	Z

Sample ID: SL-026-SA5A-SB-3.5-4.5 ***Collected:*** 2/22/2011 11:19:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.10	J	1.05	MDL	10.5	PQL	mg/Kg	U	B

Sample ID: SL-031-SA5A-SB-4.0-5.0 ***Collected:*** 2/22/2011 9:04:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	29.7		0.24	MDL	2.1	PQL	mg/Kg	J	A
PHOSPHORUS	124		0.599	MDL	10.7	PQL	mg/Kg	J	Q, E
Zirconium	5.08	J	0.899	MDL	5.35	PQL	mg/Kg	J	Z

Sample ID: SL-031-SA5A-SB-4.0-5.0 ***Collected:*** 2/22/2011 9:04:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.35	J	0.981	MDL	5.51	PQL	mg/Kg	J	Z
TIN	3.47	J	1.10	MDL	11.0	PQL	mg/Kg	U	B

Sample ID: SL-035-SA5A-SB-4.0-5.0 ***Collected:*** 2/22/2011 4:15:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	28.7		0.24	MDL	2.1	PQL	mg/Kg	J	A
PHOSPHORUS	156		0.600	MDL	10.7	PQL	mg/Kg	J	Q, E
Zirconium	5.09	J	0.900	MDL	5.36	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-035-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 4:15:00** ***Analysis Type:*** **RES** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.82	J	0.973	MDL	5.46	PQL	mg/Kg	J	Z
TIN	3.25	J	1.09	MDL	10.9	PQL	mg/Kg	U	B

Sample ID: **SL-175-SA5A-SS-0.0-0.3** ***Collected:*** **2/22/2011 9:52:00** ***Analysis Type:*** **REA** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	10.5		0.25	MDL	2.2	PQL	mg/Kg	J	A
PHOSPHORUS	506		0.628	MDL	11.2	PQL	mg/Kg	J	Q, E
Zirconium	4.46	J	0.942	MDL	5.61	PQL	mg/Kg	J	Z

Sample ID: **SL-175-SA5A-SS-0.0-0.3** ***Collected:*** **2/22/2011 9:52:00** ***Analysis Type:*** **RES** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.71	J	0.998	MDL	5.61	PQL	mg/Kg	J	Z
TIN	3.33	J	1.12	MDL	11.2	PQL	mg/Kg	U	B

Sample ID: **SL-180-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:35:00** ***Analysis Type:*** **REA** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	27.0		0.24	MDL	2.2	PQL	mg/Kg	J	A
PHOSPHORUS	366		0.621	MDL	11.1	PQL	mg/Kg	J	Q, E
Zirconium	4.64	J	0.932	MDL	5.55	PQL	mg/Kg	J	Z

Sample ID: **SL-180-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:35:00** ***Analysis Type:*** **RES** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.77	J	0.997	MDL	5.60	PQL	mg/Kg	J	Z
SODIUM	106	J	41.8	MDL	112	PQL	mg/Kg	J	Z
TIN	3.53	J	1.12	MDL	11.2	PQL	mg/Kg	U	B

Sample ID: **SL-181-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **REA** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	19.4		0.26	MDL	2.3	PQL	mg/Kg	J	A
PHOSPHORUS	438		0.653	MDL	11.7	PQL	mg/Kg	J	Q, E

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-181-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	4.41	J	0.979	MDL	5.83	PQL	mg/Kg	J	Z

Sample ID: **SL-181-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.28	J	1.03	MDL	5.77	PQL	mg/Kg	J	Z
SODIUM	101	J	43.0	MDL	115	PQL	mg/Kg	J	Z
TIN	3.80	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

Sample ID: **SL-196-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 8:40:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	20.3		0.24	MDL	2.2	PQL	mg/Kg	J	A
PHOSPHORUS	308		0.603	MDL	10.8	PQL	mg/Kg	J	Q, E
Zirconium	4.85	J	0.904	MDL	5.38	PQL	mg/Kg	J	Z

Sample ID: **SL-196-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 8:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.26	J	0.968	MDL	5.44	PQL	mg/Kg	J	Z
SODIUM	67.5	J	40.6	MDL	109	PQL	mg/Kg	J	Z
TIN	2.91	J	1.09	MDL	10.9	PQL	mg/Kg	U	B

Sample ID: **SL-197-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 9:08:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	18.5		0.26	MDL	2.4	PQL	mg/Kg	J	A
PHOSPHORUS	456		0.660	MDL	11.8	PQL	mg/Kg	J	Q, E
Zirconium	4.88	J	0.990	MDL	5.89	PQL	mg/Kg	J	Z

Sample ID: **SL-197-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 9:08:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.17	J	1.14	MDL	11.4	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-210-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 1:13:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	23.7		0.23	MDL	2.1	PQL	mg/Kg	J	A
PHOSPHORUS	404		0.594	MDL	10.6	PQL	mg/Kg	J	Q, E
Zirconium	3.99	J	0.891	MDL	5.31	PQL	mg/Kg	J	Z

Sample ID: SL-210-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 1:13:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.82	J	0.944	MDL	5.31	PQL	mg/Kg	J	Z
SODIUM	103	J	39.6	MDL	106	PQL	mg/Kg	J	Z
TIN	3.00	J	1.06	MDL	10.6	PQL	mg/Kg	U	B

Sample ID: SL-211-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 1:36:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	23.2		0.23	MDL	2.1	PQL	mg/Kg	J	A
PHOSPHORUS	431		0.597	MDL	10.7	PQL	mg/Kg	J	Q, E
Zirconium	3.61	J	0.895	MDL	5.33	PQL	mg/Kg	J	Z

Sample ID: SL-211-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 1:36:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.56	J	0.967	MDL	5.43	PQL	mg/Kg	J	Z
TIN	3.04	J	1.09	MDL	10.9	PQL	mg/Kg	U	B

Sample ID: SL-212-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 2:14:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	32.9		0.25	MDL	2.3	PQL	mg/Kg	J	A
PHOSPHORUS	562		0.648	MDL	11.6	PQL	mg/Kg	J	Q, E
Zirconium	5.08	J	0.973	MDL	5.79	PQL	mg/Kg	J	Z

Sample ID: SL-212-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 2:14:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.41	J	1.01	MDL	5.68	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-212-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 2:14:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.62	J	1.14	MDL	11.4	PQL	mg/Kg	U	B

Sample ID: **SL-214-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 12:28:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	23.9		0.24	MDL	2.2	PQL	mg/Kg	J	A
PHOSPHORUS	509		0.606	MDL	10.8	PQL	mg/Kg	J	Q, E
Zirconium	4.09	J	0.909	MDL	5.41	PQL	mg/Kg	J	Z

Sample ID: **SL-214-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 12:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.48	J	0.963	MDL	5.41	PQL	mg/Kg	J	Z
TIN	2.87	J	1.08	MDL	10.8	PQL	mg/Kg	U	B

Sample ID: **SL-215-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 12:55:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	25.5		0.24	MDL	2.2	PQL	mg/Kg	J	A
PHOSPHORUS	367		0.614	MDL	11.0	PQL	mg/Kg	J	Q, E
Zirconium	4.58	J	0.921	MDL	5.48	PQL	mg/Kg	J	Z

Sample ID: **SL-215-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 12:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.84	J	1.00	MDL	5.64	PQL	mg/Kg	J	Z
SODIUM	89.0	J	42.1	MDL	113	PQL	mg/Kg	J	Z
TIN	3.09	J	1.13	MDL	11.3	PQL	mg/Kg	U	B

Sample ID: **SL-217-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 2:46:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	25.1		0.25	MDL	2.3	PQL	mg/Kg	J	A
PHOSPHORUS	467		0.636	MDL	11.4	PQL	mg/Kg	J	Q, E
Zirconium	5.02	J	0.954	MDL	5.68	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-217-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 2:46:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.01	J	1.00	MDL	5.62	PQL	mg/Kg	J	Z
SODIUM	99.0	J	41.9	MDL	112	PQL	mg/Kg	J	Z
TIN	3.08	J	1.12	MDL	11.2	PQL	mg/Kg	U	B

Sample ID: **SL-218-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 3:10:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	22.8		0.26	MDL	2.3	PQL	mg/Kg	J	A
PHOSPHORUS	385		0.656	MDL	11.7	PQL	mg/Kg	J	Q, E
Zirconium	4.29	J	0.984	MDL	5.86	PQL	mg/Kg	J	Z

Sample ID: **SL-218-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 3:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.93	J	1.03	MDL	5.80	PQL	mg/Kg	J	Z
SODIUM	84.2	J	43.3	MDL	116	PQL	mg/Kg	J	Z
TIN	3.37	J	1.16	MDL	11.6	PQL	mg/Kg	U	B

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **DUP-02-SA5A-QC-022211** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	5.79		0.0223	MDL	0.112	PQL	mg/Kg	J	A

Sample ID: **DUP-02-SA5A-QC-022211** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.144	J	0.0447	MDL	0.447	PQL	mg/Kg	J	Z

Sample ID: **DUP-02-SA5A-QC-022211** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.216	J	0.0670	MDL	0.223	PQL	mg/Kg	J	Z, E, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **DUP-02-SA5A-QC-022211** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	4.95		0.0894	MDL	0.447	PQL	mg/Kg	J	Q
CHROMIUM	20.4		0.134	MDL	0.447	PQL	mg/Kg	J	Q
LEAD	12.4		0.0116	MDL	0.223	PQL	mg/Kg	J	Q, E
NICKEL	12.4		0.112	MDL	0.447	PQL	mg/Kg	J	A
VANADIUM	36.4		0.0246	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: **SL-024-SA5A-SB-2.5-3.5** ***Collected:*** **2/22/2011 12:35:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	6.31		0.0221	MDL	0.111	PQL	mg/Kg	J	A

Sample ID: **SL-024-SA5A-SB-2.5-3.5** ***Collected:*** **2/22/2011 12:35:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.159	J	0.0442	MDL	0.442	PQL	mg/Kg	J	Z

Sample ID: **SL-024-SA5A-SB-2.5-3.5** ***Collected:*** **2/22/2011 12:35:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0694	J	0.0663	MDL	0.221	PQL	mg/Kg	J	Z, E, Q
ARSENIC	7.37		0.0884	MDL	0.442	PQL	mg/Kg	J	Q
CHROMIUM	23.3		0.133	MDL	0.442	PQL	mg/Kg	J	Q
LEAD	8.29		0.0115	MDL	0.221	PQL	mg/Kg	J	Q, E
NICKEL	13.6		0.111	MDL	0.442	PQL	mg/Kg	J	A
SILVER	0.0159	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z
VANADIUM	41.9		0.0243	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: **SL-026-SA5A-SB-3.5-4.5** ***Collected:*** **2/22/2011 11:19:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	5.16		0.0209	MDL	0.105	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-026-SA5A-SB-3.5-4.5** ***Collected:*** **2/22/2011 11:19:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.107	J	0.0419	MDL	0.419	PQL	mg/Kg	J	Z

Sample ID: **SL-026-SA5A-SB-3.5-4.5** ***Collected:*** **2/22/2011 11:19:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0628	U	0.0628	MDL	0.209	PQL	mg/Kg	UJ	E, Q
ARSENIC	5.58		0.0838	MDL	0.419	PQL	mg/Kg	J	Q
CHROMIUM	15.2		0.126	MDL	0.419	PQL	mg/Kg	J	Q
LEAD	4.94		0.0109	MDL	0.209	PQL	mg/Kg	J	Q, E
NICKEL	8.37		0.105	MDL	0.419	PQL	mg/Kg	J	A
VANADIUM	27.0		0.0230	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: **SL-031-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 9:04:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	4.01		0.0214	MDL	0.107	PQL	mg/Kg	J	A

Sample ID: **SL-031-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 9:04:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.135	J	0.0428	MDL	0.428	PQL	mg/Kg	J	Z

Sample ID: **SL-031-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 9:04:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0854	J	0.0642	MDL	0.214	PQL	mg/Kg	J	Z, E, Q
ARSENIC	5.88		0.0856	MDL	0.428	PQL	mg/Kg	J	Q
CHROMIUM	24.2		0.128	MDL	0.428	PQL	mg/Kg	J	Q
LEAD	6.72		0.0111	MDL	0.214	PQL	mg/Kg	J	Q, E
NICKEL	10.8		0.107	MDL	0.428	PQL	mg/Kg	J	A
VANADIUM	41.4		0.0235	MDL	0.107	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-035-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 4:15:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	6.37		0.0219	MDL	0.109	PQL	mg/Kg	J	A

Sample ID: **SL-035-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 4:15:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0835	J	0.0437	MDL	0.437	PQL	mg/Kg	J	Z

Sample ID: **SL-035-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 4:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0984	J	0.0656	MDL	0.219	PQL	mg/Kg	J	Z, E, Q
ARSENIC	5.10		0.0874	MDL	0.437	PQL	mg/Kg	J	Q
CADMIUM	0.0459	J	0.0437	MDL	0.109	PQL	mg/Kg	J	Z
CHROMIUM	21.3		0.131	MDL	0.437	PQL	mg/Kg	J	Q
LEAD	5.91		0.0114	MDL	0.219	PQL	mg/Kg	J	Q, E
NICKEL	11.4		0.109	MDL	0.437	PQL	mg/Kg	J	A
SILVER	0.0429	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z
VANADIUM	40.2		0.0240	MDL	0.109	PQL	mg/Kg	J	Q

Sample ID: **SL-175-SA5A-SS-0.0-0.3** ***Collected:*** **2/22/2011 9:52:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	4.49		0.0229	MDL	0.114	PQL	mg/Kg	J	A

Sample ID: **SL-175-SA5A-SS-0.0-0.3** ***Collected:*** **2/22/2011 9:52:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.131	J	0.0458	MDL	0.458	PQL	mg/Kg	J	Z

Sample ID: **SL-175-SA5A-SS-0.0-0.3** ***Collected:*** **2/22/2011 9:52:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.247		0.0686	MDL	0.229	PQL	mg/Kg	J	E, Q
ARSENIC	3.28		0.0915	MDL	0.458	PQL	mg/Kg	J	Q
CHROMIUM	25.8		0.137	MDL	0.458	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-175-SA5A-SS-0.0-0.3** ***Collected:*** **2/22/2011 9:52:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	27.1		0.0119	MDL	0.229	PQL	mg/Kg	J	Q, E
NICKEL	18.7		0.114	MDL	0.458	PQL	mg/Kg	J	A
VANADIUM	27.3		0.0252	MDL	0.114	PQL	mg/Kg	J	Q

Sample ID: **SL-180-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:35:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	6.18		0.0224	MDL	0.112	PQL	mg/Kg	J	A

Sample ID: **SL-180-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:35:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.168	J	0.0448	MDL	0.448	PQL	mg/Kg	J	Z

Sample ID: **SL-180-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:35:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.117	J	0.0672	MDL	0.224	PQL	mg/Kg	J	Z, E, Q
ARSENIC	4.70		0.0896	MDL	0.448	PQL	mg/Kg	J	Q
CHROMIUM	21.8		0.134	MDL	0.448	PQL	mg/Kg	J	Q
LEAD	12.3		0.0116	MDL	0.224	PQL	mg/Kg	J	Q, E
NICKEL	13.2		0.112	MDL	0.448	PQL	mg/Kg	J	A
VANADIUM	38.9		0.0246	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: **SL-181-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	5.50		0.0231	MDL	0.115	PQL	mg/Kg	J	A

Sample ID: **SL-181-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.136	J	0.0462	MDL	0.462	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-181-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 10:10:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.191	J	0.0692	MDL	0.231	PQL	mg/Kg	J	Z, E, Q
ARSENIC	4.54		0.0923	MDL	0.462	PQL	mg/Kg	J	Q
CHROMIUM	22.7		0.138	MDL	0.462	PQL	mg/Kg	J	Q
LEAD	12.7		0.0120	MDL	0.231	PQL	mg/Kg	J	Q, E
NICKEL	12.5		0.115	MDL	0.462	PQL	mg/Kg	J	A
VANADIUM	35.4		0.0254	MDL	0.115	PQL	mg/Kg	J	Q

Sample ID: SL-196-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 8:40:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	5.83		0.0224	MDL	0.112	PQL	mg/Kg	J	A

Sample ID: SL-196-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 8:40:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.134	J	0.0448	MDL	0.448	PQL	mg/Kg	J	Z

Sample ID: SL-196-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 8:40:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0911	J	0.0672	MDL	0.224	PQL	mg/Kg	J	Z, E, Q
ARSENIC	4.92		0.0896	MDL	0.448	PQL	mg/Kg	J	Q
CHROMIUM	18.1		0.134	MDL	0.448	PQL	mg/Kg	J	Q
LEAD	14.0		0.0116	MDL	0.224	PQL	mg/Kg	J	Q, E
NICKEL	12.1		0.112	MDL	0.448	PQL	mg/Kg	J	A
SILVER	0.0496	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z
VANADIUM	36.8		0.0246	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: SL-197-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 9:08:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	7.08		0.0233	MDL	0.117	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-197-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 9:08:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.183	J	0.0467	MDL	0.467	PQL	mg/Kg	J	Z

Sample ID: SL-197-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 9:08:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0822	J	0.0700	MDL	0.233	PQL	mg/Kg	J	Z, E, Q
ARSENIC	3.46		0.0934	MDL	0.467	PQL	mg/Kg	J	Q
CHROMIUM	20.2		0.140	MDL	0.467	PQL	mg/Kg	J	Q
LEAD	12.2		0.0121	MDL	0.233	PQL	mg/Kg	J	Q, E
NICKEL	16.8		0.117	MDL	0.467	PQL	mg/Kg	J	A
VANADIUM	42.2		0.0257	MDL	0.117	PQL	mg/Kg	J	Q

Sample ID: SL-210-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 1:13:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	5.88		0.0216	MDL	0.108	PQL	mg/Kg	J	A

Sample ID: SL-210-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 1:13:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.152	J	0.0433	MDL	0.433	PQL	mg/Kg	J	Z

Sample ID: SL-210-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 1:13:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0649	U	0.0649	MDL	0.216	PQL	mg/Kg	UJ	E, Q
ARSENIC	4.57		0.0866	MDL	0.433	PQL	mg/Kg	J	Q
CHROMIUM	18.5		0.130	MDL	0.433	PQL	mg/Kg	J	Q
LEAD	7.51		0.0113	MDL	0.216	PQL	mg/Kg	J	Q, E
NICKEL	11.9		0.108	MDL	0.433	PQL	mg/Kg	J	A
SILVER	0.0235	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	36.3		0.0238	MDL	0.108	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-211-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 1:36:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	6.25		0.0213	MDL	0.107	PQL	mg/Kg	J	A

Sample ID: **SL-211-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 1:36:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.110	J	0.0426	MDL	0.426	PQL	mg/Kg	J	Z

Sample ID: **SL-211-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 1:36:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0639	U	0.0639	MDL	0.213	PQL	mg/Kg	UJ	E, Q
ARSENIC	5.14		0.0853	MDL	0.426	PQL	mg/Kg	J	Q
CADMIUM	0.105	J	0.0426	MDL	0.107	PQL	mg/Kg	J	Z
CHROMIUM	18.6		0.128	MDL	0.426	PQL	mg/Kg	J	Q
LEAD	6.56		0.0111	MDL	0.213	PQL	mg/Kg	J	Q, E
NICKEL	12.0		0.107	MDL	0.426	PQL	mg/Kg	J	A
SILVER	0.0374	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z
VANADIUM	42.1		0.0234	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: **SL-212-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 2:14:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	6.90		0.0229	MDL	0.115	PQL	mg/Kg	J	A

Sample ID: **SL-212-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 2:14:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.176	J	0.0459	MDL	0.459	PQL	mg/Kg	J	Z

Sample ID: **SL-212-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 2:14:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.121	J	0.0688	MDL	0.229	PQL	mg/Kg	J	Z, E, Q
ARSENIC	8.73		0.0917	MDL	0.459	PQL	mg/Kg	J	Q
CADMIUM	0.0767	J	0.0459	MDL	0.115	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-212-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 2:14:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	33.3		0.138	MDL	0.459	PQL	mg/Kg	J	Q
LEAD	23.1		0.0119	MDL	0.229	PQL	mg/Kg	J	Q, E
NICKEL	17.2		0.115	MDL	0.459	PQL	mg/Kg	J	A
SILVER	0.0563	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	49.9		0.0252	MDL	0.115	PQL	mg/Kg	J	Q

Sample ID: **SL-214-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 12:28:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	6.34		0.0216	MDL	0.108	PQL	mg/Kg	J	A

Sample ID: **SL-214-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 12:28:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.105	J	0.0433	MDL	0.433	PQL	mg/Kg	J	Z

Sample ID: **SL-214-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 12:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0649	U	0.0649	MDL	0.216	PQL	mg/Kg	UJ	E, Q
ARSENIC	3.90		0.0866	MDL	0.433	PQL	mg/Kg	J	Q
CADMIUM	0.0996	J	0.0433	MDL	0.108	PQL	mg/Kg	J	Z
CHROMIUM	17.5		0.130	MDL	0.433	PQL	mg/Kg	J	Q
LEAD	4.98		0.0113	MDL	0.216	PQL	mg/Kg	J	Q, E
NICKEL	11.6		0.108	MDL	0.433	PQL	mg/Kg	J	A
SILVER	0.0343	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	39.5		0.0238	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: **SL-215-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 12:55:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	5.68		0.0228	MDL	0.114	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-215-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 12:55:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.148	J	0.0456	MDL	0.456	PQL	mg/Kg	J	Z

Sample ID: **SL-215-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 12:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0684	U	0.0684	MDL	0.228	PQL	mg/Kg	UJ	E, Q
ARSENIC	4.93		0.0912	MDL	0.456	PQL	mg/Kg	J	Q
CHROMIUM	20.5		0.137	MDL	0.456	PQL	mg/Kg	J	Q
LEAD	6.64		0.0119	MDL	0.228	PQL	mg/Kg	J	Q, E
NICKEL	12.5		0.114	MDL	0.456	PQL	mg/Kg	J	A
SILVER	0.0326	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z
VANADIUM	40.2		0.0251	MDL	0.114	PQL	mg/Kg	J	Q

Sample ID: **SL-217-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 2:46:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	7.42		0.0227	MDL	0.114	PQL	mg/Kg	J	A

Sample ID: **SL-217-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 2:46:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.140	J	0.0454	MDL	0.454	PQL	mg/Kg	J	Z

Sample ID: **SL-217-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 2:46:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.109	J	0.0681	MDL	0.227	PQL	mg/Kg	J	Z, E, Q
ARSENIC	6.22		0.0908	MDL	0.454	PQL	mg/Kg	J	Q
CHROMIUM	25.0		0.136	MDL	0.454	PQL	mg/Kg	J	Q
LEAD	54.3		0.0118	MDL	0.227	PQL	mg/Kg	J	Q, E
NICKEL	14.8		0.114	MDL	0.454	PQL	mg/Kg	J	A
SILVER	0.0948	J	0.0136	MDL	0.114	PQL	mg/Kg	J	Z
VANADIUM	40.4		0.0250	MDL	0.114	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-218-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 3:10:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	4.86		0.0234	MDL	0.117	PQL	mg/Kg	J	A

Sample ID: **SL-218-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 3:10:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.123	J	0.0469	MDL	0.469	PQL	mg/Kg	J	Z

Sample ID: **SL-218-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 3:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0920	J	0.0703	MDL	0.234	PQL	mg/Kg	J	Z, E, Q
ARSENIC	4.56		0.0937	MDL	0.469	PQL	mg/Kg	J	Q
CHROMIUM	18.1		0.141	MDL	0.469	PQL	mg/Kg	J	Q
LEAD	18.2		0.0122	MDL	0.234	PQL	mg/Kg	J	Q, E
NICKEL	11.2		0.117	MDL	0.469	PQL	mg/Kg	J	A
SILVER	0.0401	J	0.0141	MDL	0.117	PQL	mg/Kg	J	Z
VANADIUM	36.2		0.0258	MDL	0.117	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: **DUP-02-SA5A-QC-022211** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	2.3		0.23	MDL	1.2	PQL	mg/Kg	J	FD

Sample ID: **SL-026-SA5A-SB-3.5-4.5** ***Collected:*** **2/22/2011 11:19:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.54	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: **SL-031-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 9:04:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.27	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: **SL-035-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 4:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.56	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-180-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:35:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.59	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: **SL-181-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.42	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z, FD

Sample ID: **SL-196-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 8:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.40	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-210-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 1:13:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.32	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-211-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 1:36:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.30	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-212-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 2:14:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.57	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: **SL-214-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 12:28:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.26	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: **SL-215-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 12:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.28	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: **SL-218-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 3:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.32	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: **DUP-02-SA5A-QC-022211** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0576	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: **SL-035-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 4:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0037	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: **SL-180-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:35:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0152	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: **SL-181-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0595	J	0.0031	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: **SL-197-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 9:08:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0041	J	0.0034	MDL	0.118	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-212-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 2:14:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0064	J	0.0031	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-217-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 2:46:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0143	J	0.0033	MDL	0.116	PQL	mg/Kg	J	Z

Sample ID: SL-218-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 3:10:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0413	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-035-SA5A-SB-4.0-5.0 ***Collected:*** 2/22/2011 4:15:00 ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	0.54	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: SL-181-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 10:10:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BETA-BHC	0.26		0.070	MDL	0.19	PQL	ug/Kg	J	Q
ENDOSULFAN I	0.051	U	0.051	MDL	0.19	PQL	ug/Kg	R	Q
ENDRIN	0.077	U	0.077	MDL	0.40	PQL	ug/Kg	R	Q

Sample ID: SL-197-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 9:08:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BETA-BHC	0.68	J	0.36	MDL	0.99	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.58	J	0.20	MDL	0.99	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: **SL-211-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 1:36:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.18	J	0.072	MDL	0.37	PQL	ug/Kg	J	Z, S
4,4'-DDT	0.61		0.072	MDL	0.37	PQL	ug/Kg	J	S
DIELDRIN	0.085	J	0.072	MDL	0.37	PQL	ug/Kg	J	Z, S
ENDOSULFAN SULFATE	0.15	J	0.072	MDL	0.37	PQL	ug/Kg	J	Z, S

Sample ID: **SL-212-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 2:14:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	0.39	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z
ENDRIN KETONE	0.25	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z

Sample ID: **SL-214-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 12:28:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.24	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
4,4'-DDT	0.29	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z

Sample ID: **SL-215-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 12:55:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.094	J	0.075	MDL	0.39	PQL	ug/Kg	J	Z
DIELDRIN	0.11	J	0.075	MDL	0.39	PQL	ug/Kg	J	Z

Sample ID: **SL-218-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 3:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIELDRIN	0.18	J	0.078	MDL	0.40	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.21	J	0.078	MDL	0.40	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **DUP-02-SA5A-QC-022211** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	35		1.9	MDL	9.8	PQL	ug/Kg	J	S
AROCLOR 1260	21		2.2	MDL	9.8	PQL	ug/Kg	J	S
Aroclor 5432	5.8	U	5.8	MDL	19	PQL	ug/Kg	UJ	L
Aroclor 5442	5.8	U	5.8	MDL	19	PQL	ug/Kg	UJ	L
Aroclor 5460	200		5.8	MDL	19	PQL	ug/Kg	J	S, FD, L

Sample ID: **SL-175-SA5A-SS-0.0-0.3** ***Collected:*** **2/22/2011 9:52:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1248	3.8	J	0.94	MDL	4.9	PQL	ug/Kg	J	Z, S
AROCLOR 1254	38		0.94	MDL	4.9	PQL	ug/Kg	J	S
AROCLOR 1260	33		1.1	MDL	4.9	PQL	ug/Kg	J	S
Aroclor 5432	2.9	U	2.9	MDL	9.4	PQL	ug/Kg	UJ	L
Aroclor 5442	2.9	U	2.9	MDL	9.4	PQL	ug/Kg	UJ	L
Aroclor 5460	16		2.9	MDL	9.4	PQL	ug/Kg	J	S, L

Sample ID: **SL-180-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:35:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	14		0.38	MDL	2.0	PQL	ug/Kg	J	L
AROCLOR 1260	7.5		0.45	MDL	2.0	PQL	ug/Kg	J	L

Sample ID: **SL-181-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	28		0.77	MDL	4.0	PQL	ug/Kg	J	L
AROCLOR 1260	17		0.91	MDL	4.0	PQL	ug/Kg	J	L
Aroclor 5460	21		2.3	MDL	7.7	PQL	ug/Kg	J	FD

Sample ID: **SL-196-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 8:40:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	3.8		0.44	MDL	1.9	PQL	ug/Kg	J	L, S
Aroclor 5460	10		1.1	MDL	3.7	PQL	ug/Kg	J	S

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **SL-197-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 9:08:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	3.0	U	3.0	MDL	9.8	PQL	ug/Kg	UJ	L
Aroclor 5442	3.0	U	3.0	MDL	9.8	PQL	ug/Kg	UJ	L
Aroclor 5460	3.0	U	3.0	MDL	9.8	PQL	ug/Kg	UJ	L

Sample ID: **SL-210-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 1:13:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.75	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z, S, L
AROCLOR 1260	1.7	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z, L, S
Aroclor 5460	3.8		1.1	MDL	3.6	PQL	ug/Kg	J	S

Sample ID: **SL-211-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 1:36:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	S
AROCLOR 1221	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	S
AROCLOR 1232	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	S
AROCLOR 1242	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	S
AROCLOR 1248	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	S
AROCLOR 1254	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	S
AROCLOR 1260	0.43	U	0.43	MDL	1.9	PQL	ug/Kg	UJ	S
Aroclor 1262	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	S
Aroclor 1268	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	S
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	S
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	S
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	S

Sample ID: **SL-212-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 2:14:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.0	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z, L
AROCLOR 1260	0.51	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z, L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-215-SA5A-SS-0.0-0.5 *Collected:* 2/22/2011 12:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.62	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z, L
AROCLOR 1260	0.59	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z, L

Sample ID: SL-217-SA5A-SS-0.0-0.5 *Collected:* 2/22/2011 2:46:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	62		3.9	MDL	20	PQL	ug/Kg	J	L
AROCLOR 1260	53		4.6	MDL	20	PQL	ug/Kg	J	L

Sample ID: SL-218-SA5A-SS-0.0-0.5 *Collected:* 2/22/2011 3:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	3.0	U	3.0	MDL	9.8	PQL	ug/Kg	UJ	L
Aroclor 5442	3.0	U	3.0	MDL	9.8	PQL	ug/Kg	UJ	L
Aroclor 5460	22		3.0	MDL	9.8	PQL	ug/Kg	J	L

Method Category: SVOA

Method: 8151A **Matrix: SO**

Sample ID: SL-181-SA5A-SS-0.0-0.5 *Collected:* 2/22/2011 10:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	1300		88	MDL	290	PQL	ug/Kg	J	Q
MCPP	87	U	87	MDL	290	PQL	ug/Kg	R	Q

Sample ID: SL-211-SA5A-SS-0.0-0.5 *Collected:* 2/22/2011 1:36:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DB	1.1	J	0.68	MDL	1.9	PQL	ug/Kg	J	Z
MCPA	110	J	83	MDL	270	PQL	ug/Kg	J	Z

Sample ID: SL-217-SA5A-SS-0.0-0.5 *Collected:* 2/22/2011 2:46:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.17	J	0.095	MDL	0.20	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **DUP-02-SA5A-QC-022211** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BENZO(A)ANTHRACENE	32	J	19	MDL	190	PQL	ug/Kg	J	Z, FD
BENZO(G,H,I)PERYLENE	34	J	19	MDL	190	PQL	ug/Kg	J	Z, FD
BIS(2-ETHYLHEXYL)PHTHALATE	44	J	19	MDL	380	PQL	ug/Kg	J	Z
CHRYSENE	44	J	19	MDL	190	PQL	ug/Kg	J	Z, FD
DIBENZO(A,H)ANTHRACENE	21	J	19	MDL	190	PQL	ug/Kg	J	Z
FLUORANTHENE	58	J	19	MDL	190	PQL	ug/Kg	J	Z, FD
INDENO(1,2,3-CD)PYRENE	28	J	19	MDL	190	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	36	J	19	MDL	190	PQL	ug/Kg	J	Z, FD
PYRENE	62	J	19	MDL	190	PQL	ug/Kg	J	Z, FD

Sample ID: **SL-024-SA5A-SB-2.5-3.5** ***Collected:*** **2/22/2011 12:35:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	21	J	19	MDL	370	PQL	ug/Kg	J	Z

Sample ID: **SL-026-SA5A-SB-3.5-4.5** ***Collected:*** **2/22/2011 11:19:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	17	U	17	MDL	170	PQL	ug/Kg	UJ	L

Sample ID: **SL-031-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 9:04:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	19	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: **SL-035-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 4:15:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-175-SA5A-SS-0.0-0.3** ***Collected:*** **2/22/2011 9:52:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
PYRENE	140	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: **SL-180-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:35:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: **SL-181-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BENZO(A)ANTHRACENE	82	J	19	MDL	190	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	85	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	110	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	74	J	19	MDL	190	PQL	ug/Kg	J	Z, FD
BENZO(K)FLUORANTHENE	50	J	19	MDL	190	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	45	J	19	MDL	380	PQL	ug/Kg	J	Z
CHRYSENE	120	J	19	MDL	190	PQL	ug/Kg	J	Z, FD
DIBENZO(A,H)ANTHRACENE	22	J	19	MDL	190	PQL	ug/Kg	J	Z
FLUORANTHENE	210		19	MDL	190	PQL	ug/Kg	J	FD
INDENO(1,2,3-CD)PYRENE	56	J	19	MDL	190	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	140	J	19	MDL	190	PQL	ug/Kg	J	Z, FD
PYRENE	190		19	MDL	190	PQL	ug/Kg	J	FD

Sample ID: **SL-196-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 8:40:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	25	J	19	MDL	370	PQL	ug/Kg	J	Z

Sample ID: **SL-197-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 9:08:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	20	U	20	MDL	200	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-197-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 9:08:00** ***Analysis Type:*** **RES-ACID** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	320	J	200	MDL	590	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	99	J	20	MDL	390	PQL	ug/Kg	J	Z
DIBENZOFURAN	77	J	20	MDL	200	PQL	ug/Kg	J	Z

Sample ID: **SL-210-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 1:13:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: **SL-211-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 1:36:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: **SL-212-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 2:14:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: **SL-214-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 12:28:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: **SL-215-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 12:55:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	27	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: **SL-217-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 2:46:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BENZO(B)FLUORANTHENE	22	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	29	J	19	MDL	190	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-217-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 2:46:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	34	J	19	MDL	190	PQL	ug/Kg	J	Z
FLUORANTHENE	40	J	19	MDL	190	PQL	ug/Kg	J	Z
PYRENE	34	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: **SL-218-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 3:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLORONAPHTHALENE	20	U	20	MDL	200	PQL	ug/Kg	UJ	L

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **DUP-02-SA5A-QC-022211** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.0	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.3	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
ACENAPHTHENE	1.6	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
Dimethylphthalate	6.9	U	6.9	MDL	21	PQL	ug/Kg	UJ	FD
FLUORENE	0.77	U	0.77	MDL	1.9	PQL	ug/Kg	UJ	FD
NAPHTHALENE	1.7	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-175-SA5A-SS-0.0-0.3** ***Collected:*** **2/22/2011 9:52:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	8.3	J	1.9	MDL	9.5	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	90	J	34	MDL	100	PQL	ug/Kg	J	Z
NAPHTHALENE	6.9	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z

Sample ID: **SL-180-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:35:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	1.3	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
ANTHRACENE	1.8	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
Dimethylphthalate	8.0	J	6.8	MDL	20	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **SL-180-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:35:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-butylphthalate	13	J	6.8	MDL	20	PQL	ug/Kg	J	Z

Sample ID: **SL-181-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 10:10:00** ***Analysis Type:*** **RES** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.2	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.6	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
ACENAPHTHENE	1.4	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
Butylbenzylphthalate	25		7.0	MDL	21	PQL	ug/Kg	J	Q, Q
Dimethylphthalate	15	J	7.0	MDL	21	PQL	ug/Kg	J	Z, Q, FD
Di-n-butylphthalate	99		7.0	MDL	21	PQL	ug/Kg	J	Q, Q, Q
FLUORENE	2.7		0.77	MDL	1.9	PQL	ug/Kg	J	FD
NAPHTHALENE	1.4	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-196-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 8:40:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	1.2	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.91	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	15	J	6.7	MDL	20	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.96	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-197-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 9:08:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-butylphthalate	10	J	7.1	MDL	21	PQL	ug/Kg	J	Z

Sample ID: **SL-210-SA5A-SS-0.0-0.5** ***Collected:*** **2/22/2011 1:13:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.39	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
ANTHRACENE	0.68	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.3	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.3	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	7.9	J	6.5	MDL	19	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-210-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 1:13:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	1.2	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
Di-n-butylphthalate	13	J	6.5	MDL	19	PQL	ug/Kg	J	Z
FLUORANTHENE	1.4	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	1.1	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	0.98	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	1.5	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-211-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 1:36:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.70	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
ANTHRACENE	1.0	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.1	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	7.6	J	6.6	MDL	20	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.6	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	1.2	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-212-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 2:14:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.7	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.3	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.84	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.0	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	7.0	MDL	21	PQL	ug/Kg	J	Z
CHRYSENE	1.3	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.4	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-214-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 12:28:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.41	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	12	J	6.6	MDL	20	PQL	ug/Kg	J	Z
NAPHTHALENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-215-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 12:55:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.71	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
ANTHRACENE	0.66	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.5	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-217-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 2:46:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.84	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.94	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	1.1	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.1	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.3	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-218-SA5A-SS-0.0-0.5 ***Collected:*** 2/22/2011 3:10:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.44	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
ANTHRACENE	1.0	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	0.89	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.3	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.2	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
PHENANTHRENE	1.4	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-024-SA5A-SB-2.5-3.5 ***Collected:*** 2/22/2011 12:35:00 ***Analysis Type:*** RES ***Dilution:*** 0.96

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.12	J	0.06	MDL	4.3	PQL	ug/Kg	J	Z
m,p-Xylene	0.37	J	0.18	MDL	4.3	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	2.9	J	0.26	MDL	4.3	PQL	ug/Kg	U	B
TOLUENE	0.10	J	0.08	MDL	4.3	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: **SL-026-SA5A-SB-3.5-4.5** ***Collected:*** **2/22/2011 11:19:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
ETHYLBENZENE	0.13	J	0.06	MDL	4.2	PQL	ug/Kg	J	Z
m,p-Xylene	0.42	J	0.18	MDL	4.2	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	1.4	J	0.25	MDL	4.2	PQL	ug/Kg	U	B
TOLUENE	0.10	J	0.08	MDL	4.2	PQL	ug/Kg	J	Z

Sample ID: **SL-031-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 9:04:00** ***Analysis Type:*** **RES** ***Dilution:*** **1.06**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
METHYLENE CHLORIDE	1.6	J	0.28	MDL	4.7	PQL	ug/Kg	U	B
TOLUENE	0.1	J	0.09	MDL	4.7	PQL	ug/Kg	J	Z

Sample ID: **SL-035-SA5A-SB-4.0-5.0** ***Collected:*** **2/22/2011 4:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.92**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
ETHYLBENZENE	0.17	J	0.06	MDL	4.1	PQL	ug/Kg	J	Z
m,p-Xylene	0.59	J	0.17	MDL	4.1	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	1.9	J	0.24	MDL	4.1	PQL	ug/Kg	U	B
TOLUENE	0.11	J	0.08	MDL	4.1	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE088

Method Blank Outlier Report

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P05608DB222255	3/3/2011 10:55:00 PM	CALCIUM TIN	6.00 mg/Kg 1.83 mg/Kg	DUP-02-SA5A-QC-022211 SL-024-SA5A-SB-2.5-3.5 SL-026-SA5A-SB-3.5-4.5 SL-031-SA5A-SB-4.0-5.0 SL-035-SA5A-SB-4.0-5.0 SL-175-SA5A-SS-0.0-0.3 SL-180-SA5A-SS-0.0-0.5 SL-181-SA5A-SS-0.0-0.5 SL-196-SA5A-SS-0.0-0.5 SL-197-SA5A-SS-0.0-0.5 SL-210-SA5A-SS-0.0-0.5 SL-211-SA5A-SS-0.0-0.5 SL-212-SA5A-SS-0.0-0.5 SL-214-SA5A-SS-0.0-0.5 SL-215-SA5A-SS-0.0-0.5 SL-217-SA5A-SS-0.0-0.5 SL-218-SA5A-SS-0.0-0.5
P06308BB220727	3/7/2011 7:27:00 AM	PHOSPHORUS	1.28 mg/Kg	DUP-02-SA5A-QC-022211 SL-024-SA5A-SB-2.5-3.5 SL-026-SA5A-SB-3.5-4.5 SL-031-SA5A-SB-4.0-5.0 SL-035-SA5A-SB-4.0-5.0 SL-175-SA5A-SS-0.0-0.3 SL-180-SA5A-SS-0.0-0.5 SL-181-SA5A-SS-0.0-0.5 SL-196-SA5A-SS-0.0-0.5 SL-197-SA5A-SS-0.0-0.5 SL-210-SA5A-SS-0.0-0.5 SL-211-SA5A-SS-0.0-0.5 SL-212-SA5A-SS-0.0-0.5 SL-214-SA5A-SS-0.0-0.5 SL-215-SA5A-SS-0.0-0.5 SL-217-SA5A-SS-0.0-0.5 SL-218-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-02-SA5A-QC-022211(RES)	TIN	3.53 mg/Kg	3.53U mg/Kg
SL-024-SA5A-SB-2.5-3.5(RES)	TIN	3.58 mg/Kg	3.58U mg/Kg
SL-026-SA5A-SB-3.5-4.5(RES)	TIN	3.10 mg/Kg	3.10U mg/Kg
SL-031-SA5A-SB-4.0-5.0(RES)	TIN	3.47 mg/Kg	3.47U mg/Kg
SL-035-SA5A-SB-4.0-5.0(RES)	TIN	3.25 mg/Kg	3.25U mg/Kg
SL-175-SA5A-SS-0.0-0.3(RES)	TIN	3.33 mg/Kg	3.33U mg/Kg
SL-180-SA5A-SS-0.0-0.5(RES)	TIN	3.53 mg/Kg	3.53U mg/Kg
SL-181-SA5A-SS-0.0-0.5(RES)	TIN	3.80 mg/Kg	3.80U mg/Kg
SL-196-SA5A-SS-0.0-0.5(RES)	TIN	2.91 mg/Kg	2.91U mg/Kg
SL-197-SA5A-SS-0.0-0.5(RES)	TIN	3.17 mg/Kg	3.17U mg/Kg
SL-210-SA5A-SS-0.0-0.5(RES)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-211-SA5A-SS-0.0-0.5(RES)	TIN	3.04 mg/Kg	3.04U mg/Kg
SL-212-SA5A-SS-0.0-0.5(RES)	TIN	3.62 mg/Kg	3.62U mg/Kg
SL-214-SA5A-SS-0.0-0.5(RES)	TIN	2.87 mg/Kg	2.87U mg/Kg
SL-215-SA5A-SS-0.0-0.5(RES)	TIN	3.09 mg/Kg	3.09U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-217-SA5A-SS-0.0-0.5(RES)	TIN	3.08 mg/Kg	3.08U mg/Kg
SL-218-SA5A-SS-0.0-0.5(RES)	TIN	3.37 mg/Kg	3.37U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P05626AB221748A	3/5/2011 5:48:00 PM	COPPER	0.0698 mg/Kg	DUP-02-SA5A-QC-022211 SL-024-SA5A-SB-2.5-3.5 SL-026-SA5A-SB-3.5-4.5 SL-031-SA5A-SB-4.0-5.0 SL-035-SA5A-SB-4.0-5.0 SL-175-SA5A-SS-0.0-0.3 SL-180-SA5A-SS-0.0-0.5 SL-181-SA5A-SS-0.0-0.5 SL-196-SA5A-SS-0.0-0.5 SL-197-SA5A-SS-0.0-0.5 SL-210-SA5A-SS-0.0-0.5 SL-211-SA5A-SS-0.0-0.5 SL-212-SA5A-SS-0.0-0.5 SL-214-SA5A-SS-0.0-0.5 SL-215-SA5A-SS-0.0-0.5 SL-217-SA5A-SS-0.0-0.5 SL-218-SA5A-SS-0.0-0.5

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB78B210235A	2/25/2011 2:35:00 AM	METHYLENE CHLORIDE	0.60 ug/Kg	SL-024-SA5A-SB-2.5-3.5 SL-026-SA5A-SB-3.5-4.5 SL-031-SA5A-SB-4.0-5.0 SL-035-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-024-SA5A-SB-2.5-3.5(RES)	METHYLENE CHLORIDE	2.9 ug/Kg	4.3U ug/Kg
SL-026-SA5A-SB-3.5-4.5(RES)	METHYLENE CHLORIDE	1.4 ug/Kg	4.2U ug/Kg
SL-031-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.6 ug/Kg	4.7U ug/Kg
SL-035-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.9 ug/Kg	4.1U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-181-SA5A-SS-0.0-0.5MS	2,4-DINITROPHENOL	-	-	20.00-143.00	78 (30.00)	2,4-DINITROPHENOL	
SL-181-SA5A-SS-0.0-0.5MSD	2-CHLORONAPHTHALENE	157	-	50.00-141.00	64 (30.00)	2-CHLORONAPHTHALENE	J (all detects)
(SL-181-SA5A-SS-0.0-0.5)	4,6-DINITRO-2-METHYLPHENOL	-	-	24.00-116.00	59 (30.00)	4,6-DINITRO-2-METHYLPHEN	

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-181-SA5A-SS-0.0-0.5MS	ARSENIC	200	129	75.00-125.00	-	ARSENIC	
SL-181-SA5A-SS-0.0-0.5MSD	CHROMIUM	146	-	75.00-125.00	-	CHROMIUM	
(DUP-02-SA5A-QC-022211	VANADIUM	136	-	75.00-125.00	-	VANADIUM	
SL -024-SA5A-SB-2.5-3.5							
SL -026-SA5A-SB-3.5-4.5							
SL -031-SA5A-SB-4.0-5.0							
SL -035-SA5A-SB-4.0-5.0							
SL -175-SA5A-SS-0.0-0.3							
SL -180-SA5A-SS-0.0-0.5							
SL -181-SA5A-SS-0.0-0.5							J(all detects)
SL -196-SA5A-SS-0.0-0.5							
SL -197-SA5A-SS-0.0-0.5							
SL -210-SA5A-SS-0.0-0.5							
SL -211-SA5A-SS-0.0-0.5							
SL -212-SA5A-SS-0.0-0.5							
SL -214-SA5A-SS-0.0-0.5							
SL -215-SA5A-SS-0.0-0.5							
SL -217-SA5A-SS-0.0-0.5							
SL -218-SA5A-SS-0.0-0.5)							
SL-181-SA5A-SS-0.0-0.5MS	ANTIMONY	20	28	75.00-125.00	22 (20.00)	ANTIMONY	
SL-181-SA5A-SS-0.0-0.5MSD							
(DUP-02-SA5A-QC-022211							
SL -024-SA5A-SB-2.5-3.5							
SL -026-SA5A-SB-3.5-4.5							
SL -031-SA5A-SB-4.0-5.0							
SL -035-SA5A-SB-4.0-5.0							
SL -175-SA5A-SS-0.0-0.3							
SL -180-SA5A-SS-0.0-0.5							J(all detects)
SL -181-SA5A-SS-0.0-0.5							UJ(all non-detects)
SL -196-SA5A-SS-0.0-0.5							
SL -197-SA5A-SS-0.0-0.5							Post Spike = 85%
SL -210-SA5A-SS-0.0-0.5							
SL -211-SA5A-SS-0.0-0.5							
SL -212-SA5A-SS-0.0-0.5							
SL -214-SA5A-SS-0.0-0.5							
SL -215-SA5A-SS-0.0-0.5							
SL -217-SA5A-SS-0.0-0.5							
SL -218-SA5A-SS-0.0-0.5)							

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-181-SA5A-SS-0.0-0.5MS	LEAD	1202	-	75.00-125.00	104 (20.00)	LEAD	
SL-181-SA5A-SS-0.0-0.5MSD	ZINC	47	64	75.00-125.00	-	ZINC	
(DUP-02-SA5A-QC-022211 SL -024-SA5A-SB-2.5-3.5 SL -026-SA5A-SB-3.5-4.5 SL -031-SA5A-SB-4.0-5.0 SL -035-SA5A-SB-4.0-5.0 SL -175-SA5A-SS-0.0-0.3 SL -180-SA5A-SS-0.0-0.5 SL -181-SA5A-SS-0.0-0.5 SL -196-SA5A-SS-0.0-0.5 SL -197-SA5A-SS-0.0-0.5 SL -210-SA5A-SS-0.0-0.5 SL -211-SA5A-SS-0.0-0.5 SL -212-SA5A-SS-0.0-0.5 SL -214-SA5A-SS-0.0-0.5 SL -215-SA5A-SS-0.0-0.5 SL -217-SA5A-SS-0.0-0.5 SL -218-SA5A-SS-0.0-0.5)							J(all detects) UJ(all non-detects) Zn No Qual, >4x
SL-181-SA5A-SS-0.0-0.5MS	BARIUM	155	149	75.00-125.00	-	BARIUM	
SL-181-SA5A-SS-0.0-0.5MSD (DUP-02-SA5A-QC-022211 SL -024-SA5A-SB-2.5-3.5 SL -026-SA5A-SB-3.5-4.5 SL -031-SA5A-SB-4.0-5.0 SL -035-SA5A-SB-4.0-5.0 SL -175-SA5A-SS-0.0-0.3 SL -180-SA5A-SS-0.0-0.5 SL -181-SA5A-SS-0.0-0.5 SL -196-SA5A-SS-0.0-0.5 SL -197-SA5A-SS-0.0-0.5 SL -210-SA5A-SS-0.0-0.5 SL -211-SA5A-SS-0.0-0.5 SL -212-SA5A-SS-0.0-0.5 SL -214-SA5A-SS-0.0-0.5 SL -215-SA5A-SS-0.0-0.5 SL -217-SA5A-SS-0.0-0.5 SL -218-SA5A-SS-0.0-0.5)							No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-181-SA5A-SS-0.0-0.5MS **SL-181-SA5A-SS-0.0-0.5MSD** (DUP-02-SA5A-QC-022211 SL-024-SA5A-SB-2.5-3.5 SL-026-SA5A-SB-3.5-4.5 SL-031-SA5A-SB-4.0-5.0 SL-035-SA5A-SB-4.0-5.0 SL-175-SA5A-SS-0.0-0.3 SL-180-SA5A-SS-0.0-0.5 SL-181-SA5A-SS-0.0-0.5 SL-196-SA5A-SS-0.0-0.5 SL-197-SA5A-SS-0.0-0.5 SL-210-SA5A-SS-0.0-0.5 SL-211-SA5A-SS-0.0-0.5 SL-212-SA5A-SS-0.0-0.5 SL-214-SA5A-SS-0.0-0.5 SL-215-SA5A-SS-0.0-0.5 SL-217-SA5A-SS-0.0-0.5 SL-218-SA5A-SS-0.0-0.5)	ALUMINUM TITANIUM	557 137	677 139	75.00-125.00 75.00-125.00	- -	ALUMINUM TITANIUM	No Qual, >4x
SL-181-SA5A-SS-0.0-0.5MS **SL-181-SA5A-SS-0.0-0.5MSD** (DUP-02-SA5A-QC-022211 SL-024-SA5A-SB-2.5-3.5 SL-026-SA5A-SB-3.5-4.5 SL-031-SA5A-SB-4.0-5.0 SL-035-SA5A-SB-4.0-5.0 SL-175-SA5A-SS-0.0-0.3 SL-180-SA5A-SS-0.0-0.5 SL-181-SA5A-SS-0.0-0.5 SL-196-SA5A-SS-0.0-0.5 SL-197-SA5A-SS-0.0-0.5 SL-210-SA5A-SS-0.0-0.5 SL-211-SA5A-SS-0.0-0.5 SL-212-SA5A-SS-0.0-0.5 SL-214-SA5A-SS-0.0-0.5 SL-215-SA5A-SS-0.0-0.5 SL-217-SA5A-SS-0.0-0.5 SL-218-SA5A-SS-0.0-0.5)	IRON MAGNESIUM MANGANESE	517 32 7	-1387 -76 37	75.00-125.00 75.00-125.00 75.00-125.00	- - -	IRON MAGNESIUM MANGANESE	No Qual, >4x
SL-181-SA5A-SS-0.0-0.5MS **SL-181-SA5A-SS-0.0-0.5MSD** (DUP-02-SA5A-QC-022211 SL-024-SA5A-SB-2.5-3.5 SL-026-SA5A-SB-3.5-4.5 SL-031-SA5A-SB-4.0-5.0 SL-035-SA5A-SB-4.0-5.0 SL-175-SA5A-SS-0.0-0.3 SL-180-SA5A-SS-0.0-0.5 SL-181-SA5A-SS-0.0-0.5 SL-196-SA5A-SS-0.0-0.5 SL-197-SA5A-SS-0.0-0.5 SL-210-SA5A-SS-0.0-0.5 SL-211-SA5A-SS-0.0-0.5 SL-212-SA5A-SS-0.0-0.5 SL-214-SA5A-SS-0.0-0.5 SL-215-SA5A-SS-0.0-0.5 SL-217-SA5A-SS-0.0-0.5 SL-218-SA5A-SS-0.0-0.5)	CALCIUM	161	69	75.00-125.00	-	CALCIUM	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-181-SA5A-SS-0.0-0.5MS **SL-181-SA5A-SS-0.0-0.5MSD** (SL-181-SA5A-SS-0.0-0.5)	BENZO(B)FLUORANTHENE Butylbenzylphthalate Dimethylphthalate FLUORANTHENE	- 1654 132 195	162 150 - 169	43.00-155.00 73.00-140.00 74.00-118.00 26.00-166.00	- 156 (30.00) - -	BENZO(B)FLUORANTHENE Butylbenzylphthalate Dimethylphthalate FLUORANTHENE	J(all detects)
SL-181-SA5A-SS-0.0-0.5MS **SL-181-SA5A-SS-0.0-0.5MSD** (SL-181-SA5A-SS-0.0-0.5)	Di-n-butylphthalate	-31	435	78.00-160.00	102 (30.00)	Di-n-butylphthalate	J(all detects) R(all non-detects)

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-181-SA5A-SS-0.0-0.5MS (DUP-02-SA5A-QC-022211 SL-175-SA5A-SS-0.0-0.3 SL-180-SA5A-SS-0.0-0.5 SL-181-SA5A-SS-0.0-0.5 SL-196-SA5A-SS-0.0-0.5 SL-197-SA5A-SS-0.0-0.5 SL-210-SA5A-SS-0.0-0.5 SL-211-SA5A-SS-0.0-0.5 SL-212-SA5A-SS-0.0-0.5 SL-214-SA5A-SS-0.0-0.5)	FLUORIDE	57	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-215-SA5A-SS-0.0-0.5MS (SL-024-SA5A-SB-2.5-3.5 SL-026-SA5A-SB-3.5-4.5 SL-031-SA5A-SB-4.0-5.0 SL-035-SA5A-SB-4.0-5.0 SL-215-SA5A-SS-0.0-0.5 SL-217-SA5A-SS-0.0-0.5 SL-218-SA5A-SS-0.0-0.5)	FLUORIDE	66	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-181-SA5A-SS-0.0-0.5MS **SL-181-SA5A-SS-0.0-0.5MSD** (DUP-02-SA5A-QC-022211 SL-024-SA5A-SB-2.5-3.5 SL-026-SA5A-SB-3.5-4.5 SL-031-SA5A-SB-4.0-5.0 SL-035-SA5A-SB-4.0-5.0 SL-175-SA5A-SS-0.0-0.3 SL-180-SA5A-SS-0.0-0.5 SL-181-SA5A-SS-0.0-0.5 SL-196-SA5A-SS-0.0-0.5 SL-197-SA5A-SS-0.0-0.5 SL-210-SA5A-SS-0.0-0.5 SL-211-SA5A-SS-0.0-0.5 SL-212-SA5A-SS-0.0-0.5 SL-214-SA5A-SS-0.0-0.5 SL-215-SA5A-SS-0.0-0.5 SL-217-SA5A-SS-0.0-0.5 SL-218-SA5A-SS-0.0-0.5)	PHOSPHORUS	288	-	75.00-125.00	32 (20.00)	PHOSPHORUS	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8081A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-181-SA5A-SS-0.0-0.5MS **SL-181-SA5A-SS-0.0-0.5MSD** (SL-181-SA5A-SS-0.0-0.5)	4,4'-DDD	-	228	16.00-163.00	100 (50.00)	4,4'-DDD	J(all detects)
	4,4'-DDT	422	391	10.00-176.00	-	4,4'-DDT	
	BETA-BHC	-	-	14.00-147.00	60 (50.00)	BETA-BHC	
	ENDOSULFAN II	-	174	28.00-154.00	76 (50.00)	ENDOSULFAN II	
	ENDOSULFAN SULFATE	-	-	21.00-160.00	60 (50.00)	ENDOSULFAN SULFATE	
SL-181-SA5A-SS-0.0-0.5MS **SL-181-SA5A-SS-0.0-0.5MSD** (SL-181-SA5A-SS-0.0-0.5)	ENDOSULFAN I	0	0	16.00-137.00	-	ENDOSULFAN I	J(all detects) R(all non-detects)
	ENDRIN	0	0	11.00-149.00	-	ENDRIN	

Method: 8151A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-181-SA5A-SS-0.0-0.5MSD (SL-181-SA5A-SS-0.0-0.5)	2,4,5-T	-	-	25.00-132.00	37 (35.00)	2,4,5-T	J(all detects)
	2,4,5-TP (Silvex)	-	-	10.00-183.00	119 (35.00)	2,4,5-TP (Silvex)	
	DALAPON	-	-	12.00-86.00	77 (50.00)	DALAPON	
	DINOSEB	-	-	1.00-44.00	72 (35.00)	DINOSEB	
SL-181-SA5A-SS-0.0-0.5MS **SL-181-SA5A-SS-0.0-0.5MSD** (SL-181-SA5A-SS-0.0-0.5)	MCPP	0	-	16.00-174.00	200 (50.00)	MCPP	J(all detects) R(all non-detects)
SL-181-SA5A-SS-0.0-0.5MSD (SL-181-SA5A-SS-0.0-0.5)	MCPA	-	15	31.00-184.00	-	MCPA	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-181-SA5A-SS-0.0-0.5DUP (DUP-02-SA5A-QC-022211 SL -024-SA5A-SB-2.5-3.5 SL -026-SA5A-SB-3.5-4.5 SL -031-SA5A-SB-4.0-5.0 SL -035-SA5A-SB-4.0-5.0 SL -175-SA5A-SS-0.0-0.3 SL -180-SA5A-SS-0.0-0.5 SL -181-SA5A-SS-0.0-0.5 SL -196-SA5A-SS-0.0-0.5 SL -197-SA5A-SS-0.0-0.5 SL -210-SA5A-SS-0.0-0.5 SL -211-SA5A-SS-0.0-0.5 SL -212-SA5A-SS-0.0-0.5 SL -214-SA5A-SS-0.0-0.5 SL -215-SA5A-SS-0.0-0.5 SL -217-SA5A-SS-0.0-0.5 SL -218-SA5A-SS-0.0-0.5)	Zirconium	21	20.00	No Qual OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-181-SA5A-SS-0.0-0.5DUP	ANTIMONY	24	20.00	
(DUP-02-SA5A-QC-022211	SELENIUM	27	20.00	
SL -024-SA5A-SB-2.5-3.5	THALLIUM	21	20.00	
SL -026-SA5A-SB-3.5-4.5				
SL -031-SA5A-SB-4.0-5.0				
SL -035-SA5A-SB-4.0-5.0				
SL -175-SA5A-SS-0.0-0.3				
SL -180-SA5A-SS-0.0-0.5				
SL -181-SA5A-SS-0.0-0.5				No Qual
SL -196-SA5A-SS-0.0-0.5				OK by difference
SL -197-SA5A-SS-0.0-0.5				
SL -210-SA5A-SS-0.0-0.5				
SL -211-SA5A-SS-0.0-0.5				
SL -212-SA5A-SS-0.0-0.5				
SL -214-SA5A-SS-0.0-0.5				
SL -215-SA5A-SS-0.0-0.5				
SL -217-SA5A-SS-0.0-0.5				
SL -218-SA5A-SS-0.0-0.5)				

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-181-SA5A-SS-0.0-0.5DUP (DUP-02-SA5A-QC-022211 SL -024-SA5A-SB-2.5-3.5 SL -026-SA5A-SB-3.5-4.5 SL -031-SA5A-SB-4.0-5.0 SL -035-SA5A-SB-4.0-5.0 SL -175-SA5A-SS-0.0-0.3 SL -180-SA5A-SS-0.0-0.5 SL -181-SA5A-SS-0.0-0.5 SL -196-SA5A-SS-0.0-0.5 SL -197-SA5A-SS-0.0-0.5 SL -210-SA5A-SS-0.0-0.5 SL -211-SA5A-SS-0.0-0.5 SL -212-SA5A-SS-0.0-0.5 SL -214-SA5A-SS-0.0-0.5 SL -215-SA5A-SS-0.0-0.5 SL -217-SA5A-SS-0.0-0.5 SL -218-SA5A-SS-0.0-0.5)	HEXAVALENT CHROMIUM	22	20.00	No Qual OK by difference

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P5LCLCSQ261203 (DUP-02-SA5A-QC-022211 SL-024-SA5A-SB-2.5-3.5 SL-026-SA5A-SB-3.5-4.5 SL-031-SA5A-SB-4.0-5.0 SL-035-SA5A-SB-4.0-5.0 SL-175-SA5A-SS-0.0-0.3 SL-180-SA5A-SS-0.0-0.5 SL-181-SA5A-SS-0.0-0.5 SL-196-SA5A-SS-0.0-0.5 SL-197-SA5A-SS-0.0-0.5 SL-210-SA5A-SS-0.0-0.5 SL-211-SA5A-SS-0.0-0.5 SL-212-SA5A-SS-0.0-0.5 SL-214-SA5A-SS-0.0-0.5 SL-215-SA5A-SS-0.0-0.5 SL-217-SA5A-SS-0.0-0.5 SL-218-SA5A-SS-0.0-0.5)	2-CHLORONAPHTHALENE	64	-	67.00-127.00	-	2-CHLORONAPHTHALENE	J (all detects) UJ (all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P05626AQ221751A (DUP-02-SA5A-QC-022211 SL-024-SA5A-SB-2.5-3.5 SL-026-SA5A-SB-3.5-4.5 SL-031-SA5A-SB-4.0-5.0 SL-035-SA5A-SB-4.0-5.0 SL-175-SA5A-SS-0.0-0.3 SL-180-SA5A-SS-0.0-0.5 SL-181-SA5A-SS-0.0-0.5 SL-196-SA5A-SS-0.0-0.5 SL-197-SA5A-SS-0.0-0.5 SL-210-SA5A-SS-0.0-0.5 SL-211-SA5A-SS-0.0-0.5 SL-212-SA5A-SS-0.0-0.5 SL-214-SA5A-SS-0.0-0.5 SL-215-SA5A-SS-0.0-0.5 SL-217-SA5A-SS-0.0-0.5 SL-218-SA5A-SS-0.0-0.5)	ANTIMONY	57	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8082

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10569AQ240211A (SL-024-SA5A-SB-2.5-3.5 SL -026-SA5A-SB-3.5-4.5 SL -031-SA5A-SB-4.0-5.0 SL -035-SA5A-SB-4.0-5.0 SL -180-SA5A-SS-0.0-0.5 SL -181-SA5A-SS-0.0-0.5 SL -196-SA5A-SS-0.0-0.5 SL -210-SA5A-SS-0.0-0.5 SL -211-SA5A-SS-0.0-0.5 SL -212-SA5A-SS-0.0-0.5 SL -214-SA5A-SS-0.0-0.5 SL -215-SA5A-SS-0.0-0.5 SL -217-SA5A-SS-0.0-0.5)	AROCLOR 1016 AROCLOR 1260	127 150	- -	72.00-120.00 65.00-137.00	- -	AROCLOR 1016, 1221, 1232 AROCLOR 1242, 1248, 1254, 1260	J(all detects)
P10594AQ242228A **P10594AY241653A** (DUP-02-SA5A-QC-022211 SL -175-SA5A-SS-0.0-0.3 SL -197-SA5A-SS-0.0-0.5 SL -218-SA5A-SS-0.0-0.5)	Aroclor 5442	67	67	75.00-125.00	-	Aroclor 5432, 5442, 5460	J(all detects) UJ(all non-detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8081A
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-175-SA5A-SS-0.0-0.3	DECACHLOROBIPHENYL	676	20.00-120.00	All Target Analytes	No Qual Diluted Out
SL-197-SA5A-SS-0.0-0.5	TETRACHLORO-M-XYLENE	149	50.00-130.00	All Target Analytes	No Qual Diluted Out
SL-211-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	122	20.00-120.00	All Target Analytes	J(all detects)

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DUP-02-SA5A-QC-022211	DECACHLOROBIPHENYL	158	45.00-120.00	All Target Analytes	J (all detects)
SL-026-SA5A-SB-3.5-4.5	DECACHLOROBIPHENYL	129	45.00-120.00	All Target Analytes	J(all detects)
SL-031-SA5A-SB-4.0-5.0	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	162 157	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)
SL-035-SA5A-SB-4.0-5.0	DECACHLOROBIPHENYL	137	45.00-120.00	All Target Analytes	J(all detects)
SL-175-SA5A-SS-0.0-0.3	DECACHLOROBIPHENYL	123	45.00-120.00	All Target Analytes	J(all detects)
SL-196-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	142 147	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)
SL-210-SA5A-SS-0.0-0.5	TETRACHLORO-M-XYLENE	178	53.00-139.00	All Target Analytes	J(all detects)
SL-211-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	40 36	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-217-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	139	45.00-120.00	All Target Analytes	No Qual Diluted Out

Field Duplicate RPD Report

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-181-SA5A-SS-0.0-0.5	DUP-02-SA5A-QC-022211			
MOISTURE	14.2	13.1	8		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-181-SA5A-SS-0.0-0.5	DUP-02-SA5A-QC-022211			
FLUORIDE	1.3	1.3	0	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-181-SA5A-SS-0.0-0.5	DUP-02-SA5A-QC-022211			
ALUMINUM	15500	13500	14	50.00	No Qualifiers Applied
BORON	3.28	2.80	16	50.00	
CALCIUM	4390	4260	3	50.00	
IRON	20900	18700	11	50.00	
LITHIUM	19.4	22.7	16	50.00	
MAGNESIUM	4870	4160	16	50.00	
MANGANESE	312	294	6	50.00	
PHOSPHORUS	438	518	17	50.00	
POTASSIUM	3030	2580	16	50.00	
SODIUM	101	113	11	50.00	
STRONTIUM	23.2	24.9	7	50.00	
TIN	3.80	3.53	7	50.00	
TITANIUM	1090	965	12	50.00	
Zirconium	4.41	3.38	26	50.00	

Method: 8020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-181-SA5A-SS-0.0-0.5	DUP-02-SA5A-QC-022211			
ANTIMONY	0.191	0.216	12	50.00	No Qualifiers Applied
ARSENIC	4.54	4.95	9	50.00	
BARIUM	100	107	7	50.00	
BERYLLIUM	0.555	0.523	6	50.00	
CADMIUM	0.540	0.625	15	50.00	
CHROMIUM	22.7	20.4	11	50.00	
COBALT	5.50	5.79	5	50.00	
COPPER	12.9	12.8	1	50.00	
LEAD	12.7	12.4	2	50.00	
MOLYBDENUM	0.481	0.463	4	50.00	
NICKEL	12.5	12.4	1	50.00	
SELENIUM	0.136	0.144	6	50.00	
SILVER	0.186	0.183	2	50.00	
THALLIUM	0.267	0.238	11	50.00	
VANADIUM	35.4	36.4	3	50.00	
ZINC	85.9	79.0	8	50.00	

Field Duplicate RPD Report

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg) SL-181-SA5A-SS-0.0-0.5	Concentration (mg/Kg) DUP-02-SA5A-QC-022211	Sample RPD	eQAPP RPD	Flag
HEXAVALENT CHROMIUM	0.42	2.3	138	50.00	J(all detects)

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg) SL-181-SA5A-SS-0.0-0.5	Concentration (mg/Kg) DUP-02-SA5A-QC-022211	Sample RPD	eQAPP RPD	Flag
MERCURY	0.0595	0.0576	3	50.00	No Qualifiers Applied

Method: 8081A
Matrix: SO

Analyte	Concentration (ug/Kg) SL-181-SA5A-SS-0.0-0.5	Concentration (ug/Kg) DUP-02-SA5A-QC-022211	Sample RPD	eQAPP RPD	Flag
BETA-BHC	0.26	0.24	8	50.00	No Qualifiers Applied

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg) SL-181-SA5A-SS-0.0-0.5	Concentration (ug/Kg) DUP-02-SA5A-QC-022211	Sample RPD	eQAPP RPD	Flag
AROCLOR 1254	28	35	22	50.00	No Qualifiers Applied
AROCLOR 1260	17	21	21	50.00	
Aroclor 5460	21	200	162	50.00	J(all detects)

Method: 8151A
Matrix: SO

Analyte	Concentration (ug/Kg) SL-181-SA5A-SS-0.0-0.5	Concentration (ug/Kg) DUP-02-SA5A-QC-022211	Sample RPD	eQAPP RPD	Flag
MCPA	1300	1400	7	50.00	No Qualifiers Applied

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg) SL-181-SA5A-SS-0.0-0.5	Concentration (ug/Kg) DUP-02-SA5A-QC-022211	Sample RPD	eQAPP RPD	Flag
1-METHYLNAPHTHALENE	1.2	1.0	18	50.00	No Qualifiers Applied
2-METHYLNAPHTHALENE	1.6	1.3	21	50.00	
ACENAPHTHENE	1.4	1.6	13	50.00	
ACENAPHTHYLENE	2.7	2.4	12	50.00	
ANTHRACENE	6.5	5.2	22	50.00	
Butylbenzylphthalate	25	30	18	50.00	
Di-n-butylphthalate	99	110	11	50.00	
NAPHTHALENE	1.4	1.7	19	50.00	
Dimethylphthalate	15	21 U	200	50.00	J(all detects)
FLUORENE	2.7	1.9 U	200	50.00	UJ(all non-detects)

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-181-SA5A-SS-0.0-0.5	DUP-02-SA5A-QC-022211			
BIS(2-ETHYLHEXYL)PHTHALATE	45	44	2	50.00	No Qualifiers Applied
DIBENZO(A,H)ANTHRACENE	22	21	5	50.00	
BENZO(A)ANTHRACENE	82	32	88	50.00	J(all detects)
BENZO(G,H,I)PERYLENE	74	34	74	50.00	
CHRYSENE	120	44	93	50.00	
FLUORANTHENE	210	58	113	50.00	
INDENO(1,2,3-CD)PYRENE	56	28	67	50.00	
PHENANTHRENE	140	36	118	50.00	
PYRENE	190	62	102	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-181-SA5A-SS-0.0-0.5	DUP-02-SA5A-QC-022211			
PH	7.85	7.71	2	50.00	No Qualifiers Applied

Method: ASTM D7498
Matrix: SO

Analyte	Concentration (mV)		Sample RPD	eQAPP RPD	Flag
	SL-181-SA5A-SS-0.0-0.5	DUP-02-SA5A-QC-022211			
Oxidation Reduction Potential	338	318	6		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-175-SA5A-SS-0.0-0.3	FLUORIDE	J	0.98	1.1	PQL	mg/Kg	J (all detects)

Method: 314.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-035-SA5A-SB-4.0-5.0	PERCHLORATE	J	25.7	33.1	PQL	ug/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-02-SA5A-QC-022211	BORON	J	2.80	5.64	PQL	mg/Kg	J (all detects)
	TIN	J	3.53	11.3	PQL	mg/Kg	
	Zirconium	J	3.38	5.64	PQL	mg/Kg	
SL-024-SA5A-SB-2.5-3.5	BORON	J	1.27	5.37	PQL	mg/Kg	J (all detects)
	TIN	J	3.58	10.7	PQL	mg/Kg	
	Zirconium	J	4.44	5.47	PQL	mg/Kg	
SL-026-SA5A-SB-3.5-4.5	TIN	J	3.10	10.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.42	5.24	PQL	mg/Kg	
SL-031-SA5A-SB-4.0-5.0	BORON	J	1.35	5.51	PQL	mg/Kg	J (all detects)
	TIN	J	3.47	11.0	PQL	mg/Kg	
	Zirconium	J	5.08	5.35	PQL	mg/Kg	
SL-035-SA5A-SB-4.0-5.0	BORON	J	1.82	5.46	PQL	mg/Kg	J (all detects)
	TIN	J	3.25	10.9	PQL	mg/Kg	
	Zirconium	J	5.09	5.36	PQL	mg/Kg	
SL-175-SA5A-SS-0.0-0.3	BORON	J	3.71	5.61	PQL	mg/Kg	J (all detects)
	TIN	J	3.33	11.2	PQL	mg/Kg	
	Zirconium	J	4.46	5.61	PQL	mg/Kg	
SL-180-SA5A-SS-0.0-0.5	BORON	J	3.77	5.60	PQL	mg/Kg	J (all detects)
	SODIUM	J	106	112	PQL	mg/Kg	
	TIN	J	3.53	11.2	PQL	mg/Kg	
	Zirconium	J	4.64	5.55	PQL	mg/Kg	
SL-181-SA5A-SS-0.0-0.5	BORON	J	3.28	5.77	PQL	mg/Kg	J (all detects)
	SODIUM	J	101	115	PQL	mg/Kg	
	TIN	J	3.80	11.5	PQL	mg/Kg	
	Zirconium	J	4.41	5.83	PQL	mg/Kg	
SL-196-SA5A-SS-0.0-0.5	BORON	J	2.26	5.44	PQL	mg/Kg	J (all detects)
	SODIUM	J	67.5	109	PQL	mg/Kg	
	TIN	J	2.91	10.9	PQL	mg/Kg	
	Zirconium	J	4.85	5.38	PQL	mg/Kg	
SL-197-SA5A-SS-0.0-0.5	TIN	J	3.17	11.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.88	5.89	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-210-SA5A-SS-0.0-0.5	BORON	J	2.82	5.31	PQL	mg/Kg	J (all detects)
	SODIUM	J	103	106	PQL	mg/Kg	
	TIN	J	3.00	10.6	PQL	mg/Kg	
	Zirconium	J	3.99	5.31	PQL	mg/Kg	
SL-211-SA5A-SS-0.0-0.5	BORON	J	2.56	5.43	PQL	mg/Kg	J (all detects)
	TIN	J	3.04	10.9	PQL	mg/Kg	
	Zirconium	J	3.61	5.33	PQL	mg/Kg	
SL-212-SA5A-SS-0.0-0.5	BORON	J	3.41	5.68	PQL	mg/Kg	J (all detects)
	TIN	J	3.62	11.4	PQL	mg/Kg	
	Zirconium	J	5.08	5.79	PQL	mg/Kg	
SL-214-SA5A-SS-0.0-0.5	BORON	J	2.48	5.41	PQL	mg/Kg	J (all detects)
	TIN	J	2.87	10.8	PQL	mg/Kg	
	Zirconium	J	4.09	5.41	PQL	mg/Kg	
SL-215-SA5A-SS-0.0-0.5	BORON	J	2.84	5.64	PQL	mg/Kg	J (all detects)
	SODIUM	J	89.0	113	PQL	mg/Kg	
	TIN	J	3.09	11.3	PQL	mg/Kg	
	Zirconium	J	4.58	5.48	PQL	mg/Kg	
SL-217-SA5A-SS-0.0-0.5	BORON	J	3.01	5.62	PQL	mg/Kg	J (all detects)
	SODIUM	J	99.0	112	PQL	mg/Kg	
	TIN	J	3.08	11.2	PQL	mg/Kg	
	Zirconium	J	5.02	5.68	PQL	mg/Kg	
SL-218-SA5A-SS-0.0-0.5	BORON	J	1.93	5.80	PQL	mg/Kg	J (all detects)
	SODIUM	J	84.2	116	PQL	mg/Kg	
	TIN	J	3.37	11.6	PQL	mg/Kg	
	Zirconium	J	4.29	5.86	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-02-SA5A-QC-022211	ANTIMONY	J	0.216	0.223	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.144	0.447	PQL	mg/Kg	
SL-024-SA5A-SB-2.5-3.5	ANTIMONY	J	0.0694	0.221	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.159	0.442	PQL	mg/Kg	
	SILVER	J	0.0159	0.111	PQL	mg/Kg	
SL-026-SA5A-SB-3.5-4.5	SELENIUM	J	0.107	0.419	PQL	mg/Kg	J (all detects)
SL-031-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0854	0.214	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.135	0.428	PQL	mg/Kg	
SL-035-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0984	0.219	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0459	0.109	PQL	mg/Kg	
	SELENIUM	J	0.0835	0.437	PQL	mg/Kg	
	SILVER	J	0.0429	0.109	PQL	mg/Kg	
SL-175-SA5A-SS-0.0-0.3	SELENIUM	J	0.131	0.458	PQL	mg/Kg	J (all detects)
SL-180-SA5A-SS-0.0-0.5	ANTIMONY	J	0.117	0.224	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.168	0.448	PQL	mg/Kg	
SL-181-SA5A-SS-0.0-0.5	ANTIMONY	J	0.191	0.231	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.136	0.462	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-196-SA5A-SS-0.0-0.5	ANTIMONY	J	0.0911	0.224	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.134	0.448	PQL	mg/Kg	
	SILVER	J	0.0496	0.112	PQL	mg/Kg	
SL-197-SA5A-SS-0.0-0.5	ANTIMONY	J	0.0822	0.233	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.183	0.467	PQL	mg/Kg	
SL-210-SA5A-SS-0.0-0.5	SELENIUM	J	0.152	0.433	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0235	0.108	PQL	mg/Kg	
SL-211-SA5A-SS-0.0-0.5	CADMIUM	J	0.105	0.107	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.110	0.426	PQL	mg/Kg	
	SILVER	J	0.0374	0.107	PQL	mg/Kg	
SL-212-SA5A-SS-0.0-0.5	ANTIMONY	J	0.121	0.229	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0767	0.115	PQL	mg/Kg	
	SELENIUM	J	0.176	0.459	PQL	mg/Kg	
	SILVER	J	0.0563	0.115	PQL	mg/Kg	
SL-214-SA5A-SS-0.0-0.5	CADMIUM	J	0.0996	0.108	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.105	0.433	PQL	mg/Kg	
	SILVER	J	0.0343	0.108	PQL	mg/Kg	
SL-215-SA5A-SS-0.0-0.5	SELENIUM	J	0.148	0.456	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0326	0.114	PQL	mg/Kg	
SL-217-SA5A-SS-0.0-0.5	ANTIMONY	J	0.109	0.227	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.140	0.454	PQL	mg/Kg	
	SILVER	J	0.0948	0.114	PQL	mg/Kg	
SL-218-SA5A-SS-0.0-0.5	ANTIMONY	J	0.0920	0.234	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.123	0.469	PQL	mg/Kg	
	SILVER	J	0.0401	0.117	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-026-SA5A-SB-3.5-4.5	HEXAVALENT CHROMIUM	J	0.54	1.0	PQL	mg/Kg	J (all detects)
SL-031-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.27	1.1	PQL	mg/Kg	J (all detects)
SL-035-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.56	1.1	PQL	mg/Kg	J (all detects)
SL-180-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.59	1.2	PQL	mg/Kg	J (all detects)
SL-181-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.42	1.2	PQL	mg/Kg	J (all detects)
SL-196-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.40	1.1	PQL	mg/Kg	J (all detects)
SL-210-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.32	1.1	PQL	mg/Kg	J (all detects)
SL-211-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.30	1.1	PQL	mg/Kg	J (all detects)
SL-212-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.57	1.2	PQL	mg/Kg	J (all detects)
SL-214-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.26	1.1	PQL	mg/Kg	J (all detects)
SL-215-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.28	1.1	PQL	mg/Kg	J (all detects)
SL-218-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.32	1.2	PQL	mg/Kg	J (all detects)

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-02-SA5A-QC-022211	MERCURY	J	0.0576	0.112	PQL	mg/Kg	J (all detects)
SL-035-SA5A-SB-4.0-5.0	MERCURY	J	0.0037	0.105	PQL	mg/Kg	J (all detects)
SL-180-SA5A-SS-0.0-0.5	MERCURY	J	0.0152	0.114	PQL	mg/Kg	J (all detects)
SL-181-SA5A-SS-0.0-0.5	MERCURY	J	0.0595	0.110	PQL	mg/Kg	J (all detects)
SL-197-SA5A-SS-0.0-0.5	MERCURY	J	0.0041	0.118	PQL	mg/Kg	J (all detects)
SL-212-SA5A-SS-0.0-0.5	MERCURY	J	0.0064	0.110	PQL	mg/Kg	J (all detects)
SL-217-SA5A-SS-0.0-0.5	MERCURY	J	0.0143	0.116	PQL	mg/Kg	J (all detects)
SL-218-SA5A-SS-0.0-0.5	MERCURY	J	0.0413	0.114	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-035-SA5A-SB-4.0-5.0	EFH (C21-C30)	J	0.54	1.3	PQL	mg/Kg	J (all detects)

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-197-SA5A-SS-0.0-0.5	BETA-BHC	J	0.68	0.99	PQL	ug/Kg	J (all detects)
	HEPTACHLOR EPOXIDE	J	0.58	0.99	PQL	ug/Kg	
SL-211-SA5A-SS-0.0-0.5	4,4'-DDD	J	0.18	0.37	PQL	ug/Kg	J (all detects)
	DIELDRIN	J	0.085	0.37	PQL	ug/Kg	
	ENDOSULFAN SULFATE	J	0.15	0.37	PQL	ug/Kg	
SL-212-SA5A-SS-0.0-0.5	4,4'-DDT	J	0.39	0.40	PQL	ug/Kg	J (all detects)
	ENDRIN KETONE	J	0.25	0.40	PQL	ug/Kg	
SL-214-SA5A-SS-0.0-0.5	4,4'-DDD	J	0.24	0.38	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.29	0.38	PQL	ug/Kg	
SL-215-SA5A-SS-0.0-0.5	4,4'-DDD	J	0.094	0.39	PQL	ug/Kg	J (all detects)
	DIELDRIN	J	0.11	0.39	PQL	ug/Kg	
SL-218-SA5A-SS-0.0-0.5	DIELDRIN	J	0.18	0.40	PQL	ug/Kg	J (all detects)
	ENDRIN ALDEHYDE	J	0.21	0.40	PQL	ug/Kg	

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-175-SA5A-SS-0.0-0.3	AROCLOR 1248	J	3.8	4.9	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-210-SA5A-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260	J J	0.75 1.7	1.8 1.8	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-212-SA5A-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260	J J	1.0 0.51	2.0 2.0	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-215-SA5A-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260	J J	0.62 0.59	1.9 1.9	PQL PQL	ug/Kg ug/Kg	J (all detects)

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-211-SA5A-SS-0.0-0.5	2,4-DB MCPA	J J	1.1 110	1.9 270	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-217-SA5A-SS-0.0-0.5	2,4,5-T	J	0.17	0.20	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA5A-SB-2.5-3.5	ETHYLBENZENE m,p-Xylene METHYLENE CHLORIDE TOLUENE	J J J J	0.12 0.37 2.9 0.10	4.3 4.3 4.3 4.3	PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)
SL-026-SA5A-SB-3.5-4.5	ETHYLBENZENE m,p-Xylene METHYLENE CHLORIDE TOLUENE	J J J J	0.13 0.42 1.4 0.10	4.2 4.2 4.2 4.2	PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)
SL-031-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE TOLUENE	J J	1.6 0.1	4.7 4.7	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-035-SA5A-SB-4.0-5.0	ETHYLBENZENE m,p-Xylene METHYLENE CHLORIDE TOLUENE	J J J J	0.17 0.59 1.9 0.11	4.1 4.1 4.1 4.1	PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-02-SA5A-QC-022211	BENZO(A)ANTHRACENE	J	32	190	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	34	190	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	44	380	PQL	ug/Kg	
	CHRYSENE	J	44	190	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	21	190	PQL	ug/Kg	
	FLUORANTHENE	J	58	190	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	28	190	PQL	ug/Kg	
	PHENANTHRENE	J	36	190	PQL	ug/Kg	
	PYRENE	J	62	190	PQL	ug/Kg	
SL-024-SA5A-SB-2.5-3.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	21	370	PQL	ug/Kg	J (all detects)
SL-031-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	19	370	PQL	ug/Kg	J (all detects)
SL-175-SA5A-SS-0.0-0.3	PYRENE	J	140	190	PQL	ug/Kg	J (all detects)
SL-181-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	82	190	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	85	190	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	110	190	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	74	190	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	50	190	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	45	380	PQL	ug/Kg	
	CHRYSENE	J	120	190	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	22	190	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	56	190	PQL	ug/Kg	
	PHENANTHRENE	J	140	190	PQL	ug/Kg	
SL-196-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	370	PQL	ug/Kg	J (all detects)
SL-197-SA5A-SS-0.0-0.5	BENZOIC ACID	J	320	590	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	99	390	PQL	ug/Kg	
	DIBENZOFURAN	J	77	200	PQL	ug/Kg	
SL-215-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	380	PQL	ug/Kg	J (all detects)
SL-217-SA5A-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	22	190	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	29	190	PQL	ug/Kg	
	CHRYSENE	J	34	190	PQL	ug/Kg	
	FLUORANTHENE	J	40	190	PQL	ug/Kg	
	PYRENE	J	34	190	PQL	ug/Kg	

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-02-SA5A-QC-022211	1-METHYLNAPHTHALENE	J	1.0	1.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.3	1.9	PQL	ug/Kg	
	ACENAPHTHENE	J	1.6	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.7	1.9	PQL	ug/Kg	
SL-175-SA5A-SS-0.0-0.3	ACENAPHTHYLENE	J	8.3	9.5	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	90	100	PQL	ug/Kg	
	NAPHTHALENE	J	6.9	9.5	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-180-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	1.3	1.9	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	1.8	1.9	PQL	ug/Kg	
	Dimethylphthalate	J	8.0	20	PQL	ug/Kg	
	Di-n-butylphthalate	J	13	20	PQL	ug/Kg	
SL-181-SA5A-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	1.2	1.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.6	1.9	PQL	ug/Kg	
	ACENAPHTHENE	J	1.4	1.9	PQL	ug/Kg	
	Dimethylphthalate	J	15	21	PQL	ug/Kg	
	NAPHTHALENE	J	1.4	1.9	PQL	ug/Kg	
SL-196-SA5A-SS-0.0-0.5	ANTHRACENE	J	1.2	1.9	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	0.91	1.9	PQL	ug/Kg	
	Di-n-octylphthalate	J	15	20	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.96	1.9	PQL	ug/Kg	
SL-197-SA5A-SS-0.0-0.5	Di-n-butylphthalate	J	10	21	PQL	ug/Kg	J (all detects)
SL-210-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	0.39	1.8	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.68	1.8	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.3	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.3	1.8	PQL	ug/Kg	
	Butylbenzylphthalate	J	7.9	19	PQL	ug/Kg	
	CHRYSENE	J	1.2	1.8	PQL	ug/Kg	
	Di-n-butylphthalate	J	13	19	PQL	ug/Kg	
	FLUORANTHENE	J	1.4	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	0.98	1.8	PQL	ug/Kg	
	PYRENE	J	1.5	1.8	PQL	ug/Kg	
SL-211-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	0.70	1.8	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	1.0	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.1	1.8	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.6	20	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.6	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	1.2	1.8	PQL	ug/Kg	
SL-212-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.7	1.9	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.3	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.84	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.0	1.9	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	21	PQL	ug/Kg	
	CHRYSENE	J	1.3	1.9	PQL	ug/Kg	
	PYRENE	J	1.4	1.9	PQL	ug/Kg	
SL-214-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	0.41	1.8	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	12	20	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	1.8	PQL	ug/Kg	
SL-215-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	0.71	1.9	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.66	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.5	1.9	PQL	ug/Kg	
SL-217-SA5A-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.84	1.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.94	1.9	PQL	ug/Kg	
	ACENAPHTHYLENE	J	1.1	1.9	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.1	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.3	1.9	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE088 **Laboratory: LL**

EDD Filename: DE088_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-218-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	0.44	2.0	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	1.0	2.0	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	0.89	2.0	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.3	2.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.2	2.0	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	2.0	PQL	ug/Kg	

LDC #: 25764N4 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/6/11
SDG #: DE088 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	ICB/CCB hits → No Qual
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ba, Ca, Fe, Mg, Mn, Ti, Zn 4X)
VII.	Duplicate Sample Analysis	N	RPD (Sb, Se, Tl, Zn <5xRL)
VIII.	Laboratory Control Samples (LCS)	N	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Co: 35%, Ni: 11%, Li: 21% (J/UJ/A)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: Soil

1	DUP02-SA5A-QC-022211 D	11	SL-215-SA5A-SS-0.0-0.05	21		31	
2	SL-175-SA5A-SS-0.0-0.05	12	SL-217-SA5A-SS-0.0-0.05	22		32	
3	SL-180-SA5A-SS-0.0-0.05	13	SL-218-SA5A-SS-0.0-0.05	23		33	
4	SL-181-SA5A-SS-0.0-0.05 D	14	SL-024-SA5A-SS-0.0-0.05	24		34	
5	SL-196-SA5A-SS-0.0-0.05	15	SL-026-SA5A-SS-0.0-0.05	25		35	
6	SL-197-SA5A-SS-0.0-0.05	16	SL-031-SA5A-SS-0.0-0.05	26		36	
7	SL-210-SA5A-SS-0.0-0.05	17	SL-035-SA5A-SS-0.0-0.05	27		37	
8	SL-211-SA5A-SS-0.0-0.05	18	SL-181-SA5A-SS-0.0-0.05MS	28		38	
9	SL-212-SA5A-SS-0.0-0.05	19	SL-181-SA5A-SS-0.0-0.05MSD	29		39	
10	SL-214-SA5A-SS-0.0-0.05	20	SL-181-SA5A-SS-0.0-0.05DUP	30		40	

Notes: _____

SAMPLE DELIVERY GROUP

DE089

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	3050B	6010B	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	3050B	6020	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	3060A	7199	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	3546	1625C	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	3550B	8015B	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	3550B	8015M	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	3550B	8082	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	3550B	8270C	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	3550B	8270C SIM	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	5035	8015M	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	5035	8260B	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	5035	8260B SIM	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	8330	8330A	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	Gen Prep	9045M	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	METHOD	300.0	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	METHOD	314.0	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	METHOD	7471A	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	METHOD	8015B	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	METHOD	8015M	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	METHOD	8315A	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0	6214502	N	METHOD	9012B	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	3050B	6010B	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	3050B	6020	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	3060A	7199	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	3546	1625C	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	3550B	8015B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	3550B	8015M	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	3550B	8082	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	3550B	8270C	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	3550B	8270C SIM	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	5035	8015M	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	5035	8260B	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	5035	8260B SIM	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	8330	8330A	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	METHOD	300.0	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	METHOD	314.0	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	METHOD	7471A	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	METHOD	8015B	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	METHOD	8015M	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	METHOD	8315A	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MS	6214503	MS	METHOD	9012B	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MSD	6214504	MSD	3050B	6010B	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MSD	6214504	MSD	3050B	6020	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MSD	6214504	MSD	3546	1625C	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MSD	6214504	MSD	3550B	8015B	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MSD	6214504	MSD	3550B	8015M	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MSD	6214504	MSD	3550B	8082	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MSD	6214504	MSD	3550B	8270C	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MSD	6214504	MSD	3550B	8270C SIM	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MSD	6214504	MSD	5035	8015M	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MSD	6214504	MSD	5035	8260B	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MSD	6214504	MSD	5035	8260B SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MSD	6214504	MSD	8330	8330A	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MSD	6214504	MSD	METHOD	7471A	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MSD	6214504	MSD	METHOD	8015B	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MSD	6214504	MSD	METHOD	8015M	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0MSD	6214504	MSD	METHOD	8315A	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0DUP	6214505	DUP	3050B	6010B	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0DUP	6214505	DUP	3050B	6020	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0DUP	6214505	DUP	3060A	7199	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0DUP	6214505	DUP	Gen Prep	9045M	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0DUP	6214505	DUP	METHOD	300.0	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0DUP	6214505	DUP	METHOD	314.0	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0DUP	6214505	DUP	METHOD	7471A	III
23-Feb-2011	SL-036-SA5A-SB-4.0-5.0DUP	6214505	DUP	METHOD	9012B	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	3050B	6010B	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	3050B	6020	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	3060A	7199	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	3546	1625C	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	3550B	8015B	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	3550B	8015M	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	3550B	8082	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	3550B	8270C	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	3550B	8270C SIM	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	5035	8015M	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	5035	8260B	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	5035	8260B SIM	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	8330	8330A	III

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation
N = Normal Sample
FD = Field Duplicate
TB = Trip Blank
FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	Gen Prep	9045M	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	METHOD	300.0	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	METHOD	314.0	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	METHOD	7471A	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	METHOD	8015B	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	METHOD	8015M	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	METHOD	8315A	III
23-Feb-2011	DUP-03-SA5A-QC-022311	6214501	FD	METHOD	9012B	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	3050B	6010B	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	3050B	6020	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	3060A	7199	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	3546	1625C	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	3550B	8015B	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	3550B	8015M	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	3550B	8082	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	3550B	8270C	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	3550B	8270C SIM	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	5035	8015M	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	5035	8260B	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	5035	8260B SIM	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	8330	8330A	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	Gen Prep	9045M	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	METHOD	300.0	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	METHOD	314.0	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	METHOD	7471A	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	METHOD	8015B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	METHOD	8015M	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	METHOD	8315A	III
23-Feb-2011	SL-037-SA5A-SB-4.0-5.0	6214506	N	METHOD	9012B	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	3050B	6010B	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	3050B	6020	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	3060A	7199	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	3546	1625C	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	3550B	8015B	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	3550B	8015M	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	3550B	8082	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	3550B	8270C	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	3550B	8270C SIM	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	5035	8015M	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	5035	8260B	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	5035	8260B SIM	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	8330	8330A	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	Gen Prep	9045M	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	METHOD	300.0	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	METHOD	314.0	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	METHOD	7471A	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	METHOD	8015B	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	METHOD	8015M	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	METHOD	8315A	III
23-Feb-2011	SL-040-SA5A-SB-4.0-5.0	6214507	N	METHOD	9012B	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	3050B	6010B	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	3050B	6020	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	3060A	7199	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	3546	1625C	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	3550B	8015B	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	3550B	8015M	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	3550B	8082	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	3550B	8270C	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	3550B	8270C SIM	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	5035	8015M	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	5035	8260B	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	5035	8260B SIM	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	8330	8330A	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	Gen Prep	9045M	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	METHOD	300.0	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	METHOD	314.0	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	METHOD	7471A	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	METHOD	8015B	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	METHOD	8015M	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	METHOD	8315A	III
23-Feb-2011	SL-040-SA5A-SB-9.0-10.0	6214508	N	METHOD	9012B	III
23-Feb-2011	TB-022311	6214509	TB	5030B	8015M	III
23-Feb-2011	TB-022311	6214509	TB	5030B	8260B	III
23-Feb-2011	TB-022311	6214509	TB	5030B	8260B SIM	III

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation
N = Normal Sample
FD = Field Duplicate
TB = Trip Blank
FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: DUP-03-SA5A-QC-022311 ***Collected:*** 2/23/2011 10:31:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.2		0.84	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.2	J	0.84	MDL	1.6	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA5A-SB-4.0-5.0 ***Collected:*** 2/23/2011 10:25:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.85	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.3	J	0.85	MDL	1.6	PQL	mg/Kg	J	Z

Sample ID: SL-037-SA5A-SB-4.0-5.0 ***Collected:*** 2/23/2011 11:54:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	6.5		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-040-SA5A-SB-4.0-5.0 ***Collected:*** 2/23/2011 3:26:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.9		0.89	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.3	J	0.89	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA5A-SB-9.0-10.0 ***Collected:*** 2/23/2011 3:36:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.2		0.84	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: DUP-03-SA5A-QC-022311 ***Collected:*** 2/23/2011 10:31:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.35	J	0.904	MDL	5.08	PQL	mg/Kg	J	Z
MANGANESE	129		0.0792	MDL	0.508	PQL	mg/Kg	J	Q
POTASSIUM	1230		18.3	MDL	50.8	PQL	mg/Kg	J	Q
TIN	2.92	J	1.02	MDL	10.2	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: DUP-03-SA5A-QC-022311 ***Collected:*** 2/23/2011 10:31:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	1.33	J	0.853	MDL	5.08	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA5A-SB-4.0-5.0 ***Collected:*** 2/23/2011 10:25:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.74	J	0.921	MDL	5.18	PQL	mg/Kg	J	Z
MANGANESE	178		0.0807	MDL	0.518	PQL	mg/Kg	J	Q
POTASSIUM	1740		18.6	MDL	51.8	PQL	mg/Kg	J	Q
TIN	2.86	J	1.04	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	1.46	J	0.869	MDL	5.18	PQL	mg/Kg	J	Z

Sample ID: SL-037-SA5A-SB-4.0-5.0 ***Collected:*** 2/23/2011 11:54:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.28	J	0.965	MDL	5.42	PQL	mg/Kg	J	Z
MANGANESE	245		0.0846	MDL	0.542	PQL	mg/Kg	J	Q
POTASSIUM	1600		19.5	MDL	54.2	PQL	mg/Kg	J	Q
TIN	3.34	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	2.32	J	0.911	MDL	5.42	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA5A-SB-4.0-5.0 ***Collected:*** 2/23/2011 3:26:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.16	J	0.973	MDL	5.46	PQL	mg/Kg	J	Z
MANGANESE	288		0.0853	MDL	0.546	PQL	mg/Kg	J	Q
POTASSIUM	1860		19.7	MDL	54.6	PQL	mg/Kg	J	Q
SODIUM	106	J	40.8	MDL	109	PQL	mg/Kg	J	Z
TIN	2.92	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	2.06	J	0.918	MDL	5.46	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA5A-SB-9.0-10.0 ***Collected:*** 2/23/2011 3:36:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.35	J	0.938	MDL	5.27	PQL	mg/Kg	J	Z
MANGANESE	178		0.0822	MDL	0.527	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-040-SA5A-SB-9.0-10.0** ***Collected:*** **2/23/2011 3:36:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1610		19.0	MDL	52.7	PQL	mg/Kg	J	Q
TIN	2.83	J	1.05	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	1.45	J	0.885	MDL	5.27	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **DUP-03-SA5A-QC-022311** ***Collected:*** **2/23/2011 10:31:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.164	J	0.0406	MDL	0.406	PQL	mg/Kg	J	Z, Q

Sample ID: **DUP-03-SA5A-QC-022311** ***Collected:*** **2/23/2011 10:31:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.875		0.0508	MDL	0.102	PQL	mg/Kg	J	Q

Sample ID: **DUP-03-SA5A-QC-022311** ***Collected:*** **2/23/2011 10:31:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	121		0.110	MDL	0.406	PQL	mg/Kg	J	A

Sample ID: **DUP-03-SA5A-QC-022311** ***Collected:*** **2/23/2011 10:31:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.240		0.0609	MDL	0.203	PQL	mg/Kg	J	Q, E
ARSENIC	8.51		0.0812	MDL	0.406	PQL	mg/Kg	J	Q
BERYLLIUM	0.855		0.0162	MDL	0.102	PQL	mg/Kg	J	Q
CADMIUM	0.0739	J	0.0406	MDL	0.102	PQL	mg/Kg	UJ	Q, B
CHROMIUM	31.7		0.122	MDL	0.406	PQL	mg/Kg	J	Q, A
COBALT	5.96		0.0203	MDL	0.102	PQL	mg/Kg	J	Q, A
LEAD	8.57		0.0106	MDL	0.203	PQL	mg/Kg	J	Q
NICKEL	16.2		0.102	MDL	0.406	PQL	mg/Kg	J	Q, A
SILVER	0.0276	J	0.0122	MDL	0.102	PQL	mg/Kg	J	Z, Q
THALLIUM	0.337		0.0305	MDL	0.102	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **DUP-03-SA5A-QC-022311** ***Collected:*** **2/23/2011 10:31:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	59.6		0.0223	MDL	0.102	PQL	mg/Kg	J	A

Sample ID: **SL-036-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 10:25:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.192	J	0.0426	MDL	0.426	PQL	mg/Kg	J	Z, Q

Sample ID: **SL-036-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 10:25:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.566		0.0533	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: **SL-036-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 10:25:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	93.4		0.115	MDL	0.426	PQL	mg/Kg	J	A

Sample ID: **SL-036-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 10:25:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.154	J	0.0640	MDL	0.213	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.54		0.0853	MDL	0.426	PQL	mg/Kg	J	Q
BERYLLIUM	0.629		0.0171	MDL	0.107	PQL	mg/Kg	J	Q
CADMIUM	0.0614	J	0.0426	MDL	0.107	PQL	mg/Kg	UJ	Q, B
CHROMIUM	23.9		0.128	MDL	0.426	PQL	mg/Kg	J	Q, A
COBALT	4.68		0.0213	MDL	0.107	PQL	mg/Kg	J	Q, A
LEAD	6.40		0.0111	MDL	0.213	PQL	mg/Kg	J	Q
NICKEL	11.8		0.107	MDL	0.426	PQL	mg/Kg	J	Q, A
SILVER	0.0264	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.253		0.0320	MDL	0.107	PQL	mg/Kg	J	Q
VANADIUM	43.4		0.0235	MDL	0.107	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-037-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 11:54:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0843	J	0.0442	MDL	0.442	PQL	mg/Kg	J	Z, Q

Sample ID: **SL-037-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 11:54:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.974		0.0553	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: **SL-037-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 11:54:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	116		0.119	MDL	0.442	PQL	mg/Kg	J	A

Sample ID: **SL-037-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 11:54:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.146	J	0.0663	MDL	0.221	PQL	mg/Kg	J	Z, Q, E
ARSENIC	7.71		0.0884	MDL	0.442	PQL	mg/Kg	J	Q
BERYLLIUM	0.977		0.0177	MDL	0.111	PQL	mg/Kg	J	Q
CADMIUM	0.0889	J	0.0442	MDL	0.111	PQL	mg/Kg	UJ	Q, B
CHROMIUM	39.7		0.133	MDL	0.442	PQL	mg/Kg	J	Q, A
COBALT	8.16		0.0221	MDL	0.111	PQL	mg/Kg	J	Q, A
LEAD	8.26		0.0115	MDL	0.221	PQL	mg/Kg	J	Q
NICKEL	20.4		0.111	MDL	0.442	PQL	mg/Kg	J	Q, A
SILVER	0.0840	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z, Q
THALLIUM	0.290		0.0332	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	59.2		0.0243	MDL	0.111	PQL	mg/Kg	J	A

Sample ID: **SL-040-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 3:26:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0940	J	0.0442	MDL	0.442	PQL	mg/Kg	J	Z, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-040-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 3:26:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.25		0.0552	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: **SL-040-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 3:26:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	156		0.119	MDL	0.442	PQL	mg/Kg	J	A

Sample ID: **SL-040-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 3:26:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.227		0.0662	MDL	0.221	PQL	mg/Kg	J	Q, E
ARSENIC	9.15		0.0883	MDL	0.442	PQL	mg/Kg	J	Q
BERYLLIUM	1.02		0.0177	MDL	0.110	PQL	mg/Kg	J	Q
CADMIUM	0.113		0.0442	MDL	0.110	PQL	mg/Kg	UJ	Q, B
CHROMIUM	33.7		0.132	MDL	0.442	PQL	mg/Kg	J	Q, A
COBALT	13.0		0.0221	MDL	0.110	PQL	mg/Kg	J	Q, A
LEAD	10.8		0.0115	MDL	0.221	PQL	mg/Kg	J	Q
NICKEL	19.7		0.110	MDL	0.442	PQL	mg/Kg	J	Q, A
SILVER	0.0604	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z, Q
THALLIUM	0.421		0.0331	MDL	0.110	PQL	mg/Kg	J	Q
VANADIUM	63.3		0.0243	MDL	0.110	PQL	mg/Kg	J	A

Sample ID: **SL-040-SA5A-SB-9.0-10.0** ***Collected:*** **2/23/2011 3:36:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0666	J	0.0413	MDL	0.413	PQL	mg/Kg	J	Z, Q

Sample ID: **SL-040-SA5A-SB-9.0-10.0** ***Collected:*** **2/23/2011 3:36:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.733		0.0517	MDL	0.103	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-040-SA5A-SB-9.0-10.0 ***Collected:*** 2/23/2011 3:36:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	108		0.112	MDL	0.413	PQL	mg/Kg	J	A

Sample ID: SL-040-SA5A-SB-9.0-10.0 ***Collected:*** 2/23/2011 3:36:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.151	J	0.0620	MDL	0.207	PQL	mg/Kg	J	Z, Q, E
ARSENIC	8.53		0.0826	MDL	0.413	PQL	mg/Kg	J	Q
BERYLLIUM	0.734		0.0165	MDL	0.103	PQL	mg/Kg	J	Q
CADMIUM	0.0722	J	0.0413	MDL	0.103	PQL	mg/Kg	UJ	Q, B
CHROMIUM	26.6		0.124	MDL	0.413	PQL	mg/Kg	J	Q, A
COBALT	7.94		0.0207	MDL	0.103	PQL	mg/Kg	J	Q, A
LEAD	7.92		0.0107	MDL	0.207	PQL	mg/Kg	J	Q
NICKEL	13.9		0.103	MDL	0.413	PQL	mg/Kg	J	Q, A
SILVER	0.0472	J	0.0124	MDL	0.103	PQL	mg/Kg	J	Z, Q
THALLIUM	0.371		0.0310	MDL	0.103	PQL	mg/Kg	J	Q
VANADIUM	54.1		0.0227	MDL	0.103	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: DUP-03-SA5A-QC-022311 ***Collected:*** 2/23/2011 10:31:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.37	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA5A-SB-4.0-5.0 ***Collected:*** 2/23/2011 10:25:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.45	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-037-SA5A-SB-4.0-5.0 ***Collected:*** 2/23/2011 11:54:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.34	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-040-SA5A-SB-4.0-5.0 ***Collected:*** 2/23/2011 3:26:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.30	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA5A-SB-9.0-10.0 ***Collected:*** 2/23/2011 3:36:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.26	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-040-SA5A-SB-4.0-5.0 ***Collected:*** 2/23/2011 3:26:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	21.4	J	18.5	MDL	37.0	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-037-SA5A-SB-4.0-5.0 ***Collected:*** 2/23/2011 11:54:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.6	U	5.6	MDL	14	PQL	mg/Kg	UJ	S
ETHYLENE GLYCOL	5.6	U	5.6	MDL	14	PQL	mg/Kg	UJ	S
Propylene glycol	5.6	U	5.6	MDL	14	PQL	mg/Kg	UJ	S

Sample ID: SL-037-SA5A-SB-4.0-5.0 ***Collected:*** 2/23/2011 11:54:00 ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	0.51	J	0.45	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-037-SA5A-SB-4.0-5.0 ***Collected:*** 2/23/2011 11:54:00 ***Analysis Type:*** RES ***Dilution:*** 24.32

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS (C5-C12)	0.2	J	0.2	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **DUP-03-SA5A-QC-022311** ***Collected:*** **2/23/2011 10:31:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	L

Sample ID: **SL-036-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 10:25:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	L

Sample ID: **SL-037-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 11:54:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L

Sample ID: **SL-040-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 3:26:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L

Sample ID: **SL-040-SA5A-SB-9.0-10.0** ***Collected:*** **2/23/2011 3:36:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.0	U	1.0	MDL	3.5	PQL	ug/Kg	UJ	L
Aroclor 5442	1.0	U	1.0	MDL	3.5	PQL	ug/Kg	UJ	L
Aroclor 5460	1.0	U	1.0	MDL	3.5	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **DUP-03-SA5A-QC-022311** ***Collected:*** **2/23/2011 10:31:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
1,2,4-TRICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
1,2-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
1,2-Diphenylhydrazine/Azobenzene	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
1,3-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
1,4-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2,4,5-TRICHLOROPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
2,4,6-TRICHLOROPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
2,4-DICHLOROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2,4-DIMETHYLPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
2,4-DINITROTOLUENE	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
2,6-DINITROTOLUENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-CHLORONAPHTHALENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-CHLOROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-METHYLPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
2-NITROANILINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-NITROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
3,5-Dimethylphenol	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
3-NITROANILINE	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
4,6-DINITRO-2-METHYLPHENOL	180	U	180	MDL	530	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
4-CHLORO-3-METHYLPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
4-CHLOROPHENYL-PHENYLETHER	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
4-METHYLPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
4-NITROANILINE	70	U	70	MDL	180	PQL	ug/Kg	UJ	L
4-NITROPHENOL	180	U	180	MDL	530	PQL	ug/Kg	UJ	L
BENZYL ALCOHOL	180	U	180	MDL	530	PQL	ug/Kg	UJ	L
BIS(2-CHLOROETHOXY)METHANE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-CHLOROETHYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	18	U	18	MDL	350	PQL	ug/Kg	UJ	L, FD
CARBAZOLE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
DIBENZOFURAN	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
Di-n-butylphthalate	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
HEXACHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: DUP-03-SA5A-QC-022311 ***Collected:*** 2/23/2011 10:31:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
HEXACHLOROBUTADIENE	70	U	70	MDL	180	PQL	ug/Kg	UJ	L
HEXACHLOROETHANE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
ISOPHORONE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
N-NITROSO-DI-N-PROPYLAMINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
N-NITROSODIPHENYLAMINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
PHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: SL-036-SA5A-SB-4.0-5.0 ***Collected:*** 2/23/2011 10:25:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
1,2,4-TRICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
1,2-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
1,2-Diphenylhydrazine/Azobenzene	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
1,3-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
1,4-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2,4,5-TRICHLOROPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
2,4,6-TRICHLOROPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
2,4-DICHLOROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2,4-DIMETHYLPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
2,4-DINITROTOLUENE	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
2,6-DINITROTOLUENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-CHLORONAPHTHALENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-CHLOROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-METHYLPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
2-NITROANILINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-NITROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
3,5-Dimethylphenol	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
3-NITROANILINE	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
4,6-DINITRO-2-METHYLPHENOL	180	U	180	MDL	530	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
4-CHLORO-3-METHYLPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
4-CHLOROPHENYL-PHENYLETHER	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
4-METHYLPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-036-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 10:25:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
4-NITROANILINE	70	U	70	MDL	180	PQL	ug/Kg	UJ	L
4-NITROPHENOL	180	U	180	MDL	530	PQL	ug/Kg	UJ	L
BENZIDINE	1200	U	1200	MDL	3500	PQL	ug/Kg	R	Q
BENZYL ALCOHOL	180	U	180	MDL	530	PQL	ug/Kg	UJ	L
BIS(2-CHLOROETHOXY)METHANE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-CHLOROETHYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	23	J	18	MDL	350	PQL	ug/Kg	J	Z, L, FD
CARBAZOLE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
DIBENZOFURAN	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
Di-n-butylphthalate	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
HEXACHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
HEXACHLOROBUTADIENE	70	U	70	MDL	180	PQL	ug/Kg	UJ	L
HEXACHLOROETHANE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
ISOPHORONE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
N-NITROSO-DI-N-PROPYLAMINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
N-NITROSODIPHENYLAMINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
PHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: **SL-037-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 11:54:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
1,2,4-TRICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
1,2-Diphenylhydrazine/Azobenzene	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
1,3-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
1,4-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
2,4,5-TRICHLOROPHENOL	37	U	37	MDL	190	PQL	ug/Kg	UJ	L
2,4,6-TRICHLOROPHENOL	37	U	37	MDL	190	PQL	ug/Kg	UJ	L
2,4-DICHLOROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
2,4-DIMETHYLPHENOL	37	U	37	MDL	190	PQL	ug/Kg	UJ	L
2,4-DINITROTOLUENE	37	U	37	MDL	190	PQL	ug/Kg	UJ	L
2,6-DINITROTOLUENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-037-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 11:54:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
2-CHLORONAPHTHALENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
2-CHLOROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
2-METHYLPHENOL	37	U	37	MDL	190	PQL	ug/Kg	UJ	L
2-NITROANILINE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
2-NITROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
3,5-Dimethylphenol	37	U	37	MDL	190	PQL	ug/Kg	UJ	L
3-NITROANILINE	37	U	37	MDL	190	PQL	ug/Kg	UJ	L
4,6-DINITRO-2-METHYLPHENOL	190	U	190	MDL	560	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
4-CHLORO-3-METHYLPHENOL	37	U	37	MDL	190	PQL	ug/Kg	UJ	L
4-CHLOROPHENYL-PHENYLETHER	37	U	37	MDL	190	PQL	ug/Kg	UJ	L
4-METHYLPHENOL	37	U	37	MDL	190	PQL	ug/Kg	UJ	L
4-NITROANILINE	75	U	75	MDL	190	PQL	ug/Kg	UJ	L
4-NITROPHENOL	190	U	190	MDL	560	PQL	ug/Kg	UJ	L
BENZYL ALCOHOL	190	U	190	MDL	560	PQL	ug/Kg	UJ	L
BIS(2-CHLOROETHOXY)METHANE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-CHLOROETHYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-CHLOROISOPROPYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	19	U	19	MDL	370	PQL	ug/Kg	UJ	L
CARBAZOLE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
DIBENZOFURAN	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
Di-n-butylphthalate	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
HEXACHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
HEXACHLOROBUTADIENE	75	U	75	MDL	190	PQL	ug/Kg	UJ	L
HEXACHLOROETHANE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
ISOPHORONE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
N-NITROSO-DI-N-PROPYLAMINE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
N-NITROSODIPHENYLAMINE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
PHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-040-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 3:26:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
1,2,4-TRICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
1,2-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
1,2-Diphenylhydrazine/Azobenzene	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
1,3-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
1,4-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2,4,5-TRICHLOROPHENOL	37	U	37	MDL	180	PQL	ug/Kg	UJ	L
2,4,6-TRICHLOROPHENOL	37	U	37	MDL	180	PQL	ug/Kg	UJ	L
2,4-DICHLOROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2,4-DIMETHYLPHENOL	37	U	37	MDL	180	PQL	ug/Kg	UJ	L
2,4-DINITROTOLUENE	37	U	37	MDL	180	PQL	ug/Kg	UJ	L
2,6-DINITROTOLUENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-CHLORONAPHTHALENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-CHLOROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-METHYLPHENOL	37	U	37	MDL	180	PQL	ug/Kg	UJ	L
2-NITROANILINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-NITROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
3,5-Dimethylphenol	37	U	37	MDL	180	PQL	ug/Kg	UJ	L
3-NITROANILINE	37	U	37	MDL	180	PQL	ug/Kg	UJ	L
4,6-DINITRO-2-METHYLPHENOL	180	U	180	MDL	550	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
4-CHLORO-3-METHYLPHENOL	37	U	37	MDL	180	PQL	ug/Kg	UJ	L
4-CHLOROPHENYL-PHENYLETHER	37	U	37	MDL	180	PQL	ug/Kg	UJ	L
4-METHYLPHENOL	37	U	37	MDL	180	PQL	ug/Kg	UJ	L
4-NITROANILINE	74	U	74	MDL	180	PQL	ug/Kg	UJ	L
4-NITROPHENOL	180	U	180	MDL	550	PQL	ug/Kg	UJ	L
BENZYL ALCOHOL	180	U	180	MDL	550	PQL	ug/Kg	UJ	L
BIS(2-CHLOROETHOXY)METHANE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-CHLOROETHYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	18	U	18	MDL	370	PQL	ug/Kg	UJ	L
CARBAZOLE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
DIBENZOFURAN	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
Di-n-butylphthalate	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
HEXACHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-040-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 3:26:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
HEXACHLOROBUTADIENE	74	U	74	MDL	180	PQL	ug/Kg	UJ	L
HEXACHLOROETHANE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
ISOPHORONE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
N-NITROSO-DI-N-PROPYLAMINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
N-NITROSODIPHENYLAMINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
PHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: **SL-040-SA5A-SB-9.0-10.0** ***Collected:*** **2/23/2011 3:36:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
1,2,4-TRICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
1,2-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
1,2-Diphenylhydrazine/Azobenzene	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
1,3-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
1,4-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2,4,5-TRICHLOROPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
2,4,6-TRICHLOROPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
2,4-DICHLOROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2,4-DIMETHYLPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
2,4-DINITROTOLUENE	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
2,6-DINITROTOLUENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-CHLORONAPHTHALENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-CHLOROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-METHYLPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
2-NITROANILINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-NITROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
3,5-Dimethylphenol	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
3-NITROANILINE	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
4,6-DINITRO-2-METHYLPHENOL	180	U	180	MDL	530	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
4-CHLORO-3-METHYLPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
4-CHLOROPHENYL-PHENYLETHER	35	U	35	MDL	180	PQL	ug/Kg	UJ	L
4-METHYLPHENOL	35	U	35	MDL	180	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-040-SA5A-SB-9.0-10.0** ***Collected:*** **2/23/2011 3:36:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-NITROANILINE	70	U	70	MDL	180	PQL	ug/Kg	UJ	L
4-NITROPHENOL	180	U	180	MDL	530	PQL	ug/Kg	UJ	L
BENZYL ALCOHOL	180	U	180	MDL	530	PQL	ug/Kg	UJ	L
BIS(2-CHLOROETHOXY)METHANE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-CHLOROETHYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	18	U	18	MDL	350	PQL	ug/Kg	UJ	L
CARBAZOLE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
DIBENZOFURAN	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
Di-n-butylphthalate	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
HEXACHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
HEXACHLOROBUTADIENE	70	U	70	MDL	180	PQL	ug/Kg	UJ	L
HEXACHLOROETHANE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
ISOPHORONE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
N-NITROSO-DI-N-PROPYLAMINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
N-NITROSODIPHENYLAMINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
PHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: **DUP-03-SA5A-QC-022311** ***Collected:*** **2/23/2011 10:31:00** ***Analysis Type:*** **RES** ***Dilution:*** **1.05**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.07	U	0.07	MDL	4.4	PQL	ug/Kg	UJ	FD
m,p-Xylene	0.19	U	0.19	MDL	4.4	PQL	ug/Kg	UJ	FD
METHYLENE CHLORIDE	1.1	J	0.27	MDL	4.4	PQL	ug/Kg	U	B

Sample ID: **SL-036-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 10:25:00** ***Analysis Type:*** **RES** ***Dilution:*** **1.13**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.12	J	0.07	MDL	4.8	PQL	ug/Kg	J	Z, FD
m,p-Xylene	0.39	J	0.21	MDL	4.8	PQL	ug/Kg	J	Z, FD

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: **SL-036-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 10:25:00** ***Analysis Type:*** **RES** ***Dilution:*** **1.13**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.83	J	0.29	MDL	4.8	PQL	ug/Kg	U	B

Sample ID: **SL-037-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 11:54:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.97**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.18	J	0.07	MDL	4.4	PQL	ug/Kg	J	Z
m,p-Xylene	0.55	J	0.19	MDL	4.4	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.98	J	0.26	MDL	4.4	PQL	ug/Kg	U	B
O-XYLENE	0.19	J	0.19	MDL	4.4	PQL	ug/Kg	J	Z

Sample ID: **SL-040-SA5A-SB-4.0-5.0** ***Collected:*** **2/23/2011 3:26:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.91**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.13	J	0.06	MDL	4.1	PQL	ug/Kg	J	Z
m,p-Xylene	0.35	J	0.17	MDL	4.1	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	2.7	J	0.24	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: **SL-040-SA5A-SB-9.0-10.0** ***Collected:*** **2/23/2011 3:36:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.15	J	0.06	MDL	4.2	PQL	ug/Kg	J	Z
m,p-Xylene	0.51	J	0.18	MDL	4.2	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.73	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE089

Method Blank Outlier Report

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06108BB220148	3/4/2011 1:48:00 AM	PHOSPHORUS TIN	1.16 mg/Kg 1.38 mg/Kg	DUP-03-SA5A-QC-022311 SL-036-SA5A-SB-4.0-5.0 SL-037-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-03-SA5A-QC-022311(RES)	TIN	2.92 mg/Kg	2.92U mg/Kg
SL-036-SA5A-SB-4.0-5.0(RES)	TIN	2.86 mg/Kg	2.86U mg/Kg
SL-037-SA5A-SB-4.0-5.0(RES)	TIN	3.34 mg/Kg	3.34U mg/Kg
SL-040-SA5A-SB-4.0-5.0(RES)	TIN	2.92 mg/Kg	2.92U mg/Kg
SL-040-SA5A-SB-9.0-10.0(RES)	TIN	2.83 mg/Kg	2.83U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06726AB220721A	3/9/2011 7:21:00 AM	COPPER	0.183 mg/Kg	DUP-03-SA5A-QC-022311 SL-036-SA5A-SB-4.0-5.0 SL-037-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-9.0-10.0

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB78B210235A	2/25/2011 2:35:00 AM	METHYLENE CHLORIDE	0.60 ug/Kg	DUP-03-SA5A-QC-022311 SL-036-SA5A-SB-4.0-5.0 SL-037-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-03-SA5A-QC-022311(RES)	METHYLENE CHLORIDE	1.1 ug/Kg	4.4U ug/Kg
SL-036-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.83 ug/Kg	4.8U ug/Kg
SL-037-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.98 ug/Kg	4.4U ug/Kg
SL-040-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.7 ug/Kg	4.1U ug/Kg
SL-040-SA5A-SB-9.0-10.0(RES)	METHYLENE CHLORIDE	0.73 ug/Kg	4.2U ug/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLC05B261049	3/1/2011 10:49:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE	7.0 ug/Kg	DUP-03-SA5A-QC-022311
		Butylbenzylphthalate	7.1 ug/Kg	SL-036-SA5A-SB-4.0-5.0
		Di-n-butylphthalate	6.3 ug/Kg	SL-037-SA5A-SB-4.0-5.0
				SL-040-SA5A-SB-4.0-5.0
				SL-040-SA5A-SB-9.0-10.0

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-036-SA5A-SB-4.0-5.0MSD (SL-036-SA5A-SB-4.0-5.0)	2,4-DINITROPHENOL	-	-	20.00-143.00	40 (30.00)	2,4-DINITROPHENOL	J (all detects)
SL-036-SA5A-SB-4.0-5.0MS **SL-036-SA5A-SB-4.0-5.0MSD** (SL-036-SA5A-SB-4.0-5.0)	BENZIDINE	0	0	35.00-141.00	-	BENZIDINE	J(all detects) R(all non-detects)

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-036-SA5A-SB-4.0-5.0MS **SL-036-SA5A-SB-4.0-5.0MSD** (DUP-03-SA5A-QC-022311 SL-036-SA5A-SB-4.0-5.0 SL-037-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-9.0-10.0)	ALUMINUM	1032	1564	75.00-125.00	-	ALUMINUM	
	MAGNESIUM	196	231	75.00-125.00	-	MAGNESIUM	
	MANGANESE	143	147	75.00-125.00	-	MANGANESE	
	POTASSIUM	145	144	75.00-125.00	-	POTASSIUM	J(all detects)
	TITANIUM	251	246	75.00-125.00	-	TITANIUM	Al, Mg, Ti No Qual, >4x
SL-036-SA5A-SB-4.0-5.0MS **SL-036-SA5A-SB-4.0-5.0MSD** (DUP-03-SA5A-QC-022311 SL-036-SA5A-SB-4.0-5.0 SL-037-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-9.0-10.0)	IRON	-1114	-630	75.00-125.00	-	IRON	No Qual, >4x

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-036-SA5A-SB-4.0-5.0MS **SL-036-SA5A-SB-4.0-5.0MSD** (DUP-03-SA5A-QC-022311 SL-036-SA5A-SB-4.0-5.0 SL-037-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-9.0-10.0)	ARSENIC	266	249	75.00-125.00	-	ARSENIC	
	BERYLLIUM	141	130	75.00-125.00	-	BERYLLIUM	
	CADMIUM	156	139	75.00-125.00	-	CADMIUM	
	CHROMIUM	229	181	75.00-125.00	-	CHROMIUM	
	COBALT	137	-	75.00-125.00	-	COBALT	
	LEAD	231	201	75.00-125.00	-	LEAD	J(all detects)
	NICKEL	182	141	75.00-125.00	-	NICKEL	
	SILVER	145	133	75.00-125.00	-	SILVER	V, Zn
	THALLIUM	179	149	75.00-125.00	-	THALLIUM	No Qual, >4x
	VANADIUM	309	236	75.00-125.00	-	VANADIUM	
	ZINC	304	234	75.00-125.00	-	ZINC	
SL-036-SA5A-SB-4.0-5.0MSD (DUP-03-SA5A-QC-022311 SL-036-SA5A-SB-4.0-5.0 SL-037-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-9.0-10.0)	ANTIMONY	-	60	75.00-125.00	30 (20.00)	ANTIMONY	J(all detects) UJ(all non-detects)
SL-036-SA5A-SB-4.0-5.0MS (DUP-03-SA5A-QC-022311 SL-036-SA5A-SB-4.0-5.0 SL-037-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-9.0-10.0)	SELENIUM	135	-	75.00-125.00	-	SELENIUM	J(all detects)

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-036-SA5A-SB-4.0-5.0MS **SL-036-SA5A-SB-4.0-5.0MSD** (DUP-03-SA5A-QC-022311 SL-036-SA5A-SB-4.0-5.0 SL-037-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-9.0-10.0)	MOLYBDENUM	152	135	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-036-SA5A-SB-4.0-5.0MS **SL-036-SA5A-SB-4.0-5.0MSD** (DUP-03-SA5A-QC-022311 SL-036-SA5A-SB-4.0-5.0 SL-037-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-9.0-10.0)	BARIUM	509	250	75.00-125.00	-	BARIUM	No Qual, >4x

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-036-SA5A-SB-4.0-5.0MS (DUP-03-SA5A-QC-022311 SL-036-SA5A-SB-4.0-5.0 SL-037-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-9.0-10.0)	FLUORIDE	39	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-036-SA5A-SB-4.0-5.0MSD (SL-036-SA5A-SB-4.0-5.0)	DIETHYLENE GLYCOL	-	-	59.00-109.00	21 (20.00)	DIETHYLENE GLYCOL	J(all detects)
SL-036-SA5A-SB-4.0-5.0MS **SL-036-SA5A-SB-4.0-5.0MSD** (SL-036-SA5A-SB-4.0-5.0)	EFH (C12-C14) EFH (C21-C30) EFH (C30-C40)	- 255 709	- - 156	49.00-123.00 49.00-123.00 49.00-123.00	27 (20.00) 75 (20.00) 127 (20.00)	EFH (C12-C14) EFH (C21-C30) EFH (C30-C40)	J(all detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-036-SA5A-SB-4.0-5.0DUP (DUP-03-SA5A-QC-022311 SL -036-SA5A-SB-4.0-5.0 SL -037-SA5A-SB-4.0-5.0 SL -040-SA5A-SB-4.0-5.0 SL -040-SA5A-SB-9.0-10.0)	Zirconium	29	20.00	No Qual OK by difference

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P9LCLCSQ260129	1,2,4-TRICHLOROBENZENE	58	-	73.00-108.00	-	1,2,4-TRICHLOROBENZENE	
(DUP-03-SA5A-QC-022311	1,2-DICHLOROBENZENE	52	-	79.00-102.00	-	1,2-DICHLOROBENZENE	
SL-036-SA5A-SB-4.0-5.0	1,2-Diphenylhydrazine/Azobenzen	48	-	77.00-111.00	-	1,2-Diphenylhydrazine/Azobenz	
SL-037-SA5A-SB-4.0-5.0	1,3-DICHLOROBENZENE	50	-	70.00-98.00	-	1,3-DICHLOROBENZENE	
SL-040-SA5A-SB-4.0-5.0	1,4-DICHLOROBENZENE	50	-	74.00-106.00	-	1,4-DICHLOROBENZENE	
SL-040-SA5A-SB-9.0-10.0)	1-METHYLNAPHTHALENE	59	-	74.00-105.00	-	1-METHYLNAPHTHALENE	
	2,4,5-TRICHLOROPHENOL	58	-	76.00-107.00	-	2,4,5-TRICHLOROPHENOL	
	2,4,6-TRICHLOROPHENOL	60	-	78.00-111.00	-	2,4,6-TRICHLOROPHENOL	
	2,4-DICHLOROPHENOL	60	-	75.00-111.00	-	2,4-DICHLOROPHENOL	
	2,4-DIMETHYLPHENOL	56	-	72.00-111.00	-	2,4-DIMETHYLPHENOL	
	2,4-DINITROTOLUENE	58	-	73.00-115.00	-	2,4-DINITROTOLUENE	
	2,6-DINITROTOLUENE	57	-	79.00-115.00	-	2,6-DINITROTOLUENE	
	2-CHLORONAPHTHALENE	55	-	67.00-127.00	-	2-CHLORONAPHTHALENE	
	2-CHLOROPHENOL	57	-	72.00-112.00	-	2-CHLOROPHENOL	
	2-METHYLNAPHTHALENE	57	-	76.00-105.00	-	2-METHYLNAPHTHALENE	
	2-METHYLPHENOL	53	-	66.00-110.00	-	2-METHYLPHENOL	
	2-NITROANILINE	56	-	78.00-116.00	-	2-NITROANILINE	
	2-NITROPHENOL	59	-	81.00-114.00	-	2-NITROPHENOL	
	3,5-Dimethylphenol	58	-	70.00-130.00	-	3,5-Dimethylphenol	
	3-NITROANILINE	57	-	62.00-109.00	-	3-NITROANILINE	
	4,6-DINITRO-2-METHYLPHENOL	50	-	53.00-110.00	-	4,6-DINITRO-2-METHYLPHEN	
	4-BROMOPHENYL-PHENYLETH	60	-	79.00-117.00	-	4-BROMOPHENYL-PHENYLET	
	4-CHLORO-3-METHYLPHENOL	54	-	74.00-119.00	-	4-CHLORO-3-METHYLPHENOL	
	4-CHLOROPHENYL-PHENYLET	58	-	79.00-110.00	-	4-CHLOROPHENYL-PHENYLE	
	4-METHYLPHENOL	52	-	66.00-117.00	-	4-METHYLPHENOL	
	4-NITROANILINE	42	-	49.00-98.00	-	4-NITROANILINE	
	4-NITROPHENOL	37	-	56.00-118.00	-	4-NITROPHENOL	
	ACENAPHTHENE	56	-	76.00-111.00	-	ACENAPHTHENE	
	ACENAPHTHYLENE	58	-	75.00-122.00	-	ACENAPHTHYLENE	
	ANTHRACENE	53	-	76.00-112.00	-	ANTHRACENE	
	BENZO(A)ANTHRACENE	61	-	73.00-112.00	-	BENZO(A)ANTHRACENE	J (all detects) UJ (all non-detects)
	BENZO(A)PYRENE	62	-	69.00-122.00	-	BENZO(A)PYRENE	
	BENZO(G,H,I)PERYLENE	64	-	65.00-122.00	-	BENZO(G,H,I)PERYLENE	
	BENZO(K)FLUORANTHENE	62	-	67.00-125.00	-	BENZO(K)FLUORANTHENE	
	BENZYL ALCOHOL	54	-	68.00-111.00	-	BENZYL ALCOHOL	
	BIS(2-CHLOROETHOXY)METHA	55	-	70.00-118.00	-	BIS(2-CHLOROETHOXY)METH	
	BIS(2-CHLOROETHYL) ETHER	47	-	70.00-104.00	-	BIS(2-CHLOROETHYL) ETHER	
	BIS(2-CHLOROISOPROPYL) ET	58	-	68.00-131.00	-	BIS(2-CHLOROISOPROPYL) E	
	BIS(2-ETHYLHEXYL)PHTHALAT	63	-	75.00-117.00	-	BIS(2-ETHYLHEXYL)PHTHALA	
	Butylbenzylphthalate	67	-	75.00-115.00	-	Butylbenzylphthalate	
	CARBAZOLE	51	-	77.00-113.00	-	CARBAZOLE	
	CHRYSENE	63	-	76.00-113.00	-	CHRYSENE	
	DIBENZO(A,H)ANTHRACENE	61	-	70.00-128.00	-	DIBENZO(A,H)ANTHRACENE	
	DIBENZOFURAN	56	-	79.00-108.00	-	DIBENZOFURAN	
	Diethylphthalate	55	-	76.00-111.00	-	Diethylphthalate	
	Dimethylphthalate	57	-	77.00-109.00	-	Dimethylphthalate	
	Di-n-butylphthalate	54	-	79.00-112.00	-	Di-n-butylphthalate	
	Di-n-octylphthalate	65	-	68.00-130.00	-	Di-n-octylphthalate	
	FLUORANTHENE	49	-	78.00-116.00	-	FLUORANTHENE	
	FLUORENE	53	-	75.00-116.00	-	FLUORENE	
	HEXACHLOROBENZENE	59	-	78.00-116.00	-	HEXACHLOROBENZENE	
	HEXACHLOROBUTADIENE	60	-	70.00-112.00	-	HEXACHLOROBUTADIENE	
	HEXACHLOROETHANE	46	-	68.00-105.00	-	HEXACHLOROETHANE	
	INDENO(1,2,3-CD)PYRENE	62	-	64.00-119.00	-	INDENO(1,2,3-CD)PYRENE	
	ISOPHORONE	55	-	69.00-110.00	-	ISOPHORONE	
	NAPHTHALENE	54	-	73.00-106.00	-	NAPHTHALENE	
	NITROBENZENE	52	-	71.00-104.00	-	NITROBENZENE	
	N-NITROSODIMETHYLAMINE	41	-	60.00-106.00	-	N-NITROSODIMETHYLAMINE	
	N-NITROSO-DI-N-PROPYLAMIN	49	-	63.00-107.00	-	N-NITROSO-DI-N-PROPYLAMI	
	N-NITROSODIPHENYLAMINE	56	-	67.00-141.00	-	N-NITROSODIPHENYLAMINE	
	PHENANTHRENE	53	-	77.00-113.00	-	PHENANTHRENE	
	PHENOL	51	-	58.00-112.00	-	PHENOL	
	PYRENE	60	-	75.00-115.00	-	PYRENE	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P06326BQ220941A (DUP-03-SA5A-QC-022311 SL-036-SA5A-SB-4.0-5.0 SL-037-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-9.0-10.0)	ANTIMONY	128	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10573AY241138A (DUP-03-SA5A-QC-022311 SL-036-SA5A-SB-4.0-5.0 SL-037-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-4.0-5.0 SL-040-SA5A-SB-9.0-10.0)	Aroclor 5442	-	69	75.00-125.00	-	Aroclor 5432, 5442, 5460	J(all detects) UJ(all non-detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-037-SA5A-SB-4.0-5.0	TETRAMETHYLENE GLYCOL	27	29.00-137.00	All Target Analytes	J (all detects) UJ (all non-detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-036-SA5A-SB-4.0-5.0	DUP-03-SA5A-QC-022311			
MOISTURE	6.2	5.3	16		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-036-SA5A-SB-4.0-5.0	DUP-03-SA5A-QC-022311			
FLUORIDE	1.4	2.2	44	50.00	No Qualifiers Applied
Nitrate-NO3	1.3	1.2	8	50.00	

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-036-SA5A-SB-4.0-5.0	DUP-03-SA5A-QC-022311			
ALUMINUM	19600	21900	11	50.00	No Qualifiers Applied
BORON	1.74	1.35	25	50.00	
CALCIUM	1950	2180	11	50.00	
IRON	22700	27000	17	50.00	
LITHIUM	21.2	22.2	5	50.00	
MAGNESIUM	4470	4430	1	50.00	
MANGANESE	178	129	32	50.00	
PHOSPHORUS	139	126	10	50.00	
POTASSIUM	1740	1230	34	50.00	
SODIUM	199	324	48	50.00	
STRONTIUM	19.6	19.9	2	50.00	
TIN	2.86	2.92	2	50.00	
TITANIUM	1280	1130	12	50.00	
Zirconium	1.46	1.33	9	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-036-SA5A-SB-4.0-5.0	DUP-03-SA5A-QC-022311			
ANTIMONY	0.154	0.240	44	50.00	No Qualifiers Applied
ARSENIC	5.54	8.51	42	50.00	
BARIUM	93.4	121	26	50.00	
BERYLLIUM	0.629	0.855	30	50.00	
CADMIUM	0.0614	0.0739	18	50.00	
CHROMIUM	23.9	31.7	28	50.00	
COBALT	4.68	5.96	24	50.00	
COPPER	7.76	7.89	2	50.00	
LEAD	6.40	8.57	29	50.00	
MOLYBDENUM	0.566	0.875	43	50.00	
NICKEL	11.8	16.2	31	50.00	
SELENIUM	0.192	0.164	16	50.00	
SILVER	0.0264	0.0276	4	50.00	
THALLIUM	0.253	0.337	28	50.00	
VANADIUM	43.4	59.6	31	50.00	
ZINC	48.6	71.6	38	50.00	

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-036-SA5A-SB-4.0-5.0	DUP-03-SA5A-QC-022311			
HEXAVALENT CHROMIUM	0.45	0.37	20	50.00	No Qualifiers Applied

Method: 8260B
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-036-SA5A-SB-4.0-5.0	DUP-03-SA5A-QC-022311			
METHYLENE CHLORIDE	0.83	1.1	28	50.00	No Qualifiers Applied
ETHYLBENZENE	0.12	4.4 U	200	50.00	J(all detects)
m,p-Xylene	0.39	4.4 U	200	50.00	UJ(all non-detects)

Method: 8270C
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-036-SA5A-SB-4.0-5.0	DUP-03-SA5A-QC-022311			
BIS(2-ETHYLHEXYL)PHTHALATE	23	350 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-036-SA5A-SB-4.0-5.0	DUP-03-SA5A-QC-022311			
PH	6.74	6.29	7	50.00	No Qualifiers Applied

Method: ASTM D1498
Matrix: SO

Analyte	Concentration (mV)		Sample RPD	eQAPP RPD	Flag
	SL-036-SA5A-SB-4.0-5.0	DUP-03-SA5A-QC-022311			
Oxidation Reduction Potential	347	350	1		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-040-SA5A-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	21.4	37.0	PQL	ng/Kg	J (all detects)

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-03-SA5A-QC-022311	Nitrate-NO3	J	1.2	1.6	PQL	mg/Kg	J (all detects)
SL-036-SA5A-SB-4.0-5.0	Nitrate-NO3	J	1.3	1.6	PQL	mg/Kg	J (all detects)
SL-040-SA5A-SB-4.0-5.0	Nitrate-NO3	J	1.3	1.7	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-03-SA5A-QC-022311	BORON	J	1.35	5.08	PQL	mg/Kg	J (all detects)
	TIN	J	2.92	10.2	PQL	mg/Kg	
	Zirconium	J	1.33	5.08	PQL	mg/Kg	
SL-036-SA5A-SB-4.0-5.0	BORON	J	1.74	5.18	PQL	mg/Kg	J (all detects)
	TIN	J	2.86	10.4	PQL	mg/Kg	
	Zirconium	J	1.46	5.18	PQL	mg/Kg	
SL-037-SA5A-SB-4.0-5.0	BORON	J	2.28	5.42	PQL	mg/Kg	J (all detects)
	TIN	J	3.34	10.8	PQL	mg/Kg	
	Zirconium	J	2.32	5.42	PQL	mg/Kg	
SL-040-SA5A-SB-4.0-5.0	BORON	J	2.16	5.46	PQL	mg/Kg	J (all detects)
	SODIUM	J	106	109	PQL	mg/Kg	
	TIN	J	2.92	10.9	PQL	mg/Kg	
	Zirconium	J	2.06	5.46	PQL	mg/Kg	
SL-040-SA5A-SB-9.0-10.0	BORON	J	1.35	5.27	PQL	mg/Kg	J (all detects)
	TIN	J	2.83	10.5	PQL	mg/Kg	
	Zirconium	J	1.45	5.27	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-03-SA5A-QC-022311	CADMIUM	J	0.0739	0.102	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.164	0.406	PQL	mg/Kg	
	SILVER	J	0.0276	0.102	PQL	mg/Kg	
SL-036-SA5A-SB-4.0-5.0	ANTIMONY	J	0.154	0.213	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0614	0.107	PQL	mg/Kg	
	SELENIUM	J	0.192	0.426	PQL	mg/Kg	
	SILVER	J	0.0264	0.107	PQL	mg/Kg	

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-037-SA5A-SB-4.0-5.0	ANTIMONY	J	0.146	0.221	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0889	0.111	PQL	mg/Kg	
	SELENIUM	J	0.0843	0.442	PQL	mg/Kg	
	SILVER	J	0.0840	0.111	PQL	mg/Kg	
SL-040-SA5A-SB-4.0-5.0	SELENIUM	J	0.0940	0.442	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0604	0.110	PQL	mg/Kg	
SL-040-SA5A-SB-9.0-10.0	ANTIMONY	J	0.151	0.207	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0722	0.103	PQL	mg/Kg	
	SELENIUM	J	0.0666	0.413	PQL	mg/Kg	
	SILVER	J	0.0472	0.103	PQL	mg/Kg	

Method: 7196
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-03-SA5A-QC-022311	HEXAVALENT CHROMIUM	J	0.37	1.1	PQL	mg/Kg	J (all detects)
SL-036-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.45	1.1	PQL	mg/Kg	J (all detects)
SL-037-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.34	1.1	PQL	mg/Kg	J (all detects)
SL-040-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.30	1.1	PQL	mg/Kg	J (all detects)
SL-040-SA5A-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.26	1.1	PQL	mg/Kg	J (all detects)

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-037-SA5A-SB-4.0-5.0	EFH (C8-C11)	J	0.51	1.3	PQL	mg/Kg	J (all detects)
	GASOLINE RANGE ORGANICS (C5-C12)	J	0.2	1.1	PQL	mg/Kg	

Method: 8260B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-03-SA5A-QC-022311	METHYLENE CHLORIDE	J	1.1	4.4	PQL	ug/Kg	J (all detects)
SL-036-SA5A-SB-4.0-5.0	ETHYLBENZENE	J	0.12	4.8	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.39	4.8	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	0.83	4.8	PQL	ug/Kg	
SL-037-SA5A-SB-4.0-5.0	ETHYLBENZENE	J	0.18	4.4	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.55	4.4	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	0.98	4.4	PQL	ug/Kg	
	O-XYLENE	J	0.19	4.4	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE089 **Laboratory: LL**

EDD Filename: DE089_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-040-SA5A-SB-4.0-5.0	ETHYLBENZENE	J	0.13	4.1	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.35	4.1	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	2.7	4.1	PQL	ug/Kg	
SL-040-SA5A-SB-9.0-10.0	ETHYLBENZENE	J	0.15	4.2	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.51	4.2	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	0.73	4.2	PQL	ug/Kg	

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	23	350	PQL	ug/Kg	J (all detects)

LDC #: 25764O4 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/6/11
SDG #: DE089 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer: C

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ba, Ca, Fe, Mg, Ti, V, Zn >4X)
VII.	Duplicate Sample Analysis	N	DQ (Zr <5x RL)
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	J/UJ/A
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	DUP-03-SA5A-QC-022311	11	QBS	21		31	
2	SL-036-SA5A-SB-4.0-5.0	12		22		32	
3	SL-037-SA5A-SB-4.0-5.0	13		23		33	
4	SL-040-SA5A-SB-4.0-5.0	14		24		34	
5	SL-040-SA5A-SB-9.0-10.0	15		25		35	
6	SL-036-SA5A-SB-4.0-5.0MS	16		26		36	
7	SL-036-SA5A-SB-4.0-5.0MSD	17		27		37	
8	SL-036-SA5A-SB-4.0-5.0DUP	18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 25764O4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Page: 1 of 1
Reviewer: VR
2nd Reviewer: A

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x x MS: 2xdil
Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: All Reason Code: B

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	1	2	3	4	5						
Cd			0.35	0.35	0.074	0.061	0.089	0.11	0.072						

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE089
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6214502BKG Serial Dilution Lab Sample ID: 6214502L
Batch ID(s): P06108B, P06326B, P06726A
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		189610.1000		192094.7500		1		P
Antimony	121	0.7243	B	1.5000	U	100		MS
Arsenic	75	25.9700		31.6550		22		MS
Barium	137	438.2000		495.8500		13	E	MS
Beryllium	9	2.9520		3.4565		17		MS
Boron		16.8000	B	44.5000	U	100		P
Cadmium	111	0.2882	B	1.1865	B	312		MS
Calcium		18875.5300		20348.0000		8		P
Chromium	52	112.2000		135.9500		21	E	MS
Cobalt	59	21.9700		26.5750		21	E	MS
Copper	63	37.1400		36.7550		1		MS
Iron		219115.0300		225759.2500		3		P
Lead	208	30.0200		32.8400		9		MS
Lithium		204.7500		211.4000		3		P
Magnesium		43184.8200		45972.5500		6		P
Manganese		1722.8300		1835.3000		7		P
Molybdenum	98	2.6540		2.6860		1		MS
Nickel	60	55.3300		71.1500		29	E	MS
Phosphorus		1345.7500		1372.6000		2		P
Potassium		16807.6100		17559.5500		4		P
Selenium	78	0.8997	B	1.0000	U	100		MS
Silver	107	0.1236	B	0.3000	U	100		MS
Sodium		1925.2100		2272.7500	B	18		P
Strontium		189.5500		198.5500		5		P
Thallium	203	1.1870		1.6315	B	37		MS
Tin		27.6200	B	50.0000	U	100		P
Titanium		12331.7200		13425.8500		9		P
Vanadium	51	203.7000		245.2000		20	E	MS
Zinc	66	228.1000		265.6500		16		MS
Zirconium		14.0700	B	42.0000	U	100		P

NOTE: An E in column Q indicates the presence of a chemical or physical interference in the matrix when the % difference is greater than 10%. This applies only when (I) is greater than or equal to 50x MDL for ICP, 100x MDL for ICP-MS (6020), 50x MDL for ICP-MS (200.8), or 25x MDL for GFAA.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ

FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

SAMPLE DELIVERY GROUP

DX090

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Feb-2011	SL-016-SA5A-SS-0.0-0.5	6214529	N	3050B	6010B	III
23-Feb-2011	SL-016-SA5A-SS-0.0-0.5	6214529	N	3050B	6020	III
23-Feb-2011	SL-016-SA5A-SS-0.0-0.5	6214529	N	3060A	7199	III
23-Feb-2011	SL-016-SA5A-SS-0.0-0.5	6214529	N	3550B	8081A	III
23-Feb-2011	SL-016-SA5A-SS-0.0-0.5	6214529	N	3550B	8082	III
23-Feb-2011	SL-016-SA5A-SS-0.0-0.5	6214529	N	3550B	8151A	III
23-Feb-2011	SL-016-SA5A-SS-0.0-0.5	6214529	N	3550B	8270C	III
23-Feb-2011	SL-016-SA5A-SS-0.0-0.5	6214529	N	3550B	8270C SIM	III
23-Feb-2011	SL-016-SA5A-SS-0.0-0.5	6214529	N	Gen Prep	9045M	III
23-Feb-2011	SL-016-SA5A-SS-0.0-0.5	6214529	N	METHOD	300.0	III
23-Feb-2011	SL-016-SA5A-SS-0.0-0.5	6214529	N	METHOD	314.0	III
23-Feb-2011	SL-016-SA5A-SS-0.0-0.5	6214529	N	METHOD	7471A	III
23-Feb-2011	SL-010-SA5A-SS-0.0-0.5	6214526	N	3050B	6010B	III
23-Feb-2011	SL-010-SA5A-SS-0.0-0.5	6214526	N	3050B	6020	III
23-Feb-2011	SL-010-SA5A-SS-0.0-0.5	6214526	N	3060A	7199	III
23-Feb-2011	SL-010-SA5A-SS-0.0-0.5	6214526	N	3550B	8081A	III
23-Feb-2011	SL-010-SA5A-SS-0.0-0.5	6214526	N	3550B	8082	III
23-Feb-2011	SL-010-SA5A-SS-0.0-0.5	6214526	N	3550B	8151A	III
23-Feb-2011	SL-010-SA5A-SS-0.0-0.5	6214526	N	3550B	8270C	III
23-Feb-2011	SL-010-SA5A-SS-0.0-0.5	6214526	N	3550B	8270C SIM	III
23-Feb-2011	SL-010-SA5A-SS-0.0-0.5	6214526	N	Gen Prep	9045M	III
23-Feb-2011	SL-010-SA5A-SS-0.0-0.5	6214526	N	METHOD	300.0	III
23-Feb-2011	SL-010-SA5A-SS-0.0-0.5	6214526	N	METHOD	314.0	III
23-Feb-2011	SL-010-SA5A-SS-0.0-0.5	6214526	N	METHOD	7471A	III
23-Feb-2011	SL-009-SA5A-SS-0.0-0.5	6214525	N	3050B	6010B	III
23-Feb-2011	SL-009-SA5A-SS-0.0-0.5	6214525	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Feb-2011	SL-009-SA5A-SS-0.0-0.5	6214525	N	3060A	7199	III
23-Feb-2011	SL-009-SA5A-SS-0.0-0.5	6214525	N	3550B	8081A	III
23-Feb-2011	SL-009-SA5A-SS-0.0-0.5	6214525	N	3550B	8082	III
23-Feb-2011	SL-009-SA5A-SS-0.0-0.5	6214525	N	3550B	8151A	III
23-Feb-2011	SL-009-SA5A-SS-0.0-0.5	6214525	N	3550B	8270C	III
23-Feb-2011	SL-009-SA5A-SS-0.0-0.5	6214525	N	3550B	8270C SIM	III
23-Feb-2011	SL-009-SA5A-SS-0.0-0.5	6214525	N	Gen Prep	9045M	III
23-Feb-2011	SL-009-SA5A-SS-0.0-0.5	6214525	N	METHOD	300.0	III
23-Feb-2011	SL-009-SA5A-SS-0.0-0.5	6214525	N	METHOD	314.0	III
23-Feb-2011	SL-009-SA5A-SS-0.0-0.5	6214525	N	METHOD	6850	III
23-Feb-2011	SL-009-SA5A-SS-0.0-0.5	6214525	N	METHOD	7471A	III
23-Feb-2011	SL-013-SA5A-SS-0.0-0.5	6214528	N	3050B	6010B	III
23-Feb-2011	SL-013-SA5A-SS-0.0-0.5	6214528	N	3050B	6020	III
23-Feb-2011	SL-013-SA5A-SS-0.0-0.5	6214528	N	3060A	7199	III
23-Feb-2011	SL-013-SA5A-SS-0.0-0.5	6214528	N	3550B	8081A	III
23-Feb-2011	SL-013-SA5A-SS-0.0-0.5	6214528	N	3550B	8082	III
23-Feb-2011	SL-013-SA5A-SS-0.0-0.5	6214528	N	3550B	8151A	III
23-Feb-2011	SL-013-SA5A-SS-0.0-0.5	6214528	N	3550B	8270C	III
23-Feb-2011	SL-013-SA5A-SS-0.0-0.5	6214528	N	3550B	8270C SIM	III
23-Feb-2011	SL-013-SA5A-SS-0.0-0.5	6214528	N	Gen Prep	9045M	III
23-Feb-2011	SL-013-SA5A-SS-0.0-0.5	6214528	N	METHOD	300.0	III
23-Feb-2011	SL-013-SA5A-SS-0.0-0.5	6214528	N	METHOD	314.0	III
23-Feb-2011	SL-013-SA5A-SS-0.0-0.5	6214528	N	METHOD	7471A	III
23-Feb-2011	SL-019-SA5A-SS-0.0-0.5	6214532	N	3050B	6010B	III
23-Feb-2011	SL-019-SA5A-SS-0.0-0.5	6214532	N	3050B	6020	III
23-Feb-2011	SL-019-SA5A-SS-0.0-0.5	6214532	N	3060A	7199	III

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Feb-2011	SL-019-SA5A-SS-0.0-0.5	6214532	N	3550B	8081A	III
23-Feb-2011	SL-019-SA5A-SS-0.0-0.5	6214532	N	3550B	8082	III
23-Feb-2011	SL-019-SA5A-SS-0.0-0.5	6214532	N	3550B	8151A	III
23-Feb-2011	SL-019-SA5A-SS-0.0-0.5	6214532	N	3550B	8270C	III
23-Feb-2011	SL-019-SA5A-SS-0.0-0.5	6214532	N	3550B	8270C SIM	III
23-Feb-2011	SL-019-SA5A-SS-0.0-0.5	6214532	N	Gen Prep	9045M	III
23-Feb-2011	SL-019-SA5A-SS-0.0-0.5	6214532	N	METHOD	300.0	III
23-Feb-2011	SL-019-SA5A-SS-0.0-0.5	6214532	N	METHOD	314.0	III
23-Feb-2011	SL-019-SA5A-SS-0.0-0.5	6214532	N	METHOD	7471A	III
23-Feb-2011	SL-012-SA5A-SS-0.0-0.5	6214527	N	3050B	6010B	III
23-Feb-2011	SL-012-SA5A-SS-0.0-0.5	6214527	N	3050B	6020	III
23-Feb-2011	SL-012-SA5A-SS-0.0-0.5	6214527	N	3060A	7199	III
23-Feb-2011	SL-012-SA5A-SS-0.0-0.5	6214527	N	3550B	8081A	III
23-Feb-2011	SL-012-SA5A-SS-0.0-0.5	6214527	N	3550B	8082	III
23-Feb-2011	SL-012-SA5A-SS-0.0-0.5	6214527	N	3550B	8151A	III
23-Feb-2011	SL-012-SA5A-SS-0.0-0.5	6214527	N	3550B	8270C	III
23-Feb-2011	SL-012-SA5A-SS-0.0-0.5	6214527	N	3550B	8270C SIM	III
23-Feb-2011	SL-012-SA5A-SS-0.0-0.5	6214527	N	Gen Prep	9045M	III
23-Feb-2011	SL-012-SA5A-SS-0.0-0.5	6214527	N	METHOD	300.0	III
23-Feb-2011	SL-012-SA5A-SS-0.0-0.5	6214527	N	METHOD	314.0	III
23-Feb-2011	SL-012-SA5A-SS-0.0-0.5	6214527	N	METHOD	7471A	III
23-Feb-2011	SL-006-SA5A-SS-0.0-0.5	6214524	N	3050B	6010B	III
23-Feb-2011	SL-006-SA5A-SS-0.0-0.5	6214524	N	3050B	6020	III
23-Feb-2011	SL-006-SA5A-SS-0.0-0.5	6214524	N	3060A	7199	III
23-Feb-2011	SL-006-SA5A-SS-0.0-0.5	6214524	N	3550B	8081A	III
23-Feb-2011	SL-006-SA5A-SS-0.0-0.5	6214524	N	3550B	8082	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Feb-2011	SL-006-SA5A-SS-0.0-0.5	6214524	N	3550B	8151A	III
23-Feb-2011	SL-006-SA5A-SS-0.0-0.5	6214524	N	3550B	8270C	III
23-Feb-2011	SL-006-SA5A-SS-0.0-0.5	6214524	N	3550B	8270C SIM	III
23-Feb-2011	SL-006-SA5A-SS-0.0-0.5	6214524	N	Gen Prep	9045M	III
23-Feb-2011	SL-006-SA5A-SS-0.0-0.5	6214524	N	METHOD	300.0	III
23-Feb-2011	SL-006-SA5A-SS-0.0-0.5	6214524	N	METHOD	314.0	III
23-Feb-2011	SL-006-SA5A-SS-0.0-0.5	6214524	N	METHOD	7471A	III
23-Feb-2011	SL-018-SA5A-SS-0.0-0.5	6214531	N	3050B	6010B	III
23-Feb-2011	SL-018-SA5A-SS-0.0-0.5	6214531	N	3050B	6020	III
23-Feb-2011	SL-018-SA5A-SS-0.0-0.5	6214531	N	3060A	7199	III
23-Feb-2011	SL-018-SA5A-SS-0.0-0.5	6214531	N	3550B	8081A	III
23-Feb-2011	SL-018-SA5A-SS-0.0-0.5	6214531	N	3550B	8082	III
23-Feb-2011	SL-018-SA5A-SS-0.0-0.5	6214531	N	3550B	8151A	III
23-Feb-2011	SL-018-SA5A-SS-0.0-0.5	6214531	N	3550B	8270C	III
23-Feb-2011	SL-018-SA5A-SS-0.0-0.5	6214531	N	3550B	8270C SIM	III
23-Feb-2011	SL-018-SA5A-SS-0.0-0.5	6214531	N	Gen Prep	9045M	III
23-Feb-2011	SL-018-SA5A-SS-0.0-0.5	6214531	N	METHOD	300.0	III
23-Feb-2011	SL-018-SA5A-SS-0.0-0.5	6214531	N	METHOD	314.0	III
23-Feb-2011	SL-018-SA5A-SS-0.0-0.5	6214531	N	METHOD	7471A	III
23-Feb-2011	SL-017-SA5A-SS-0.0-0.5	6214530	N	3050B	6010B	III
23-Feb-2011	SL-017-SA5A-SS-0.0-0.5	6214530	N	3050B	6020	III
23-Feb-2011	SL-017-SA5A-SS-0.0-0.5	6214530	N	3060A	7199	III
23-Feb-2011	SL-017-SA5A-SS-0.0-0.5	6214530	N	3550B	8081A	III
23-Feb-2011	SL-017-SA5A-SS-0.0-0.5	6214530	N	3550B	8082	III
23-Feb-2011	SL-017-SA5A-SS-0.0-0.5	6214530	N	3550B	8151A	III
23-Feb-2011	SL-017-SA5A-SS-0.0-0.5	6214530	N	3550B	8270C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Feb-2011	SL-017-SA5A-SS-0.0-0.5	6214530	N	3550B	8270C SIM	III
23-Feb-2011	SL-017-SA5A-SS-0.0-0.5	6214530	N	Gen Prep	9045M	III
23-Feb-2011	SL-017-SA5A-SS-0.0-0.5	6214530	N	METHOD	300.0	III
23-Feb-2011	SL-017-SA5A-SS-0.0-0.5	6214530	N	METHOD	314.0	III
23-Feb-2011	SL-017-SA5A-SS-0.0-0.5	6214530	N	METHOD	6850	III
23-Feb-2011	SL-017-SA5A-SS-0.0-0.5	6214530	N	METHOD	7471A	III
23-Feb-2011	DUP-04-SA5A-QC-022311	6214517	FD	3050B	6010B	III
23-Feb-2011	DUP-04-SA5A-QC-022311	6214517	FD	3050B	6020	III
23-Feb-2011	DUP-04-SA5A-QC-022311	6214517	FD	3060A	7199	III
23-Feb-2011	DUP-04-SA5A-QC-022311	6214517	FD	3550B	8081A	III
23-Feb-2011	DUP-04-SA5A-QC-022311	6214517	FD	3550B	8082	III
23-Feb-2011	DUP-04-SA5A-QC-022311	6214517	FD	3550B	8151A	III
23-Feb-2011	DUP-04-SA5A-QC-022311	6214517	FD	3550B	8270C	III
23-Feb-2011	DUP-04-SA5A-QC-022311	6214517	FD	3550B	8270C SIM	III
23-Feb-2011	DUP-04-SA5A-QC-022311	6214517	FD	Gen Prep	9045M	III
23-Feb-2011	DUP-04-SA5A-QC-022311	6214517	FD	METHOD	300.0	III
23-Feb-2011	DUP-04-SA5A-QC-022311	6214517	FD	METHOD	314.0	III
23-Feb-2011	DUP-04-SA5A-QC-022311	6214517	FD	METHOD	7471A	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5	6214520	N	3050B	6010B	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5	6214520	N	3050B	6020	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5	6214520	N	3060A	7199	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5	6214520	N	3550B	8081A	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5	6214520	N	3550B	8082	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5	6214520	N	3550B	8151A	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5	6214520	N	3550B	8270C	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5	6214520	N	3550B	8270C SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5	6214520	N	Gen Prep	9045M	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5	6214520	N	METHOD	300.0	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5	6214520	N	METHOD	314.0	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5	6214520	N	METHOD	7471A	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MS	6214521	MS	3050B	6010B	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MS	6214521	MS	3050B	6020	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MS	6214521	MS	3060A	7199	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MS	6214521	MS	3550B	8081A	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MS	6214521	MS	3550B	8082	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MS	6214521	MS	3550B	8151A	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MS	6214521	MS	3550B	8270C	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MS	6214521	MS	3550B	8270C SIM	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MS	6214521	MS	METHOD	300.0	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MS	6214521	MS	METHOD	314.0	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MS	6214521	MS	METHOD	7471A	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MSD	6214522	MSD	3050B	6010B	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MSD	6214522	MSD	3050B	6020	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MSD	6214522	MSD	3550B	8081A	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MSD	6214522	MSD	3550B	8082	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MSD	6214522	MSD	3550B	8151A	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MSD	6214522	MSD	3550B	8270C	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MSD	6214522	MSD	3550B	8270C SIM	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5MSD	6214522	MSD	METHOD	7471A	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5DUP	6214523	DUP	3050B	6010B	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5DUP	6214523	DUP	3050B	6020	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5DUP	6214523	DUP	3060A	7199	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5DUP	6214523	DUP	Gen Prep	9045M	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5DUP	6214523	DUP	METHOD	300.0	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5DUP	6214523	DUP	METHOD	314.0	III
23-Feb-2011	SL-004-SA5A-SS-0.0-0.5DUP	6214523	DUP	METHOD	7471A	III
23-Feb-2011	SL-001-SA5A-SS-0.0-0.5	6214518	N	3050B	6010B	III
23-Feb-2011	SL-001-SA5A-SS-0.0-0.5	6214518	N	3050B	6020	III
23-Feb-2011	SL-001-SA5A-SS-0.0-0.5	6214518	N	3060A	7199	III
23-Feb-2011	SL-001-SA5A-SS-0.0-0.5	6214518	N	3550B	8081A	III
23-Feb-2011	SL-001-SA5A-SS-0.0-0.5	6214518	N	3550B	8082	III
23-Feb-2011	SL-001-SA5A-SS-0.0-0.5	6214518	N	3550B	8151A	III
23-Feb-2011	SL-001-SA5A-SS-0.0-0.5	6214518	N	3550B	8270C	III
23-Feb-2011	SL-001-SA5A-SS-0.0-0.5	6214518	N	3550B	8270C SIM	III
23-Feb-2011	SL-001-SA5A-SS-0.0-0.5	6214518	N	Gen Prep	9045M	III
23-Feb-2011	SL-001-SA5A-SS-0.0-0.5	6214518	N	METHOD	300.0	III
23-Feb-2011	SL-001-SA5A-SS-0.0-0.5	6214518	N	METHOD	314.0	III
23-Feb-2011	SL-001-SA5A-SS-0.0-0.5	6214518	N	METHOD	6850	III
23-Feb-2011	SL-001-SA5A-SS-0.0-0.5	6214518	N	METHOD	7471A	III
23-Feb-2011	SL-002-SA5A-SS-0.0-0.5	6214519	N	3050B	6010B	III
23-Feb-2011	SL-002-SA5A-SS-0.0-0.5	6214519	N	3050B	6020	III
23-Feb-2011	SL-002-SA5A-SS-0.0-0.5	6214519	N	3060A	7199	III
23-Feb-2011	SL-002-SA5A-SS-0.0-0.5	6214519	N	3550B	8081A	III
23-Feb-2011	SL-002-SA5A-SS-0.0-0.5	6214519	N	3550B	8082	III
23-Feb-2011	SL-002-SA5A-SS-0.0-0.5	6214519	N	3550B	8151A	III
23-Feb-2011	SL-002-SA5A-SS-0.0-0.5	6214519	N	3550B	8270C	III
23-Feb-2011	SL-002-SA5A-SS-0.0-0.5	6214519	N	3550B	8270C SIM	III
23-Feb-2011	SL-002-SA5A-SS-0.0-0.5	6214519	N	Gen Prep	9045M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Feb-2011	SL-002-SA5A-SS-0.0-0.5	6214519	N	METHOD	300.0	III
23-Feb-2011	SL-002-SA5A-SS-0.0-0.5	6214519	N	METHOD	314.0	III
23-Feb-2011	SL-002-SA5A-SS-0.0-0.5	6214519	N	METHOD	7471A	III
23-Feb-2011	EB01-SA5A-022311	6214533	EB	3005A	6010B	III
23-Feb-2011	EB01-SA5A-022311	6214533	EB	3020A	6020	III
23-Feb-2011	EB01-SA5A-022311	6214533	EB	3510C	8081A	III
23-Feb-2011	EB01-SA5A-022311	6214533	EB	3510C	8082	III
23-Feb-2011	EB01-SA5A-022311	6214533	EB	3510C	8270C	III
23-Feb-2011	EB01-SA5A-022311	6214533	EB	3510C	8270C SIM	III
23-Feb-2011	EB01-SA5A-022311	6214533	EB	Gen Prep	300.0	III
23-Feb-2011	EB01-SA5A-022311	6214533	EB	Gen Prep	314.0	III
23-Feb-2011	EB01-SA5A-022311	6214533	EB	Gen Prep	7199	III
23-Feb-2011	EB01-SA5A-022311	6214533	EB	METHOD	7470A	III
23-Feb-2011	EB01-SA5A-022311	6214533	EB	METHOD	8151A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-004-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.0	J	0.89	MDL	1.1	PQL	mg/Kg	J	Z, Q

Sample ID: SL-006-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 11:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.9		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-009-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-010-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-012-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:27:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.6		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-013-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.5		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-016-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 8:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-017-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.89	MDL	1.1	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-018-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-019-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		1.0	MDL	1.3	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: DUP-04-SA5A-QC-022311 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.79	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	2.36	J	0.894	MDL	5.32	PQL	mg/Kg	J	Z

Sample ID: DUP-04-SA5A-QC-022311 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.26	J	0.948	MDL	5.32	PQL	mg/Kg	J	Z
CALCIUM	3280		6.53	MDL	21.3	PQL	mg/Kg	J	E
POTASSIUM	3130		19.2	MDL	53.2	PQL	mg/Kg	J	Q
SODIUM	86.1	J	39.7	MDL	106	PQL	mg/Kg	J	Z

Sample ID: SL-001-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:53:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.89	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	2.05	J	0.913	MDL	5.43	PQL	mg/Kg	J	Z

Sample ID: SL-001-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:53:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.96	J	0.967	MDL	5.43	PQL	mg/Kg	J	Z
CALCIUM	2920		6.66	MDL	21.7	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory:** LL

EDD Filename: DE090_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-001-SA5A-SS-0.0-0.5 **Collected:** 2/23/2011 1:53:00 **Analysis Type:** REA2 **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3280		19.6	MDL	54.3	PQL	mg/Kg	J	Q
SODIUM	81.6	J	40.5	MDL	109	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA5A-SS-0.0-0.5 **Collected:** 2/23/2011 2:25:00 **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.85	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	1.41	J	0.899	MDL	5.35	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA5A-SS-0.0-0.5 **Collected:** 2/23/2011 2:25:00 **Analysis Type:** REA2 **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.97	J	0.953	MDL	5.35	PQL	mg/Kg	J	Z
CALCIUM	5350		6.56	MDL	21.4	PQL	mg/Kg	J	E
POTASSIUM	3230		19.3	MDL	53.5	PQL	mg/Kg	J	Q

Sample ID: SL-004-SA5A-SS-0.0-0.5 **Collected:** 2/23/2011 1:35:00 **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.96	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.96	J	0.921	MDL	5.48	PQL	mg/Kg	J	Z

Sample ID: SL-004-SA5A-SS-0.0-0.5 **Collected:** 2/23/2011 1:35:00 **Analysis Type:** REA2 **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.61	J	0.976	MDL	5.48	PQL	mg/Kg	J	Z
CALCIUM	3370		6.72	MDL	21.9	PQL	mg/Kg	J	E
POTASSIUM	3280		19.7	MDL	54.8	PQL	mg/Kg	J	Q
SODIUM	91.4	J	40.9	MDL	110	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA5A-SS-0.0-0.5 **Collected:** 2/23/2011 11:14:00 **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.05	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.80	J	0.923	MDL	5.49	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory:** LL

EDD Filename: DE090_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-006-SA5A-SS-0.0-0.5 **Collected:** 2/23/2011 11:14:00 **Analysis Type:** REA2 **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.28	J	0.977	MDL	5.49	PQL	mg/Kg	J	Z
CALCIUM	3050		6.73	MDL	22.0	PQL	mg/Kg	J	E
POTASSIUM	2170		19.8	MDL	54.9	PQL	mg/Kg	J	Q

Sample ID: SL-009-SA5A-SS-0.0-0.5 **Collected:** 2/23/2011 9:25:00 **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.04	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	2.79	J	0.927	MDL	5.52	PQL	mg/Kg	J	Z

Sample ID: SL-009-SA5A-SS-0.0-0.5 **Collected:** 2/23/2011 9:25:00 **Analysis Type:** REA2 **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.41	J	0.983	MDL	5.52	PQL	mg/Kg	J	Z
CALCIUM	3060		6.77	MDL	22.1	PQL	mg/Kg	J	E
POTASSIUM	3110		19.9	MDL	55.2	PQL	mg/Kg	J	Q
SODIUM	80.1	J	41.2	MDL	110	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA5A-SS-0.0-0.5 **Collected:** 2/23/2011 9:05:00 **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.16	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	2.02	J	0.893	MDL	5.32	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA5A-SS-0.0-0.5 **Collected:** 2/23/2011 9:05:00 **Analysis Type:** REA2 **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.09	J	0.947	MDL	5.32	PQL	mg/Kg	J	Z
CALCIUM	2640		6.52	MDL	21.3	PQL	mg/Kg	J	E
POTASSIUM	2060		19.1	MDL	53.2	PQL	mg/Kg	J	Q
SODIUM	80.0	J	39.7	MDL	106	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory:** LL

EDD Filename: DE090_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-012-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:27:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.35	J	1.18	MDL	11.8	PQL	mg/Kg	U	B
Zirconium	4.42	J	0.988	MDL	5.88	PQL	mg/Kg	J	Z

Sample ID: SL-012-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:27:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	16300		7.21	MDL	23.5	PQL	mg/Kg	J	E
POTASSIUM	3440		21.2	MDL	58.8	PQL	mg/Kg	J	Q

Sample ID: SL-013-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:49:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.13	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	2.27	J	0.945	MDL	5.62	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:49:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.52	J	1.00	MDL	5.62	PQL	mg/Kg	J	Z
CALCIUM	2620		6.90	MDL	22.5	PQL	mg/Kg	J	E
POTASSIUM	2310		20.2	MDL	56.2	PQL	mg/Kg	J	Q

Sample ID: SL-016-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 8:35:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.68	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	2.32	J	0.944	MDL	5.62	PQL	mg/Kg	J	Z

Sample ID: SL-016-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 8:35:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.46	J	1.00	MDL	5.62	PQL	mg/Kg	J	Z
CALCIUM	2270		6.89	MDL	22.5	PQL	mg/Kg	J	E
POTASSIUM	2760		20.2	MDL	56.2	PQL	mg/Kg	J	Q
SODIUM	81.7	J	41.9	MDL	112	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-017-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:20:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.09	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	2.00	J	0.923	MDL	5.49	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:20:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.52	J	0.978	MDL	5.49	PQL	mg/Kg	J	Z
CALCIUM	3150		6.74	MDL	22.0	PQL	mg/Kg	J	E
POTASSIUM	3280		19.8	MDL	54.9	PQL	mg/Kg	J	Q
SODIUM	77.2	J	41.0	MDL	110	PQL	mg/Kg	J	Z

Sample ID: SL-018-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:05:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.96	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.97	J	0.916	MDL	5.45	PQL	mg/Kg	J	Z

Sample ID: SL-018-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:05:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.51	J	0.971	MDL	5.45	PQL	mg/Kg	J	Z
CALCIUM	3170		6.68	MDL	21.8	PQL	mg/Kg	J	E
POTASSIUM	3130		19.6	MDL	54.5	PQL	mg/Kg	J	Q
SODIUM	80.8	J	40.7	MDL	109	PQL	mg/Kg	J	Z

Sample ID: SL-019-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:10:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.31	J	1.20	MDL	12.0	PQL	mg/Kg	U	B
Zirconium	2.01	J	1.01	MDL	6.02	PQL	mg/Kg	J	Z

Sample ID: SL-019-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:10:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.74	J	1.07	MDL	6.02	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6010B **Matrix:** SO

Sample ID: SL-019-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:10:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3210		7.38	MDL	24.1	PQL	mg/Kg	J	E
POTASSIUM	2370		21.7	MDL	60.2	PQL	mg/Kg	J	Q
SODIUM	88.3	J	44.9	MDL	120	PQL	mg/Kg	J	Z

Method Category: METALS **Method:** 6020 **Matrix:** SO

Sample ID: DUP-04-SA5A-QC-022311 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* REA10 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	7.36		0.0724	MDL	0.439	PQL	mg/Kg	J	A

Sample ID: DUP-04-SA5A-QC-022311 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.133	J	0.0651	MDL	0.217	PQL	mg/Kg	J	Z, Q
CHROMIUM	15.9		0.130	MDL	0.434	PQL	mg/Kg	J	A
LEAD	8.66		0.0113	MDL	0.217	PQL	mg/Kg	J	Q, A
SILVER	0.0302	J	0.0130	MDL	0.109	PQL	mg/Kg	J	Z
ZINC	82.8		0.608	MDL	3.26	PQL	mg/Kg	J	A

Sample ID: DUP-04-SA5A-QC-022311 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	5.15		0.0217	MDL	0.109	PQL	mg/Kg	J	A

Sample ID: DUP-04-SA5A-QC-022311 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.107	J	0.0434	MDL	0.434	PQL	mg/Kg	J	Z

Sample ID: DUP-04-SA5A-QC-022311 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	99.6		0.117	MDL	0.434	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory:** LL

EDD Filename: DE090_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-001-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:53:00 *Analysis Type:* REA10 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	11.4		0.0710	MDL	0.431	PQL	mg/Kg	J	A

Sample ID: SL-001-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:53:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.232		0.0659	MDL	0.220	PQL	mg/Kg	J	Q
CHROMIUM	16.3		0.132	MDL	0.439	PQL	mg/Kg	J	A
LEAD	10.1		0.0114	MDL	0.220	PQL	mg/Kg	J	Q, A
SILVER	0.0393	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z
ZINC	175		0.615	MDL	3.29	PQL	mg/Kg	J	A

Sample ID: SL-001-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:53:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	4.96		0.0220	MDL	0.110	PQL	mg/Kg	J	A

Sample ID: SL-001-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:53:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.102	J	0.0439	MDL	0.439	PQL	mg/Kg	J	Z

Sample ID: SL-001-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:53:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	108		0.119	MDL	0.439	PQL	mg/Kg	J	A

Sample ID: SL-002-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 2:25:00 *Analysis Type:* REA10 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	9.28		0.0693	MDL	0.420	PQL	mg/Kg	J	A

Sample ID: SL-002-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 2:25:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.141	J	0.0655	MDL	0.218	PQL	mg/Kg	J	Z, Q
CHROMIUM	12.6		0.131	MDL	0.437	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-002-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 2:25:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	4.60		0.0114	MDL	0.218	PQL	mg/Kg	J	Q, A
SILVER	0.0212	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z
ZINC	85.9		0.611	MDL	3.27	PQL	mg/Kg	J	A

Sample ID: SL-002-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 2:25:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	4.74		0.0218	MDL	0.109	PQL	mg/Kg	J	A

Sample ID: SL-002-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 2:25:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0561	J	0.0437	MDL	0.437	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 2:25:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	126		0.118	MDL	0.437	PQL	mg/Kg	J	A

Sample ID: SL-004-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* REA10 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	7.78		0.0724	MDL	0.439	PQL	mg/Kg	J	A

Sample ID: SL-004-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.178	J	0.0664	MDL	0.221	PQL	mg/Kg	J	Z, Q
CHROMIUM	17.0		0.133	MDL	0.443	PQL	mg/Kg	J	A
LEAD	7.09		0.0115	MDL	0.221	PQL	mg/Kg	J	Q, A
SILVER	0.0318	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z
ZINC	86.1		0.620	MDL	3.32	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-004-SA5A-SS-0.0-0.5 ***Collected:*** 2/23/2011 1:35:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	5.10		0.0221	MDL	0.111	PQL	mg/Kg	J	A

Sample ID: SL-004-SA5A-SS-0.0-0.5 ***Collected:*** 2/23/2011 1:35:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0750	J	0.0443	MDL	0.443	PQL	mg/Kg	J	Z

Sample ID: SL-004-SA5A-SS-0.0-0.5 ***Collected:*** 2/23/2011 1:35:00 ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	109		0.120	MDL	0.443	PQL	mg/Kg	J	A

Sample ID: SL-006-SA5A-SS-0.0-0.5 ***Collected:*** 2/23/2011 11:14:00 ***Analysis Type:*** REA10 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	6.46		0.0725	MDL	0.439	PQL	mg/Kg	J	A

Sample ID: SL-006-SA5A-SS-0.0-0.5 ***Collected:*** 2/23/2011 11:14:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.154	J	0.0672	MDL	0.224	PQL	mg/Kg	J	Z, Q
CADMIUM	0.161		0.0448	MDL	0.112	PQL	mg/Kg	U	B
CHROMIUM	16.8		0.134	MDL	0.448	PQL	mg/Kg	J	A
LEAD	5.11		0.0116	MDL	0.224	PQL	mg/Kg	J	Q, A
SILVER	0.0430	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z
ZINC	57.2		0.627	MDL	3.36	PQL	mg/Kg	J	A

Sample ID: SL-006-SA5A-SS-0.0-0.5 ***Collected:*** 2/23/2011 11:14:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	4.72		0.0224	MDL	0.112	PQL	mg/Kg	J	A

Sample ID: SL-006-SA5A-SS-0.0-0.5 ***Collected:*** 2/23/2011 11:14:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0557	J	0.0448	MDL	0.448	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-006-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 11:14:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	101		0.121	MDL	0.448	PQL	mg/Kg	J	A

Sample ID: SL-009-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:25:00 *Analysis Type:* REA10 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	8.80		0.0715	MDL	0.433	PQL	mg/Kg	J	A

Sample ID: SL-009-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:25:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.19		0.0656	MDL	0.219	PQL	mg/Kg	J	Q
CHROMIUM	16.4		0.131	MDL	0.437	PQL	mg/Kg	J	A
LEAD	7.03		0.0114	MDL	0.219	PQL	mg/Kg	J	Q, A
SILVER	0.0368	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: SL-009-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:25:00 *Analysis Type:* REA5 *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	309		1.53	MDL	8.20	PQL	mg/Kg	J	A

Sample ID: SL-009-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:25:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	4.93		0.0219	MDL	0.109	PQL	mg/Kg	J	A

Sample ID: SL-009-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:25:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0853	J	0.0437	MDL	0.437	PQL	mg/Kg	J	Z

Sample ID: SL-009-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:25:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	101		0.118	MDL	0.437	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory:** LL

EDD Filename: DE090_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-010-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:05:00 *Analysis Type:* REA10 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	6.80		0.0716	MDL	0.434	PQL	mg/Kg	J	A

Sample ID: SL-010-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:05:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.195	J	0.0651	MDL	0.217	PQL	mg/Kg	J	Z, Q
CADMIUM	0.142		0.0434	MDL	0.108	PQL	mg/Kg	U	B
CHROMIUM	21.1		0.130	MDL	0.434	PQL	mg/Kg	J	A
LEAD	5.29		0.0113	MDL	0.217	PQL	mg/Kg	J	Q, A
SILVER	0.0181	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z
ZINC	55.9		0.607	MDL	3.25	PQL	mg/Kg	J	A

Sample ID: SL-010-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:05:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	5.53		0.0217	MDL	0.108	PQL	mg/Kg	J	A

Sample ID: SL-010-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:05:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0768	J	0.0434	MDL	0.434	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:05:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	80.6		0.117	MDL	0.434	PQL	mg/Kg	J	A

Sample ID: SL-012-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:27:00 *Analysis Type:* REA10 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	10.1		0.0776	MDL	0.470	PQL	mg/Kg	J	A

Sample ID: SL-012-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:27:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.208	J	0.0692	MDL	0.231	PQL	mg/Kg	J	Z, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-012-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:27:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	27.3		0.138	MDL	0.461	PQL	mg/Kg	J	A
LEAD	8.18		0.0120	MDL	0.231	PQL	mg/Kg	J	Q, A
SILVER	0.0404	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
ZINC	89.1		0.646	MDL	3.46	PQL	mg/Kg	J	A

Sample ID: SL-012-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:27:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	6.78		0.0231	MDL	0.115	PQL	mg/Kg	J	A

Sample ID: SL-012-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:27:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.110	J	0.0461	MDL	0.461	PQL	mg/Kg	J	Z

Sample ID: SL-012-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:27:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	96.4		0.125	MDL	0.461	PQL	mg/Kg	J	A

Sample ID: SL-013-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:49:00 *Analysis Type:* REA10 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	6.73		0.0728	MDL	0.441	PQL	mg/Kg	J	A

Sample ID: SL-013-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:49:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.122	J	0.0662	MDL	0.221	PQL	mg/Kg	J	Z, Q
CADMIUM	0.193		0.0441	MDL	0.110	PQL	mg/Kg	U	B
CHROMIUM	17.1		0.132	MDL	0.441	PQL	mg/Kg	J	A
LEAD	4.85		0.0115	MDL	0.221	PQL	mg/Kg	J	Q, A
SILVER	0.0395	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z
ZINC	57.9		0.618	MDL	3.31	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory:** LL

EDD Filename: DE090_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-013-SA5A-SS-0.0-0.5 ***Collected:*** 2/23/2011 9:49:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	4.76		0.0221	MDL	0.110	PQL	mg/Kg	J	A

Sample ID: SL-013-SA5A-SS-0.0-0.5 ***Collected:*** 2/23/2011 9:49:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0544	J	0.0441	MDL	0.441	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA5A-SS-0.0-0.5 ***Collected:*** 2/23/2011 9:49:00 ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	100		0.119	MDL	0.441	PQL	mg/Kg	J	A

Sample ID: SL-016-SA5A-SS-0.0-0.5 ***Collected:*** 2/23/2011 8:35:00 ***Analysis Type:*** REA10 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	13.8		0.0749	MDL	0.454	PQL	mg/Kg	J	A

Sample ID: SL-016-SA5A-SS-0.0-0.5 ***Collected:*** 2/23/2011 8:35:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.139	J	0.0674	MDL	0.225	PQL	mg/Kg	J	Z, Q
CHROMIUM	18.4		0.135	MDL	0.450	PQL	mg/Kg	J	A
LEAD	6.41		0.0117	MDL	0.225	PQL	mg/Kg	J	Q, A
SILVER	0.0548	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-016-SA5A-SS-0.0-0.5 ***Collected:*** 2/23/2011 8:35:00 ***Analysis Type:*** REA5 ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	273		1.57	MDL	8.43	PQL	mg/Kg	J	A

Sample ID: SL-016-SA5A-SS-0.0-0.5 ***Collected:*** 2/23/2011 8:35:00 ***Analysis Type:*** REA6 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	4.57		0.0225	MDL	0.112	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory:** LL

EDD Filename: DE090_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-016-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 8:35:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.125	J	0.0450	MDL	0.450	PQL	mg/Kg	J	Z

Sample ID: SL-016-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 8:35:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	82.8		0.121	MDL	0.450	PQL	mg/Kg	J	A

Sample ID: SL-017-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:20:00 *Analysis Type:* REA10 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	11.6		0.0733	MDL	0.444	PQL	mg/Kg	J	A

Sample ID: SL-017-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:20:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.135	J	0.0640	MDL	0.213	PQL	mg/Kg	J	Z, Q
CHROMIUM	16.0		0.128	MDL	0.427	PQL	mg/Kg	J	A
LEAD	7.11		0.0111	MDL	0.213	PQL	mg/Kg	J	Q, A
SILVER	0.0251	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z
ZINC	99.2		0.598	MDL	3.20	PQL	mg/Kg	J	A

Sample ID: SL-017-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:20:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	5.61		0.0213	MDL	0.107	PQL	mg/Kg	J	A

Sample ID: SL-017-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:20:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0919	J	0.0427	MDL	0.427	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:20:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	107		0.115	MDL	0.427	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory:** LL

EDD Filename: DE090_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-018-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:05:00 *Analysis Type:* REA10 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	7.57		0.0727	MDL	0.441	PQL	mg/Kg	J	A

Sample ID: SL-018-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:05:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.183	J	0.0648	MDL	0.216	PQL	mg/Kg	J	Z, Q
CADMIUM	0.275		0.0432	MDL	0.108	PQL	mg/Kg	U	B
CHROMIUM	15.8		0.130	MDL	0.432	PQL	mg/Kg	J	A
LEAD	6.09		0.0112	MDL	0.216	PQL	mg/Kg	J	Q, A
SILVER	0.0342	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z
ZINC	81.9		0.605	MDL	3.24	PQL	mg/Kg	J	A

Sample ID: SL-018-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:05:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	4.79		0.0216	MDL	0.108	PQL	mg/Kg	J	A

Sample ID: SL-018-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:05:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0661	J	0.0432	MDL	0.432	PQL	mg/Kg	J	Z

Sample ID: SL-018-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:05:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	99.2		0.117	MDL	0.432	PQL	mg/Kg	J	A

Sample ID: SL-019-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:10:00 *Analysis Type:* REA10 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	8.74		0.0802	MDL	0.486	PQL	mg/Kg	J	A

Sample ID: SL-019-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:10:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.172	J	0.0729	MDL	0.243	PQL	mg/Kg	J	Z, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-019-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:10:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	23.0		0.146	MDL	0.486	PQL	mg/Kg	J	A
LEAD	9.45		0.0126	MDL	0.243	PQL	mg/Kg	J	Q, A
SILVER	0.0512	J	0.0146	MDL	0.122	PQL	mg/Kg	J	Z
ZINC	125		0.680	MDL	3.65	PQL	mg/Kg	J	A

Sample ID: SL-019-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:10:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.259		0.0486	MDL	0.122	PQL	mg/Kg	U	B
COBALT	5.96		0.0243	MDL	0.122	PQL	mg/Kg	J	A

Sample ID: SL-019-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:10:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0832	J	0.0486	MDL	0.486	PQL	mg/Kg	J	Z

Sample ID: SL-019-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:10:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	108		0.131	MDL	0.486	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: DUP-04-SA5A-QC-022311 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.31	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-001-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:53:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.32	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-002-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 2:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.72	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-004-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.33	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 11:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.36	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-009-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.86	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.31	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-012-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:27:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.47	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.35	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-016-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 8:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.47	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 7199 **Matrix:** SO

Sample ID: SL-017-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.44	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-018-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.34	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS **Method:** 7471A **Matrix:** SO

Sample ID: DUP-04-SA5A-QC-022311 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0379	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: SL-001-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:53:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0302	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 2:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0642	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: SL-004-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0398	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0210	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory:** LL

EDD Filename: DE090_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: SL-018-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0235	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: SL-019-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0164	J	0.0035	MDL	0.123	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: DUP-04-SA5A-QC-022311 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
4,4'-DDE	0.11	U	0.11	MDL	0.37	PQL	ug/Kg	UJ	S
4,4'-DDT	0.61	U	0.61	MDL	0.61	PQL	ug/Kg	UJ	S, FD
ALDRIN	0.073	U	0.073	MDL	0.18	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	S
BETA-BHC	0.066	U	0.066	MDL	0.18	PQL	ug/Kg	UJ	S
Chlordane	0.88	U	0.88	MDL	3.7	PQL	ug/Kg	UJ	S
DELTA-BHC	0.040	U	0.040	MDL	0.18	PQL	ug/Kg	UJ	S
DIELDRIN	0.19	U	0.19	MDL	0.37	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.048	U	0.048	MDL	0.18	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.25	U	0.25	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	S, FD
HEPTACHLOR	0.066	U	0.066	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.37	U	0.37	MDL	1.8	PQL	ug/Kg	UJ	S
MIREX	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
TOXAPHENE	2.4	U	2.4	MDL	7.3	PQL	ug/Kg	UJ	S

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-002-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 2:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEPTACHLOR	1.2		0.066	MDL	0.18	PQL	ug/Kg	J	S

Sample ID: SL-004-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	1.5		0.073	MDL	0.38	PQL	ug/Kg	J	Q, S, FD
ALDRIN	0.073	U	0.073	MDL	0.18	PQL	ug/Kg	R	Q
ENDRIN KETONE	0.073	U	0.073	MDL	0.38	PQL	ug/Kg	R	Q
gamma-BHC (Lindane)	0.052	J	0.038	MDL	0.18	PQL	ug/Kg	J	Z, S, FD

Sample ID: SL-006-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 11:14:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.095	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z
DIELDRIN	0.19	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.074	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z

Sample ID: SL-009-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.11	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z, S
4,4'-DDT	1.1		0.074	MDL	0.38	PQL	ug/Kg	J	S
DIELDRIN	0.57		0.074	MDL	0.38	PQL	ug/Kg	J	S
ENDRIN ALDEHYDE	0.41		0.074	MDL	0.38	PQL	ug/Kg	J	S
gamma-BHC (Lindane)	0.096	J	0.038	MDL	0.19	PQL	ug/Kg	J	Z, S
MIREX	0.53		0.074	MDL	0.38	PQL	ug/Kg	J	S

Sample ID: SL-010-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN KETONE	0.29	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: SL-012-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:27:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	0.094	J	0.078	MDL	0.40	PQL	ug/Kg	J	Z
ENDOSULFAN SULFATE	0.14	J	0.078	MDL	0.40	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.084	J	0.078	MDL	0.40	PQL	ug/Kg	J	Z

Sample ID: SL-013-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:49:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	0.082	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z

Sample ID: SL-016-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 8:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.087	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z
4,4'-DDT	0.14	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z

Sample ID: SL-018-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.073	U	0.073	MDL	0.38	PQL	ug/Kg	UJ	S
4,4'-DDE	0.085	U	0.085	MDL	0.38	PQL	ug/Kg	UJ	S
4,4'-DDT	0.55	U	0.55	MDL	0.55	PQL	ug/Kg	UJ	S
ALDRIN	0.073	U	0.073	MDL	0.18	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.038	U	0.038	MDL	0.18	PQL	ug/Kg	UJ	S
BETA-BHC	0.067	U	0.067	MDL	0.18	PQL	ug/Kg	UJ	S
Chlordane	0.89	U	0.89	MDL	3.8	PQL	ug/Kg	UJ	S
DELTA-BHC	0.040	U	0.040	MDL	0.18	PQL	ug/Kg	UJ	S
DIELDRIN	0.17	U	0.17	MDL	0.38	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.049	U	0.049	MDL	0.18	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.073	U	0.073	MDL	0.38	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.17	U	0.17	MDL	0.38	PQL	ug/Kg	UJ	S
ENDRIN	0.099	U	0.099	MDL	0.38	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.35	U	0.35	MDL	0.38	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.073	U	0.073	MDL	0.38	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.038	U	0.038	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.067	U	0.067	MDL	0.18	PQL	ug/Kg	UJ	S

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: SL-018-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEPTACHLOR EPOXIDE	0.038	U	0.038	MDL	0.18	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.38	U	0.38	MDL	1.8	PQL	ug/Kg	UJ	S
MIREX	0.42	U	0.42	MDL	0.42	PQL	ug/Kg	UJ	S
TOXAPHENE	2.4	U	2.4	MDL	7.3	PQL	ug/Kg	UJ	S

Sample ID: SL-019-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DELTA-BHC	0.046	J	0.045	MDL	0.21	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix: AQ**

Sample ID: EB01-SA5A-022311 *Collected:* 2/23/2011 2:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.11	U	0.11	MDL	0.53	PQL	ug/L	UJ	S
AROCLOR 1221	0.11	U	0.11	MDL	0.53	PQL	ug/L	UJ	S
AROCLOR 1232	0.21	U	0.21	MDL	0.53	PQL	ug/L	UJ	S
AROCLOR 1242	0.11	U	0.11	MDL	0.53	PQL	ug/L	UJ	S
AROCLOR 1248	0.11	U	0.11	MDL	0.53	PQL	ug/L	UJ	S
AROCLOR 1254	0.11	U	0.11	MDL	0.53	PQL	ug/L	UJ	S
AROCLOR 1260	0.11	U	0.11	MDL	0.53	PQL	ug/L	UJ	S
Aroclor 1262	0.21	U	0.21	MDL	0.53	PQL	ug/L	UJ	S
Aroclor 1268	0.17	U	0.17	MDL	0.53	PQL	ug/L	UJ	S
Aroclor 5432	0.11	U	0.11	MDL	0.53	PQL	ug/L	UJ	S
Aroclor 5442	0.11	U	0.11	MDL	0.53	PQL	ug/L	UJ	S
Aroclor 5460	0.11	U	0.11	MDL	0.53	PQL	ug/L	UJ	S

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory:** LL

EDD Filename: DE090_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: DUP-04-SA5A-QC-022311 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	45		1.8	MDL	9.4	PQL	ug/Kg	J	FD
Aroclor 1268	47		1.8	MDL	9.4	PQL	ug/Kg	J	FD
Aroclor 5460	51		5.5	MDL	18	PQL	ug/Kg	J	FD

Sample ID: SL-001-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:53:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	31		0.37	MDL	1.9	PQL	ug/Kg	J	S
Aroclor 1268	12		0.37	MDL	1.9	PQL	ug/Kg	J	S
Aroclor 5460	12		1.1	MDL	3.7	PQL	ug/Kg	J	S

Sample ID: SL-002-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 2:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	20		0.36	MDL	1.9	PQL	ug/Kg	J	S
Aroclor 1268	11		0.36	MDL	1.9	PQL	ug/Kg	J	S
Aroclor 5460	14		1.1	MDL	3.6	PQL	ug/Kg	J	S

Sample ID: SL-004-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	12		0.37	MDL	1.9	PQL	ug/Kg	J	S, FD, Q
Aroclor 1268	7.8		0.37	MDL	1.9	PQL	ug/Kg	J	S, FD, Q
Aroclor 5460	8.2		1.1	MDL	3.7	PQL	ug/Kg	J	S, FD

Sample ID: SL-012-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:27:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	2.7		0.39	MDL	2.0	PQL	ug/Kg	J	S
Aroclor 1268	22		0.39	MDL	2.0	PQL	ug/Kg	J	S
Aroclor 5460	19		1.2	MDL	3.9	PQL	ug/Kg	J	S

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory:** LL

EDD Filename: DE090_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-018-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	S
AROCLOR 1221	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	S
AROCLOR 1232	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	S
AROCLOR 1242	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	S
AROCLOR 1248	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	S
AROCLOR 1254	8.4		0.37	MDL	1.9	PQL	ug/Kg	J	S, S
AROCLOR 1260	0.43	U	0.43	MDL	1.9	PQL	ug/Kg	UJ	S
Aroclor 1262	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	S
Aroclor 1268	15		0.37	MDL	1.9	PQL	ug/Kg	J	S, S
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	S
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	S
Aroclor 5460	19		1.1	MDL	3.7	PQL	ug/Kg	J	S, S

Sample ID: SL-019-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	2.1	J	0.41	MDL	2.1	PQL	ug/Kg	J	S
Aroclor 1268	7.4		0.41	MDL	2.1	PQL	ug/Kg	J	S
Aroclor 5460	16		1.3	MDL	4.1	PQL	ug/Kg	J	S

Method Category: SVOA

Method: 8151A **Matrix:** SO

Sample ID: DUP-04-SA5A-QC-022311 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.091	U	0.091	MDL	0.19	PQL	ug/Kg	UJ	L
DINOSEB	0.89	U	0.89	MDL	2.7	PQL	ug/Kg	R	L
MCPA	260	J	84	MDL	280	PQL	ug/Kg	J	Z, FD

Sample ID: SL-001-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:53:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.091	U	0.091	MDL	0.19	PQL	ug/Kg	UJ	L
DINOSEB	0.89	U	0.89	MDL	2.7	PQL	ug/Kg	R	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8151A **Matrix:** SO

Sample ID: SL-002-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 2:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.090	U	0.090	MDL	0.19	PQL	ug/Kg	UJ	L
DINOSEB	0.88	U	0.88	MDL	2.6	PQL	ug/Kg	R	L

Sample ID: SL-004-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.092	U	0.092	MDL	0.19	PQL	ug/Kg	UJ	L
DINOSEB	0.89	U	0.89	MDL	2.7	PQL	ug/Kg	R	L
MCPA	85	U	85	MDL	280	PQL	ug/Kg	UJ	FD

Sample ID: SL-006-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 11:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.093	U	0.093	MDL	0.19	PQL	ug/Kg	UJ	L
DINOSEB	0.90	U	0.90	MDL	2.7	PQL	ug/Kg	R	L
MCPP	270	J	85	MDL	280	PQL	ug/Kg	U	B

Sample ID: SL-009-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.092	U	0.092	MDL	0.19	PQL	ug/Kg	UJ	L
2,4,5-TP (Silvex)	0.12	J	0.084	MDL	0.19	PQL	ug/Kg	J	Z
DINOSEB	0.90	U	0.90	MDL	2.7	PQL	ug/Kg	R	L
MCPA	140	J	86	MDL	280	PQL	ug/Kg	J	Z

Sample ID: SL-010-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.091	U	0.091	MDL	0.19	PQL	ug/Kg	UJ	L
DINOSEB	0.88	U	0.88	MDL	2.7	PQL	ug/Kg	R	L

Sample ID: SL-012-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:27:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.097	U	0.097	MDL	0.20	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8151A **Matrix: SO**

Sample ID: SL-012-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:27:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.95	U	0.95	MDL	2.9	PQL	ug/Kg	R	L
MCPP	580		89	MDL	300	PQL	ug/Kg	U	B

Sample ID: SL-013-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.092	U	0.092	MDL	0.19	PQL	ug/Kg	UJ	L
DINOSEB	0.90	U	0.90	MDL	2.7	PQL	ug/Kg	R	L

Sample ID: SL-016-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 8:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.093	U	0.093	MDL	0.19	PQL	ug/Kg	UJ	L
2,4,5-TP (Silvex)	0.12	J	0.085	MDL	0.19	PQL	ug/Kg	J	Z
DINOSEB	0.91	U	0.91	MDL	2.7	PQL	ug/Kg	R	L
MCPP	140	J	140	MDL	280	PQL	ug/Kg	U	B

Sample ID: SL-017-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.091	U	0.091	MDL	0.19	PQL	ug/Kg	UJ	L
DINOSEB	0.89	U	0.89	MDL	2.7	PQL	ug/Kg	R	L

Sample ID: SL-018-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.091	U	0.091	MDL	0.19	PQL	ug/Kg	UJ	L
DINOSEB	0.89	U	0.89	MDL	2.7	PQL	ug/Kg	R	L

Sample ID: SL-019-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.69		0.10	MDL	0.21	PQL	ug/Kg	J	L
DINOSEB	1.0	U	1.0	MDL	3.0	PQL	ug/Kg	R	L
MCPA	170	J	95	MDL	310	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory:** LL

EDD Filename: DE090_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** AQ

Sample ID: EB01-SA5A-022311 *Collected:* 2/23/2011 2:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZYL ALCOHOL	5	U	5	MDL	16	PQL	ug/L	UJ	L
BIS(2-CHLOROETHYL) ETHER	1	U	1	MDL	5	PQL	ug/L	UJ	L

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-016-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 8:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	41	J	19	MDL	190	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	41	J	19	MDL	380	PQL	ug/Kg	U	B
CHRYSENE	41	J	19	MDL	190	PQL	ug/Kg	J	Z
FLUORANTHENE	33	J	19	MDL	190	PQL	ug/Kg	J	Z
PYRENE	27	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: SL-017-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	19	J	18	MDL	180	PQL	ug/Kg	J	Z
CHRYSENE	21	J	18	MDL	180	PQL	ug/Kg	J	Z
FLUORANTHENE	19	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	19	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-019-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	42	J	21	MDL	210	PQL	ug/Kg	J	Z
CHRYSENE	41	J	21	MDL	210	PQL	ug/Kg	J	Z
FLUORANTHENE	54	J	21	MDL	210	PQL	ug/Kg	J	Z
PHENANTHRENE	29	J	21	MDL	210	PQL	ug/Kg	J	Z
PYRENE	41	J	21	MDL	210	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory:** LL

EDD Filename: DE090_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** AQ

Sample ID: EB01-SA5A-022311 *Collected:* 2/23/2011 2:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	0.52	J	0.052	MDL	1.0	PQL	ug/L	U	B
Butylbenzylphthalate	0.23	J	0.052	MDL	1.0	PQL	ug/L	U	B
Diethylphthalate	0.079	J	0.052	MDL	1.0	PQL	ug/L	U	B
Dimethylphthalate	0.052	U	0.052	MDL	1.0	PQL	ug/L	UJ	L
Di-n-butylphthalate	0.48	J	0.052	MDL	1.0	PQL	ug/L	U	B
Di-n-octylphthalate	0.22	J	0.052	MDL	1.0	PQL	ug/L	J	Z
NAPHTHALENE	0.029	J	0.010	MDL	0.052	PQL	ug/L	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: DUP-04-SA5A-QC-022311 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	7.5		0.73	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(B)FLUORANTHENE	6.5		0.73	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	5.0		0.73	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(K)FLUORANTHENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
BIS(2-ETHYLHEXYL)PHTHALATE	30		6.6	MDL	20	PQL	ug/Kg	U	B
CHRYSENE	4.6		0.37	MDL	1.8	PQL	ug/Kg	J	FD
DIBENZO(A,H)ANTHRACENE	1.9		0.73	MDL	1.8	PQL	ug/Kg	J	FD
Di-n-octylphthalate	23		6.6	MDL	20	PQL	ug/Kg	UJ	B, FD
FLUORANTHENE	1.3	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	2.5		0.73	MDL	1.8	PQL	ug/Kg	J	FD
PHENANTHRENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD

Sample ID: SL-002-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 2:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	15	J	6.6	MDL	20	PQL	ug/Kg	U	B

Sample ID: SL-004-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.5	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-004-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	3.3		0.74	MDL	1.8	PQL	ug/Kg	J	Q, FD
BENZO(B)FLUORANTHENE	2.6		0.74	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	2.6		0.74	MDL	1.8	PQL	ug/Kg	J	Q, FD
BENZO(K)FLUORANTHENE	1.4	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z, Q, FD
BIS(2-ETHYLHEXYL)PHTHALATE	21		6.6	MDL	20	PQL	ug/Kg	UJ	Q, Q, B
CHRYSENE	2.6		0.37	MDL	1.8	PQL	ug/Kg	J	FD
DIBENZO(A,H)ANTHRACENE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	FD
Di-n-octylphthalate	6.6	U	6.6	MDL	20	PQL	ug/Kg	UJ	FD
FLUORANTHENE	1.7	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.0	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z, Q, FD
PHENANTHRENE	0.98	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z, FD
PYRENE	1.7	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-006-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 11:14:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	14	J	6.8	MDL	20	PQL	ug/Kg	U	B
CHRYSENE	0.53	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	0.89	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-009-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.4	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.97	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	15	J	6.6	MDL	20	PQL	ug/Kg	U	B
FLUORANTHENE	1.6	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-012-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:27:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	5.9	J	3.9	MDL	9.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	8.6	J	3.9	MDL	9.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory:** LL

EDD Filename: DE090_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-012-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 10:27:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	9.1	J	3.9	MDL	9.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	46	J	35	MDL	110	PQL	ug/Kg	U	B
CHRYSENE	6.1	J	2.0	MDL	9.8	PQL	ug/Kg	J	Z

Sample ID: SL-013-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 9:49:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	12	J	6.7	MDL	20	PQL	ug/Kg	U	B

Sample ID: SL-016-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 8:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.73	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
ANTHRACENE	1.5	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	0.95	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-017-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.39	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.7	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.96	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	14	J	6.6	MDL	20	PQL	ug/Kg	U	B
INDENO(1,2,3-CD)PYRENE	0.78	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-018-SA5A-SS-0.0-0.5 *Collected:* 2/23/2011 1:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.70	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	21		6.7	MDL	20	PQL	ug/Kg	U	B
INDENO(1,2,3-CD)PYRENE	1.4	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **SVOA**

Method: **8270C SIM** ***Matrix:*** **SO**

Sample ID: **SL-019-SA5A-SS-0.0-0.5** ***Collected:*** **2/23/2011 10:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
1-METHYLNAPHTHALENE	0.92	J	0.82	MDL	2.1	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.0	J	0.82	MDL	2.1	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	1.1	J	0.41	MDL	2.1	PQL	ug/Kg	J	Z
ANTHRACENE	1.4	J	0.41	MDL	2.1	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	38		7.4	MDL	22	PQL	ug/Kg	U	B
Butylbenzylphthalate	25		7.4	MDL	22	PQL	ug/Kg	U	B
NAPHTHALENE	1.2	J	0.82	MDL	2.1	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE090

Method Blank Outlier Report

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06208BB221427	3/4/2011 2:27:00 PM	TIN	1.51 mg/Kg	DUP-04-SA5A-QC-022311 SL-001-SA5A-SS-0.0-0.5 SL-002-SA5A-SS-0.0-0.5 SL-004-SA5A-SS-0.0-0.5 SL-006-SA5A-SS-0.0-0.5 SL-009-SA5A-SS-0.0-0.5 SL-010-SA5A-SS-0.0-0.5 SL-012-SA5A-SS-0.0-0.5 SL-013-SA5A-SS-0.0-0.5 SL-016-SA5A-SS-0.0-0.5 SL-017-SA5A-SS-0.0-0.5 SL-018-SA5A-SS-0.0-0.5 SL-019-SA5A-SS-0.0-0.5
P06208BB221448	3/9/2011 2:48:00 PM	PHOSPHORUS	1.19 mg/Kg	DUP-04-SA5A-QC-022311 SL-001-SA5A-SS-0.0-0.5 SL-002-SA5A-SS-0.0-0.5 SL-004-SA5A-SS-0.0-0.5 SL-006-SA5A-SS-0.0-0.5 SL-009-SA5A-SS-0.0-0.5 SL-010-SA5A-SS-0.0-0.5 SL-012-SA5A-SS-0.0-0.5 SL-013-SA5A-SS-0.0-0.5 SL-016-SA5A-SS-0.0-0.5 SL-017-SA5A-SS-0.0-0.5 SL-018-SA5A-SS-0.0-0.5 SL-019-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-04-SA5A-QC-022311(REA)	TIN	2.79 mg/Kg	2.79U mg/Kg
SL-001-SA5A-SS-0.0-0.5(REA)	TIN	2.89 mg/Kg	2.89U mg/Kg
SL-002-SA5A-SS-0.0-0.5(REA)	TIN	2.85 mg/Kg	2.85U mg/Kg
SL-004-SA5A-SS-0.0-0.5(REA)	TIN	2.96 mg/Kg	2.96U mg/Kg
SL-006-SA5A-SS-0.0-0.5(REA)	TIN	3.05 mg/Kg	3.05U mg/Kg
SL-009-SA5A-SS-0.0-0.5(REA)	TIN	3.04 mg/Kg	3.04U mg/Kg
SL-010-SA5A-SS-0.0-0.5(REA)	TIN	3.16 mg/Kg	3.16U mg/Kg
SL-012-SA5A-SS-0.0-0.5(REA)	TIN	3.35 mg/Kg	3.35U mg/Kg
SL-013-SA5A-SS-0.0-0.5(REA)	TIN	3.13 mg/Kg	3.13U mg/Kg
SL-016-SA5A-SS-0.0-0.5(REA)	TIN	3.68 mg/Kg	3.68U mg/Kg
SL-017-SA5A-SS-0.0-0.5(REA)	TIN	3.09 mg/Kg	3.09U mg/Kg
SL-018-SA5A-SS-0.0-0.5(REA)	TIN	2.96 mg/Kg	2.96U mg/Kg
SL-019-SA5A-SS-0.0-0.5(REA)	TIN	3.31 mg/Kg	3.31U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06826AB220103A	3/11/2011 1:03:00 AM	COPPER	0.283 mg/Kg	DUP-04-SA5A-QC-022311 SL-001-SA5A-SS-0.0-0.5 SL-002-SA5A-SS-0.0-0.5 SL-004-SA5A-SS-0.0-0.5 SL-006-SA5A-SS-0.0-0.5 SL-009-SA5A-SS-0.0-0.5 SL-010-SA5A-SS-0.0-0.5 SL-012-SA5A-SS-0.0-0.5 SL-013-SA5A-SS-0.0-0.5 SL-016-SA5A-SS-0.0-0.5 SL-017-SA5A-SS-0.0-0.5 SL-018-SA5A-SS-0.0-0.5 SL-019-SA5A-SS-0.0-0.5

Method: **8151A**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P60601AB241854A	3/7/2011 6:54:00 PM	MCPP	140 ug/Kg	DUP-04-SA5A-QC-022311 SL-001-SA5A-SS-0.0-0.5 SL-002-SA5A-SS-0.0-0.5 SL-004-SA5A-SS-0.0-0.5 SL-006-SA5A-SS-0.0-0.5 SL-009-SA5A-SS-0.0-0.5 SL-010-SA5A-SS-0.0-0.5 SL-012-SA5A-SS-0.0-0.5 SL-013-SA5A-SS-0.0-0.5 SL-016-SA5A-SS-0.0-0.5 SL-017-SA5A-SS-0.0-0.5 SL-018-SA5A-SS-0.0-0.5 SL-019-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-006-SA5A-SS-0.0-0.5(RES)	MCPP	270 ug/Kg	280U ug/Kg
SL-012-SA5A-SS-0.0-0.5(RES)	MCPP	580 ug/Kg	580U ug/Kg
SL-016-SA5A-SS-0.0-0.5(RES)	MCPP	140 ug/Kg	280U ug/Kg

Method: **8270C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLD05B260027	3/8/2011 12:27:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE	22 ug/Kg	DUP-04-SA5A-QC-022311 SL-001-SA5A-SS-0.0-0.5 SL-002-SA5A-SS-0.0-0.5 SL-004-SA5A-SS-0.0-0.5 SL-006-SA5A-SS-0.0-0.5 SL-009-SA5A-SS-0.0-0.5 SL-010-SA5A-SS-0.0-0.5 SL-012-SA5A-SS-0.0-0.5 SL-013-SA5A-SS-0.0-0.5 SL-016-SA5A-SS-0.0-0.5 SL-017-SA5A-SS-0.0-0.5 SL-018-SA5A-SS-0.0-0.5 SL-019-SA5A-SS-0.0-0.5

Method Blank Outlier Report

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-016-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	41 ug/Kg	380U ug/Kg

Method: 8270C SIM
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWE05B261910	3/1/2011 7:10:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE Butylbenzylphthalate Diethylphthalate Di-n-butylphthalate	0.25 ug/L 0.21 ug/L 0.081 ug/L 0.27 ug/L	EB01-SA5A-022311

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB01-SA5A-022311(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.52 ug/L	1.0U ug/L
EB01-SA5A-022311(RES)	Butylbenzylphthalate	0.23 ug/L	1.0U ug/L
EB01-SA5A-022311(RES)	Diethylphthalate	0.079 ug/L	1.0U ug/L
EB01-SA5A-022311(RES)	Di-n-butylphthalate	0.48 ug/L	1.0U ug/L

Method: 8270C SIM
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLA06B262011	3/2/2011 8:11:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE Butylbenzylphthalate Di-n-butylphthalate Di-n-octylphthalate	8.4 ug/Kg 7.2 ug/Kg 7.1 ug/Kg 7.1 ug/Kg	DUP-04-SA5A-QC-022311 SL-001-SA5A-SS-0.0-0.5 SL-002-SA5A-SS-0.0-0.5 SL-004-SA5A-SS-0.0-0.5 SL-006-SA5A-SS-0.0-0.5 SL-009-SA5A-SS-0.0-0.5 SL-010-SA5A-SS-0.0-0.5 SL-012-SA5A-SS-0.0-0.5 SL-013-SA5A-SS-0.0-0.5 SL-016-SA5A-SS-0.0-0.5 SL-017-SA5A-SS-0.0-0.5 SL-018-SA5A-SS-0.0-0.5 SL-019-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-04-SA5A-QC-022311(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	30 ug/Kg	30U ug/Kg
DUP-04-SA5A-QC-022311(RES)	Di-n-octylphthalate	23 ug/Kg	23U ug/Kg
SL-002-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	15 ug/Kg	20U ug/Kg
SL-004-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	21 ug/Kg	21U ug/Kg
SL-006-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	14 ug/Kg	20U ug/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-009-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	15 ug/Kg	20U ug/Kg
SL-012-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	46 ug/Kg	110U ug/Kg
SL-013-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	12 ug/Kg	20U ug/Kg
SL-017-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	14 ug/Kg	20U ug/Kg
SL-018-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	21 ug/Kg	21U ug/Kg
SL-019-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	38 ug/Kg	38U ug/Kg
SL-019-SA5A-SS-0.0-0.5(RES)	Butylbenzylphthalate	25 ug/Kg	25U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-004-SA5A-SS-0.0-0.5MSD (SL-004-SA5A-SS-0.0-0.5)	4-CHLOROANILINE	-	-	23.00-95.00	35 (30.00)	4-CHLOROANILINE	J (all detects)

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-004-SA5A-SS-0.0-0.5MS SL-004-SA5A-SS-0.0-0.5MSD (SL-004-SA5A-SS-0.0-0.5)	BENZO(A)PYRENE	139	145	45.00-138.00	-	BENZO(A)PYRENE	J(all detects)
	BENZO(G,H,I)PERYLENE	143	-	33.00-141.00	-	BENZO(G,H,I)PERYLENE	
	BENZO(K)FLUORANTHENE	-	146	42.00-144.00	-	BENZO(K)FLUORANTHENE	
	BIS(2-ETHYLHEXYL)PHTHALAT	376	184	39.00-167.00	56 (30.00)	BIS(2-ETHYLHEXYL)PHTHALA	
	Butylbenzylphthalate	201	-	57.00-173.00	31 (30.00)	Butylbenzylphthalate	
	DIBENZO(A,H)ANTHRACENE	153	-	22.00-133.00	-	DIBENZO(A,H)ANTHRACENE	
	INDENO(1,2,3-CD)PYRENE	148	-	21.00-143.00	-	INDENO(1,2,3-CD)PYRENE	

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-004-SA5A-SS-0.0-0.5MS SL-004-SA5A-SS-0.0-0.5MSD (DUP-04-SA5A-QC-022311 SL-001-SA5A-SS-0.0-0.5 SL-002-SA5A-SS-0.0-0.5 SL-004-SA5A-SS-0.0-0.5 SL-006-SA5A-SS-0.0-0.5 SL-009-SA5A-SS-0.0-0.5 SL-010-SA5A-SS-0.0-0.5 SL-012-SA5A-SS-0.0-0.5 SL-013-SA5A-SS-0.0-0.5 SL-016-SA5A-SS-0.0-0.5 SL-017-SA5A-SS-0.0-0.5 SL-018-SA5A-SS-0.0-0.5 SL-019-SA5A-SS-0.0-0.5)	ANTIMONY	39	35	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)
	LEAD	72	-	75.00-125.00	-	LEAD	
	ZINC	67	-	75.00-125.00	-	ZINC	Zn No Qual, >4x
SL-004-SA5A-SS-0.0-0.5MS (DUP-04-SA5A-QC-022311 SL-001-SA5A-SS-0.0-0.5 SL-002-SA5A-SS-0.0-0.5 SL-004-SA5A-SS-0.0-0.5 SL-006-SA5A-SS-0.0-0.5 SL-009-SA5A-SS-0.0-0.5 SL-010-SA5A-SS-0.0-0.5 SL-012-SA5A-SS-0.0-0.5 SL-013-SA5A-SS-0.0-0.5 SL-016-SA5A-SS-0.0-0.5 SL-017-SA5A-SS-0.0-0.5 SL-018-SA5A-SS-0.0-0.5 SL-019-SA5A-SS-0.0-0.5)	BARIUM	69	-	75.00-125.00	-	BARIUM	No Qual, >4x

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-004-SA5A-SS-0.0-0.5MS SL-004-SA5A-SS-0.0-0.5MSD (DUP-04-SA5A-QC-022311 SL-001-SA5A-SS-0.0-0.5 SL-002-SA5A-SS-0.0-0.5 SL-004-SA5A-SS-0.0-0.5 SL-006-SA5A-SS-0.0-0.5 SL-009-SA5A-SS-0.0-0.5 SL-010-SA5A-SS-0.0-0.5 SL-012-SA5A-SS-0.0-0.5 SL-013-SA5A-SS-0.0-0.5 SL-016-SA5A-SS-0.0-0.5 SL-017-SA5A-SS-0.0-0.5 SL-018-SA5A-SS-0.0-0.5 SL-019-SA5A-SS-0.0-0.5)	ALUMINUM TITANIUM	1361 162	498 -	75.00-125.00 75.00-125.00	- -	ALUMINUM TITANIUM	No Qual, >4x
SL-004-SA5A-SS-0.0-0.5MS SL-004-SA5A-SS-0.0-0.5MSD (DUP-04-SA5A-QC-022311 SL-001-SA5A-SS-0.0-0.5 SL-002-SA5A-SS-0.0-0.5 SL-004-SA5A-SS-0.0-0.5 SL-006-SA5A-SS-0.0-0.5 SL-009-SA5A-SS-0.0-0.5 SL-010-SA5A-SS-0.0-0.5 SL-012-SA5A-SS-0.0-0.5 SL-013-SA5A-SS-0.0-0.5 SL-016-SA5A-SS-0.0-0.5 SL-017-SA5A-SS-0.0-0.5 SL-018-SA5A-SS-0.0-0.5 SL-019-SA5A-SS-0.0-0.5)	IRON MAGNESIUM MANGANESE	-2 158 71	-2981 -133 21	75.00-125.00 75.00-125.00 75.00-125.00	- - -	IRON MAGNESIUM MANGANESE	No Qual, >4x
SL-004-SA5A-SS-0.0-0.5MS SL-004-SA5A-SS-0.0-0.5MSD (DUP-04-SA5A-QC-022311 SL-001-SA5A-SS-0.0-0.5 SL-002-SA5A-SS-0.0-0.5 SL-004-SA5A-SS-0.0-0.5 SL-006-SA5A-SS-0.0-0.5 SL-009-SA5A-SS-0.0-0.5 SL-010-SA5A-SS-0.0-0.5 SL-012-SA5A-SS-0.0-0.5 SL-013-SA5A-SS-0.0-0.5 SL-016-SA5A-SS-0.0-0.5 SL-017-SA5A-SS-0.0-0.5 SL-018-SA5A-SS-0.0-0.5 SL-019-SA5A-SS-0.0-0.5)	CALCIUM PHOSPHORUS POTASSIUM	262 65 -	57 34 68	75.00-125.00 75.00-125.00 75.00-125.00	22 (20.00) - -	CALCIUM PHOSPHORUS POTASSIUM	J(all detects) UJ(all non-detects) Ca No Qual %R, >4x P No Qual, >4x

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-004-SA5A-SS-0.0-0.5MS (SL-004-SA5A-SS-0.0-0.5 SL-006-SA5A-SS-0.0-0.5 SL-009-SA5A-SS-0.0-0.5 SL-010-SA5A-SS-0.0-0.5 SL-012-SA5A-SS-0.0-0.5 SL-013-SA5A-SS-0.0-0.5 SL-016-SA5A-SS-0.0-0.5 SL-017-SA5A-SS-0.0-0.5 SL-018-SA5A-SS-0.0-0.5 SL-019-SA5A-SS-0.0-0.5)	FLUORIDE	78	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE090

Laboratory: LL

EDD Filename: DE090_v1

eQAPP Name: CDM_SSFL_110509

Method: 8081A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-004-SA5A-SS-0.0-0.5MSD (SL-004-SA5A-SS-0.0-0.5)	HEPTACHLOR	-	-	13.00-126.00	53 (50.00)	HEPTACHLOR	J(all detects)
SL-004-SA5A-SS-0.0-0.5MS	4,4'-DDT	-25	-63	10.00-176.00	-	4,4'-DDT	J(all detects) R(all non-detects)
SL-004-SA5A-SS-0.0-0.5MSD	ALDRIN	-	0	16.00-126.00	200 (50.00)	ALDRIN	
(SL-004-SA5A-SS-0.0-0.5)	ENDRIN KETONE	0	-	22.00-165.00	200 (50.00)	ENDRIN KETONE	

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-004-SA5A-SS-0.0-0.5MSD (SL-004-SA5A-SS-0.0-0.5)	AROCLOR 1260	-	202	39.00-149.00	-	AROCLOR 1242, 1248, 1254, 1260, 1262, 1268	J(all detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-004-SA5A-SS-0.0-0.5DUP	SELENIUM	28	20.00	
(DUP-04-SA5A-QC-022311	SILVER	85	20.00	
SL-001-SA5A-SS-0.0-0.5				
SL-002-SA5A-SS-0.0-0.5				
SL-004-SA5A-SS-0.0-0.5				
SL-006-SA5A-SS-0.0-0.5				
SL-009-SA5A-SS-0.0-0.5				No Qual
SL-010-SA5A-SS-0.0-0.5				OK by difference
SL-012-SA5A-SS-0.0-0.5				
SL-013-SA5A-SS-0.0-0.5				
SL-016-SA5A-SS-0.0-0.5				
SL-017-SA5A-SS-0.0-0.5				
SL-018-SA5A-SS-0.0-0.5				
SL-019-SA5A-SS-0.0-0.5)				

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-004-SA5A-SS-0.0-0.5DUP	HEXAVALENT CHROMIUM	23	20.00	
(DUP-04-SA5A-QC-022311				
SL-001-SA5A-SS-0.0-0.5				
SL-002-SA5A-SS-0.0-0.5				
SL-004-SA5A-SS-0.0-0.5				
SL-006-SA5A-SS-0.0-0.5				
SL-009-SA5A-SS-0.0-0.5				No Qual
SL-010-SA5A-SS-0.0-0.5				OK by difference
SL-012-SA5A-SS-0.0-0.5				
SL-013-SA5A-SS-0.0-0.5				
SL-016-SA5A-SS-0.0-0.5				
SL-017-SA5A-SS-0.0-0.5				
SL-018-SA5A-SS-0.0-0.5				
SL-019-SA5A-SS-0.0-0.5)				

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P6WELCSQ261942 P6WELCSY262014 (EB01-SA5A-022311)	Dimethylphthalate	15	16	40.00-119.00	-	Dimethylphthalate	J (all detects) UJ (all non-detects)

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P7WALCSQ260142 P7WALCSY260208 (EB01-SA5A-022311)	BENZYL ALCOHOL BIS(2-CHLOROETHYL) ETHER	63 74	- 76	66.00-97.00 77.00-108.00	- -	BENZYL ALCOHOL BIS(2-CHLOROETHYL) ETHER	J(all detects) UJ(all non-detects)

Method: 8151A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10601AQ241922A (DUP-04-SA5A-QC-022311 SL-001-SA5A-SS-0.0-0.5 SL-002-SA5A-SS-0.0-0.5 SL-004-SA5A-SS-0.0-0.5 SL-006-SA5A-SS-0.0-0.5 SL-009-SA5A-SS-0.0-0.5 SL-010-SA5A-SS-0.0-0.5 SL-012-SA5A-SS-0.0-0.5 SL-013-SA5A-SS-0.0-0.5 SL-016-SA5A-SS-0.0-0.5 SL-017-SA5A-SS-0.0-0.5 SL-018-SA5A-SS-0.0-0.5 SL-019-SA5A-SS-0.0-0.5)	DINOSEB	8	-	10.00-36.00	-	DINOSEB	J(all detects) R(all non-detects)
P10601AQ241922A (DUP-04-SA5A-QC-022311 SL-001-SA5A-SS-0.0-0.5 SL-002-SA5A-SS-0.0-0.5 SL-004-SA5A-SS-0.0-0.5 SL-006-SA5A-SS-0.0-0.5 SL-009-SA5A-SS-0.0-0.5 SL-010-SA5A-SS-0.0-0.5 SL-012-SA5A-SS-0.0-0.5 SL-013-SA5A-SS-0.0-0.5 SL-016-SA5A-SS-0.0-0.5 SL-017-SA5A-SS-0.0-0.5 SL-018-SA5A-SS-0.0-0.5 SL-019-SA5A-SS-0.0-0.5)	2,4,5-T	72	-	73.00-143.00	-	2,4,5-T	J(all detects) UJ(all non-detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8081A
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DUP-04-SA5A-QC-022311	TETRACHLORO-M-XYLENE	22	50.00-130.00	All Target Analytes	J (all detects) UJ (all non-detects)
SL-001-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	134	20.00-120.00	All Target Analytes	J(all detects)
SL-002-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	288	20.00-120.00	All Target Analytes	J(all detects)
SL-004-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	124	20.00-120.00	All Target Analytes	J(all detects)
SL-009-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	147	20.00-120.00	All Target Analytes	J(all detects)
SL-018-SA5A-SS-0.0-0.5	TETRACHLORO-M-XYLENE	43	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DUP-04-SA5A-QC-022311	DECACHLOROBIPHENYL	463	45.00-120.00	All Target Analytes	No Qual, Diluted Out

Method: 8082
Matrix: AQ

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
EB01-SA5A-022311	DECACHLOROBIPHENYL	41	45.00-120.00	All Target Analytes	J(all detects) UJ(all non-detects)

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-001-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	161	45.00-120.00	All Target Analytes	J(all detects)
SL-002-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	171	45.00-120.00	All Target Analytes	J(all detects)
SL-004-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	127	45.00-120.00	All Target Analytes	J(all detects)
SL-006-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	133	45.00-120.00	All Target Analytes	J(all detects)
SL-009-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	455	45.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-012-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	198	45.00-120.00	All Target Analytes	J(all detects)
SL-018-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	197	45.00-120.00	All Target Analytes	J(all detects)
SL-018-SA5A-SS-0.0-0.5	TETRACHLORO-M-XYLENE	52	53.00-139.00	All Target Analytes	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Surrogate Outlier Report

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8082**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-019-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	162	45.00-120.00	All Target Analytes	J(all detects)

Method: **8270C SIM**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-019-SA5A-SS-0.0-0.5	Terphenyl-d14	174	45.00-135.00	No Affected Compounds	J(all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-004-SA5A-SS-0.0-0.5	DUP-04-SA5A-QC-022311			
MOISTURE	10.6	9.7	9		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-004-SA5A-SS-0.0-0.5	DUP-04-SA5A-QC-022311			
FLUORIDE	1.0	1.2	18	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-004-SA5A-SS-0.0-0.5	DUP-04-SA5A-QC-022311			
ALUMINUM	14700	14100	4	50.00	No Qualifiers Applied
BORON	3.61	3.26	10	50.00	
CALCIUM	3370	3280	3	50.00	
IRON	21300	19600	8	50.00	
LITHIUM	24.3	22.5	8	50.00	
MAGNESIUM	4690	4410	6	50.00	
MANGANESE	325	282	14	50.00	
PHOSPHORUS	460	389	17	50.00	
POTASSIUM	3280	3130	5	50.00	
SODIUM	91.4	86.1	6	50.00	
STRONTIUM	19.1	17.4	9	50.00	
TIN	2.96	2.79	6	50.00	
TITANIUM	1240	1190	4	50.00	
Zirconium	1.96	2.36	19	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-004-SA5A-SS-0.0-0.5	DUP-04-SA5A-QC-022311			
ANTIMONY	0.178	0.133	29	50.00	No Qualifiers Applied
ARSENIC	4.15	3.88	7	50.00	
BARIUM	109	99.6	9	50.00	
BERYLLIUM	0.549	0.499	10	50.00	
CADMIUM	0.217	0.204	6	50.00	
CHROMIUM	17.0	15.9	7	50.00	
COBALT	5.10	5.15	1	50.00	
COPPER	7.78	7.36	6	50.00	
LEAD	7.09	8.66	20	50.00	
MOLYBDENUM	0.397	0.408	3	50.00	
NICKEL	10.8	9.57	12	50.00	
SELENIUM	0.0750	0.107	35	50.00	
SILVER	0.0318	0.0302	5	50.00	
THALLIUM	0.255	0.237	7	50.00	
VANADIUM	33.0	27.7	17	50.00	
ZINC	86.1	82.8	4	50.00	

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg) SL-004-SA5A-SS-0.0-0.5	Concentration (mg/Kg) DUP-04-SA5A-QC-022311	Sample RPD	eQAPP RPD	Flag
HEXAVALENT CHROMIUM	0.33	0.31	6	50.00	No Qualifiers Applied

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg) SL-004-SA5A-SS-0.0-0.5	Concentration (mg/Kg) DUP-04-SA5A-QC-022311	Sample RPD	eQAPP RPD	Flag
MERCURY	0.0398	0.0379	5	50.00	No Qualifiers Applied

Method: 8081A
Matrix: SO

Analyte	Concentration (ug/Kg) SL-004-SA5A-SS-0.0-0.5	Concentration (ug/Kg) DUP-04-SA5A-QC-022311	Sample RPD	eQAPP RPD	Flag
4,4'-DDT	1.5	0.61 U	200	50.00	J(all detects)
gamma-BHC (Lindane)	0.052	0.18 U	200	50.00	UJ(all non-detects)

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg) SL-004-SA5A-SS-0.0-0.5	Concentration (ug/Kg) DUP-04-SA5A-QC-022311	Sample RPD	eQAPP RPD	Flag
AROCLOR 1254	12	45	116	50.00	J(all detects)
Aroclor 1268	7.8	47	143	50.00	
Aroclor 5460	8.2	51	145	50.00	

Method: 8151A
Matrix: SO

Analyte	Concentration (ug/Kg) SL-004-SA5A-SS-0.0-0.5	Concentration (ug/Kg) DUP-04-SA5A-QC-022311	Sample RPD	eQAPP RPD	Flag
MCPA	280 U	260	200	50.00	J(all detects) UJ(all non-detects)

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg) SL-004-SA5A-SS-0.0-0.5	Concentration (ug/Kg) DUP-04-SA5A-QC-022311	Sample RPD	eQAPP RPD	Flag
BENZO(A)ANTHRACENE	1.5	1.9	24	50.00	No Qualifiers Applied
BIS(2-ETHYLHEXYL)PHTHALATE	21	30	35	50.00	
FLUORANTHENE	1.7	1.3	27	50.00	
PYRENE	1.7	1.9	11	50.00	

Field Duplicate RPD Report

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM
Matrix: SO

BENZO(A)PYRENE	3.3	7.5	78	50.00	J(all detects) UJ(all non-detects)
BENZO(B)FLUORANTHENE	2.6	6.5	86	50.00	
BENZO(G,H,I)PERYLENE	2.6	5.0	63	50.00	
BENZO(K)FLUORANTHENE	1.4	1.8 U	200	50.00	
CHRYSENE	2.6	4.6	56	50.00	
DIBENZO(A,H)ANTHRACENE	1.8 U	1.9	200	50.00	
Di-n-octylphthalate	20 U	23	200	50.00	
INDENO(1,2,3-CD)PYRENE	1.0	2.5	86	50.00	
PHENANTHRENE	0.98	1.8 U	200	50.00	

Method: 9045M
Matrix: SO

Analyte	*Concentration (pH unit)*		*Sample RPD*	*eQAPP RPD*	*Flag*
	SL-004-SA5A-SS-0.0-0.5	DUP-04-SA5A-QC-022311			
PH	7.95	8.04	1	50.00	No Qualifiers Applied

Method: ASTM D1498
Matrix: SO

Analyte	*Concentration (mV)*		*Sample RPD*	*eQAPP RPD*	*Flag*
	SL-004-SA5A-SS-0.0-0.5	DUP-04-SA5A-QC-022311			
Oxidation Reduction Potential	293	380	26		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB01-SA5A-022311	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.52	1.0	PQL	ug/L	J (all detects)
	Butylbenzylphthalate	J	0.23	1.0	PQL	ug/L	
	Diethylphthalate	J	0.079	1.0	PQL	ug/L	
	Di-n-butylphthalate	J	0.48	1.0	PQL	ug/L	
	Di-n-octylphthalate	J	0.22	1.0	PQL	ug/L	
	NAPHTHALENE	J	0.029	0.052	PQL	ug/L	

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-004-SA5A-SS-0.0-0.5	FLUORIDE	J	1.0	1.1	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-04-SA5A-QC-022311	BORON	J	3.26	5.32	PQL	mg/Kg	J (all detects)
	SODIUM	J	86.1	106	PQL	mg/Kg	
	TIN	J	2.79	10.6	PQL	mg/Kg	
	Zirconium	J	2.36	5.32	PQL	mg/Kg	
SL-001-SA5A-SS-0.0-0.5	BORON	J	2.96	5.43	PQL	mg/Kg	J (all detects)
	SODIUM	J	81.6	109	PQL	mg/Kg	
	TIN	J	2.89	10.9	PQL	mg/Kg	
	Zirconium	J	2.05	5.43	PQL	mg/Kg	
SL-002-SA5A-SS-0.0-0.5	BORON	J	2.97	5.35	PQL	mg/Kg	J (all detects)
	TIN	J	2.85	10.7	PQL	mg/Kg	
	Zirconium	J	1.41	5.35	PQL	mg/Kg	
SL-004-SA5A-SS-0.0-0.5	BORON	J	3.61	5.48	PQL	mg/Kg	J (all detects)
	SODIUM	J	91.4	110	PQL	mg/Kg	
	TIN	J	2.96	11.0	PQL	mg/Kg	
	Zirconium	J	1.96	5.48	PQL	mg/Kg	
SL-006-SA5A-SS-0.0-0.5	BORON	J	3.28	5.49	PQL	mg/Kg	J (all detects)
	TIN	J	3.05	11.0	PQL	mg/Kg	
	Zirconium	J	1.80	5.49	PQL	mg/Kg	
SL-009-SA5A-SS-0.0-0.5	BORON	J	3.41	5.52	PQL	mg/Kg	J (all detects)
	SODIUM	J	80.1	110	PQL	mg/Kg	
	TIN	J	3.04	11.0	PQL	mg/Kg	
	Zirconium	J	2.79	5.52	PQL	mg/Kg	
SL-010-SA5A-SS-0.0-0.5	BORON	J	3.09	5.32	PQL	mg/Kg	J (all detects)
	SODIUM	J	80.0	106	PQL	mg/Kg	
	TIN	J	3.16	10.6	PQL	mg/Kg	
	Zirconium	J	2.02	5.32	PQL	mg/Kg	
SL-012-SA5A-SS-0.0-0.5	TIN	J	3.35	11.8	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.42	5.88	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-013-SA5A-SS-0.0-0.5	BORON	J	3.52	5.62	PQL	mg/Kg	J (all detects)
	TIN	J	3.13	11.2	PQL	mg/Kg	
	Zirconium	J	2.27	5.62	PQL	mg/Kg	
SL-016-SA5A-SS-0.0-0.5	BORON	J	2.46	5.62	PQL	mg/Kg	J (all detects)
	SODIUM	J	81.7	112	PQL	mg/Kg	
	TIN	J	3.68	11.2	PQL	mg/Kg	
	Zirconium	J	2.32	5.62	PQL	mg/Kg	
SL-017-SA5A-SS-0.0-0.5	BORON	J	2.52	5.49	PQL	mg/Kg	J (all detects)
	SODIUM	J	77.2	110	PQL	mg/Kg	
	TIN	J	3.09	11.0	PQL	mg/Kg	
	Zirconium	J	2.00	5.49	PQL	mg/Kg	
SL-018-SA5A-SS-0.0-0.5	BORON	J	3.51	5.45	PQL	mg/Kg	J (all detects)
	SODIUM	J	80.8	109	PQL	mg/Kg	
	TIN	J	2.96	10.9	PQL	mg/Kg	
	Zirconium	J	1.97	5.45	PQL	mg/Kg	
SL-019-SA5A-SS-0.0-0.5	BORON	J	3.74	6.02	PQL	mg/Kg	J (all detects)
	SODIUM	J	88.3	120	PQL	mg/Kg	
	TIN	J	3.31	12.0	PQL	mg/Kg	
	Zirconium	J	2.01	6.02	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-04-SA5A-QC-022311	ANTIMONY	J	0.133	0.217	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.107	0.434	PQL	mg/Kg	
	SILVER	J	0.0302	0.109	PQL	mg/Kg	
SL-001-SA5A-SS-0.0-0.5	SELENIUM	J	0.102	0.439	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0393	0.110	PQL	mg/Kg	
SL-002-SA5A-SS-0.0-0.5	ANTIMONY	J	0.141	0.218	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0561	0.437	PQL	mg/Kg	
	SILVER	J	0.0212	0.109	PQL	mg/Kg	
SL-004-SA5A-SS-0.0-0.5	ANTIMONY	J	0.178	0.221	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0750	0.443	PQL	mg/Kg	
	SILVER	J	0.0318	0.111	PQL	mg/Kg	
SL-006-SA5A-SS-0.0-0.5	ANTIMONY	J	0.154	0.224	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0557	0.448	PQL	mg/Kg	
	SILVER	J	0.0430	0.112	PQL	mg/Kg	
SL-009-SA5A-SS-0.0-0.5	SELENIUM	J	0.0853	0.437	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0368	0.109	PQL	mg/Kg	
SL-010-SA5A-SS-0.0-0.5	ANTIMONY	J	0.195	0.217	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0768	0.434	PQL	mg/Kg	
	SILVER	J	0.0181	0.108	PQL	mg/Kg	
SL-012-SA5A-SS-0.0-0.5	ANTIMONY	J	0.208	0.231	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.110	0.461	PQL	mg/Kg	
	SILVER	J	0.0404	0.115	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-013-SA5A-SS-0.0-0.5	ANTIMONY	J	0.122	0.221	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0544	0.441	PQL	mg/Kg	
	SILVER	J	0.0395	0.110	PQL	mg/Kg	
SL-016-SA5A-SS-0.0-0.5	ANTIMONY	J	0.139	0.225	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.125	0.450	PQL	mg/Kg	
	SILVER	J	0.0548	0.112	PQL	mg/Kg	
SL-017-SA5A-SS-0.0-0.5	ANTIMONY	J	0.135	0.213	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0919	0.427	PQL	mg/Kg	
	SILVER	J	0.0251	0.107	PQL	mg/Kg	
SL-018-SA5A-SS-0.0-0.5	ANTIMONY	J	0.183	0.216	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0661	0.432	PQL	mg/Kg	
	SILVER	J	0.0342	0.108	PQL	mg/Kg	
SL-019-SA5A-SS-0.0-0.5	ANTIMONY	J	0.172	0.243	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0832	0.486	PQL	mg/Kg	
	SILVER	J	0.0512	0.122	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-04-SA5A-QC-022311	HEXAVALENT CHROMIUM	J	0.31	1.1	PQL	mg/Kg	J (all detects)
SL-001-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.32	1.1	PQL	mg/Kg	J (all detects)
SL-002-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.72	1.1	PQL	mg/Kg	J (all detects)
SL-004-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.33	1.1	PQL	mg/Kg	J (all detects)
SL-006-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.36	1.1	PQL	mg/Kg	J (all detects)
SL-009-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.86	1.1	PQL	mg/Kg	J (all detects)
SL-010-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.31	1.1	PQL	mg/Kg	J (all detects)
SL-012-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.47	1.2	PQL	mg/Kg	J (all detects)
SL-013-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.35	1.1	PQL	mg/Kg	J (all detects)
SL-016-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.47	1.1	PQL	mg/Kg	J (all detects)
SL-017-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.44	1.1	PQL	mg/Kg	J (all detects)
SL-018-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.34	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-04-SA5A-QC-022311	MERCURY	J	0.0379	0.105	PQL	mg/Kg	J (all detects)
SL-001-SA5A-SS-0.0-0.5	MERCURY	J	0.0302	0.107	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-002-SA5A-SS-0.0-0.5	MERCURY	J	0.0642	0.109	PQL	mg/Kg	J (all detects)
SL-004-SA5A-SS-0.0-0.5	MERCURY	J	0.0398	0.107	PQL	mg/Kg	J (all detects)
SL-017-SA5A-SS-0.0-0.5	MERCURY	J	0.0210	0.108	PQL	mg/Kg	J (all detects)
SL-018-SA5A-SS-0.0-0.5	MERCURY	J	0.0235	0.109	PQL	mg/Kg	J (all detects)
SL-019-SA5A-SS-0.0-0.5	MERCURY	J	0.0164	0.123	PQL	mg/Kg	J (all detects)

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-004-SA5A-SS-0.0-0.5	gamma-BHC (Lindane)	J	0.052	0.18	PQL	ug/Kg	J (all detects)
SL-006-SA5A-SS-0.0-0.5	4,4'-DDE DIELDRIN ENDOSULFAN II	J J J	0.095 0.19 0.074	0.38 0.38 0.38	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-009-SA5A-SS-0.0-0.5	4,4'-DDE gamma-BHC (Lindane)	J J	0.11 0.096	0.38 0.19	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-010-SA5A-SS-0.0-0.5	ENDRIN KETONE	J	0.29	0.38	PQL	ug/Kg	J (all detects)
SL-012-SA5A-SS-0.0-0.5	4,4'-DDT ENDOSULFAN SULFATE ENDRIN ALDEHYDE	J J J	0.094 0.14 0.084	0.40 0.40 0.40	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-013-SA5A-SS-0.0-0.5	4,4'-DDT	J	0.082	0.38	PQL	ug/Kg	J (all detects)
SL-016-SA5A-SS-0.0-0.5	4,4'-DDD 4,4'-DDT	J J	0.087 0.14	0.38 0.38	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-019-SA5A-SS-0.0-0.5	DELTA-BHC	J	0.046	0.21	PQL	ug/Kg	J (all detects)

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-04-SA5A-QC-022311	MCPA	J	260	280	PQL	ug/Kg	J (all detects)
SL-006-SA5A-SS-0.0-0.5	MCPP	J	270	280	PQL	ug/Kg	J (all detects)
SL-009-SA5A-SS-0.0-0.5	2,4,5-TP (Silvex) MCPA	J J	0.12 140	0.19 280	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-016-SA5A-SS-0.0-0.5	2,4,5-TP (Silvex) MCPP	J J	0.12 140	0.19 280	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-019-SA5A-SS-0.0-0.5	MCPA	J	170	310	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE090 **Laboratory: LL**

EDD Filename: DE090_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-016-SA5A-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	41	190	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	41	380	PQL	ug/Kg	
	CHRYSENE	J	41	190	PQL	ug/Kg	
	FLUORANTHENE	J	33	190	PQL	ug/Kg	
	PYRENE	J	27	190	PQL	ug/Kg	
SL-017-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	19	180	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	21	180	PQL	ug/Kg	
	FLUORANTHENE	J	19	180	PQL	ug/Kg	
	PYRENE	J	19	180	PQL	ug/Kg	
SL-019-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	42	210	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	41	210	PQL	ug/Kg	
	FLUORANTHENE	J	54	210	PQL	ug/Kg	
	PHENANTHRENE	J	29	210	PQL	ug/Kg	
	PYRENE	J	41	210	PQL	ug/Kg	

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-04-SA5A-QC-022311	FLUORANTHENE	J	1.3	1.8	PQL	ug/Kg	J (all detects)
SL-002-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	15	20	PQL	ug/Kg	J (all detects)
SL-004-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.5	1.8	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	1.4	1.8	PQL	ug/Kg	
	FLUORANTHENE	J	1.7	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.0	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	0.98	1.8	PQL	ug/Kg	
	PYRENE	J	1.7	1.8	PQL	ug/Kg	
SL-006-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	14	20	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.53	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	0.89	1.9	PQL	ug/Kg	
SL-009-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.4	1.8	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	0.97	1.8	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	15	20	PQL	ug/Kg	
	FLUORANTHENE	J	1.6	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.8	PQL	ug/Kg	
SL-012-SA5A-SS-0.0-0.5	BENZO(A)PYRENE	J	5.9	9.8	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	8.6	9.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	9.1	9.8	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	46	110	PQL	ug/Kg	
	CHRYSENE	J	6.1	9.8	PQL	ug/Kg	
SL-013-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	12	20	PQL	ug/Kg	J (all detects)
SL-016-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	0.73	1.9	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	1.5	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	0.95	1.9	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE090 Laboratory: LL

EDD Filename: DE090_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-017-SA5A-SS-0.0-0.5	ANTHRACENE	J	0.39	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.7	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.2	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.96	1.8	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	14	20	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.78	1.8	PQL	ug/Kg	
SL-018-SA5A-SS-0.0-0.5	ANTHRACENE	J	0.70	1.8	PQL	ug/Kg	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	1.4	1.8	PQL	ug/Kg	
SL-019-SA5A-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.92	2.1	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.0	2.1	PQL	ug/Kg	
	ACENAPHTHYLENE	J	1.1	2.1	PQL	ug/Kg	
	ANTHRACENE	J	1.4	2.1	PQL	ug/Kg	
	NAPHTHALENE	J	1.2	2.1	PQL	ug/Kg	

LDC #: 25911B4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-11

SDG #: DE090 ADR

Laboratory: Lancaster Laboratories

Reviewer: CR

2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets. .

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ba, Ca, Fe, Mg, Mn, P, Ti, Zn >4X)
VII.	Duplicate Sample Analysis	N	DUP (Se, Ag < 5xRL)
VIII.	Laboratory Control Samples (LCS)	A	LCS/D
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	J/UJ/A (Ba, Cr, Co, Cu, Pb, Zn)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	ND	EB=14

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	DUP-04-SA5A-QC-022311	11	SL-017-SA5A-SS-0.0-0.5	21		31	
2	SL-001-SA5A-SS-0.0-0.5	12	SL-018-SA5A-SS-0.0-0.5	22		32	
3	SL-002-SA5A-SS-0.0-0.5	13	SL-019-SA5A-SS-0.0-0.5	23		33	
4	SL-004-SA5A-SS-0.0-0.5	14	EB01-SA5A-022311	24		34	
5	SL-006-SA5A-SS-0.0-0.5	15	SL-004-SA5A-SS-0.0-0.5MS	25		35	
6	SL-009-SA5A-SS-0.0-0.5	16	SL-004-SA5A-SS-0.0-0.5MSD	26		36	
7	SL-010-SA5A-SS-0.0-0.5	17	SL-004-SA5A-SS-0.0-0.5DUP	27		37	
8	SL-012-SA5A-SS-0.0-0.5	18		28		38	
9	SL-013-SA5A-SS-0.0-0.5	19		29		39	
10	SL-016-SA5A-SS-0.0-0.5	20		30		40	

Notes: _____

LDC #: 25911B4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Reviewer: CR
2nd Reviewer:

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x x MS: 2xdil
Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 11-13

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	12	13								
Cd			0.31	0.31	0.27	0.26								

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 2, 3, 5-10

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	5	7	9							
Cd			0.25	0.25	0.16	0.14	0.19							

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE090
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6214520BKG Serial Dilution Lab Sample ID: 6214520L
Batch ID(s): P06208B, P06226A, P06826A
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		134464.1900		144587.7500		8		P
Antimony	121	0.8055	B	1.5000	U	100		MS
Arsenic	75	18.7500		20.5900		10		MS
Barium	137	490.7000		555.0000		13	E	MS
Beryllium	9	2.4770		2.8460		15		MS
Boron		32.8800	B	70.2500	B	114		P
Cadmium	111	0.9819		1.4700	B	50		MS
Calcium		30720.4800		31288.4500		2		P
Chromium	52	76.7300		87.7500		14	E	MS
Cobalt	59	23.0100		25.5000		11	E	MS
Copper	63	35.4900		40.9050		15	E	MS
Iron		194608.0300		209157.0500		7		P
Lead	208	32.0200		36.4850		14	E	MS
Lithium		221.6300		203.0000		8		P
Magnesium		42793.4800		43887.7000		3		P
Manganese		2960.3100		3266.0500		10		P
Molybdenum	98	1.7940		2.1830	B	22		MS
Nickel	60	48.8900		58.8500		20		MS
Phosphorus		4197.5400		4164.7500		1		P
Potassium		29864.4400		29604.1000		1		P
Selenium	78	0.3388	B	1.0000	U	100		MS
Silver	107	0.1436	B	0.3015	B	110		MS
Sodium		833.4100	B	2042.2000	B	145		P
Strontium		174.3000		192.2500		10		P
Thallium	203	1.1490		1.3480	B	17		MS
Tin		27.0300	B	50.0000	U	100		P
Titanium		11310.9300		11651.1500		3		P
Vanadium	51	150.5000		165.8000		10		MS
Zinc	66	388.9000		431.5500		11	E	MS
Zirconium		17.8900	B	42.0000	U	100		P

NOTE: An E in column Q indicates the presence of a chemical or physical interference in the matrix when the % difference is greater than 10%. This applies only when (I) is greater than or equal to 50x MDL for ICP, 100x MDL for ICP-MS (6020), 50x MDL for ICP-MS (200.8), or 25x MDL for GFAA.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ
FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

SAMPLE DELIVERY GROUP

DE091

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5	6216199	N	3050B	6010B	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5	6216199	N	3050B	6020	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5	6216199	N	3060A	7199	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5	6216199	N	3550B	8081A	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5	6216199	N	3550B	8082	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5	6216199	N	3550B	8151A	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5	6216199	N	3550B	8270C	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5	6216199	N	3550B	8270C SIM	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5	6216199	N	Gen Prep	9045M	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5	6216199	N	METHOD	300.0	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5	6216199	N	METHOD	314.0	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5	6216199	N	METHOD	7471A	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5DUP	P216199D220235A	DUP	3050B	6020	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5DUP	P216199D220235C	DUP	3050B	6020	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5DUP	P216199D220235D	DUP	3050B	6020	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5DUP	P216199D221117	DUP	3050B	6010B	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5DUP	P216199D221315A	DUP	3050B	6020	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5DUP	P216199D221411B	DUP	3050B	6020	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5DUP	P216199D272103A	DUP	METHOD	300.0	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5DUP	P216199D291120A	DUP	Gen Prep	9045M	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MSD	P216199M220239A	MSD	3050B	6020	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MSD	P216199M220239C	MSD	3050B	6020	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MSD	P216199M220239D	MSD	3050B	6020	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MSD	P216199M221009A	MSD	3050B	6020	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MSD	P216199M221125	MSD	3050B	6010B	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MSD	P216199M221417B	MSD	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MSD	P216199M240450A	MSD	3550B	8081A	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MSD	P216199M240746A	MSD	3550B	8082	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MSD	P216199M242222A	MSD	3550B	8151A	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MSD	P216199M260738	MSD	3550B	8270C	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MS	P216199R220237A	MS	3050B	6020	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MS	P216199R220237C	MS	3050B	6020	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MS	P216199R220237D	MS	3050B	6020	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MS	P216199R221008A	MS	3050B	6020	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MS	P216199R221121	MS	3050B	6010B	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MS	P216199R221414B	MS	3050B	6020	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MS	P216199R240435A	MS	3550B	8081A	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MS	P216199R240727A	MS	3550B	8082	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MS	P216199R242155A	MS	3550B	8151A	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MS	P216199R260713	MS	3550B	8270C	III
24-Feb-2011	SL-007-SA5A-SS-0.0-0.5MS	P216199R272117A	MS	METHOD	300.0	III
24-Feb-2011	SL-008-SA5A-SS-0.0-0.5	6216200	N	3050B	6010B	III
24-Feb-2011	SL-008-SA5A-SS-0.0-0.5	6216200	N	3050B	6020	III
24-Feb-2011	SL-008-SA5A-SS-0.0-0.5	6216200	N	3060A	7199	III
24-Feb-2011	SL-008-SA5A-SS-0.0-0.5	6216200	N	3550B	8081A	III
24-Feb-2011	SL-008-SA5A-SS-0.0-0.5	6216200	N	3550B	8082	III
24-Feb-2011	SL-008-SA5A-SS-0.0-0.5	6216200	N	3550B	8151A	III
24-Feb-2011	SL-008-SA5A-SS-0.0-0.5	6216200	N	3550B	8270C	III
24-Feb-2011	SL-008-SA5A-SS-0.0-0.5	6216200	N	3550B	8270C SIM	III
24-Feb-2011	SL-008-SA5A-SS-0.0-0.5	6216200	N	Gen Prep	9045M	III
24-Feb-2011	SL-008-SA5A-SS-0.0-0.5	6216200	N	METHOD	300.0	III
24-Feb-2011	SL-008-SA5A-SS-0.0-0.5	6216200	N	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Feb-2011	SL-008-SA5A-SS-0.0-0.5	6216200	N	METHOD	6850	III
24-Feb-2011	SL-008-SA5A-SS-0.0-0.5	6216200	N	METHOD	7471A	III
24-Feb-2011	SL-233-SA5A-SS-0.0-0.5	6216209	N	3050B	6010B	III
24-Feb-2011	SL-233-SA5A-SS-0.0-0.5	6216209	N	3050B	6020	III
24-Feb-2011	SL-233-SA5A-SS-0.0-0.5	6216209	N	3060A	7199	III
24-Feb-2011	SL-233-SA5A-SS-0.0-0.5	6216209	N	3550B	8081A	III
24-Feb-2011	SL-233-SA5A-SS-0.0-0.5	6216209	N	3550B	8082	III
24-Feb-2011	SL-233-SA5A-SS-0.0-0.5	6216209	N	3550B	8151A	III
24-Feb-2011	SL-233-SA5A-SS-0.0-0.5	6216209	N	3550B	8270C	III
24-Feb-2011	SL-233-SA5A-SS-0.0-0.5	6216209	N	3550B	8270C SIM	III
24-Feb-2011	SL-233-SA5A-SS-0.0-0.5	6216209	N	Gen Prep	9045M	III
24-Feb-2011	SL-233-SA5A-SS-0.0-0.5	6216209	N	METHOD	300.0	III
24-Feb-2011	SL-233-SA5A-SS-0.0-0.5	6216209	N	METHOD	314.0	III
24-Feb-2011	SL-233-SA5A-SS-0.0-0.5	6216209	N	METHOD	7471A	III
24-Feb-2011	SL-233-SA5A-SS-0.0-0.5DUP	P216209D270021B	DUP	METHOD	300.0	III
24-Feb-2011	SL-233-SA5A-SS-0.0-0.5MS	P216209R270036B	MS	METHOD	300.0	III
24-Feb-2011	SL-021-SA5A-SB-3.0-4.0	6216212	N	3050B	6010B	III
24-Feb-2011	SL-021-SA5A-SB-3.0-4.0	6216212	N	3050B	6020	III
24-Feb-2011	SL-021-SA5A-SB-3.0-4.0	6216212	N	3060A	7199	III
24-Feb-2011	SL-021-SA5A-SB-3.0-4.0	6216212	N	3550B	8082	III
24-Feb-2011	SL-021-SA5A-SB-3.0-4.0	6216212	N	3550B	8270C	III
24-Feb-2011	SL-021-SA5A-SB-3.0-4.0	6216212	N	3550B	8270C SIM	III
24-Feb-2011	SL-021-SA5A-SB-3.0-4.0	6216212	N	5035	8260B	III
24-Feb-2011	SL-021-SA5A-SB-3.0-4.0	6216212	N	5035	8260B SIM	III
24-Feb-2011	SL-021-SA5A-SB-3.0-4.0	6216212	N	Gen Prep	9045M	III
24-Feb-2011	SL-021-SA5A-SB-3.0-4.0	6216212	N	METHOD	300.0	III

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Feb-2011	SL-021-SA5A-SB-3.0-4.0	6216212	N	METHOD	314.0	III
24-Feb-2011	SL-021-SA5A-SB-3.0-4.0	6216212	N	METHOD	7471A	III
24-Feb-2011	SL-122-SA5A-SS-0.0-0.5	6216216	N	3050B	6010B	III
24-Feb-2011	SL-122-SA5A-SS-0.0-0.5	6216216	N	3050B	6020	III
24-Feb-2011	SL-122-SA5A-SS-0.0-0.5	6216216	N	3060A	7199	III
24-Feb-2011	SL-122-SA5A-SS-0.0-0.5	6216216	N	3550B	8081A	III
24-Feb-2011	SL-122-SA5A-SS-0.0-0.5	6216216	N	3550B	8082	III
24-Feb-2011	SL-122-SA5A-SS-0.0-0.5	6216216	N	3550B	8151A	III
24-Feb-2011	SL-122-SA5A-SS-0.0-0.5	6216216	N	3550B	8270C	III
24-Feb-2011	SL-122-SA5A-SS-0.0-0.5	6216216	N	3550B	8270C SIM	III
24-Feb-2011	SL-122-SA5A-SS-0.0-0.5	6216216	N	Gen Prep	9045M	III
24-Feb-2011	SL-122-SA5A-SS-0.0-0.5	6216216	N	METHOD	300.0	III
24-Feb-2011	SL-122-SA5A-SS-0.0-0.5	6216216	N	METHOD	314.0	III
24-Feb-2011	SL-122-SA5A-SS-0.0-0.5	6216216	N	METHOD	7471A	III
24-Feb-2011	SL-122-SA5A-SS-0.0-0.5DUP	P216216D272105A	DUP	3060A	7199	III
24-Feb-2011	SL-122-SA5A-SS-0.0-0.5MS	P216216R272028A	MS	3060A	7199	III
24-Feb-2011	SL-121-SA5A-SS-0.0-0.5	6216204	N	3050B	6010B	III
24-Feb-2011	SL-121-SA5A-SS-0.0-0.5	6216204	N	3050B	6020	III
24-Feb-2011	SL-121-SA5A-SS-0.0-0.5	6216204	N	3060A	7199	III
24-Feb-2011	SL-121-SA5A-SS-0.0-0.5	6216204	N	3550B	8081A	III
24-Feb-2011	SL-121-SA5A-SS-0.0-0.5	6216204	N	3550B	8082	III
24-Feb-2011	SL-121-SA5A-SS-0.0-0.5	6216204	N	3550B	8151A	III
24-Feb-2011	SL-121-SA5A-SS-0.0-0.5	6216204	N	3550B	8270C	III
24-Feb-2011	SL-121-SA5A-SS-0.0-0.5	6216204	N	3550B	8270C SIM	III
24-Feb-2011	SL-121-SA5A-SS-0.0-0.5	6216204	N	Gen Prep	9045M	III
24-Feb-2011	SL-121-SA5A-SS-0.0-0.5	6216204	N	METHOD	300.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Feb-2011	SL-121-SA5A-SS-0.0-0.5	6216204	N	METHOD	314.0	III
24-Feb-2011	SL-121-SA5A-SS-0.0-0.5	6216204	N	METHOD	6850	III
24-Feb-2011	SL-121-SA5A-SS-0.0-0.5	6216204	N	METHOD	7471A	III
24-Feb-2011	SL-250-SA5A-SS-0.0-0.5	6216210	N	3050B	6010B	III
24-Feb-2011	SL-250-SA5A-SS-0.0-0.5	6216210	N	3050B	6020	III
24-Feb-2011	SL-250-SA5A-SS-0.0-0.5	6216210	N	3060A	7199	III
24-Feb-2011	SL-250-SA5A-SS-0.0-0.5	6216210	N	3550B	8081A	III
24-Feb-2011	SL-250-SA5A-SS-0.0-0.5	6216210	N	3550B	8082	III
24-Feb-2011	SL-250-SA5A-SS-0.0-0.5	6216210	N	3550B	8151A	III
24-Feb-2011	SL-250-SA5A-SS-0.0-0.5	6216210	N	3550B	8270C	III
24-Feb-2011	SL-250-SA5A-SS-0.0-0.5	6216210	N	3550B	8270C SIM	III
24-Feb-2011	SL-250-SA5A-SS-0.0-0.5	6216210	N	Gen Prep	9045M	III
24-Feb-2011	SL-250-SA5A-SS-0.0-0.5	6216210	N	METHOD	300.0	III
24-Feb-2011	SL-250-SA5A-SS-0.0-0.5	6216210	N	METHOD	314.0	III
24-Feb-2011	SL-250-SA5A-SS-0.0-0.5	6216210	N	METHOD	7471A	III
24-Feb-2011	SL-119-SA5A-SS-0.0-0.5	6216202	N	3050B	6010B	III
24-Feb-2011	SL-119-SA5A-SS-0.0-0.5	6216202	N	3050B	6020	III
24-Feb-2011	SL-119-SA5A-SS-0.0-0.5	6216202	N	3060A	7199	III
24-Feb-2011	SL-119-SA5A-SS-0.0-0.5	6216202	N	3550B	8081A	III
24-Feb-2011	SL-119-SA5A-SS-0.0-0.5	6216202	N	3550B	8082	III
24-Feb-2011	SL-119-SA5A-SS-0.0-0.5	6216202	N	3550B	8151A	III
24-Feb-2011	SL-119-SA5A-SS-0.0-0.5	6216202	N	3550B	8270C	III
24-Feb-2011	SL-119-SA5A-SS-0.0-0.5	6216202	N	3550B	8270C SIM	III
24-Feb-2011	SL-119-SA5A-SS-0.0-0.5	6216202	N	Gen Prep	9045M	III
24-Feb-2011	SL-119-SA5A-SS-0.0-0.5	6216202	N	METHOD	300.0	III
24-Feb-2011	SL-119-SA5A-SS-0.0-0.5	6216202	N	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Feb-2011	SL-119-SA5A-SS-0.0-0.5	6216202	N	METHOD	7471A	III
24-Feb-2011	SL-119-SA5A-SS-0.0-0.5MSD	P216202M260803	MSD	3550B	8270C SIM	III
24-Feb-2011	SL-119-SA5A-SS-0.0-0.5MS	P216202R260730	MS	3550B	8270C SIM	III
24-Feb-2011	SL-120-SA5A-SS-0.0-0.5	6216203	N	3050B	6010B	III
24-Feb-2011	SL-120-SA5A-SS-0.0-0.5	6216203	N	3050B	6020	III
24-Feb-2011	SL-120-SA5A-SS-0.0-0.5	6216203	N	3060A	7199	III
24-Feb-2011	SL-120-SA5A-SS-0.0-0.5	6216203	N	3550B	8081A	III
24-Feb-2011	SL-120-SA5A-SS-0.0-0.5	6216203	N	3550B	8082	III
24-Feb-2011	SL-120-SA5A-SS-0.0-0.5	6216203	N	3550B	8151A	III
24-Feb-2011	SL-120-SA5A-SS-0.0-0.5	6216203	N	3550B	8270C	III
24-Feb-2011	SL-120-SA5A-SS-0.0-0.5	6216203	N	3550B	8270C SIM	III
24-Feb-2011	SL-120-SA5A-SS-0.0-0.5	6216203	N	Gen Prep	9045M	III
24-Feb-2011	SL-120-SA5A-SS-0.0-0.5	6216203	N	METHOD	300.0	III
24-Feb-2011	SL-120-SA5A-SS-0.0-0.5	6216203	N	METHOD	314.0	III
24-Feb-2011	SL-120-SA5A-SS-0.0-0.5	6216203	N	METHOD	7471A	III
24-Feb-2011	SL-022-SA5A-SB-4.0-5.0	6216213	N	3050B	6010B	III
24-Feb-2011	SL-022-SA5A-SB-4.0-5.0	6216213	N	3050B	6020	III
24-Feb-2011	SL-022-SA5A-SB-4.0-5.0	6216213	N	3060A	7199	III
24-Feb-2011	SL-022-SA5A-SB-4.0-5.0	6216213	N	3550B	8082	III
24-Feb-2011	SL-022-SA5A-SB-4.0-5.0	6216213	N	3550B	8270C	III
24-Feb-2011	SL-022-SA5A-SB-4.0-5.0	6216213	N	3550B	8270C SIM	III
24-Feb-2011	SL-022-SA5A-SB-4.0-5.0	6216213	N	5035	8260B	III
24-Feb-2011	SL-022-SA5A-SB-4.0-5.0	6216213	N	5035	8260B SIM	III
24-Feb-2011	SL-022-SA5A-SB-4.0-5.0	6216213	N	Gen Prep	9045M	III
24-Feb-2011	SL-022-SA5A-SB-4.0-5.0	6216213	N	METHOD	300.0	III
24-Feb-2011	SL-022-SA5A-SB-4.0-5.0	6216213	N	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Feb-2011	SL-022-SA5A-SB-4.0-5.0	6216213	N	METHOD	7471A	III
24-Feb-2011	SL-110-SA5A-SS-0.0-0.5	6216201	N	3050B	6010B	III
24-Feb-2011	SL-110-SA5A-SS-0.0-0.5	6216201	N	3050B	6020	III
24-Feb-2011	SL-110-SA5A-SS-0.0-0.5	6216201	N	3060A	7199	III
24-Feb-2011	SL-110-SA5A-SS-0.0-0.5	6216201	N	3550B	8081A	III
24-Feb-2011	SL-110-SA5A-SS-0.0-0.5	6216201	N	3550B	8082	III
24-Feb-2011	SL-110-SA5A-SS-0.0-0.5	6216201	N	3550B	8151A	III
24-Feb-2011	SL-110-SA5A-SS-0.0-0.5	6216201	N	3550B	8270C	III
24-Feb-2011	SL-110-SA5A-SS-0.0-0.5	6216201	N	3550B	8270C SIM	III
24-Feb-2011	SL-110-SA5A-SS-0.0-0.5	6216201	N	Gen Prep	9045M	III
24-Feb-2011	SL-110-SA5A-SS-0.0-0.5	6216201	N	METHOD	300.0	III
24-Feb-2011	SL-110-SA5A-SS-0.0-0.5	6216201	N	METHOD	314.0	III
24-Feb-2011	SL-110-SA5A-SS-0.0-0.5	6216201	N	METHOD	7471A	III
24-Feb-2011	SL-143-SA5A-SS-0.0-0.5	6216208	N	3050B	6010B	III
24-Feb-2011	SL-143-SA5A-SS-0.0-0.5	6216208	N	3050B	6020	III
24-Feb-2011	SL-143-SA5A-SS-0.0-0.5	6216208	N	3060A	7199	III
24-Feb-2011	SL-143-SA5A-SS-0.0-0.5	6216208	N	3550B	8081A	III
24-Feb-2011	SL-143-SA5A-SS-0.0-0.5	6216208	N	3550B	8082	III
24-Feb-2011	SL-143-SA5A-SS-0.0-0.5	6216208	N	3550B	8151A	III
24-Feb-2011	SL-143-SA5A-SS-0.0-0.5	6216208	N	3550B	8270C	III
24-Feb-2011	SL-143-SA5A-SS-0.0-0.5	6216208	N	3550B	8270C SIM	III
24-Feb-2011	SL-143-SA5A-SS-0.0-0.5	6216208	N	Gen Prep	9045M	III
24-Feb-2011	SL-143-SA5A-SS-0.0-0.5	6216208	N	METHOD	300.0	III
24-Feb-2011	SL-143-SA5A-SS-0.0-0.5	6216208	N	METHOD	314.0	III
24-Feb-2011	SL-143-SA5A-SS-0.0-0.5	6216208	N	METHOD	7471A	III
24-Feb-2011	SL-143-SA5A-SS-0.0-0.5DUP	P216208D291120B	DUP	Gen Prep	9045M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Feb-2011	SL-251-SA5A-SS-0.0-0.5	6216211	N	3050B	6010B	III
24-Feb-2011	SL-251-SA5A-SS-0.0-0.5	6216211	N	3050B	6020	III
24-Feb-2011	SL-251-SA5A-SS-0.0-0.5	6216211	N	3060A	7199	III
24-Feb-2011	SL-251-SA5A-SS-0.0-0.5	6216211	N	3550B	8081A	III
24-Feb-2011	SL-251-SA5A-SS-0.0-0.5	6216211	N	3550B	8082	III
24-Feb-2011	SL-251-SA5A-SS-0.0-0.5	6216211	N	3550B	8151A	III
24-Feb-2011	SL-251-SA5A-SS-0.0-0.5	6216211	N	3550B	8270C	III
24-Feb-2011	SL-251-SA5A-SS-0.0-0.5	6216211	N	3550B	8270C SIM	III
24-Feb-2011	SL-251-SA5A-SS-0.0-0.5	6216211	N	Gen Prep	9045M	III
24-Feb-2011	SL-251-SA5A-SS-0.0-0.5	6216211	N	METHOD	300.0	III
24-Feb-2011	SL-251-SA5A-SS-0.0-0.5	6216211	N	METHOD	314.0	III
24-Feb-2011	SL-251-SA5A-SS-0.0-0.5	6216211	N	METHOD	7471A	III
24-Feb-2011	SL-136-SA5A-SS-0.0-0.5	6216205	N	3050B	6010B	III
24-Feb-2011	SL-136-SA5A-SS-0.0-0.5	6216205	N	3050B	6020	III
24-Feb-2011	SL-136-SA5A-SS-0.0-0.5	6216205	N	3060A	7199	III
24-Feb-2011	SL-136-SA5A-SS-0.0-0.5	6216205	N	3550B	8081A	III
24-Feb-2011	SL-136-SA5A-SS-0.0-0.5	6216205	N	3550B	8082	III
24-Feb-2011	SL-136-SA5A-SS-0.0-0.5	6216205	N	3550B	8151A	III
24-Feb-2011	SL-136-SA5A-SS-0.0-0.5	6216205	N	3550B	8270C	III
24-Feb-2011	SL-136-SA5A-SS-0.0-0.5	6216205	N	3550B	8270C SIM	III
24-Feb-2011	SL-136-SA5A-SS-0.0-0.5	6216205	N	Gen Prep	9045M	III
24-Feb-2011	SL-136-SA5A-SS-0.0-0.5	6216205	N	METHOD	300.0	III
24-Feb-2011	SL-136-SA5A-SS-0.0-0.5	6216205	N	METHOD	314.0	III
24-Feb-2011	SL-136-SA5A-SS-0.0-0.5	6216205	N	METHOD	7471A	III
24-Feb-2011	SL-138-SA5A-SS-0.0-0.5	6216207	N	3050B	6010B	III
24-Feb-2011	SL-138-SA5A-SS-0.0-0.5	6216207	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Feb-2011	SL-138-SA5A-SS-0.0-0.5	6216207	N	3060A	7199	III
24-Feb-2011	SL-138-SA5A-SS-0.0-0.5	6216207	N	3550B	8081A	III
24-Feb-2011	SL-138-SA5A-SS-0.0-0.5	6216207	N	3550B	8082	III
24-Feb-2011	SL-138-SA5A-SS-0.0-0.5	6216207	N	3550B	8151A	III
24-Feb-2011	SL-138-SA5A-SS-0.0-0.5	6216207	N	3550B	8270C	III
24-Feb-2011	SL-138-SA5A-SS-0.0-0.5	6216207	N	3550B	8270C SIM	III
24-Feb-2011	SL-138-SA5A-SS-0.0-0.5	6216207	N	Gen Prep	9045M	III
24-Feb-2011	SL-138-SA5A-SS-0.0-0.5	6216207	N	METHOD	300.0	III
24-Feb-2011	SL-138-SA5A-SS-0.0-0.5	6216207	N	METHOD	314.0	III
24-Feb-2011	SL-138-SA5A-SS-0.0-0.5	6216207	N	METHOD	7471A	III
24-Feb-2011	SL-137-SA5A-SS-0.0-0.5	6216206	N	3050B	6010B	III
24-Feb-2011	SL-137-SA5A-SS-0.0-0.5	6216206	N	3050B	6020	III
24-Feb-2011	SL-137-SA5A-SS-0.0-0.5	6216206	N	3060A	7199	III
24-Feb-2011	SL-137-SA5A-SS-0.0-0.5	6216206	N	3550B	8081A	III
24-Feb-2011	SL-137-SA5A-SS-0.0-0.5	6216206	N	3550B	8082	III
24-Feb-2011	SL-137-SA5A-SS-0.0-0.5	6216206	N	3550B	8151A	III
24-Feb-2011	SL-137-SA5A-SS-0.0-0.5	6216206	N	3550B	8270C	III
24-Feb-2011	SL-137-SA5A-SS-0.0-0.5	6216206	N	3550B	8270C SIM	III
24-Feb-2011	SL-137-SA5A-SS-0.0-0.5	6216206	N	Gen Prep	9045M	III
24-Feb-2011	SL-137-SA5A-SS-0.0-0.5	6216206	N	METHOD	300.0	III
24-Feb-2011	SL-137-SA5A-SS-0.0-0.5	6216206	N	METHOD	314.0	III
24-Feb-2011	SL-137-SA5A-SS-0.0-0.5	6216206	N	METHOD	7471A	III
24-Feb-2011	SL-050-SA5A-SB-4.0-5.0	6216214	N	3050B	6010B	III
24-Feb-2011	SL-050-SA5A-SB-4.0-5.0	6216214	N	3050B	6020	III
24-Feb-2011	SL-050-SA5A-SB-4.0-5.0	6216214	N	3060A	7199	III
24-Feb-2011	SL-050-SA5A-SB-4.0-5.0	6216214	N	3550B	8082	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Feb-2011	SL-050-SA5A-SB-4.0-5.0	6216214	N	3550B	8270C	III
24-Feb-2011	SL-050-SA5A-SB-4.0-5.0	6216214	N	3550B	8270C SIM	III
24-Feb-2011	SL-050-SA5A-SB-4.0-5.0	6216214	N	5035	8260B	III
24-Feb-2011	SL-050-SA5A-SB-4.0-5.0	6216214	N	5035	8260B SIM	III
24-Feb-2011	SL-050-SA5A-SB-4.0-5.0	6216214	N	Gen Prep	9045M	III
24-Feb-2011	SL-050-SA5A-SB-4.0-5.0	6216214	N	METHOD	300.0	III
24-Feb-2011	SL-050-SA5A-SB-4.0-5.0	6216214	N	METHOD	314.0	III
24-Feb-2011	SL-050-SA5A-SB-4.0-5.0	6216214	N	METHOD	7471A	III
24-Feb-2011	SL-050-SA5A-SB-4.0-5.0DUP	P216214D221056	DUP	METHOD	7471A	III
24-Feb-2011	SL-050-SA5A-SB-4.0-5.0MSD	P216214M221058	MSD	METHOD	7471A	III
24-Feb-2011	SL-050-SA5A-SB-4.0-5.0MS	P216214R221057	MS	METHOD	7471A	III
24-Feb-2011	TB-022411	6216215	TB	5030B	8260B	III
24-Feb-2011	TB-022411	6216215	TB	5030B	8260B SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-007-SA5A-SS-0.0-0.5 **Collected:** 2/24/2011 8:45:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.4		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-008-SA5A-SS-0.0-0.5 **Collected:** 2/24/2011 9:05:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-021-SA5A-SB-3.0-4.0 **Collected:** 2/24/2011 9:48:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.2		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-022-SA5A-SB-4.0-5.0 **Collected:** 2/24/2011 11:23:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-050-SA5A-SB-4.0-5.0 **Collected:** 2/24/2011 3:30:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.3		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-110-SA5A-SS-0.0-0.5 **Collected:** 2/24/2011 1:08:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-119-SA5A-SS-0.0-0.5 **Collected:** 2/24/2011 10:35:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2	J	0.99	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-120-SA5A-SS-0.0-0.5 **Collected:** 2/24/2011 11:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.89	U	0.89	MDL	1.1	PQL	mg/Kg	UJ	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-121-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-122-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.87	U	0.87	MDL	1.1	PQL	mg/Kg	UJ	Q

Sample ID: SL-136-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.88	J	0.87	MDL	1.1	PQL	mg/Kg	J	Z, Q

Sample ID: SL-137-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:28:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.95	U	0.95	MDL	1.2	PQL	mg/Kg	UJ	Q

Sample ID: SL-138-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-143-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:38:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.9		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-233-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:22:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.1		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-250-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.88	U	0.88	MDL	1.1	PQL	mg/Kg	UJ	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-251-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-007-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 8:45:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.09	J	0.993	MDL	5.58	PQL	mg/Kg	J	Z

Sample ID: SL-007-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 8:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3670		20.1	MDL	55.8	PQL	mg/Kg	J	Q
SODIUM	58.5	J	41.6	MDL	112	PQL	mg/Kg	J	Z
TIN	2.99	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	2.13	J	0.938	MDL	5.58	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:05:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.42	J	0.974	MDL	5.47	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3680		19.7	MDL	54.7	PQL	mg/Kg	J	Q
SODIUM	54.3	J	40.8	MDL	109	PQL	mg/Kg	J	Z
TIN	2.67	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.70	J	0.919	MDL	5.47	PQL	mg/Kg	J	Z

Sample ID: SL-021-SA5A-SB-3.0-4.0 *Collected:* 2/24/2011 9:48:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.90	J	1.08	MDL	10.8	PQL	mg/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE091 **Laboratory:** LL

EDD Filename: DE091_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-021-SA5A-SB-3.0-4.0 *Collected:* 2/24/2011 9:48:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.26	J	0.959	MDL	5.39	PQL	mg/Kg	J	Z

Sample ID: SL-021-SA5A-SB-3.0-4.0 *Collected:* 2/24/2011 9:48:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1150		19.4	MDL	53.9	PQL	mg/Kg	J	Q
SODIUM	63.5	J	40.2	MDL	108	PQL	mg/Kg	J	Z
Zirconium	1.94	J	0.905	MDL	5.39	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 11:23:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.53	J	0.981	MDL	5.51	PQL	mg/Kg	J	Z
TIN	3.17	J	1.10	MDL	11.0	PQL	mg/Kg	U	B

Sample ID: SL-022-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 11:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1710		19.8	MDL	55.1	PQL	mg/Kg	J	Q
SODIUM	67.8	J	41.1	MDL	110	PQL	mg/Kg	J	Z
Zirconium	1.23	J	0.926	MDL	5.51	PQL	mg/Kg	J	Z

Sample ID: SL-050-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 3:30:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.23	J	1.02	MDL	5.73	PQL	mg/Kg	J	Z
TIN	3.19	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

Sample ID: SL-050-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 3:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1610		20.6	MDL	57.3	PQL	mg/Kg	J	Q
SODIUM	87.5	J	42.7	MDL	115	PQL	mg/Kg	J	Z
Zirconium	2.70	J	0.962	MDL	5.73	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-110-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:08:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.69	J	1.03	MDL	5.81	PQL	mg/Kg	J	Z

Sample ID: SL-110-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:08:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1870		20.9	MDL	58.1	PQL	mg/Kg	J	Q
TIN	2.38	J	1.16	MDL	11.6	PQL	mg/Kg	U	B

Sample ID: SL-119-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:35:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.47	J	1.07	MDL	6.00	PQL	mg/Kg	J	Z

Sample ID: SL-119-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3170		21.6	MDL	60.0	PQL	mg/Kg	J	Q
SODIUM	81.7	J	44.8	MDL	120	PQL	mg/Kg	J	Z
TIN	5.14	J	1.20	MDL	12.0	PQL	mg/Kg	U	B

Sample ID: SL-120-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 11:00:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.55	J	0.967	MDL	5.43	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 11:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2990		19.6	MDL	54.3	PQL	mg/Kg	J	Q
TIN	2.32	J	1.09	MDL	10.9	PQL	mg/Kg	U	B

Sample ID: SL-121-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:05:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.21	J	0.966	MDL	5.43	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 **Laboratory:** LL

EDD Filename: DE091_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-121-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3110		19.5	MDL	54.3	PQL	mg/Kg	J	Q
SODIUM	85.2	J	40.5	MDL	109	PQL	mg/Kg	J	Z
TIN	2.99	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.73	J	0.912	MDL	5.43	PQL	mg/Kg	J	Z

Sample ID: SL-122-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:50:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.09	J	0.949	MDL	5.33	PQL	mg/Kg	J	Z
TIN	2.54	J	1.07	MDL	10.7	PQL	mg/Kg	U	B

Sample ID: SL-122-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2990		19.2	MDL	53.3	PQL	mg/Kg	J	Q
Zirconium	0.953	J	0.896	MDL	5.33	PQL	mg/Kg	J	Z

Sample ID: SL-136-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:25:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.32	J	0.944	MDL	5.31	PQL	mg/Kg	J	Z

Sample ID: SL-136-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2550		19.1	MDL	53.1	PQL	mg/Kg	J	Q
SODIUM	43.3	J	39.6	MDL	106	PQL	mg/Kg	J	Z
TIN	2.44	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	1.71	J	0.891	MDL	5.31	PQL	mg/Kg	J	Z

Sample ID: SL-137-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:28:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.23	J	1.05	MDL	5.91	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-137-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:28:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3380		21.3	MDL	59.1	PQL	mg/Kg	J	Q
Zirconium	1.37	J	0.992	MDL	5.91	PQL	mg/Kg	J	Z

Sample ID: SL-138-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:00:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.15	J	0.990	MDL	5.56	PQL	mg/Kg	J	Z

Sample ID: SL-138-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2490		20.0	MDL	55.6	PQL	mg/Kg	J	Q
TIN	2.75	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.65	J	0.935	MDL	5.56	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:38:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.48	J	0.987	MDL	5.55	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:38:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3080		20.0	MDL	55.5	PQL	mg/Kg	J	Q
TIN	2.73	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.33	J	0.932	MDL	5.55	PQL	mg/Kg	J	Z

Sample ID: SL-233-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:22:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.22	J	0.968	MDL	5.44	PQL	mg/Kg	J	Z

Sample ID: SL-233-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:22:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2860		19.6	MDL	54.4	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-233-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:22:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.76	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	3.32	J	0.914	MDL	5.44	PQL	mg/Kg	J	Z

Sample ID: SL-250-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2800		19.1	MDL	53.0	PQL	mg/Kg	J	Q
SODIUM	54.0	J	39.5	MDL	106	PQL	mg/Kg	J	Z
TIN	2.87	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	1.29	J	0.891	MDL	5.30	PQL	mg/Kg	J	Z

Sample ID: SL-251-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:05:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.63	J	1.07	MDL	10.7	PQL	mg/Kg	U	B

Sample ID: SL-251-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2860		19.3	MDL	53.7	PQL	mg/Kg	J	Q
SODIUM	42.0	J	40.0	MDL	107	PQL	mg/Kg	J	Z
Zirconium	1.64	J	0.901	MDL	5.37	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-007-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 8:45:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.221		0.0644	MDL	0.215	PQL	mg/Kg	UJ	Q, B
CHROMIUM	21.5		0.129	MDL	0.429	PQL	mg/Kg	J	Q, A
COBALT	5.88		0.0215	MDL	0.107	PQL	mg/Kg	J	A
NICKEL	13.1		0.107	MDL	0.429	PQL	mg/Kg	J	A
SILVER	0.0332	J	0.0129	MDL	0.107	PQL	mg/Kg	U	B
THALLIUM	0.302		0.0322	MDL	0.107	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 **Laboratory:** LL

EDD Filename: DE091_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-007-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 8:45:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	39.0		0.0236	MDL	0.107	PQL	mg/Kg	J	Q, A

Sample ID: SL-007-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 8:45:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	8.70		0.0708	MDL	0.429	PQL	mg/Kg	J	A

Sample ID: SL-007-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 8:45:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.147	J	0.0429	MDL	0.429	PQL	mg/Kg	U	B

Sample ID: SL-007-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 8:45:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	116		0.116	MDL	0.429	PQL	mg/Kg	J	A

Sample ID: SL-007-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 8:45:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.273		0.0438	MDL	0.109	PQL	mg/Kg	J	Q

Sample ID: SL-008-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:05:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.190	J	0.0656	MDL	0.219	PQL	mg/Kg	UJ	Q, B
CHROMIUM	19.1		0.131	MDL	0.438	PQL	mg/Kg	J	Q, A
COBALT	6.80		0.0219	MDL	0.109	PQL	mg/Kg	J	A
NICKEL	12.3		0.109	MDL	0.438	PQL	mg/Kg	J	A
SILVER	0.0438	J	0.0131	MDL	0.109	PQL	mg/Kg	U	B
THALLIUM	0.294		0.0328	MDL	0.109	PQL	mg/Kg	U	B
VANADIUM	38.2		0.0241	MDL	0.109	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 **Laboratory:** LL

EDD Filename: DE091_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-008-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:05:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	8.52		0.0722	MDL	0.438	PQL	mg/Kg	J	A

Sample ID: SL-008-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:05:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.149	J	0.0438	MDL	0.438	PQL	mg/Kg	U	B

Sample ID: SL-008-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:05:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	103		0.118	MDL	0.438	PQL	mg/Kg	J	A

Sample ID: SL-008-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:05:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.175		0.0438	MDL	0.109	PQL	mg/Kg	J	Q

Sample ID: SL-021-SA5A-SB-3.0-4.0 *Collected:* 2/24/2011 9:48:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.141	J	0.0666	MDL	0.222	PQL	mg/Kg	UJ	Q, B
CHROMIUM	20.1		0.133	MDL	0.444	PQL	mg/Kg	J	Q, A
COBALT	5.90		0.0222	MDL	0.111	PQL	mg/Kg	J	A
NICKEL	9.12		0.111	MDL	0.444	PQL	mg/Kg	J	A
SILVER	0.0277	J	0.0133	MDL	0.111	PQL	mg/Kg	U	B
THALLIUM	0.216		0.0333	MDL	0.111	PQL	mg/Kg	U	B
VANADIUM	45.3		0.0244	MDL	0.111	PQL	mg/Kg	J	Q, A

Sample ID: SL-021-SA5A-SB-3.0-4.0 *Collected:* 2/24/2011 9:48:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	6.66		0.0733	MDL	0.444	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-021-SA5A-SB-3.0-4.0 *Collected:* 2/24/2011 9:48:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.256	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

Sample ID: SL-021-SA5A-SB-3.0-4.0 *Collected:* 2/24/2011 9:48:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	76.0		0.120	MDL	0.444	PQL	mg/Kg	J	A

Sample ID: SL-021-SA5A-SB-3.0-4.0 *Collected:* 2/24/2011 9:48:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.0804	J	0.0440	MDL	0.110	PQL	mg/Kg	J	Z, Q

Sample ID: SL-022-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 11:23:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.132	J	0.0649	MDL	0.216	PQL	mg/Kg	UJ	Q, B
CHROMIUM	15.7		0.130	MDL	0.432	PQL	mg/Kg	J	Q, A
COBALT	3.66		0.0216	MDL	0.108	PQL	mg/Kg	J	A
NICKEL	6.74		0.108	MDL	0.432	PQL	mg/Kg	J	A
THALLIUM	0.232		0.0324	MDL	0.108	PQL	mg/Kg	U	B
VANADIUM	30.4		0.0238	MDL	0.108	PQL	mg/Kg	J	Q, A

Sample ID: SL-022-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 11:23:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	5.22		0.0713	MDL	0.432	PQL	mg/Kg	J	A

Sample ID: SL-022-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 11:23:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.125	J	0.0432	MDL	0.432	PQL	mg/Kg	U	B

Sample ID: SL-022-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 11:23:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	59.0		0.117	MDL	0.432	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-022-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 11:23:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.0922	J	0.0437	MDL	0.109	PQL	mg/Kg	J	Z, Q

Sample ID: SL-050-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 3:30:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.160	J	0.0667	MDL	0.222	PQL	mg/Kg	UJ	Q, B
CHROMIUM	27.2		0.133	MDL	0.445	PQL	mg/Kg	J	Q, A
COBALT	5.74		0.0222	MDL	0.111	PQL	mg/Kg	J	A
NICKEL	15.9		0.111	MDL	0.445	PQL	mg/Kg	J	A
SILVER	0.0777	J	0.0133	MDL	0.111	PQL	mg/Kg	U	B
THALLIUM	0.198		0.0334	MDL	0.111	PQL	mg/Kg	U	B
VANADIUM	51.4		0.0245	MDL	0.111	PQL	mg/Kg	J	Q, A

Sample ID: SL-050-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 3:30:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	8.34		0.0734	MDL	0.445	PQL	mg/Kg	J	A

Sample ID: SL-050-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 3:30:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.129	J	0.0445	MDL	0.445	PQL	mg/Kg	U	B

Sample ID: SL-050-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 3:30:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	97.2		0.120	MDL	0.445	PQL	mg/Kg	J	A

Sample ID: SL-050-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 3:30:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.0728	J	0.0441	MDL	0.110	PQL	mg/Kg	J	Z, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 **Laboratory:** LL

EDD Filename: DE091_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-110-SA5A-SS-0.0-0.5 ***Collected:*** 2/24/2011 1:08:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.288		0.0704	MDL	0.235	PQL	mg/Kg	UJ	Q, B
CHROMIUM	18.4		0.141	MDL	0.469	PQL	mg/Kg	J	Q, A
COBALT	4.95		0.0235	MDL	0.117	PQL	mg/Kg	J	A
NICKEL	10.7		0.117	MDL	0.469	PQL	mg/Kg	J	A
THALLIUM	0.209		0.0352	MDL	0.117	PQL	mg/Kg	U	B
VANADIUM	35.0		0.0258	MDL	0.117	PQL	mg/Kg	J	Q, A

Sample ID: SL-110-SA5A-SS-0.0-0.5 ***Collected:*** 2/24/2011 1:08:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	10.9		0.0774	MDL	0.469	PQL	mg/Kg	J	A

Sample ID: SL-110-SA5A-SS-0.0-0.5 ***Collected:*** 2/24/2011 1:08:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.130	J	0.0469	MDL	0.469	PQL	mg/Kg	U	B

Sample ID: SL-110-SA5A-SS-0.0-0.5 ***Collected:*** 2/24/2011 1:08:00 ***Analysis Type:*** REA6 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	83.9		0.127	MDL	0.469	PQL	mg/Kg	J	A

Sample ID: SL-110-SA5A-SS-0.0-0.5 ***Collected:*** 2/24/2011 1:08:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.567		0.0460	MDL	0.115	PQL	mg/Kg	J	Q

Sample ID: SL-119-SA5A-SS-0.0-0.5 ***Collected:*** 2/24/2011 10:35:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.880		0.0727	MDL	0.242	PQL	mg/Kg	J	Q
CHROMIUM	77.5		0.145	MDL	0.485	PQL	mg/Kg	J	Q, A
COBALT	7.83		0.0242	MDL	0.121	PQL	mg/Kg	J	A
NICKEL	71.2		0.121	MDL	0.485	PQL	mg/Kg	J	A
THALLIUM	0.206		0.0364	MDL	0.121	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 **Laboratory:** LL

EDD Filename: DE091_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-119-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:35:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	44.1		0.0267	MDL	0.121	PQL	mg/Kg	J	Q, A

Sample ID: SL-119-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:35:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	60.8		0.0800	MDL	0.485	PQL	mg/Kg	J	A

Sample ID: SL-119-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:35:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.195	J	0.0485	MDL	0.485	PQL	mg/Kg	U	B

Sample ID: SL-119-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:35:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	86.3		0.131	MDL	0.485	PQL	mg/Kg	J	A

Sample ID: SL-119-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:35:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	3.12		0.0485	MDL	0.121	PQL	mg/Kg	J	Q

Sample ID: SL-120-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 11:00:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.273		0.0659	MDL	0.220	PQL	mg/Kg	UJ	Q, B
CHROMIUM	24.9		0.132	MDL	0.439	PQL	mg/Kg	J	Q, A
COBALT	5.64		0.0220	MDL	0.110	PQL	mg/Kg	J	A
NICKEL	14.9		0.110	MDL	0.439	PQL	mg/Kg	J	A
THALLIUM	0.137		0.0329	MDL	0.110	PQL	mg/Kg	U	B
VANADIUM	37.1		0.0241	MDL	0.110	PQL	mg/Kg	J	Q, A

Sample ID: SL-120-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 11:00:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	8.35		0.0724	MDL	0.439	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-120-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 11:00:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0992	J	0.0439	MDL	0.439	PQL	mg/Kg	U	B

Sample ID: SL-120-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 11:00:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	141		0.119	MDL	0.439	PQL	mg/Kg	J	A

Sample ID: SL-120-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 11:00:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.456		0.0431	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-121-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:05:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.131	J	0.0645	MDL	0.215	PQL	mg/Kg	UJ	Q, B
CHROMIUM	15.9		0.129	MDL	0.430	PQL	mg/Kg	J	Q, A
COBALT	4.46		0.0215	MDL	0.108	PQL	mg/Kg	J	A
NICKEL	8.53		0.108	MDL	0.430	PQL	mg/Kg	J	A
SILVER	0.0237	J	0.0129	MDL	0.108	PQL	mg/Kg	U	B
THALLIUM	0.240		0.0323	MDL	0.108	PQL	mg/Kg	U	B
VANADIUM	32.7		0.0237	MDL	0.108	PQL	mg/Kg	J	Q, A

Sample ID: SL-121-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:05:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	7.71		0.0710	MDL	0.430	PQL	mg/Kg	J	A

Sample ID: SL-121-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:05:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0858	J	0.0430	MDL	0.430	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 **Laboratory:** LL

EDD Filename: DE091_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-121-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:05:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	79.2		0.116	MDL	0.430	PQL	mg/Kg	J	A

Sample ID: SL-121-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:05:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.244		0.0430	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-122-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:50:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.142	J	0.0653	MDL	0.218	PQL	mg/Kg	UJ	Q, B
CHROMIUM	14.0		0.131	MDL	0.435	PQL	mg/Kg	J	Q, A
COBALT	4.20		0.0218	MDL	0.109	PQL	mg/Kg	J	A
NICKEL	7.93		0.109	MDL	0.435	PQL	mg/Kg	J	A
SILVER	0.0274	J	0.0131	MDL	0.109	PQL	mg/Kg	U	B
THALLIUM	0.215		0.0326	MDL	0.109	PQL	mg/Kg	U	B
VANADIUM	31.1		0.0239	MDL	0.109	PQL	mg/Kg	J	Q, A

Sample ID: SL-122-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:50:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	5.58		0.0718	MDL	0.435	PQL	mg/Kg	J	A

Sample ID: SL-122-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:50:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0876	J	0.0435	MDL	0.435	PQL	mg/Kg	U	B

Sample ID: SL-122-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:50:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.219		0.0544	MDL	0.109	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-122-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:50:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	78.1		0.118	MDL	0.435	PQL	mg/Kg	J	A

Sample ID: SL-122-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:50:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.136		0.0423	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-136-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:25:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.112	J	0.0643	MDL	0.214	PQL	mg/Kg	UJ	Q, B
CHROMIUM	15.8		0.129	MDL	0.429	PQL	mg/Kg	J	Q, A
COBALT	4.84		0.0214	MDL	0.107	PQL	mg/Kg	J	A
NICKEL	10.1		0.107	MDL	0.429	PQL	mg/Kg	J	A
SILVER	0.0341	J	0.0129	MDL	0.107	PQL	mg/Kg	U	B
THALLIUM	0.234		0.0321	MDL	0.107	PQL	mg/Kg	U	B
VANADIUM	31.5		0.0236	MDL	0.107	PQL	mg/Kg	J	Q, A

Sample ID: SL-136-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:25:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	6.54		0.0707	MDL	0.429	PQL	mg/Kg	J	A

Sample ID: SL-136-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:25:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.123	J	0.0429	MDL	0.429	PQL	mg/Kg	U	B

Sample ID: SL-136-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:25:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	93.6		0.116	MDL	0.429	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-136-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:25:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.159		0.0420	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-137-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:28:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.830		0.0702	MDL	0.234	PQL	mg/Kg	J	Q
CHROMIUM	16.5		0.140	MDL	0.468	PQL	mg/Kg	J	Q, A
COBALT	4.69		0.0234	MDL	0.117	PQL	mg/Kg	J	A
NICKEL	10.2		0.117	MDL	0.468	PQL	mg/Kg	J	A
THALLIUM	0.248		0.0351	MDL	0.117	PQL	mg/Kg	U	B
VANADIUM	32.3		0.0257	MDL	0.117	PQL	mg/Kg	J	Q, A

Sample ID: SL-137-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:28:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	11.2		0.0772	MDL	0.468	PQL	mg/Kg	J	A

Sample ID: SL-137-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:28:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.113	J	0.0468	MDL	0.468	PQL	mg/Kg	U	B

Sample ID: SL-137-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:28:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	80.1		0.126	MDL	0.468	PQL	mg/Kg	J	A

Sample ID: SL-137-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:28:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	2.20		0.0468	MDL	0.117	PQL	mg/Kg	J	Q

Sample ID: SL-138-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:00:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.208	J	0.0674	MDL	0.225	PQL	mg/Kg	UJ	Q, B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 **Laboratory:** LL

EDD Filename: DE091_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-138-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:00:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	29.6		0.135	MDL	0.450	PQL	mg/Kg	J	Q, A
COBALT	6.48		0.0225	MDL	0.112	PQL	mg/Kg	J	A
NICKEL	15.7		0.112	MDL	0.450	PQL	mg/Kg	J	A
SILVER	0.0344	J	0.0135	MDL	0.112	PQL	mg/Kg	U	B
THALLIUM	0.303		0.0337	MDL	0.112	PQL	mg/Kg	U	B
VANADIUM	46.6		0.0247	MDL	0.112	PQL	mg/Kg	J	Q, A

Sample ID: SL-138-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:00:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	6.32		0.0742	MDL	0.450	PQL	mg/Kg	J	A

Sample ID: SL-138-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:00:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0939	J	0.0450	MDL	0.450	PQL	mg/Kg	U	B

Sample ID: SL-138-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:00:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	117		0.121	MDL	0.450	PQL	mg/Kg	J	A

Sample ID: SL-138-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:00:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.452		0.0450	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: SL-143-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:38:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.248		0.0672	MDL	0.224	PQL	mg/Kg	UJ	Q, B
CHROMIUM	17.6		0.134	MDL	0.448	PQL	mg/Kg	J	Q, A
COBALT	4.88		0.0224	MDL	0.112	PQL	mg/Kg	J	A
NICKEL	11.2		0.112	MDL	0.448	PQL	mg/Kg	J	A
SILVER	0.0658	J	0.0134	MDL	0.112	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 **Laboratory:** LL

EDD Filename: DE091_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-143-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:38:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.254		0.0336	MDL	0.112	PQL	mg/Kg	U	B
VANADIUM	33.7		0.0246	MDL	0.112	PQL	mg/Kg	J	Q, A

Sample ID: SL-143-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:38:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	7.77		0.0739	MDL	0.448	PQL	mg/Kg	J	A

Sample ID: SL-143-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:38:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.133	J	0.0448	MDL	0.448	PQL	mg/Kg	U	B

Sample ID: SL-143-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:38:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	85.9		0.121	MDL	0.448	PQL	mg/Kg	J	A

Sample ID: SL-143-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:38:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.174		0.0444	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: SL-233-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:22:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.149	J	0.0640	MDL	0.213	PQL	mg/Kg	UJ	Q, B
CHROMIUM	17.5		0.128	MDL	0.427	PQL	mg/Kg	J	Q, A
COBALT	5.03		0.0213	MDL	0.107	PQL	mg/Kg	J	A
NICKEL	10.7		0.107	MDL	0.427	PQL	mg/Kg	J	A
SILVER	0.0289	J	0.0128	MDL	0.107	PQL	mg/Kg	U	B
THALLIUM	0.247		0.0320	MDL	0.107	PQL	mg/Kg	U	B
VANADIUM	35.4		0.0235	MDL	0.107	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 **Laboratory:** LL

EDD Filename: DE091_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-233-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:22:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	7.65		0.0704	MDL	0.427	PQL	mg/Kg	J	A

Sample ID: SL-233-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:22:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0944	J	0.0427	MDL	0.427	PQL	mg/Kg	U	B

Sample ID: SL-233-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:22:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	99.4		0.115	MDL	0.427	PQL	mg/Kg	J	A

Sample ID: SL-233-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:22:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.258		0.0431	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-250-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:20:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.178	J	0.0649	MDL	0.216	PQL	mg/Kg	UJ	Q, B
CHROMIUM	15.4		0.130	MDL	0.432	PQL	mg/Kg	J	Q, A
COBALT	4.62		0.0216	MDL	0.108	PQL	mg/Kg	J	A
NICKEL	9.17		0.108	MDL	0.432	PQL	mg/Kg	J	A
SILVER	0.0306	J	0.0130	MDL	0.108	PQL	mg/Kg	U	B
THALLIUM	0.246		0.0324	MDL	0.108	PQL	mg/Kg	U	B
VANADIUM	35.2		0.0238	MDL	0.108	PQL	mg/Kg	J	Q, A

Sample ID: SL-250-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:20:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	5.86		0.0713	MDL	0.432	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-250-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:20:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0844	J	0.0432	MDL	0.432	PQL	mg/Kg	U	B

Sample ID: SL-250-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:20:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	79.5		0.117	MDL	0.432	PQL	mg/Kg	J	A

Sample ID: SL-250-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:20:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.226		0.0437	MDL	0.109	PQL	mg/Kg	J	Q

Sample ID: SL-251-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:05:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.143	J	0.0657	MDL	0.219	PQL	mg/Kg	UJ	Q, B
CHROMIUM	15.3		0.131	MDL	0.438	PQL	mg/Kg	J	Q, A
COBALT	4.63		0.0219	MDL	0.109	PQL	mg/Kg	J	A
NICKEL	9.80		0.109	MDL	0.438	PQL	mg/Kg	J	A
SILVER	0.0495	J	0.0131	MDL	0.109	PQL	mg/Kg	U	B
THALLIUM	0.243		0.0328	MDL	0.109	PQL	mg/Kg	U	B
VANADIUM	29.9		0.0241	MDL	0.109	PQL	mg/Kg	J	Q, A

Sample ID: SL-251-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:05:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	6.69		0.0722	MDL	0.438	PQL	mg/Kg	J	A

Sample ID: SL-251-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:05:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.140	J	0.0438	MDL	0.438	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6020 **Matrix:** SO

Sample ID: SL-251-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:05:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	93.9		0.118	MDL	0.438	PQL	mg/Kg	J	A

Sample ID: SL-251-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:05:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.241		0.0429	MDL	0.107	PQL	mg/Kg	J	Q

Method Category: METALS **Method:** 7199 **Matrix:** SO

Sample ID: SL-007-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 8:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.32	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-021-SA5A-SB-3.0-4.0 *Collected:* 2/24/2011 9:48:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.81	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 11:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.41	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-050-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 3:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.31	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-110-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:08:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.52	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-120-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 11:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.51	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-136-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.29	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-138-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.72	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:38:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.38	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-233-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:22:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.25	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-250-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.32	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-251-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.35	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: SL-008-SA5A-SS-0.0-0.5 **Collected:** 2/24/2011 9:05:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0355	J	0.0030	MDL	0.103	PQL	mg/Kg	J	Z

Sample ID: SL-050-SA5A-SB-4.0-5.0 **Collected:** 2/24/2011 3:30:00 **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0095	J	0.0031	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-110-SA5A-SS-0.0-0.5 **Collected:** 2/24/2011 1:08:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0620	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-119-SA5A-SS-0.0-0.5 **Collected:** 2/24/2011 10:35:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0946	J	0.0034	MDL	0.120	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA5A-SS-0.0-0.5 **Collected:** 2/24/2011 11:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0650	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-121-SA5A-SS-0.0-0.5 **Collected:** 2/24/2011 10:05:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0042	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-122-SA5A-SS-0.0-0.5 **Collected:** 2/24/2011 9:50:00 **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0094	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA5A-SS-0.0-0.5 **Collected:** 2/24/2011 1:38:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0197	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: SL-233-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:22:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0284	J	0.0029	MDL	0.102	PQL	mg/Kg	J	Z

Sample ID: SL-251-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0179	J	0.0031	MDL	0.110	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-007-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 8:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	0.11	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z

Sample ID: SL-008-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.29	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
DIELDRIN	0.10	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.10	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z

Sample ID: SL-110-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:08:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDOSULFAN II	0.18	J	0.078	MDL	0.40	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.18	J	0.078	MDL	0.40	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.048	J	0.040	MDL	0.20	PQL	ug/Kg	J	Z

Sample ID: SL-119-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	2.8	U	2.8	MDL	2.8	PQL	ug/Kg	R	S
4,4'-DDE	0.23	U	0.23	MDL	0.42	PQL	ug/Kg	R	S
ALDRIN	0.082	U	0.082	MDL	0.21	PQL	ug/Kg	R	S

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 **Laboratory:** LL

EDD Filename: DE091_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-119-SA5A-SS-0.0-0.5 ***Collected:*** 2/24/2011 10:35:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALPHA-BHC	0.042	U	0.042	MDL	0.21	PQL	ug/Kg	R	S
BETA-BHC	0.074	U	0.074	MDL	0.21	PQL	ug/Kg	R	S
Chlordane	4.6	U	4.6	MDL	4.6	PQL	ug/Kg	R	S
DELTA-BHC	0.055	J	0.044	MDL	0.21	PQL	ug/Kg	J	Z, S
DIELDRIN	1.2		0.082	MDL	0.42	PQL	ug/Kg	J	S
ENDOSULFAN I	0.054	U	0.054	MDL	0.21	PQL	ug/Kg	R	S
ENDOSULFAN II	0.21	J	0.082	MDL	0.42	PQL	ug/Kg	J	Z, S
ENDOSULFAN SULFATE	0.082	U	0.082	MDL	0.42	PQL	ug/Kg	R	S
ENDRIN	0.082	U	0.082	MDL	0.42	PQL	ug/Kg	R	S
ENDRIN ALDEHYDE	0.71		0.21	MDL	0.42	PQL	ug/Kg	J	S
ENDRIN KETONE	0.60		0.082	MDL	0.42	PQL	ug/Kg	J	S
gamma-BHC (Lindane)	0.042	U	0.042	MDL	0.21	PQL	ug/Kg	R	S
HEPTACHLOR	0.074	U	0.074	MDL	0.21	PQL	ug/Kg	R	S
HEPTACHLOR EPOXIDE	0.14	U	0.14	MDL	0.21	PQL	ug/Kg	R	S
METHOXYCHLOR	0.42	U	0.42	MDL	2.1	PQL	ug/Kg	R	S
MIREX	1.2		0.082	MDL	0.42	PQL	ug/Kg	J	S
TOXAPHENE	2.7	U	2.7	MDL	8.2	PQL	ug/Kg	R	S

Sample ID: SL-120-SA5A-SS-0.0-0.5 ***Collected:*** 2/24/2011 11:00:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.20	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
DIELDRIN	0.21	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.085	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z
ENDRIN KETONE	0.22	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z

Sample ID: SL-121-SA5A-SS-0.0-0.5 ***Collected:*** 2/24/2011 10:05:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MIREX	0.30	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z

Sample ID: SL-122-SA5A-SS-0.0-0.5 ***Collected:*** 2/24/2011 9:50:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.086	J	0.072	MDL	0.37	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 **Laboratory:** LL

EDD Filename: DE091_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-122-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN ALDEHYDE	0.085	J	0.072	MDL	0.37	PQL	ug/Kg	J	Z

Sample ID: SL-136-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.13	J	0.072	MDL	0.37	PQL	ug/Kg	J	Z
HEPTACHLOR	0.12	J	0.066	MDL	0.18	PQL	ug/Kg	J	Z

Sample ID: SL-137-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:28:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN ALDEHYDE	0.16	J	0.079	MDL	0.41	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.067	J	0.041	MDL	0.20	PQL	ug/Kg	J	Z

Sample ID: SL-138-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.11	J	0.075	MDL	0.39	PQL	ug/Kg	J	Z

Sample ID: SL-143-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:38:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIELDRIN	0.66	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	1.4	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.52	J	0.19	MDL	0.94	PQL	ug/Kg	J	Z

Sample ID: SL-233-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:22:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDOSULFAN II	0.13	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.20	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z

Sample ID: SL-250-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN ALDEHYDE	0.28	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-250-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MIREX	0.21	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z

Sample ID: SL-251-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.20	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-110-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:08:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	6.7		0.39	MDL	2.0	PQL	ug/Kg	J	S
AROCLOR 1260	6.4		0.46	MDL	2.0	PQL	ug/Kg	J	S
Aroclor 5460	40		1.2	MDL	3.9	PQL	ug/Kg	J	S

Sample ID: SL-120-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 11:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	1.3	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z

Sample ID: SL-121-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	5.3	J	2.2	MDL	7.3	PQL	ug/Kg	J	Z

Sample ID: SL-122-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	1.7	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-136-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	2.5	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

Sample ID: SL-138-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.9		0.44	MDL	1.9	PQL	ug/Kg	J	S
Aroclor 5460	6.1		1.1	MDL	3.7	PQL	ug/Kg	J	S

Sample ID: SL-143-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:38:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	7.5	J	2.2	MDL	9.6	PQL	ug/Kg	J	Z

Sample ID: SL-250-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:20:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	5.9	J	2.2	MDL	7.3	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8151A **Matrix:** SO

Sample ID: SL-007-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 8:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-TP (Silvex)	0.15	J	0.084	MDL	0.19	PQL	ug/Kg	J	Z, Q
2,4-DB	1.0	U	1.0	MDL	1.9	PQL	ug/Kg	R	Q
DALAPON	4.9	U	4.9	MDL	10	PQL	ug/Kg	R	Q
DINOSEB	0.89	U	0.89	MDL	2.7	PQL	ug/Kg	R	Q
MCPA	170	J	85	MDL	280	PQL	ug/Kg	J	Z

Sample ID: SL-008-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPP	160	J	83	MDL	280	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8151A **Matrix:** SO

Sample ID: SL-110-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:08:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.55	J	0.47	MDL	1.4	PQL	ug/Kg	J	Z
DICHLOROPROP	1.1	J	0.95	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-119-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.18	J	0.10	MDL	0.21	PQL	ug/Kg	J	Z

Sample ID: SL-138-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.65	J	0.45	MDL	1.4	PQL	ug/Kg	J	Z

Sample ID: SL-233-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:22:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	120	J	84	MDL	270	PQL	ug/Kg	J	Z

Sample ID: SL-251-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-TP (Silvex)	0.13	J	0.084	MDL	0.19	PQL	ug/Kg	J	Z
MCPA	230	J	85	MDL	280	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-007-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 8:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	1300	U	1300	MDL	3700	PQL	ug/Kg	UJ	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE091 **Laboratory:** LL

EDD Filename: DE091_v2 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-008-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	28	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-021-SA5A-SB-3.0-4.0 *Collected:* 2/24/2011 9:48:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	27	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-022-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 11:23:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	23	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-110-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:08:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	26	J	19	MDL	190	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	91	J	19	MDL	390	PQL	ug/Kg	J	Z
CHRYSENE	49	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: SL-119-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	39	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	81	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	100	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	130	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	77	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZOIC ACID	240	J	200	MDL	610	PQL	ug/Kg	J	Z
CARBAZOLE	41	J	20	MDL	200	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	35	J	20	MDL	200	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	95	J	20	MDL	200	PQL	ug/Kg	J	Z
PHENANTHRENE	190	J	20	MDL	200	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-120-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 11:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	29	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	47	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-121-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	31	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-122-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	25	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-136-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	34	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-137-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:28:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	74	J	20	MDL	390	PQL	ug/Kg	J	Z
CHRYSENE	29	J	20	MDL	200	PQL	ug/Kg	J	Z

Sample ID: SL-138-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	27	J	19	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-143-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:38:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	44	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	34	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	46	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	27	J	19	MDL	190	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-143-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:38:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	33	J	19	MDL	370	PQL	ug/Kg	J	Z
CHRYSENE	50	J	19	MDL	190	PQL	ug/Kg	J	Z
FLUORANTHENE	77	J	19	MDL	190	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	22	J	19	MDL	190	PQL	ug/Kg	J	Z
PHENANTHRENE	78	J	19	MDL	190	PQL	ug/Kg	J	Z
PYRENE	120	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: SL-233-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:22:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	24	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-250-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	30	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-251-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	45	J	18	MDL	370	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-008-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.91	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.6	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z, L
BENZO(G,H,I)PERYLENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	1.1	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	1.3	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-110-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:08:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	1.2	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	1.1	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	77		0.79	MDL	2.0	PQL	ug/Kg	J	L
Butylbenzylphthalate	11	J	7.1	MDL	21	PQL	ug/Kg	J	Z
FLUORENE	1.1	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-119-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	38	J	37	MDL	110	PQL	ug/Kg	J	Z

Sample ID: SL-120-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 11:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	23		3.7	MDL	9.2	PQL	ug/Kg	J	L
BENZO(K)FLUORANTHENE	5.8	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	4.8	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
FLUORANTHENE	4.2	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	4.9	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
PYRENE	5.6	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z

Sample ID: SL-121-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.52	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	19		0.74	MDL	1.8	PQL	ug/Kg	J	L

Sample ID: SL-122-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.5	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	6.1		0.73	MDL	1.8	PQL	ug/Kg	J	L
Butylbenzylphthalate	10	J	6.5	MDL	20	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.82	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
Dimethylphthalate	12	J	6.5	MDL	20	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-122-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
INDENO(1,2,3-CD)PYRENE	1.1	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	0.99	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-136-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	8.9		0.73	MDL	1.8	PQL	ug/Kg	J	L
BENZO(G,H,I)PERYLENE	1.5	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.3	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	1.0	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-137-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:28:00 *Analysis Type:* RES *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	4.1	J	4.0	MDL	9.9	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	6.5	J	4.0	MDL	9.9	PQL	ug/Kg	J	Z
ANTHRACENE	4.4	J	2.0	MDL	9.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	43		4.0	MDL	9.9	PQL	ug/Kg	J	L
BENZO(G,H,I)PERYLENE	6.8	J	4.0	MDL	9.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	6.3	J	4.0	MDL	9.9	PQL	ug/Kg	J	Z

Sample ID: SL-138-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 3:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	6.5	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	8.1	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	17		3.8	MDL	9.5	PQL	ug/Kg	J	L
BENZO(G,H,I)PERYLENE	4.1	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	7.6	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z
FLUORANTHENE	6.9	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z
PYRENE	8.7	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 **Laboratory: LL**

EDD Filename: DE091_v2 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-143-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 1:38:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.86	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	0.82	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-233-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 9:22:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	7.9		0.73	MDL	1.8	PQL	ug/Kg	J	L
BENZO(G,H,I)PERYLENE	1.5	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.3	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	0.85	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-250-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 10:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.54	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	14		0.74	MDL	1.8	PQL	ug/Kg	J	L
DIBENZO(A,H)ANTHRACENE	1.5	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-251-SA5A-SS-0.0-0.5 *Collected:* 2/24/2011 2:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	0.90	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-021-SA5A-SB-3.0-4.0 *Collected:* 2/24/2011 9:48:00 *Analysis Type:* RES *Dilution:* 0.91

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.07	J	0.06	MDL	4.0	PQL	ug/Kg	J	Z
m,p-Xylene	0.22	J	0.17	MDL	4.0	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.55	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-022-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 11:23:00 *Analysis Type:* RES *Dilution:* 1.02

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.92	J	0.27	MDL	4.5	PQL	ug/Kg	U	B
TOLUENE	0.11	J	0.09	MDL	4.5	PQL	ug/Kg	J	Z

Sample ID: SL-050-SA5A-SB-4.0-5.0 *Collected:* 2/24/2011 3:30:00 *Analysis Type:* RES *Dilution:* 0.96

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.15	J	0.07	MDL	4.4	PQL	ug/Kg	J	Z
m,p-Xylene	0.54	J	0.19	MDL	4.4	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.52	J	0.26	MDL	4.4	PQL	ug/Kg	U	B
TOLUENE	0.12	J	0.09	MDL	4.4	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 **Laboratory: LL**

EDD Filename: DE091_v2 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE091 **Laboratory: LL**

EDD Filename: DE091_v2 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE091

Method Blank Outlier Report

Lab Reporting Batch ID: DE091 **Laboratory:** LL

EDD Filename: DE091_v2 **eQAPP Name:** CDM_SSFL_110509

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06108AB221057	3/4/2011 10:57:00 AM	PHOSPHORUS TIN	1.19 mg/Kg 1.45 mg/Kg	SL-007-SA5A-SS-0.0-0.5 SL-008-SA5A-SS-0.0-0.5 SL-021-SA5A-SB-3.0-4.0 SL-022-SA5A-SB-4.0-5.0 SL-050-SA5A-SB-4.0-5.0 SL-110-SA5A-SS-0.0-0.5 SL-119-SA5A-SS-0.0-0.5 SL-120-SA5A-SS-0.0-0.5 SL-121-SA5A-SS-0.0-0.5 SL-122-SA5A-SS-0.0-0.5 SL-136-SA5A-SS-0.0-0.5 SL-137-SA5A-SS-0.0-0.5 SL-138-SA5A-SS-0.0-0.5 SL-143-SA5A-SS-0.0-0.5 SL-233-SA5A-SS-0.0-0.5 SL-250-SA5A-SS-0.0-0.5 SL-251-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-007-SA5A-SS-0.0-0.5(RES)	TIN	2.99 mg/Kg	2.99U mg/Kg
SL-008-SA5A-SS-0.0-0.5(RES)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-021-SA5A-SB-3.0-4.0(REA)	TIN	2.90 mg/Kg	2.90U mg/Kg
SL-022-SA5A-SB-4.0-5.0(REA)	TIN	3.17 mg/Kg	3.17U mg/Kg
SL-050-SA5A-SB-4.0-5.0(REA)	TIN	3.19 mg/Kg	3.19U mg/Kg
SL-110-SA5A-SS-0.0-0.5(RES)	TIN	2.38 mg/Kg	2.38U mg/Kg
SL-119-SA5A-SS-0.0-0.5(RES)	TIN	5.14 mg/Kg	5.14U mg/Kg
SL-120-SA5A-SS-0.0-0.5(RES)	TIN	2.32 mg/Kg	2.32U mg/Kg
SL-121-SA5A-SS-0.0-0.5(RES)	TIN	2.99 mg/Kg	2.99U mg/Kg
SL-122-SA5A-SS-0.0-0.5(REA)	TIN	2.54 mg/Kg	2.54U mg/Kg
SL-136-SA5A-SS-0.0-0.5(RES)	TIN	2.44 mg/Kg	2.44U mg/Kg
SL-138-SA5A-SS-0.0-0.5(RES)	TIN	2.75 mg/Kg	2.75U mg/Kg
SL-143-SA5A-SS-0.0-0.5(RES)	TIN	2.73 mg/Kg	2.73U mg/Kg
SL-233-SA5A-SS-0.0-0.5(RES)	TIN	2.76 mg/Kg	2.76U mg/Kg
SL-250-SA5A-SS-0.0-0.5(RES)	TIN	2.87 mg/Kg	2.87U mg/Kg
SL-251-SA5A-SS-0.0-0.5(REA)	TIN	2.63 mg/Kg	2.63U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE091 **Laboratory: LL**

EDD Filename: DE091_v2 **eQAPP Name: CDM_SSFL_110509**

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06126AB220228A	3/10/2011 2:28:00 AM	ANTIMONY COBALT LEAD SILVER THALLIUM VANADIUM	0.147 mg/Kg 0.0428 mg/Kg 0.0378 mg/Kg 0.0168 mg/Kg 0.0672 mg/Kg 0.0528 mg/Kg	SL-007-SA5A-SS-0.0-0.5 SL-008-SA5A-SS-0.0-0.5 SL-021-SA5A-SB-3.0-4.0 SL-022-SA5A-SB-4.0-5.0 SL-050-SA5A-SB-4.0-5.0 SL-110-SA5A-SS-0.0-0.5 SL-119-SA5A-SS-0.0-0.5 SL-120-SA5A-SS-0.0-0.5 SL-121-SA5A-SS-0.0-0.5 SL-122-SA5A-SS-0.0-0.5 SL-136-SA5A-SS-0.0-0.5 SL-137-SA5A-SS-0.0-0.5 SL-138-SA5A-SS-0.0-0.5 SL-143-SA5A-SS-0.0-0.5 SL-233-SA5A-SS-0.0-0.5 SL-250-SA5A-SS-0.0-0.5 SL-251-SA5A-SS-0.0-0.5
P06126AB220228C	3/10/2011 2:28:00 AM	MOLYBDENUM	0.0581 mg/Kg	SL-007-SA5A-SS-0.0-0.5 SL-008-SA5A-SS-0.0-0.5 SL-021-SA5A-SB-3.0-4.0 SL-022-SA5A-SB-4.0-5.0 SL-050-SA5A-SB-4.0-5.0 SL-110-SA5A-SS-0.0-0.5 SL-119-SA5A-SS-0.0-0.5 SL-120-SA5A-SS-0.0-0.5 SL-121-SA5A-SS-0.0-0.5 SL-122-SA5A-SS-0.0-0.5 SL-136-SA5A-SS-0.0-0.5 SL-137-SA5A-SS-0.0-0.5 SL-138-SA5A-SS-0.0-0.5 SL-143-SA5A-SS-0.0-0.5 SL-233-SA5A-SS-0.0-0.5 SL-250-SA5A-SS-0.0-0.5 SL-251-SA5A-SS-0.0-0.5
P06126AB221359A	3/9/2011 1:59:00 PM	BERYLLIUM	0.0458 mg/Kg	SL-007-SA5A-SS-0.0-0.5 SL-008-SA5A-SS-0.0-0.5 SL-021-SA5A-SB-3.0-4.0 SL-022-SA5A-SB-4.0-5.0 SL-050-SA5A-SB-4.0-5.0 SL-110-SA5A-SS-0.0-0.5 SL-119-SA5A-SS-0.0-0.5 SL-120-SA5A-SS-0.0-0.5 SL-121-SA5A-SS-0.0-0.5 SL-122-SA5A-SS-0.0-0.5 SL-136-SA5A-SS-0.0-0.5 SL-137-SA5A-SS-0.0-0.5 SL-138-SA5A-SS-0.0-0.5 SL-143-SA5A-SS-0.0-0.5 SL-233-SA5A-SS-0.0-0.5 SL-250-SA5A-SS-0.0-0.5 SL-251-SA5A-SS-0.0-0.5
P06126AB221359B	3/9/2011 1:59:00 PM	SELENIUM	0.0455 mg/Kg	SL-007-SA5A-SS-0.0-0.5 SL-008-SA5A-SS-0.0-0.5 SL-021-SA5A-SB-3.0-4.0 SL-022-SA5A-SB-4.0-5.0 SL-050-SA5A-SB-4.0-5.0 SL-110-SA5A-SS-0.0-0.5 SL-119-SA5A-SS-0.0-0.5 SL-120-SA5A-SS-0.0-0.5 SL-121-SA5A-SS-0.0-0.5 SL-122-SA5A-SS-0.0-0.5 SL-136-SA5A-SS-0.0-0.5 SL-137-SA5A-SS-0.0-0.5 SL-138-SA5A-SS-0.0-0.5 SL-143-SA5A-SS-0.0-0.5 SL-233-SA5A-SS-0.0-0.5 SL-250-SA5A-SS-0.0-0.5 SL-251-SA5A-SS-0.0-0.5

Method Blank Outlier Report

Lab Reporting Batch ID: DE091 **Laboratory:** LL

EDD Filename: DE091_v2 **eQAPP Name:** CDM_SSFL_110509

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06126AB222144A	3/10/2011 9:44:00 PM	COPPER	0.0776 mg/Kg	SL-007-SA5A-SS-0.0-0.5 SL-008-SA5A-SS-0.0-0.5 SL-021-SA5A-SB-3.0-4.0 SL-022-SA5A-SB-4.0-5.0 SL-050-SA5A-SB-4.0-5.0 SL-110-SA5A-SS-0.0-0.5 SL-119-SA5A-SS-0.0-0.5 SL-120-SA5A-SS-0.0-0.5 SL-121-SA5A-SS-0.0-0.5 SL-122-SA5A-SS-0.0-0.5 SL-136-SA5A-SS-0.0-0.5 SL-137-SA5A-SS-0.0-0.5 SL-138-SA5A-SS-0.0-0.5 SL-143-SA5A-SS-0.0-0.5 SL-233-SA5A-SS-0.0-0.5 SL-250-SA5A-SS-0.0-0.5 SL-251-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-007-SA5A-SS-0.0-0.5(REA)	ANTIMONY	0.221 mg/Kg	0.221U mg/Kg
SL-007-SA5A-SS-0.0-0.5(REA)	SILVER	0.0332 mg/Kg	0.0332U mg/Kg
SL-007-SA5A-SS-0.0-0.5(REA)	THALLIUM	0.302 mg/Kg	0.302U mg/Kg
SL-007-SA5A-SS-0.0-0.5(REA4)	SELENIUM	0.147 mg/Kg	0.147U mg/Kg
SL-008-SA5A-SS-0.0-0.5(REA)	ANTIMONY	0.190 mg/Kg	0.190U mg/Kg
SL-008-SA5A-SS-0.0-0.5(REA)	SILVER	0.0438 mg/Kg	0.0438U mg/Kg
SL-008-SA5A-SS-0.0-0.5(REA)	THALLIUM	0.294 mg/Kg	0.294U mg/Kg
SL-008-SA5A-SS-0.0-0.5(REA4)	SELENIUM	0.149 mg/Kg	0.149U mg/Kg
SL-021-SA5A-SB-3.0-4.0(REA)	ANTIMONY	0.141 mg/Kg	0.141U mg/Kg
SL-021-SA5A-SB-3.0-4.0(REA)	SILVER	0.0277 mg/Kg	0.0277U mg/Kg
SL-021-SA5A-SB-3.0-4.0(REA)	THALLIUM	0.216 mg/Kg	0.216U mg/Kg
SL-022-SA5A-SB-4.0-5.0(REA)	ANTIMONY	0.132 mg/Kg	0.132U mg/Kg
SL-022-SA5A-SB-4.0-5.0(REA)	THALLIUM	0.232 mg/Kg	0.232U mg/Kg
SL-022-SA5A-SB-4.0-5.0(REA4)	SELENIUM	0.125 mg/Kg	0.125U mg/Kg
SL-050-SA5A-SB-4.0-5.0(REA)	ANTIMONY	0.160 mg/Kg	0.160U mg/Kg
SL-050-SA5A-SB-4.0-5.0(REA)	SILVER	0.0777 mg/Kg	0.0777U mg/Kg
SL-050-SA5A-SB-4.0-5.0(REA)	THALLIUM	0.198 mg/Kg	0.198U mg/Kg
SL-050-SA5A-SB-4.0-5.0(REA4)	SELENIUM	0.129 mg/Kg	0.129U mg/Kg
SL-110-SA5A-SS-0.0-0.5(REA)	ANTIMONY	0.288 mg/Kg	0.288U mg/Kg
SL-110-SA5A-SS-0.0-0.5(REA)	THALLIUM	0.209 mg/Kg	0.209U mg/Kg
SL-110-SA5A-SS-0.0-0.5(REA4)	SELENIUM	0.130 mg/Kg	0.130U mg/Kg
SL-119-SA5A-SS-0.0-0.5(REA)	THALLIUM	0.206 mg/Kg	0.206U mg/Kg
SL-119-SA5A-SS-0.0-0.5(REA4)	SELENIUM	0.195 mg/Kg	0.195U mg/Kg
SL-120-SA5A-SS-0.0-0.5(REA)	ANTIMONY	0.273 mg/Kg	0.273U mg/Kg
SL-120-SA5A-SS-0.0-0.5(REA)	THALLIUM	0.137 mg/Kg	0.137U mg/Kg
SL-120-SA5A-SS-0.0-0.5(REA4)	SELENIUM	0.0992 mg/Kg	0.0992U mg/Kg
SL-121-SA5A-SS-0.0-0.5(REA)	ANTIMONY	0.131 mg/Kg	0.131U mg/Kg
SL-121-SA5A-SS-0.0-0.5(REA)	SILVER	0.0237 mg/Kg	0.0237U mg/Kg
SL-121-SA5A-SS-0.0-0.5(REA)	THALLIUM	0.240 mg/Kg	0.240U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-121-SA5A-SS-0.0-0.5(REA4)	SELENIUM	0.0858 mg/Kg	0.0858U mg/Kg
SL-122-SA5A-SS-0.0-0.5(REA)	ANTIMONY	0.142 mg/Kg	0.142U mg/Kg
SL-122-SA5A-SS-0.0-0.5(REA)	SILVER	0.0274 mg/Kg	0.0274U mg/Kg
SL-122-SA5A-SS-0.0-0.5(REA)	THALLIUM	0.215 mg/Kg	0.215U mg/Kg
SL-122-SA5A-SS-0.0-0.5(REA4)	SELENIUM	0.0876 mg/Kg	0.0876U mg/Kg
SL-122-SA5A-SS-0.0-0.5(REA5)	MOLYBDENUM	0.219 mg/Kg	0.219U mg/Kg
SL-136-SA5A-SS-0.0-0.5(REA)	ANTIMONY	0.112 mg/Kg	0.112U mg/Kg
SL-136-SA5A-SS-0.0-0.5(REA)	SILVER	0.0341 mg/Kg	0.0341U mg/Kg
SL-136-SA5A-SS-0.0-0.5(REA)	THALLIUM	0.234 mg/Kg	0.234U mg/Kg
SL-136-SA5A-SS-0.0-0.5(REA4)	SELENIUM	0.123 mg/Kg	0.123U mg/Kg
SL-137-SA5A-SS-0.0-0.5(REA)	THALLIUM	0.248 mg/Kg	0.248U mg/Kg
SL-137-SA5A-SS-0.0-0.5(REA4)	SELENIUM	0.113 mg/Kg	0.113U mg/Kg
SL-138-SA5A-SS-0.0-0.5(REA)	ANTIMONY	0.208 mg/Kg	0.208U mg/Kg
SL-138-SA5A-SS-0.0-0.5(REA)	SILVER	0.0344 mg/Kg	0.0344U mg/Kg
SL-138-SA5A-SS-0.0-0.5(REA)	THALLIUM	0.303 mg/Kg	0.303U mg/Kg
SL-138-SA5A-SS-0.0-0.5(REA4)	SELENIUM	0.0939 mg/Kg	0.0939U mg/Kg
SL-143-SA5A-SS-0.0-0.5(REA)	ANTIMONY	0.248 mg/Kg	0.248U mg/Kg
SL-143-SA5A-SS-0.0-0.5(REA)	SILVER	0.0658 mg/Kg	0.0658U mg/Kg
SL-143-SA5A-SS-0.0-0.5(REA)	THALLIUM	0.254 mg/Kg	0.254U mg/Kg
SL-143-SA5A-SS-0.0-0.5(REA4)	SELENIUM	0.133 mg/Kg	0.133U mg/Kg
SL-233-SA5A-SS-0.0-0.5(REA)	ANTIMONY	0.149 mg/Kg	0.149U mg/Kg
SL-233-SA5A-SS-0.0-0.5(REA)	SILVER	0.0289 mg/Kg	0.0289U mg/Kg
SL-233-SA5A-SS-0.0-0.5(REA)	THALLIUM	0.247 mg/Kg	0.247U mg/Kg
SL-233-SA5A-SS-0.0-0.5(REA4)	SELENIUM	0.0944 mg/Kg	0.0944U mg/Kg
SL-250-SA5A-SS-0.0-0.5(REA)	ANTIMONY	0.178 mg/Kg	0.178U mg/Kg
SL-250-SA5A-SS-0.0-0.5(REA)	SILVER	0.0306 mg/Kg	0.0306U mg/Kg
SL-250-SA5A-SS-0.0-0.5(REA)	THALLIUM	0.246 mg/Kg	0.246U mg/Kg
SL-250-SA5A-SS-0.0-0.5(REA4)	SELENIUM	0.0844 mg/Kg	0.0844U mg/Kg
SL-251-SA5A-SS-0.0-0.5(REA)	ANTIMONY	0.143 mg/Kg	0.143U mg/Kg
SL-251-SA5A-SS-0.0-0.5(REA)	SILVER	0.0495 mg/Kg	0.0495U mg/Kg
SL-251-SA5A-SS-0.0-0.5(REA)	THALLIUM	0.243 mg/Kg	0.243U mg/Kg
SL-251-SA5A-SS-0.0-0.5(REA4)	SELENIUM	0.140 mg/Kg	0.140U mg/Kg

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
V8LKB80B212159A	2/28/2011 9:59:00 PM	METHYLENE CHLORIDE	0.57 ug/Kg	SL-021-SA5A-SB-3.0-4.0 SL-022-SA5A-SB-4.0-5.0 SL-050-SA5A-SB-4.0-5.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-021-SA5A-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	0.55 ug/Kg	4.0U ug/Kg
SL-022-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.92 ug/Kg	4.5U ug/Kg
SL-050-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.52 ug/Kg	4.4U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-007-SA5A-SS-0.0-0.5MS SL-007-SA5A-SS-0.0-0.5MSD (SL-007-SA5A-SS-0.0-0.5)	2-CHLORONAPHTHALENE 4-CHLOROANILINE ANILINE	- - 96	- 98 -	50.00-141.00 23.00-95.00 35.00-95.00	33 (30.00) - -	2-CHLORONAPHTHALENE 4-CHLOROANILINE ANILINE	J (all detects)
SL-007-SA5A-SS-0.0-0.5MS SL-007-SA5A-SS-0.0-0.5MSD (SL-007-SA5A-SS-0.0-0.5)	BENZIDINE	27	18	35.00-141.00	40 (30.00)	BENZIDINE	J(all detects) UJ(all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-007-SA5A-SS-0.0-0.5MS SL-007-SA5A-SS-0.0-0.5MSD (SL-007-SA5A-SS-0.0-0.5 SL -008-SA5A-SS-0.0-0.5 SL -021-SA5A-SB-3.0-4.0 SL -022-SA5A-SB-4.0-5.0 SL -050-SA5A-SB-4.0-5.0 SL -110-SA5A-SS-0.0-0.5 SL -119-SA5A-SS-0.0-0.5 SL -120-SA5A-SS-0.0-0.5 SL -121-SA5A-SS-0.0-0.5 SL -122-SA5A-SS-0.0-0.5 SL -136-SA5A-SS-0.0-0.5 SL -137-SA5A-SS-0.0-0.5 SL -138-SA5A-SS-0.0-0.5 SL -143-SA5A-SS-0.0-0.5 SL -233-SA5A-SS-0.0-0.5 SL -250-SA5A-SS-0.0-0.5 SL -251-SA5A-SS-0.0-0.5)	CHROMIUM VANADIUM ZINC	- - 132	152 153 157	75.00-125.00 75.00-125.00 75.00-125.00	- - -	CHROMIUM VANADIUM ZINC	J(all detects) Zn No Qual, >4x
SL-007-SA5A-SS-0.0-0.5MS SL-007-SA5A-SS-0.0-0.5MSD (SL-007-SA5A-SS-0.0-0.5 SL -008-SA5A-SS-0.0-0.5 SL -021-SA5A-SB-3.0-4.0 SL -022-SA5A-SB-4.0-5.0 SL -050-SA5A-SB-4.0-5.0 SL -110-SA5A-SS-0.0-0.5 SL -119-SA5A-SS-0.0-0.5 SL -120-SA5A-SS-0.0-0.5 SL -121-SA5A-SS-0.0-0.5 SL -122-SA5A-SS-0.0-0.5 SL -136-SA5A-SS-0.0-0.5 SL -137-SA5A-SS-0.0-0.5 SL -138-SA5A-SS-0.0-0.5 SL -143-SA5A-SS-0.0-0.5 SL -233-SA5A-SS-0.0-0.5 SL -250-SA5A-SS-0.0-0.5 SL -251-SA5A-SS-0.0-0.5)	ANTIMONY	52	48	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-007-SA5A-SS-0.0-0.5MS	BARIUM	171	238	75.00-125.00	-	BARIUM	
SL-007-SA5A-SS-0.0-0.5MSD							
(SL-007-SA5A-SS-0.0-0.5							
SL -008-SA5A-SS-0.0-0.5							
SL -021-SA5A-SB-3.0-4.0							
SL -022-SA5A-SB-4.0-5.0							
SL -050-SA5A-SB-4.0-5.0							
SL -110-SA5A-SS-0.0-0.5							
SL -119-SA5A-SS-0.0-0.5							
SL -120-SA5A-SS-0.0-0.5							No Qual, >4x
SL -121-SA5A-SS-0.0-0.5							
SL -122-SA5A-SS-0.0-0.5							
SL -136-SA5A-SS-0.0-0.5							
SL -137-SA5A-SS-0.0-0.5							
SL -138-SA5A-SS-0.0-0.5							
SL -143-SA5A-SS-0.0-0.5							
SL -233-SA5A-SS-0.0-0.5							
SL -250-SA5A-SS-0.0-0.5							
SL -251-SA5A-SS-0.0-0.5)							

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-007-SA5A-SS-0.0-0.5MS	ALUMINUM	1344	1527	75.00-125.00	-	ALUMINUM	
SL-007-SA5A-SS-0.0-0.5MSD	CALCIUM	161	165	75.00-125.00	-	CALCIUM	
(SL-007-SA5A-SS-0.0-0.5	MAGNESIUM	194	160	75.00-125.00	-	MAGNESIUM	
SL -008-SA5A-SS-0.0-0.5	POTASSIUM	138	152	75.00-125.00	-	POTASSIUM	
SL -021-SA5A-SB-3.0-4.0	TITANIUM	264	282	75.00-125.00	-	TITANIUM	
SL -022-SA5A-SB-4.0-5.0							J(all detects)
SL -050-SA5A-SB-4.0-5.0							
SL -110-SA5A-SS-0.0-0.5							Al, Ca, Mg, Ti
SL -119-SA5A-SS-0.0-0.5							
SL -120-SA5A-SS-0.0-0.5							No Qual, >4x
SL -121-SA5A-SS-0.0-0.5							
SL -122-SA5A-SS-0.0-0.5							
SL -136-SA5A-SS-0.0-0.5							
SL -137-SA5A-SS-0.0-0.5							
SL -138-SA5A-SS-0.0-0.5							
SL -143-SA5A-SS-0.0-0.5							
SL -233-SA5A-SS-0.0-0.5							
SL -250-SA5A-SS-0.0-0.5							
SL -251-SA5A-SS-0.0-0.5)							

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE091 **Laboratory: LL**

EDD Filename: DE091_v2 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-007-SA5A-SS-0.0-0.5MS SL-007-SA5A-SS-0.0-0.5MSD (SL-007-SA5A-SS-0.0-0.5 SL -008-SA5A-SS-0.0-0.5 SL -021-SA5A-SB-3.0-4.0 SL -022-SA5A-SB-4.0-5.0 SL -050-SA5A-SB-4.0-5.0 SL -110-SA5A-SS-0.0-0.5 SL -119-SA5A-SS-0.0-0.5 SL -120-SA5A-SS-0.0-0.5 SL -121-SA5A-SS-0.0-0.5 SL -122-SA5A-SS-0.0-0.5 SL -136-SA5A-SS-0.0-0.5 SL -137-SA5A-SS-0.0-0.5 SL -138-SA5A-SS-0.0-0.5 SL -143-SA5A-SS-0.0-0.5 SL -233-SA5A-SS-0.0-0.5 SL -250-SA5A-SS-0.0-0.5 SL -251-SA5A-SS-0.0-0.5)	IRON MANGANESE	446 -	-485 24	75.00-125.00 75.00-125.00	- -	IRON MANGANESE	No Qual, >4x

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-119-SA5A-SS-0.0-0.5MS SL-119-SA5A-SS-0.0-0.5MSD (SL-119-SA5A-SS-0.0-0.5)	BENZO(K)FLUORANTHENE	164	180	42.00-144.00	-	BENZO(K)FLUORANTHENE	No Qual, Diluted Out
SL-119-SA5A-SS-0.0-0.5MS SL-119-SA5A-SS-0.0-0.5MSD (SL-119-SA5A-SS-0.0-0.5)	BIS(2-ETHYLHEXYL)PHTHALAT Diethylphthalate Dimethylphthalate	0 0 0	- 0 0	39.00-167.00 70.00-136.00 74.00-118.00	- - -	BIS(2-ETHYLHEXYL)PHTHALA Diethylphthalate Dimethylphthalate	No Qual Diluted Out
SL-119-SA5A-SS-0.0-0.5MS SL-119-SA5A-SS-0.0-0.5MSD (SL-119-SA5A-SS-0.0-0.5)	1-METHYLNAPHTHALENE 2-METHYLNAPHTHALENE ACENAPHTHYLENE Butylbenzylphthalate Di-n-butylphthalate FLUORENE	63 58 64 - 26 64	- - - 20 15 -	72.00-123.00 64.00-103.00 67.00-114.00 57.00-173.00 65.00-148.00 66.00-122.00	- - - 51 (30.00) - -	1-METHYLNAPHTHALENE 2-METHYLNAPHTHALENE ACENAPHTHYLENE Butylbenzylphthalate Di-n-butylphthalate FLUORENE	No Qual Diluted Out

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-007-SA5A-SS-0.0-0.5MS (SL-007-SA5A-SS-0.0-0.5 SL -008-SA5A-SS-0.0-0.5 SL -110-SA5A-SS-0.0-0.5 SL -119-SA5A-SS-0.0-0.5 SL -120-SA5A-SS-0.0-0.5 SL -121-SA5A-SS-0.0-0.5 SL -136-SA5A-SS-0.0-0.5 SL -137-SA5A-SS-0.0-0.5 SL -138-SA5A-SS-0.0-0.5 SL -143-SA5A-SS-0.0-0.5)	FLUORIDE	65	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-233-SA5A-SS-0.0-0.5MS (SL-021-SA5A-SB-3.0-4.0 SL-022-SA5A-SB-4.0-5.0 SL-050-SA5A-SB-4.0-5.0 SL-122-SA5A-SS-0.0-0.5 SL-233-SA5A-SS-0.0-0.5 SL-250-SA5A-SS-0.0-0.5 SL-251-SA5A-SS-0.0-0.5)	FLUORIDE	72	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-007-SA5A-SS-0.0-0.5MS **SL-007-SA5A-SS-0.0-0.5MSD** (SL-007-SA5A-SS-0.0-0.5 SL-008-SA5A-SS-0.0-0.5 SL-021-SA5A-SB-3.0-4.0 SL-022-SA5A-SB-4.0-5.0 SL-050-SA5A-SB-4.0-5.0 SL-110-SA5A-SS-0.0-0.5 SL-119-SA5A-SS-0.0-0.5 SL-120-SA5A-SS-0.0-0.5 SL-121-SA5A-SS-0.0-0.5 SL-122-SA5A-SS-0.0-0.5 SL-136-SA5A-SS-0.0-0.5 SL-137-SA5A-SS-0.0-0.5 SL-138-SA5A-SS-0.0-0.5 SL-143-SA5A-SS-0.0-0.5 SL-233-SA5A-SS-0.0-0.5 SL-250-SA5A-SS-0.0-0.5 SL-251-SA5A-SS-0.0-0.5)	CADMIUM	126	128	75.00-125.00	-	CADMIUM	J(all detects)

Method: 8081A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-007-SA5A-SS-0.0-0.5MSD (SL-007-SA5A-SS-0.0-0.5)	ALDRIN	-	-	16.00-126.00	54 (50.00)	ALDRIN	J(all detects)
	DIELDRIN	-	-	19.00-154.00	52 (50.00)	DIELDRIN	
	ENDOSULFAN SULFATE	-	-	21.00-160.00	65 (50.00)	ENDOSULFAN SULFATE	
	ENDRIN ALDEHYDE	-	-	10.00-148.00	43 (35.00)	ENDRIN ALDEHYDE	
	METHOXYCHLOR	-	-	32.00-147.00	58 (50.00)	METHOXYCHLOR	

Method: 8151A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-007-SA5A-SS-0.0-0.5MSD (SL-007-SA5A-SS-0.0-0.5)	MCPP	-	-	10.00-184.00	93 (50.00)	MCPP	J(all detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE091 **Laboratory: LL**

EDD Filename: DE091_v2 **eQAPP Name: CDM_SSFL_110509**

Method: **8151A**
Matrix: **SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-007-SA5A-SS-0.0-0.5MS SL-007-SA5A-SS-0.0-0.5MSD (SL-007-SA5A-SS-0.0-0.5)	2,4-DB DALAPON DINOSEB	0 0 0	0 0 0	10.00-201.00 10.00-125.00 10.00-46.00	- - -	2,4-DB DALAPON DINOSEB	J(all detects) R(all non-detects)
SL-007-SA5A-SS-0.0-0.5MS SL-007-SA5A-SS-0.0-0.5MSD (SL-007-SA5A-SS-0.0-0.5)	2,4,5-TP (Silvex)	18	16	24.00-141.00	-	2,4,5-TP (Silvex)	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE091 **Laboratory: LL**

EDD Filename: DE091_v2 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-007-SA5A-SS-0.0-0.5DUP (SL-007-SA5A-SS-0.0-0.5 SL -008-SA5A-SS-0.0-0.5 SL -021-SA5A-SB-3.0-4.0 SL -022-SA5A-SB-4.0-5.0 SL -050-SA5A-SB-4.0-5.0 SL -110-SA5A-SS-0.0-0.5 SL -119-SA5A-SS-0.0-0.5 SL -120-SA5A-SS-0.0-0.5 SL -121-SA5A-SS-0.0-0.5 SL -122-SA5A-SS-0.0-0.5 SL -136-SA5A-SS-0.0-0.5 SL -137-SA5A-SS-0.0-0.5 SL -138-SA5A-SS-0.0-0.5 SL -143-SA5A-SS-0.0-0.5 SL -233-SA5A-SS-0.0-0.5 SL -250-SA5A-SS-0.0-0.5 SL -251-SA5A-SS-0.0-0.5)	CADMIUM	24	20.00	No Qual OK by difference

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE091 **Laboratory: LL**

EDD Filename: DE091_v2 **eQAPP Name: CDM_SSFL_110509**

***Method:* 8270C SIM**

***Matrix:* SO**

QC Sample ID (Associated Samples)	*Compound*	*LCS %R*	*LCSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
P2LCLCSQ260626 (SL-007-SA5A-SS-0.0-0.5 SL-008-SA5A-SS-0.0-0.5 SL-021-SA5A-SB-3.0-4.0 SL-022-SA5A-SB-4.0-5.0 SL-050-SA5A-SB-4.0-5.0 SL-110-SA5A-SS-0.0-0.5 SL-119-SA5A-SS-0.0-0.5 SL-120-SA5A-SS-0.0-0.5 SL-121-SA5A-SS-0.0-0.5 SL-122-SA5A-SS-0.0-0.5 SL-136-SA5A-SS-0.0-0.5 SL-137-SA5A-SS-0.0-0.5 SL-138-SA5A-SS-0.0-0.5 SL-143-SA5A-SS-0.0-0.5 SL-233-SA5A-SS-0.0-0.5 SL-250-SA5A-SS-0.0-0.5 SL-251-SA5A-SS-0.0-0.5)	BENZO(B)FLUORANTHENE	146	-	63.00-143.00	-	BENZO(B)FLUORANTHENE	J (all detects)

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Surrogate Outlier Report

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method: 8081A
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-119-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	0	20.00-120.00	All Target Analytes	J(all detects) R(all non-detects)
SL-143-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	1023	20.00-120.00	All Target Analytes	No Qual, Diluted Out

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-007-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	134	45.00-120.00	All Target Analytes	J (all detects)
SL-008-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	129	45.00-120.00	All Target Analytes	J(all detects)
SL-110-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	125	45.00-120.00	All Target Analytes	J(all detects)
SL-138-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	149	45.00-120.00	All Target Analytes	J(all detects)
SL-143-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	137	45.00-120.00	All Target Analytes	No Qual, Diluted Out

Method: 8270C SIM
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-021-SA5A-SB-3.0-4.0	Terphenyl-d14	137	45.00-135.00	No Affected Compounds	No Qualifiers
SL-050-SA5A-SB-4.0-5.0	Terphenyl-d14	149	45.00-135.00	No Affected Compounds	No Qualifiers
SL-250-SA5A-SS-0.0-0.5	Terphenyl-d14	143	45.00-135.00	No Affected Compounds	No Qualifiers
SL-251-SA5A-SS-0.0-0.5	Terphenyl-d14	138	45.00-135.00	No Affected Compounds	No Qualifiers

Reporting Limit Outliers

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-136-SA5A-SS-0.0-0.5	FLUORIDE	J	0.88	1.1	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-007-SA5A-SS-0.0-0.5	BORON	J	5.09	5.58	PQL	mg/Kg	J (all detects)
	SODIUM	J	58.5	112	PQL	mg/Kg	
	TIN	J	2.99	11.2	PQL	mg/Kg	
	Zirconium	J	2.13	5.58	PQL	mg/Kg	
SL-008-SA5A-SS-0.0-0.5	BORON	J	5.42	5.47	PQL	mg/Kg	J (all detects)
	SODIUM	J	54.3	109	PQL	mg/Kg	
	TIN	J	2.67	10.9	PQL	mg/Kg	
	Zirconium	J	1.70	5.47	PQL	mg/Kg	
SL-021-SA5A-SB-3.0-4.0	BORON	J	2.26	5.39	PQL	mg/Kg	J (all detects)
	SODIUM	J	63.5	108	PQL	mg/Kg	
	TIN	J	2.90	10.8	PQL	mg/Kg	
	Zirconium	J	1.94	5.39	PQL	mg/Kg	
SL-022-SA5A-SB-4.0-5.0	BORON	J	2.53	5.51	PQL	mg/Kg	J (all detects)
	SODIUM	J	67.8	110	PQL	mg/Kg	
	TIN	J	3.17	11.0	PQL	mg/Kg	
	Zirconium	J	1.23	5.51	PQL	mg/Kg	
SL-050-SA5A-SB-4.0-5.0	BORON	J	3.23	5.73	PQL	mg/Kg	J (all detects)
	SODIUM	J	87.5	115	PQL	mg/Kg	
	TIN	J	3.19	11.5	PQL	mg/Kg	
	Zirconium	J	2.70	5.73	PQL	mg/Kg	
SL-110-SA5A-SS-0.0-0.5	BORON	J	2.69	5.81	PQL	mg/Kg	J (all detects)
	TIN	J	2.38	11.6	PQL	mg/Kg	
SL-119-SA5A-SS-0.0-0.5	BORON	J	5.47	6.00	PQL	mg/Kg	J (all detects)
	SODIUM	J	81.7	120	PQL	mg/Kg	
	TIN	J	5.14	12.0	PQL	mg/Kg	
SL-120-SA5A-SS-0.0-0.5	BORON	J	4.55	5.43	PQL	mg/Kg	J (all detects)
	TIN	J	2.32	10.9	PQL	mg/Kg	
SL-121-SA5A-SS-0.0-0.5	BORON	J	5.21	5.43	PQL	mg/Kg	J (all detects)
	SODIUM	J	85.2	109	PQL	mg/Kg	
	TIN	J	2.99	10.9	PQL	mg/Kg	
	Zirconium	J	1.73	5.43	PQL	mg/Kg	
SL-122-SA5A-SS-0.0-0.5	BORON	J	5.09	5.33	PQL	mg/Kg	J (all detects)
	TIN	J	2.54	10.7	PQL	mg/Kg	
	Zirconium	J	0.953	5.33	PQL	mg/Kg	
SL-136-SA5A-SS-0.0-0.5	BORON	J	3.32	5.31	PQL	mg/Kg	J (all detects)
	SODIUM	J	43.3	106	PQL	mg/Kg	
	TIN	J	2.44	10.6	PQL	mg/Kg	
	Zirconium	J	1.71	5.31	PQL	mg/Kg	
SL-137-SA5A-SS-0.0-0.5	BORON	J	4.23	5.91	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.37	5.91	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE091 **Laboratory: LL**

EDD Filename: DE091_v2 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-138-SA5A-SS-0.0-0.5	BORON	J	5.15	5.56	PQL	mg/Kg	J (all detects)
	TIN	J	2.75	11.1	PQL	mg/Kg	
	Zirconium	J	1.65	5.56	PQL	mg/Kg	
SL-143-SA5A-SS-0.0-0.5	BORON	J	4.48	5.55	PQL	mg/Kg	J (all detects)
	TIN	J	2.73	11.1	PQL	mg/Kg	
	Zirconium	J	1.33	5.55	PQL	mg/Kg	
SL-233-SA5A-SS-0.0-0.5	BORON	J	4.22	5.44	PQL	mg/Kg	J (all detects)
	TIN	J	2.76	10.9	PQL	mg/Kg	
	Zirconium	J	3.32	5.44	PQL	mg/Kg	
SL-250-SA5A-SS-0.0-0.5	SODIUM	J	54.0	106	PQL	mg/Kg	J (all detects)
	TIN	J	2.87	10.6	PQL	mg/Kg	
	Zirconium	J	1.29	5.30	PQL	mg/Kg	
SL-251-SA5A-SS-0.0-0.5	SODIUM	J	42.0	107	PQL	mg/Kg	J (all detects)
	TIN	J	2.63	10.7	PQL	mg/Kg	
	Zirconium	J	1.64	5.37	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-007-SA5A-SS-0.0-0.5	SELENIUM	J	0.147	0.429	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0332	0.107	PQL	mg/Kg	
SL-008-SA5A-SS-0.0-0.5	ANTIMONY	J	0.190	0.219	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.149	0.438	PQL	mg/Kg	
	SILVER	J	0.0438	0.109	PQL	mg/Kg	
SL-021-SA5A-SB-3.0-4.0	ANTIMONY	J	0.141	0.222	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0804	0.110	PQL	mg/Kg	
	SELENIUM	J	0.256	0.444	PQL	mg/Kg	
	SILVER	J	0.0277	0.111	PQL	mg/Kg	
SL-022-SA5A-SB-4.0-5.0	ANTIMONY	J	0.132	0.216	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0922	0.109	PQL	mg/Kg	
	SELENIUM	J	0.125	0.432	PQL	mg/Kg	
SL-050-SA5A-SB-4.0-5.0	ANTIMONY	J	0.160	0.222	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0728	0.110	PQL	mg/Kg	
	SELENIUM	J	0.129	0.445	PQL	mg/Kg	
	SILVER	J	0.0777	0.111	PQL	mg/Kg	
SL-110-SA5A-SS-0.0-0.5	SELENIUM	J	0.130	0.469	PQL	mg/Kg	J (all detects)
SL-119-SA5A-SS-0.0-0.5	SELENIUM	J	0.195	0.485	PQL	mg/Kg	J (all detects)
SL-120-SA5A-SS-0.0-0.5	SELENIUM	J	0.0992	0.439	PQL	mg/Kg	J (all detects)
SL-121-SA5A-SS-0.0-0.5	ANTIMONY	J	0.131	0.215	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0858	0.430	PQL	mg/Kg	
	SILVER	J	0.0237	0.108	PQL	mg/Kg	
SL-122-SA5A-SS-0.0-0.5	ANTIMONY	J	0.142	0.218	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0876	0.435	PQL	mg/Kg	
	SILVER	J	0.0274	0.109	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE091 **Laboratory: LL**

EDD Filename: DE091_v2 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-136-SA5A-SS-0.0-0.5	ANTIMONY	J	0.112	0.214	PQL	mg/Kg	
	SELENIUM	J	0.123	0.429	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0341	0.107	PQL	mg/Kg	
SL-137-SA5A-SS-0.0-0.5	SELENIUM	J	0.113	0.468	PQL	mg/Kg	J (all detects)
SL-138-SA5A-SS-0.0-0.5	ANTIMONY	J	0.208	0.225	PQL	mg/Kg	
	SELENIUM	J	0.0939	0.450	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0344	0.112	PQL	mg/Kg	
SL-143-SA5A-SS-0.0-0.5	SELENIUM	J	0.133	0.448	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0658	0.112	PQL	mg/Kg	
SL-233-SA5A-SS-0.0-0.5	ANTIMONY	J	0.149	0.213	PQL	mg/Kg	
	SELENIUM	J	0.0944	0.427	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0289	0.107	PQL	mg/Kg	
SL-250-SA5A-SS-0.0-0.5	ANTIMONY	J	0.178	0.216	PQL	mg/Kg	
	SELENIUM	J	0.0844	0.432	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0306	0.108	PQL	mg/Kg	
SL-251-SA5A-SS-0.0-0.5	ANTIMONY	J	0.143	0.219	PQL	mg/Kg	
	SELENIUM	J	0.140	0.438	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0495	0.109	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-007-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.32	1.1	PQL	mg/Kg	J (all detects)
SL-021-SA5A-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.81	1.1	PQL	mg/Kg	J (all detects)
SL-022-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.41	1.1	PQL	mg/Kg	J (all detects)
SL-050-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.31	1.1	PQL	mg/Kg	J (all detects)
SL-110-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.52	1.2	PQL	mg/Kg	J (all detects)
SL-120-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.51	1.1	PQL	mg/Kg	J (all detects)
SL-136-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.29	1.1	PQL	mg/Kg	J (all detects)
SL-138-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.72	1.1	PQL	mg/Kg	J (all detects)
SL-143-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.38	1.1	PQL	mg/Kg	J (all detects)
SL-233-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.25	1.1	PQL	mg/Kg	J (all detects)
SL-250-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.32	1.1	PQL	mg/Kg	J (all detects)
SL-251-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.35	1.1	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE091 **Laboratory:** LL

EDD Filename: DE091_v2 **eQAPP Name:** CDM_SSFL_110509

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA5A-SS-0.0-0.5	MERCURY	J	0.0355	0.103	PQL	mg/Kg	J (all detects)
SL-050-SA5A-SB-4.0-5.0	MERCURY	J	0.0095	0.110	PQL	mg/Kg	J (all detects)
SL-110-SA5A-SS-0.0-0.5	MERCURY	J	0.0620	0.111	PQL	mg/Kg	J (all detects)
SL-119-SA5A-SS-0.0-0.5	MERCURY	J	0.0946	0.120	PQL	mg/Kg	J (all detects)
SL-120-SA5A-SS-0.0-0.5	MERCURY	J	0.0650	0.107	PQL	mg/Kg	J (all detects)
SL-121-SA5A-SS-0.0-0.5	MERCURY	J	0.0042	0.108	PQL	mg/Kg	J (all detects)
SL-122-SA5A-SS-0.0-0.5	MERCURY	J	0.0094	0.106	PQL	mg/Kg	J (all detects)
SL-143-SA5A-SS-0.0-0.5	MERCURY	J	0.0197	0.108	PQL	mg/Kg	J (all detects)
SL-233-SA5A-SS-0.0-0.5	MERCURY	J	0.0284	0.102	PQL	mg/Kg	J (all detects)
SL-251-SA5A-SS-0.0-0.5	MERCURY	J	0.0179	0.110	PQL	mg/Kg	J (all detects)

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-007-SA5A-SS-0.0-0.5	4,4'-DDT	J	0.11	0.38	PQL	ug/Kg	J (all detects)
SL-008-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.29	0.38	PQL	ug/Kg	J (all detects)
	DIELDRIN	J	0.10	0.38	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.10	0.38	PQL	ug/Kg	
SL-110-SA5A-SS-0.0-0.5	ENDOSULFAN II	J	0.18	0.40	PQL	ug/Kg	J (all detects)
	ENDRIN ALDEHYDE	J	0.18	0.40	PQL	ug/Kg	
	HEPTACHLOR EPOXIDE	J	0.048	0.20	PQL	ug/Kg	
SL-119-SA5A-SS-0.0-0.5	DELTA-BHC	J	0.055	0.21	PQL	ug/Kg	J (all detects)
	ENDOSULFAN II	J	0.21	0.42	PQL	ug/Kg	
SL-120-SA5A-SS-0.0-0.5	4,4'-DDD	J	0.20	0.38	PQL	ug/Kg	J (all detects)
	DIELDRIN	J	0.21	0.38	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.085	0.38	PQL	ug/Kg	
	ENDRIN KETONE	J	0.22	0.38	PQL	ug/Kg	
SL-121-SA5A-SS-0.0-0.5	MIREX	J	0.30	0.38	PQL	ug/Kg	J (all detects)
SL-122-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.086	0.37	PQL	ug/Kg	J (all detects)
	ENDRIN ALDEHYDE	J	0.085	0.37	PQL	ug/Kg	
SL-136-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.13	0.37	PQL	ug/Kg	J (all detects)
	HEPTACHLOR	J	0.12	0.18	PQL	ug/Kg	
SL-137-SA5A-SS-0.0-0.5	ENDRIN ALDEHYDE	J	0.16	0.41	PQL	ug/Kg	J (all detects)
	HEPTACHLOR EPOXIDE	J	0.067	0.20	PQL	ug/Kg	
SL-138-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.11	0.39	PQL	ug/Kg	J (all detects)
SL-143-SA5A-SS-0.0-0.5	DIELDRIN	J	0.66	1.9	PQL	ug/Kg	J (all detects)
	ENDRIN ALDEHYDE	J	1.4	1.9	PQL	ug/Kg	
	HEPTACHLOR EPOXIDE	J	0.52	0.94	PQL	ug/Kg	
SL-233-SA5A-SS-0.0-0.5	ENDOSULFAN II	J	0.13	0.37	PQL	ug/Kg	J (all detects)
	ENDRIN ALDEHYDE	J	0.20	0.37	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-250-SA5A-SS-0.0-0.5	ENDRIN ALDEHYDE MIREX	J J	0.28 0.21	0.37 0.37	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-251-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.20	0.38	PQL	ug/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-120-SA5A-SS-0.0-0.5	Aroclor 5460	J	1.3	3.7	PQL	ug/Kg	J (all detects)
SL-121-SA5A-SS-0.0-0.5	Aroclor 5460	J	5.3	7.3	PQL	ug/Kg	J (all detects)
SL-122-SA5A-SS-0.0-0.5	Aroclor 5460	J	1.7	3.6	PQL	ug/Kg	J (all detects)
SL-136-SA5A-SS-0.0-0.5	Aroclor 5460	J	2.5	3.6	PQL	ug/Kg	J (all detects)
SL-143-SA5A-SS-0.0-0.5	AROCLOR 1260	J	7.5	9.6	PQL	ug/Kg	J (all detects)
SL-250-SA5A-SS-0.0-0.5	Aroclor 5460	J	5.9	7.3	PQL	ug/Kg	J (all detects)

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-007-SA5A-SS-0.0-0.5	2,4,5-TP (Silvex) MCPA	J J	0.15 170	0.19 280	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-008-SA5A-SS-0.0-0.5	MCPP	J	160	280	PQL	ug/Kg	J (all detects)
SL-110-SA5A-SS-0.0-0.5	DICAMBA DICHLOROPROP	J J	0.55 1.1	1.4 2.0	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-119-SA5A-SS-0.0-0.5	2,4,5-T	J	0.18	0.21	PQL	ug/Kg	J (all detects)
SL-138-SA5A-SS-0.0-0.5	DICAMBA	J	0.65	1.4	PQL	ug/Kg	J (all detects)
SL-233-SA5A-SS-0.0-0.5	MCPA	J	120	270	PQL	ug/Kg	J (all detects)
SL-251-SA5A-SS-0.0-0.5	2,4,5-TP (Silvex) MCPA	J J	0.13 230	0.19 280	PQL PQL	ug/Kg ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA5A-SB-3.0-4.0	ETHYLBENZENE m,p-Xylene METHYLENE CHLORIDE	J J J	0.07 0.22 0.55	4.0 4.0 4.0	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-022-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE TOLUENE	J J	0.92 0.11	4.5 4.5	PQL PQL	ug/Kg ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE091 **Laboratory: LL**

EDD Filename: DE091_v2 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-050-SA5A-SB-4.0-5.0	ETHYLBENZENE	J	0.15	4.4	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.54	4.4	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	0.52	4.4	PQL	ug/Kg	
	TOLUENE	J	0.12	4.4	PQL	ug/Kg	

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	28	370	PQL	ug/Kg	J (all detects)
SL-021-SA5A-SB-3.0-4.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	360	PQL	ug/Kg	J (all detects)
SL-022-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	23	360	PQL	ug/Kg	J (all detects)
SL-110-SA5A-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	26	190	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	91	390	PQL	ug/Kg	
	CHRYSENE	J	49	190	PQL	ug/Kg	
SL-119-SA5A-SS-0.0-0.5	ANTHRACENE	J	39	200	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	81	200	PQL	ug/Kg	
	BENZO(A)PYRENE	J	100	200	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	130	200	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	77	200	PQL	ug/Kg	
	BENZOIC ACID	J	240	610	PQL	ug/Kg	
	CARBAZOLE	J	41	200	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	35	200	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	95	200	PQL	ug/Kg	
	PHENANTHRENE	J	190	200	PQL	ug/Kg	
SL-120-SA5A-SS-0.0-0.5	BENZO(A)PYRENE	J	29	180	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	47	370	PQL	ug/Kg	
SL-121-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	31	370	PQL	ug/Kg	J (all detects)
SL-122-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	360	PQL	ug/Kg	J (all detects)
SL-136-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	34	360	PQL	ug/Kg	J (all detects)
SL-137-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	74	390	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	29	200	PQL	ug/Kg	
SL-138-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	370	PQL	ug/Kg	J (all detects)
SL-143-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	44	190	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	34	190	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	46	190	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	27	190	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	33	370	PQL	ug/Kg	
	CHRYSENE	J	50	190	PQL	ug/Kg	
	FLUORANTHENE	J	77	190	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	22	190	PQL	ug/Kg	
	PHENANTHRENE	J	78	190	PQL	ug/Kg	
	PYRENE	J	120	190	PQL	ug/Kg	
SL-233-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	360	PQL	ug/Kg	J (all detects)
SL-250-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	30	370	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE091 Laboratory: LL

EDD Filename: DE091_v2 eQAPP Name: CDM_SSFL_110509

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-251-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	45	370	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA5A-SS-0.0-0.5	BENZO(A)PYRENE	J	0.91	1.8	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.6	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.1	1.8	PQL	ug/Kg	
	CHRYSENE	J	1.1	1.8	PQL	ug/Kg	
	FLUORANTHENE	J	1.3	1.8	PQL	ug/Kg	
	PYRENE	J	1.1	1.8	PQL	ug/Kg	
SL-110-SA5A-SS-0.0-0.5	ACENAPHTHENE	J	1.2	2.0	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	1.1	2.0	PQL	ug/Kg	
	Butylbenzylphthalate	J	11	21	PQL	ug/Kg	
	FLUORENE	J	1.1	2.0	PQL	ug/Kg	
SL-119-SA5A-SS-0.0-0.5	Di-n-octylphthalate	J	38	110	PQL	ug/Kg	J (all detects)
SL-120-SA5A-SS-0.0-0.5	BENZO(K)FLUORANTHENE	J	5.8	9.2	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	4.8	9.2	PQL	ug/Kg	
	FLUORANTHENE	J	4.2	9.2	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	4.9	9.2	PQL	ug/Kg	
	PYRENE	J	5.6	9.2	PQL	ug/Kg	
SL-121-SA5A-SS-0.0-0.5	ANTHRACENE	J	0.52	1.8	PQL	ug/Kg	J (all detects)
SL-122-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.5	1.8	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	10	20	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.82	1.8	PQL	ug/Kg	
	Dimethylphthalate	J	12	20	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	0.99	1.8	PQL	ug/Kg	
SL-136-SA5A-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	1.5	1.8	PQL	ug/Kg	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	1.3	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	1.0	1.8	PQL	ug/Kg	
SL-137-SA5A-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	4.1	9.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	6.5	9.9	PQL	ug/Kg	
	ANTHRACENE	J	4.4	9.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	6.8	9.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	6.3	9.9	PQL	ug/Kg	
SL-138-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	6.5	9.5	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	8.1	9.5	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	4.1	9.5	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	7.6	9.5	PQL	ug/Kg	
	FLUORANTHENE	J	6.9	9.5	PQL	ug/Kg	
	PYRENE	J	8.7	9.5	PQL	ug/Kg	
SL-143-SA5A-SS-0.0-0.5	ANTHRACENE	J	0.86	1.9	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	0.82	1.9	PQL	ug/Kg	
SL-233-SA5A-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	1.5	1.8	PQL	ug/Kg	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	1.3	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	0.85	1.8	PQL	ug/Kg	

Project Name and Number: 1203-004-007-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE091 **Laboratory: LL**

EDD Filename: DE091_v2 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-250-SA5A-SS-0.0-0.5	ANTHRACENE	J	0.54	1.8	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	1.5	1.8	PQL	ug/Kg	
SL-251-SA5A-SS-0.0-0.5	NAPHTHALENE	J	0.90	1.9	PQL	ug/Kg	J (all detects)

LDC #: 25911C4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/23/14
SDG #: DE091 ADR
Laboratory: Lancaster Laboratories

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	N	
III.	Calibration	N	
IV.	Blanks	A	No qual by CCB's.
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	Al, Ba, Ca, Fe, Mg, Mn, Ti, Zn >4X
VII.	Duplicate Sample Analysis	N A	cd <5X RL
VIII.	Laboratory Control Samples (LCS)	N	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Ba, Cr, Co, Cu, Mn, V J/UJ
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	N	
XV	Field Blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-007-SA5A-SS-0.0-0.5	11	SL-233-SA5A-SS-0.0-0.5	21	#1 MS	31	
2	SL-008-SA5A-SS-0.0-0.5	12	SL-250-SA5A-SS-0.0-0.5	22	#1 MSD	32	
3	SL-110-SA5A-SS-0.0-0.5	13	SL-251-SA5A-SS-0.0-0.5	23	#1 Dup	33	
4	SL-119-SA5A-SS-0.0-0.5	14	SL-021-SA5A-SB-3.0-4.0	24		34	
5	SL-120-SA5A-SS-0.0-0.5	15	SL-022-SA5A-SB-4.0-5.0	25		35	
6	SL-121-SA5A-SS-0.0-0.5	16	SL-050-SA5A-SB-4.0-5.0	26		36	
7	SL-136-SA5A-SS-0.0-0.5	17	SL-122-SA5A-SS-0.0-0.5	27		37	
8	SL-137-SA5A-SS-0.0-0.5	18		28		38	
9	SL-138-SA5A-SS-0.0-0.5	19		29		39	
10	SL-143-SA5A-SS-0.0-0.5	20		30		40	

Notes:

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE091
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6216199BKG Matrix Spike Lab Sample ID: 6216199MS Matrix Spike Duplicate Lab Sample ID: 6216199MSD
% Solids for Sample: 89.6
Batch Id(s): P06108A, P06126A, P07026A

Analyte	Mass	BKG Sample Result	C	MS Sample Result	C	MSD Sample Result	C	MS Spike Added	MSD Spike Added	Units	MS %R	Q	MSD %R	Q	RPD	Q	Control Limit %R	Control Limit RPD	M
Aluminum		17193.6049		20162.9420		20534.7777		221.0042	218.8375	MG/KG	1344		1527		2			20	P
Antimony	121	0.2209		0.8922		0.8548		1.2878	1.3260	MG/KG	52	N	48	N	4		75 - 125	20	MS
Arsenic	75	4.4299		6.5097		6.4909		2.1463	2.2100	MG/KG	97		93		0		75 - 125	20	MS
Barium	137	115.7709		134.1647		142.0394		10.7315	11.0502	MG/KG	171		238		6			20	MS
Beryllium	9	0.7916		1.5792		1.7004		0.8585	0.8840	MG/KG	92		103		7		75 - 125	20	MS
Boron		5.0938	B	226.2001		226.1500		221.0042	218.8375	MG/KG	100		101		0		84 - 115	20	P
Cadmium	111	0.2727		1.6533		1.6680		1.0942	1.0942	MG/KG	126	N	128	N	1		75 - 125	20	MS
Calcium		2952.2757		3661.9530		3676.4389		442.0085	437.6751	MG/KG	161		165		0			20	P
Chromium	52	21.5058		33.6324		38.2558		10.7315	11.0502	MG/KG	113		152	N	13		75 - 125	20	MS
Cobalt	59	5.8830		56.8553		59.8037		53.6573	55.2511	MG/KG	95		98		5		75 - 125	20	MS
Copper	63	8.7011		18.1598		18.1643		10.7315	11.0502	MG/KG	88		86		0		75 - 125	20	MS
Iron		20972.0871		21465.0371		20441.6710		110.5021	109.4188	MG/KG	446		-485		5			20	P
Lead	208	5.6340		9.3278		9.3308		3.2194	3.3151	MG/KG	115		112		0		75 - 125	20	MS
Lithium		24.9475		136.8967		136.6422		110.5021	109.4188	MG/KG	101		102		0		82 - 114	20	P
Magnesium		4529.5904		4957.2456		4880.3615		221.0042	218.8375	MG/KG	194		160		2			20	P
Manganese		367.5257		425.9415		380.4534		55.2511	54.7094	MG/KG	106		24		11			20	P
Molybdenum	98	0.4851		10.9997		11.3817		10.7315	11.0502	MG/KG	98		99		3		75 - 125	20	MS
Nickel	60	13.1460		24.9614		26.1890		10.7315	11.0502	MG/KG	110		118		5		75 - 125	20	MS
Phosphorus		375.4520		491.3190		484.4811		110.5021	109.4188	MG/KG	105		100		1		75 - 125	20	P
Potassium		3673.0636		5197.0827		5331.4349		1105.0212	1094.1877	MG/KG	138	N	152	N	3		75 - 125	20	P
Selenium	78	0.1474	B	2.4232		2.8112		2.1463	2.2100	MG/KG	106		121		15		75 - 125	20	MS
Silver	107	0.0332	B	10.5233		10.8204		10.7315	11.0502	MG/KG	98		98		3		75 - 125	20	MS
Sodium		58.5480	B	1134.8723		1126.1905		1105.0212	1094.1877	MG/KG	97		98		1		75 - 125	20	P
Strontium		22.5391		132.3705		130.0289		110.5021	109.4188	MG/KG	99		98		2		75 - 115	20	P
Thallium	203	0.3024		0.6982		0.7737		0.4293	0.4420	MG/KG	92		107		10		75 - 125	20	MS
Tin		2.9911	B	400.0608		395.1166		442.0085	437.6751	MG/KG	90		90		1		80 - 110	20	P
Titanium		1398.9342		1690.2504		1707.9044		110.5021	109.4188	MG/KG	264		282		1			20	P
Vanadium	51	38.9981		51.7256		55.9583		10.7315	11.0502	MG/KG	119		153	N	8		75 - 125	20	MS
Zinc	66	59.7957		73.9183		77.1747		10.7315	11.0502	MG/KG	132		157		4			20	MS
Zirconium		2.1295	B	108.3142		108.4384		110.5021	109.4188	MG/KG	96		97		0		75 - 125	20	P

74X

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence

CONCENTRATION QUALIFIERS:
U= Below MDL, B= Below LOQ
FLAGS:
N = Matrix Spike OOS, * = Duplicate OOS

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE091
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6216199BKG Serial Dilution Lab Sample ID: 6216199L
Batch ID(s): P06108A, P06126A, P07026A
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		154054.7000		154274.6000		0		P
Antimony	121	1.0290		1.8400	B	79		MS
Arsenic	75	20.6400		22.9600		11		MS
Barium	137	539.4000		609.0000		13	E	MS
Beryllium	9	3.6880		3.3040		10		MS
Boron		45.6400	B	51.1500	B	12		P
Cadmium	111	1.2460		1.2935	B	4		MS
Calcium		26452.3900		28669.4000		8		P
Chromium	52	100.2000		111.4000		11	E	MS
Cobalt	59	27.4100		31.8250		16	E	MS
Copper	63	40.5400		45.1800		11	E	MS
Iron		187909.9000		199036.0500		6		P
Lead	208	26.2500		28.7200		9		MS
Lithium		223.5300		223.3000		0		P
Magnesium		40585.1300		41937.9000		3		P
Manganese		3293.0300		3637.7000		10		P
Molybdenum	98	2.2600		2.6415		17		MS
Nickel	60	61.2500		70.2000		15	E	MS
Phosphorus		3364.0500		3417.9500		2		P
Potassium		32910.6500		34008.5000		3		P
Selenium	78	0.6866	B	1.0000	U	100		MS
Silver	107	0.1545	B	0.3000	U	100		MS
Sodium		524.5900	B	1865.0000	U	100		P
Strontium		201.9500		211.3000		5		P
Thallium	203	1.4090		1.5560	B	10		MS
Tin		26.8000	B	50.0000	U	100		P
Titanium		12534.4500		13737.6000		10		P
Vanadium	51	181.7000		203.9500		12	E	MS
Zinc	66	278.6000		313.4500		13		MS
Zirconium		19.0800	B	42.0000	U	100		P

NOTE: An E in column Q indicates the presence of a chemical or physical interference in the matrix when the % difference is greater than 10%. This applies only when (I) is greater than or equal to 50x MDL for ICP, 100x MDL for ICP-MS (6020), 50x MDL for ICP-MS (200.8), or 25x MDL for GFAA.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ

FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

DE091 4519

SAMPLE DELIVERY GROUP

DE092

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5	6216870	N	3050B	6010B	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5	6216870	N	3050B	6020	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5	6216870	N	3060A	7199	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5	6216870	N	3550B	8081A	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5	6216870	N	3550B	8082	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5	6216870	N	3550B	8151A	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5	6216870	N	3550B	8270C	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5	6216870	N	3550B	8270C SIM	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5	6216870	N	Gen Prep	9045M	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5	6216870	N	METHOD	300.0	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5	6216870	N	METHOD	314.0	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5	6216870	N	METHOD	7471A	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5DUP	P216870D221025	DUP	METHOD	7471A	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5DUP	P216870D221211A	DUP	3050B	6020	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5DUP	P216870D221211B	DUP	3050B	6020	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5DUP	P216870D221211C	DUP	3050B	6020	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5DUP	P216870D221211D	DUP	3050B	6020	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5DUP	P216870D221225	DUP	3050B	6010B	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5DUP	P216870D221857	DUP	3050B	6010B	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5DUP	P216870D270004A	DUP	METHOD	300.0	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5DUP	P216870D271722A	DUP	METHOD	314.0	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MSD	P216870M221028	MSD	METHOD	7471A	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MSD	P216870M221217A	MSD	3050B	6020	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MSD	P216870M221217B	MSD	3050B	6020	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MSD	P216870M221217C	MSD	3050B	6020	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MSD	P216870M221217D	MSD	3050B	6020	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MSD	P216870M221232	MSD	3050B	6010B	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MSD	P216870M221904	MSD	3050B	6010B	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MSD	P216870M240708A	MSD	3550B	8151A	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MSD	P216870M241721A	MSD	3550B	8081A	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MSD	P216870M242020A	MSD	3550B	8082	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MSD	P216870M261213	MSD	3550B	8270C SIM	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MS	P216870R221027	MS	METHOD	7471A	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MS	P216870R221214A	MS	3050B	6020	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MS	P216870R221214B	MS	3050B	6020	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MS	P216870R221214C	MS	3050B	6020	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MS	P216870R221214D	MS	3050B	6020	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MS	P216870R221229	MS	3050B	6010B	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MS	P216870R221901	MS	3050B	6010B	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MS	P216870R240641A	MS	3550B	8151A	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MS	P216870R241706A	MS	3550B	8081A	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MS	P216870R241956A	MS	3550B	8082	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MS	P216870R261142	MS	3550B	8270C SIM	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MS	P216870R270019A	MS	METHOD	300.0	III
25-Feb-2011	SL-126-SA5A-SS-0.0-0.5MS	P216870R271746A	MS	METHOD	314.0	III
25-Feb-2011	SL-127-SA5A-SS-0.0-0.5	6216871	N	3050B	6010B	III
25-Feb-2011	SL-127-SA5A-SS-0.0-0.5	6216871	N	3050B	6020	III
25-Feb-2011	SL-127-SA5A-SS-0.0-0.5	6216871	N	3060A	7199	III
25-Feb-2011	SL-127-SA5A-SS-0.0-0.5	6216871	N	3550B	8081A	III
25-Feb-2011	SL-127-SA5A-SS-0.0-0.5	6216871	N	3550B	8082	III
25-Feb-2011	SL-127-SA5A-SS-0.0-0.5	6216871	N	3550B	8151A	III
25-Feb-2011	SL-127-SA5A-SS-0.0-0.5	6216871	N	3550B	8270C	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-Feb-2011	SL-127-SA5A-SS-0.0-0.5	6216871	N	3550B	8270C SIM	III
25-Feb-2011	SL-127-SA5A-SS-0.0-0.5	6216871	N	Gen Prep	9045M	III
25-Feb-2011	SL-127-SA5A-SS-0.0-0.5	6216871	N	METHOD	300.0	III
25-Feb-2011	SL-127-SA5A-SS-0.0-0.5	6216871	N	METHOD	314.0	III
25-Feb-2011	SL-127-SA5A-SS-0.0-0.5	6216871	N	METHOD	6850	III
25-Feb-2011	SL-127-SA5A-SS-0.0-0.5	6216871	N	METHOD	7471A	III
25-Feb-2011	SL-132-SA5A-SS-0.0-0.5	6216873	N	3050B	6010B	III
25-Feb-2011	SL-132-SA5A-SS-0.0-0.5	6216873	N	3050B	6020	III
25-Feb-2011	SL-132-SA5A-SS-0.0-0.5	6216873	N	3060A	7199	III
25-Feb-2011	SL-132-SA5A-SS-0.0-0.5	6216873	N	3550B	8081A	III
25-Feb-2011	SL-132-SA5A-SS-0.0-0.5	6216873	N	3550B	8082	III
25-Feb-2011	SL-132-SA5A-SS-0.0-0.5	6216873	N	3550B	8151A	III
25-Feb-2011	SL-132-SA5A-SS-0.0-0.5	6216873	N	3550B	8270C	III
25-Feb-2011	SL-132-SA5A-SS-0.0-0.5	6216873	N	3550B	8270C SIM	III
25-Feb-2011	SL-132-SA5A-SS-0.0-0.5	6216873	N	Gen Prep	9045M	III
25-Feb-2011	SL-132-SA5A-SS-0.0-0.5	6216873	N	METHOD	300.0	III
25-Feb-2011	SL-132-SA5A-SS-0.0-0.5	6216873	N	METHOD	314.0	III
25-Feb-2011	SL-132-SA5A-SS-0.0-0.5	6216873	N	METHOD	7471A	III
25-Feb-2011	SL-053-SA5A-SB-3.0-4.0	6216885	N	3050B	6010B	III
25-Feb-2011	SL-053-SA5A-SB-3.0-4.0	6216885	N	3050B	6020	III
25-Feb-2011	SL-053-SA5A-SB-3.0-4.0	6216885	N	3060A	7199	III
25-Feb-2011	SL-053-SA5A-SB-3.0-4.0	6216885	N	3550B	8082	III
25-Feb-2011	SL-053-SA5A-SB-3.0-4.0	6216885	N	3550B	8270C	III
25-Feb-2011	SL-053-SA5A-SB-3.0-4.0	6216885	N	3550B	8270C SIM	III
25-Feb-2011	SL-053-SA5A-SB-3.0-4.0	6216885	N	5035	8260B	III
25-Feb-2011	SL-053-SA5A-SB-3.0-4.0	6216885	N	5035	8260B SIM	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-Feb-2011	SL-053-SA5A-SB-3.0-4.0	6216885	N	Gen Prep	9045M	III
25-Feb-2011	SL-053-SA5A-SB-3.0-4.0	6216885	N	METHOD	300.0	III
25-Feb-2011	SL-053-SA5A-SB-3.0-4.0	6216885	N	METHOD	314.0	III
25-Feb-2011	SL-053-SA5A-SB-3.0-4.0	6216885	N	METHOD	7471A	III
25-Feb-2011	SL-053-SA5A-SB-3.0-4.0DUP	P216885D291325A	DUP	Gen Prep	9045M	III
25-Feb-2011	SL-133-SA5A-SS-0.0-0.5	6216874	N	3050B	6010B	III
25-Feb-2011	SL-133-SA5A-SS-0.0-0.5	6216874	N	3050B	6020	III
25-Feb-2011	SL-133-SA5A-SS-0.0-0.5	6216874	N	3060A	7199	III
25-Feb-2011	SL-133-SA5A-SS-0.0-0.5	6216874	N	3550B	8081A	III
25-Feb-2011	SL-133-SA5A-SS-0.0-0.5	6216874	N	3550B	8082	III
25-Feb-2011	SL-133-SA5A-SS-0.0-0.5	6216874	N	3550B	8151A	III
25-Feb-2011	SL-133-SA5A-SS-0.0-0.5	6216874	N	3550B	8270C	III
25-Feb-2011	SL-133-SA5A-SS-0.0-0.5	6216874	N	3550B	8270C SIM	III
25-Feb-2011	SL-133-SA5A-SS-0.0-0.5	6216874	N	Gen Prep	9045M	III
25-Feb-2011	SL-133-SA5A-SS-0.0-0.5	6216874	N	METHOD	300.0	III
25-Feb-2011	SL-133-SA5A-SS-0.0-0.5	6216874	N	METHOD	314.0	III
25-Feb-2011	SL-133-SA5A-SS-0.0-0.5	6216874	N	METHOD	7471A	III
25-Feb-2011	SL-146-SA5A-SS-0.0-0.5	6216880	N	3050B	6010B	III
25-Feb-2011	SL-146-SA5A-SS-0.0-0.5	6216880	N	3050B	6020	III
25-Feb-2011	SL-146-SA5A-SS-0.0-0.5	6216880	N	3060A	7199	III
25-Feb-2011	SL-146-SA5A-SS-0.0-0.5	6216880	N	3550B	8081A	III
25-Feb-2011	SL-146-SA5A-SS-0.0-0.5	6216880	N	3550B	8082	III
25-Feb-2011	SL-146-SA5A-SS-0.0-0.5	6216880	N	3550B	8151A	III
25-Feb-2011	SL-146-SA5A-SS-0.0-0.5	6216880	N	3550B	8270C	III
25-Feb-2011	SL-146-SA5A-SS-0.0-0.5	6216880	N	3550B	8270C SIM	III
25-Feb-2011	SL-146-SA5A-SS-0.0-0.5	6216880	N	Gen Prep	9045M	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-Feb-2011	SL-146-SA5A-SS-0.0-0.5	6216880	N	METHOD	300.0	III
25-Feb-2011	SL-146-SA5A-SS-0.0-0.5	6216880	N	METHOD	314.0	III
25-Feb-2011	SL-146-SA5A-SS-0.0-0.5	6216880	N	METHOD	7471A	III
25-Feb-2011	SL-144-SA5A-SS-0.0-0.5	6216879	N	3050B	6010B	III
25-Feb-2011	SL-144-SA5A-SS-0.0-0.5	6216879	N	3050B	6020	III
25-Feb-2011	SL-144-SA5A-SS-0.0-0.5	6216879	N	3060A	7199	III
25-Feb-2011	SL-144-SA5A-SS-0.0-0.5	6216879	N	3550B	8081A	III
25-Feb-2011	SL-144-SA5A-SS-0.0-0.5	6216879	N	3550B	8082	III
25-Feb-2011	SL-144-SA5A-SS-0.0-0.5	6216879	N	3550B	8151A	III
25-Feb-2011	SL-144-SA5A-SS-0.0-0.5	6216879	N	3550B	8270C	III
25-Feb-2011	SL-144-SA5A-SS-0.0-0.5	6216879	N	3550B	8270C SIM	III
25-Feb-2011	SL-144-SA5A-SS-0.0-0.5	6216879	N	Gen Prep	9045M	III
25-Feb-2011	SL-144-SA5A-SS-0.0-0.5	6216879	N	METHOD	300.0	III
25-Feb-2011	SL-144-SA5A-SS-0.0-0.5	6216879	N	METHOD	314.0	III
25-Feb-2011	SL-144-SA5A-SS-0.0-0.5	6216879	N	METHOD	7471A	III
25-Feb-2011	SL-054-SA5A-SB-4.0-5.0	6216886	N	3050B	6010B	III
25-Feb-2011	SL-054-SA5A-SB-4.0-5.0	6216886	N	3050B	6020	III
25-Feb-2011	SL-054-SA5A-SB-4.0-5.0	6216886	N	3060A	7199	III
25-Feb-2011	SL-054-SA5A-SB-4.0-5.0	6216886	N	3550B	8082	III
25-Feb-2011	SL-054-SA5A-SB-4.0-5.0	6216886	N	3550B	8270C	III
25-Feb-2011	SL-054-SA5A-SB-4.0-5.0	6216886	N	3550B	8270C SIM	III
25-Feb-2011	SL-054-SA5A-SB-4.0-5.0	6216886	N	5035	8260B	III
25-Feb-2011	SL-054-SA5A-SB-4.0-5.0	6216886	N	5035	8260B SIM	III
25-Feb-2011	SL-054-SA5A-SB-4.0-5.0	6216886	N	Gen Prep	9045M	III
25-Feb-2011	SL-054-SA5A-SB-4.0-5.0	6216886	N	METHOD	300.0	III
25-Feb-2011	SL-054-SA5A-SB-4.0-5.0	6216886	N	METHOD	314.0	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-Feb-2011	SL-054-SA5A-SB-4.0-5.0	6216886	N	METHOD	7471A	III
25-Feb-2011	SL-054-SA5A-SB-4.0-5.0DUP	P216886D271928A	DUP	3060A	7199	III
25-Feb-2011	SL-054-SA5A-SB-4.0-5.0MS	P216886R271845A	MS	3060A	7199	III
25-Feb-2011	SL-054-SA5A-SB-9.0-10.0	6216887	N	3050B	6010B	III
25-Feb-2011	SL-054-SA5A-SB-9.0-10.0	6216887	N	3050B	6020	III
25-Feb-2011	SL-054-SA5A-SB-9.0-10.0	6216887	N	3060A	7199	III
25-Feb-2011	SL-054-SA5A-SB-9.0-10.0	6216887	N	3550B	8082	III
25-Feb-2011	SL-054-SA5A-SB-9.0-10.0	6216887	N	3550B	8270C	III
25-Feb-2011	SL-054-SA5A-SB-9.0-10.0	6216887	N	3550B	8270C SIM	III
25-Feb-2011	SL-054-SA5A-SB-9.0-10.0	6216887	N	Gen Prep	9045M	III
25-Feb-2011	SL-054-SA5A-SB-9.0-10.0	6216887	N	METHOD	300.0	III
25-Feb-2011	SL-054-SA5A-SB-9.0-10.0	6216887	N	METHOD	314.0	III
25-Feb-2011	SL-054-SA5A-SB-9.0-10.0	6216887	N	METHOD	7471A	III
25-Feb-2011	SL-055-SA5A-SB-2.0-3.0	6216888	N	3050B	6010B	III
25-Feb-2011	SL-055-SA5A-SB-2.0-3.0	6216888	N	3050B	6020	III
25-Feb-2011	SL-055-SA5A-SB-2.0-3.0	6216888	N	3060A	7199	III
25-Feb-2011	SL-055-SA5A-SB-2.0-3.0	6216888	N	3550B	8082	III
25-Feb-2011	SL-055-SA5A-SB-2.0-3.0	6216888	N	3550B	8270C	III
25-Feb-2011	SL-055-SA5A-SB-2.0-3.0	6216888	N	3550B	8270C SIM	III
25-Feb-2011	SL-055-SA5A-SB-2.0-3.0	6216888	N	5035	8260B	III
25-Feb-2011	SL-055-SA5A-SB-2.0-3.0	6216888	N	5035	8260B SIM	III
25-Feb-2011	SL-055-SA5A-SB-2.0-3.0	6216888	N	Gen Prep	9045M	III
25-Feb-2011	SL-055-SA5A-SB-2.0-3.0	6216888	N	METHOD	300.0	III
25-Feb-2011	SL-055-SA5A-SB-2.0-3.0	6216888	N	METHOD	314.0	III
25-Feb-2011	SL-055-SA5A-SB-2.0-3.0	6216888	N	METHOD	7471A	III
25-Feb-2011	SL-171-SA5A-SS-0.0-0.5	6216881	N	3050B	6010B	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-Feb-2011	SL-171-SA5A-SS-0.0-0.5	6216881	N	3050B	6020	III
25-Feb-2011	SL-171-SA5A-SS-0.0-0.5	6216881	N	3060A	7199	III
25-Feb-2011	SL-171-SA5A-SS-0.0-0.5	6216881	N	3550B	8081A	III
25-Feb-2011	SL-171-SA5A-SS-0.0-0.5	6216881	N	3550B	8082	III
25-Feb-2011	SL-171-SA5A-SS-0.0-0.5	6216881	N	3550B	8151A	III
25-Feb-2011	SL-171-SA5A-SS-0.0-0.5	6216881	N	3550B	8270C	III
25-Feb-2011	SL-171-SA5A-SS-0.0-0.5	6216881	N	3550B	8270C SIM	III
25-Feb-2011	SL-171-SA5A-SS-0.0-0.5	6216881	N	Gen Prep	9045M	III
25-Feb-2011	SL-171-SA5A-SS-0.0-0.5	6216881	N	METHOD	300.0	III
25-Feb-2011	SL-171-SA5A-SS-0.0-0.5	6216881	N	METHOD	314.0	III
25-Feb-2011	SL-171-SA5A-SS-0.0-0.5	6216881	N	METHOD	7471A	III
25-Feb-2011	SL-173-SA5A-SS-0.0-0.5	6216883	N	3050B	6010B	III
25-Feb-2011	SL-173-SA5A-SS-0.0-0.5	6216883	N	3050B	6020	III
25-Feb-2011	SL-173-SA5A-SS-0.0-0.5	6216883	N	3060A	7199	III
25-Feb-2011	SL-173-SA5A-SS-0.0-0.5	6216883	N	3550B	8081A	III
25-Feb-2011	SL-173-SA5A-SS-0.0-0.5	6216883	N	3550B	8082	III
25-Feb-2011	SL-173-SA5A-SS-0.0-0.5	6216883	N	3550B	8151A	III
25-Feb-2011	SL-173-SA5A-SS-0.0-0.5	6216883	N	3550B	8270C	III
25-Feb-2011	SL-173-SA5A-SS-0.0-0.5	6216883	N	3550B	8270C SIM	III
25-Feb-2011	SL-173-SA5A-SS-0.0-0.5	6216883	N	Gen Prep	9045M	III
25-Feb-2011	SL-173-SA5A-SS-0.0-0.5	6216883	N	METHOD	300.0	III
25-Feb-2011	SL-173-SA5A-SS-0.0-0.5	6216883	N	METHOD	314.0	III
25-Feb-2011	SL-173-SA5A-SS-0.0-0.5	6216883	N	METHOD	7471A	III
25-Feb-2011	SL-172-SA5A-SS-0.0-0.5	6216882	N	3050B	6010B	III
25-Feb-2011	SL-172-SA5A-SS-0.0-0.5	6216882	N	3050B	6020	III
25-Feb-2011	SL-172-SA5A-SS-0.0-0.5	6216882	N	3060A	7199	III

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-Feb-2011	SL-172-SA5A-SS-0.0-0.5	6216882	N	3550B	8081A	III
25-Feb-2011	SL-172-SA5A-SS-0.0-0.5	6216882	N	3550B	8082	III
25-Feb-2011	SL-172-SA5A-SS-0.0-0.5	6216882	N	3550B	8151A	III
25-Feb-2011	SL-172-SA5A-SS-0.0-0.5	6216882	N	3550B	8270C	III
25-Feb-2011	SL-172-SA5A-SS-0.0-0.5	6216882	N	3550B	8270C SIM	III
25-Feb-2011	SL-172-SA5A-SS-0.0-0.5	6216882	N	Gen Prep	9045M	III
25-Feb-2011	SL-172-SA5A-SS-0.0-0.5	6216882	N	METHOD	300.0	III
25-Feb-2011	SL-172-SA5A-SS-0.0-0.5	6216882	N	METHOD	314.0	III
25-Feb-2011	SL-172-SA5A-SS-0.0-0.5	6216882	N	METHOD	7471A	III
25-Feb-2011	SL-174-SA5A-SS-0.0-0.5	6216884	N	3050B	6010B	III
25-Feb-2011	SL-174-SA5A-SS-0.0-0.5	6216884	N	3050B	6020	III
25-Feb-2011	SL-174-SA5A-SS-0.0-0.5	6216884	N	3060A	7199	III
25-Feb-2011	SL-174-SA5A-SS-0.0-0.5	6216884	N	3550B	8081A	III
25-Feb-2011	SL-174-SA5A-SS-0.0-0.5	6216884	N	3550B	8082	III
25-Feb-2011	SL-174-SA5A-SS-0.0-0.5	6216884	N	3550B	8151A	III
25-Feb-2011	SL-174-SA5A-SS-0.0-0.5	6216884	N	3550B	8270C	III
25-Feb-2011	SL-174-SA5A-SS-0.0-0.5	6216884	N	3550B	8270C SIM	III
25-Feb-2011	SL-174-SA5A-SS-0.0-0.5	6216884	N	Gen Prep	9045M	III
25-Feb-2011	SL-174-SA5A-SS-0.0-0.5	6216884	N	METHOD	300.0	III
25-Feb-2011	SL-174-SA5A-SS-0.0-0.5	6216884	N	METHOD	314.0	III
25-Feb-2011	SL-174-SA5A-SS-0.0-0.5	6216884	N	METHOD	7471A	III
25-Feb-2011	SL-174-SA5A-SS-0.0-0.5DUP	P216884D270309B	DUP	METHOD	300.0	III
25-Feb-2011	SL-174-SA5A-SS-0.0-0.5MS	P216884R270323B	MS	METHOD	300.0	III
25-Feb-2011	SL-056-SA5A-SB-4.0-5.0	6216889	N	3050B	6010B	III
25-Feb-2011	SL-056-SA5A-SB-4.0-5.0	6216889	N	3050B	6020	III
25-Feb-2011	SL-056-SA5A-SB-4.0-5.0	6216889	N	3060A	7199	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-Feb-2011	SL-056-SA5A-SB-4.0-5.0	6216889	N	3550B	8082	III
25-Feb-2011	SL-056-SA5A-SB-4.0-5.0	6216889	N	3550B	8270C	III
25-Feb-2011	SL-056-SA5A-SB-4.0-5.0	6216889	N	3550B	8270C SIM	III
25-Feb-2011	SL-056-SA5A-SB-4.0-5.0	6216889	N	5035	8260B	III
25-Feb-2011	SL-056-SA5A-SB-4.0-5.0	6216889	N	5035	8260B SIM	III
25-Feb-2011	SL-056-SA5A-SB-4.0-5.0	6216889	N	Gen Prep	9045M	III
25-Feb-2011	SL-056-SA5A-SB-4.0-5.0	6216889	N	METHOD	300.0	III
25-Feb-2011	SL-056-SA5A-SB-4.0-5.0	6216889	N	METHOD	314.0	III
25-Feb-2011	SL-056-SA5A-SB-4.0-5.0	6216889	N	METHOD	7471A	III
25-Feb-2011	SL-056-SA5A-SB-7.0-8.0	6216890	N	3050B	6010B	III
25-Feb-2011	SL-056-SA5A-SB-7.0-8.0	6216890	N	3050B	6020	III
25-Feb-2011	SL-056-SA5A-SB-7.0-8.0	6216890	N	3060A	7199	III
25-Feb-2011	SL-056-SA5A-SB-7.0-8.0	6216890	N	3550B	8082	III
25-Feb-2011	SL-056-SA5A-SB-7.0-8.0	6216890	N	3550B	8270C	III
25-Feb-2011	SL-056-SA5A-SB-7.0-8.0	6216890	N	3550B	8270C SIM	III
25-Feb-2011	SL-056-SA5A-SB-7.0-8.0	6216890	N	Gen Prep	9045M	III
25-Feb-2011	SL-056-SA5A-SB-7.0-8.0	6216890	N	METHOD	300.0	III
25-Feb-2011	SL-056-SA5A-SB-7.0-8.0	6216890	N	METHOD	314.0	III
25-Feb-2011	SL-056-SA5A-SB-7.0-8.0	6216890	N	METHOD	7471A	III
25-Feb-2011	SL-056-SA5A-SB-7.0-8.0DUP	P216890D291325B	DUP	Gen Prep	9045M	III
25-Feb-2011	TB-022511	6216891	TB	5030B	8260B	III
25-Feb-2011	TB-022511	6216891	TB	5030B	8260B SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-053-SA5A-SB-3.0-4.0 *Collected:* 2/25/2011 9:28:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-054-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 11:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.0		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-054-SA5A-SB-9.0-10.0 *Collected:* 2/25/2011 11:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.3		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-055-SA5A-SB-2.0-3.0 *Collected:* 2/25/2011 12:38:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.4		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-056-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 3:43:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-056-SA5A-SB-7.0-8.0 *Collected:* 2/25/2011 3:47:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.2		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-126-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 8:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.1	J	0.96	MDL	1.2	PQL	mg/Kg	J	Z, Q

Sample ID: SL-127-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.5		0.93	MDL	1.2	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 **Laboratory:** LL

EDD Filename: PrepDE092_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-132-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.9		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-133-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-144-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.8		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-146-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-171-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-172-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.1	J	0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-173-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-174-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 2:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.2		0.95	MDL	1.2	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM **Method:** 300.0 **Matrix:** SO

Method Category: METALS **Method:** 6010B **Matrix:** SO

Sample ID: SL-053-SA5A-SB-3.0-4.0 *Collected:* 2/25/2011 9:28:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.41	J	0.985	MDL	5.53	PQL	mg/Kg	J	Z
LITHIUM	22.3		0.24	MDL	2.2	PQL	mg/Kg	J	A
SODIUM	109	J	41.3	MDL	111	PQL	mg/Kg	J	Z
TIN	3.25	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	3.91	J	0.929	MDL	5.53	PQL	mg/Kg	U	B

Sample ID: SL-054-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 11:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.36	J	0.969	MDL	5.44	PQL	mg/Kg	J	Z
LITHIUM	21.8		0.24	MDL	2.2	PQL	mg/Kg	J	A
SODIUM	107	J	40.6	MDL	109	PQL	mg/Kg	J	Z
TIN	2.75	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	3.94	J	0.914	MDL	5.44	PQL	mg/Kg	U	B

Sample ID: SL-054-SA5A-SB-9.0-10.0 *Collected:* 2/25/2011 11:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.01	J	1.02	MDL	5.70	PQL	mg/Kg	J	Z
LITHIUM	25.3		0.25	MDL	2.3	PQL	mg/Kg	J	A
TIN	3.19	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	4.29	J	0.958	MDL	5.70	PQL	mg/Kg	U	B

Sample ID: SL-055-SA5A-SB-2.0-3.0 *Collected:* 2/25/2011 12:38:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	42.4		0.24	MDL	2.2	PQL	mg/Kg	J	A
TIN	3.33	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	4.91	J	0.913	MDL	5.43	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-056-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 3:43:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.04	J	0.981	MDL	5.51	PQL	mg/Kg	J	Z
LITHIUM	23.1		0.24	MDL	2.2	PQL	mg/Kg	J	A
SODIUM	73.6	J	41.1	MDL	110	PQL	mg/Kg	J	Z
TIN	2.91	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	4.56	J	0.926	MDL	5.51	PQL	mg/Kg	J	Z

Sample ID: SL-056-SA5A-SB-7.0-8.0 *Collected:* 2/25/2011 3:47:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.00	J	0.997	MDL	5.60	PQL	mg/Kg	J	Z
LITHIUM	20.4		0.25	MDL	2.2	PQL	mg/Kg	J	A
SODIUM	109	J	41.8	MDL	112	PQL	mg/Kg	J	Z
TIN	2.94	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	4.12	J	0.941	MDL	5.60	PQL	mg/Kg	U	B

Sample ID: SL-126-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 8:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	19.8		0.25	MDL	2.3	PQL	mg/Kg	J	A
SODIUM	62.4	J	43.1	MDL	115	PQL	mg/Kg	J	Z
TIN	2.86	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	5.35	J	0.970	MDL	5.77	PQL	mg/Kg	U	B

Sample ID: SL-127-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.60	J	1.01	MDL	5.69	PQL	mg/Kg	J	Z
LITHIUM	22.1		0.25	MDL	2.3	PQL	mg/Kg	J	A
SODIUM	60.5	J	42.4	MDL	114	PQL	mg/Kg	J	Z
TIN	2.92	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	3.29	J	0.955	MDL	5.69	PQL	mg/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-132-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.50	J	0.987	MDL	5.55	PQL	mg/Kg	J	Z
LITHIUM	21.4		0.24	MDL	2.2	PQL	mg/Kg	J	A
SODIUM	61.4	J	41.4	MDL	111	PQL	mg/Kg	J	Z
TIN	2.65	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	3.64	J	0.932	MDL	5.55	PQL	mg/Kg	U	B

Sample ID: SL-133-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.01	J	0.980	MDL	5.50	PQL	mg/Kg	J	Z
LITHIUM	20.6		0.24	MDL	2.2	PQL	mg/Kg	J	A
SODIUM	71.5	J	41.1	MDL	110	PQL	mg/Kg	J	Z
TIN	2.76	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	4.90	J	0.925	MDL	5.50	PQL	mg/Kg	U	B

Sample ID: SL-144-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.69	J	1.00	MDL	5.64	PQL	mg/Kg	J	Z
LITHIUM	23.4		0.25	MDL	2.3	PQL	mg/Kg	J	A
SODIUM	72.5	J	42.1	MDL	113	PQL	mg/Kg	J	Z
TIN	2.88	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	4.64	J	0.948	MDL	5.64	PQL	mg/Kg	U	B

Sample ID: SL-146-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.68	J	0.991	MDL	5.57	PQL	mg/Kg	J	Z
LITHIUM	21.0		0.24	MDL	2.2	PQL	mg/Kg	J	A
SODIUM	60.7	J	41.5	MDL	111	PQL	mg/Kg	J	Z
TIN	2.81	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	3.99	J	0.935	MDL	5.57	PQL	mg/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-171-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.43	J	0.981	MDL	5.51	PQL	mg/Kg	J	Z
LITHIUM	20.5		0.24	MDL	2.2	PQL	mg/Kg	J	A
SODIUM	71.2	J	41.1	MDL	110	PQL	mg/Kg	J	Z
TIN	2.59	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.27	J	0.926	MDL	5.51	PQL	mg/Kg	U	B

Sample ID: SL-172-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.11	J	0.983	MDL	5.52	PQL	mg/Kg	J	Z
LITHIUM	23.2		0.24	MDL	2.2	PQL	mg/Kg	J	A
SODIUM	86.6	J	41.2	MDL	110	PQL	mg/Kg	J	Z
TIN	2.83	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.97	J	0.927	MDL	5.52	PQL	mg/Kg	U	B

Sample ID: SL-173-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.73	J	0.971	MDL	5.46	PQL	mg/Kg	J	Z
LITHIUM	21.8		0.24	MDL	2.2	PQL	mg/Kg	J	A
TIN	2.71	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	3.72	J	0.917	MDL	5.46	PQL	mg/Kg	U	B

Sample ID: SL-174-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 2:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.45	J	1.05	MDL	5.91	PQL	mg/Kg	J	Z
LITHIUM	22.6		0.26	MDL	2.4	PQL	mg/Kg	J	A
SODIUM	107	J	44.1	MDL	118	PQL	mg/Kg	J	Z
TIN	2.83	J	1.18	MDL	11.8	PQL	mg/Kg	U	B
Zirconium	2.75	J	0.993	MDL	5.91	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-053-SA5A-SB-3.0-4.0 *Collected:* 2/25/2011 9:28:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.104	J	0.0451	MDL	0.451	PQL	mg/Kg	J	Z

Sample ID: SL-053-SA5A-SB-3.0-4.0 *Collected:* 2/25/2011 9:28:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.919		0.0564	MDL	0.113	PQL	mg/Kg	J	Q, E

Sample ID: SL-053-SA5A-SB-3.0-4.0 *Collected:* 2/25/2011 9:28:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	108		0.122	MDL	0.451	PQL	mg/Kg	J	E, A

Sample ID: SL-053-SA5A-SB-3.0-4.0 *Collected:* 2/25/2011 9:28:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.124	J	0.0677	MDL	0.226	PQL	mg/Kg	J	Z, Q
ARSENIC	7.03		0.0903	MDL	0.451	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.770		0.0181	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.0709	J	0.0451	MDL	0.113	PQL	mg/Kg	J	Z, Q
CHROMIUM	24.5		0.135	MDL	0.451	PQL	mg/Kg	J	Q, E, A
COBALT	11.6		0.0226	MDL	0.113	PQL	mg/Kg	J	E, A
COPPER	10.6		0.0745	MDL	0.451	PQL	mg/Kg	J	Q, E, A
LEAD	7.18		0.0117	MDL	0.226	PQL	mg/Kg	J	A
NICKEL	21.8		0.113	MDL	0.451	PQL	mg/Kg	J	Q, E, A
THALLIUM	0.429		0.0339	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	41.9		0.0248	MDL	0.113	PQL	mg/Kg	J	Q, E, A
ZINC	71.0		0.632	MDL	3.39	PQL	mg/Kg	J	E, A

Sample ID: SL-054-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 11:25:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.106	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE092 **Laboratory:** LL

EDD Filename: PrepDE092_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-054-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 11:25:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.652		0.0555	MDL	0.111	PQL	mg/Kg	J	Q, E

Sample ID: SL-054-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 11:25:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	92.5		0.120	MDL	0.444	PQL	mg/Kg	J	E, A

Sample ID: SL-054-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 11:25:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.143	J	0.0666	MDL	0.222	PQL	mg/Kg	J	Z, Q
ARSENIC	7.33		0.0888	MDL	0.444	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.898		0.0178	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	29.1		0.133	MDL	0.444	PQL	mg/Kg	J	Q, E, A
COBALT	5.55		0.0222	MDL	0.111	PQL	mg/Kg	J	E, A
COPPER	11.0		0.0733	MDL	0.444	PQL	mg/Kg	J	Q, E, A
LEAD	8.37		0.0115	MDL	0.222	PQL	mg/Kg	J	A
NICKEL	13.1		0.111	MDL	0.444	PQL	mg/Kg	J	Q, E, A
SILVER	0.132		0.0133	MDL	0.111	PQL	mg/Kg	J	Q
THALLIUM	0.321		0.0333	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	50.9		0.0244	MDL	0.111	PQL	mg/Kg	J	Q, E, A
ZINC	60.6		0.622	MDL	3.33	PQL	mg/Kg	J	E, A

Sample ID: SL-054-SA5A-SB-9.0-10.0 *Collected:* 2/25/2011 11:30:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0821	J	0.0456	MDL	0.456	PQL	mg/Kg	J	Z

Sample ID: SL-054-SA5A-SB-9.0-10.0 *Collected:* 2/25/2011 11:30:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.834		0.0570	MDL	0.114	PQL	mg/Kg	J	Q, E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-054-SA5A-SB-9.0-10.0 *Collected:* 2/25/2011 11:30:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	87.9		0.123	MDL	0.456	PQL	mg/Kg	J	E, A

Sample ID: SL-054-SA5A-SB-9.0-10.0 *Collected:* 2/25/2011 11:30:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.217	J	0.0684	MDL	0.228	PQL	mg/Kg	J	Z, Q
ARSENIC	10.6		0.0913	MDL	0.456	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.928		0.0183	MDL	0.114	PQL	mg/Kg	J	Q
CADMIUM	0.114	J	0.0456	MDL	0.114	PQL	mg/Kg	J	Q
CHROMIUM	34.9		0.137	MDL	0.456	PQL	mg/Kg	J	Q, E, A
COBALT	7.86		0.0228	MDL	0.114	PQL	mg/Kg	J	E, A
COPPER	15.3		0.0753	MDL	0.456	PQL	mg/Kg	J	Q, E, A
LEAD	12.3		0.0119	MDL	0.228	PQL	mg/Kg	J	A
NICKEL	18.5		0.114	MDL	0.456	PQL	mg/Kg	J	Q, E, A
SILVER	0.0597	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z, Q
THALLIUM	0.301		0.0342	MDL	0.114	PQL	mg/Kg	J	Q
VANADIUM	58.7		0.0251	MDL	0.114	PQL	mg/Kg	J	Q, E, A
ZINC	61.4		0.639	MDL	3.42	PQL	mg/Kg	J	E, A

Sample ID: SL-055-SA5A-SB-2.0-3.0 *Collected:* 2/25/2011 12:38:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.436	J	0.0439	MDL	0.439	PQL	mg/Kg	J	Z

Sample ID: SL-055-SA5A-SB-2.0-3.0 *Collected:* 2/25/2011 12:38:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.23		0.0549	MDL	0.110	PQL	mg/Kg	J	Q, E

Sample ID: SL-055-SA5A-SB-2.0-3.0 *Collected:* 2/25/2011 12:38:00 *Analysis Type:* REA4 *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	200		0.296	MDL	1.10	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-055-SA5A-SB-2.0-3.0 *Collected:* 2/25/2011 12:38:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.233		0.0658	MDL	0.219	PQL	mg/Kg	J	Q
ARSENIC	13.8		0.0878	MDL	0.439	PQL	mg/Kg	J	Q, E
BERYLLIUM	1.42		0.0176	MDL	0.110	PQL	mg/Kg	J	Q
CADMIUM	0.159		0.0439	MDL	0.110	PQL	mg/Kg	J	Q
CHROMIUM	45.1		0.132	MDL	0.439	PQL	mg/Kg	J	Q, E, A
COBALT	14.2		0.0219	MDL	0.110	PQL	mg/Kg	J	E, A
COPPER	23.1		0.0724	MDL	0.439	PQL	mg/Kg	J	Q, E, A
LEAD	13.2		0.0114	MDL	0.219	PQL	mg/Kg	J	A
NICKEL	24.8		0.110	MDL	0.439	PQL	mg/Kg	J	Q, E, A
SILVER	0.0297	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z, Q
THALLIUM	0.538		0.0329	MDL	0.110	PQL	mg/Kg	J	Q
VANADIUM	80.4		0.0241	MDL	0.110	PQL	mg/Kg	J	Q, E, A
ZINC	127		0.614	MDL	3.29	PQL	mg/Kg	J	E, A

Sample ID: SL-056-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 3:43:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.130	J	0.0454	MDL	0.454	PQL	mg/Kg	J	Z

Sample ID: SL-056-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 3:43:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.34		0.0568	MDL	0.114	PQL	mg/Kg	J	Q, E

Sample ID: SL-056-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 3:43:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	122		0.123	MDL	0.454	PQL	mg/Kg	J	E, A

Sample ID: SL-056-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 3:43:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.151	J	0.0681	MDL	0.227	PQL	mg/Kg	J	Z, Q
ARSENIC	7.02		0.0908	MDL	0.454	PQL	mg/Kg	J	Q, E
BERYLLIUM	1.02		0.0182	MDL	0.114	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE092 **Laboratory:** LL

EDD Filename: PrepDE092_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-056-SA5A-SB-4.0-5.0 ***Collected:*** 2/25/2011 3:43:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.109	J	0.0454	MDL	0.114	PQL	mg/Kg	J	Z, Q
CHROMIUM	28.3		0.136	MDL	0.454	PQL	mg/Kg	J	Q, E, A
COBALT	9.69		0.0227	MDL	0.114	PQL	mg/Kg	J	E, A
COPPER	11.8		0.0749	MDL	0.454	PQL	mg/Kg	J	Q, E, A
LEAD	9.24		0.0118	MDL	0.227	PQL	mg/Kg	J	A
NICKEL	17.3		0.114	MDL	0.454	PQL	mg/Kg	J	Q, E, A
SILVER	0.0644	J	0.0136	MDL	0.114	PQL	mg/Kg	J	Z, Q
THALLIUM	0.343		0.0341	MDL	0.114	PQL	mg/Kg	J	Q
VANADIUM	51.3		0.0250	MDL	0.114	PQL	mg/Kg	J	Q, E, A
ZINC	66.7		0.636	MDL	3.41	PQL	mg/Kg	J	E, A

Sample ID: SL-056-SA5A-SB-7.0-8.0 ***Collected:*** 2/25/2011 3:47:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.120	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

Sample ID: SL-056-SA5A-SB-7.0-8.0 ***Collected:*** 2/25/2011 3:47:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.767		0.0566	MDL	0.113	PQL	mg/Kg	J	Q, E

Sample ID: SL-056-SA5A-SB-7.0-8.0 ***Collected:*** 2/25/2011 3:47:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	83.0		0.122	MDL	0.453	PQL	mg/Kg	J	E, A

Sample ID: SL-056-SA5A-SB-7.0-8.0 ***Collected:*** 2/25/2011 3:47:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.159	J	0.0679	MDL	0.226	PQL	mg/Kg	J	Z, Q
ARSENIC	8.08		0.0905	MDL	0.453	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.824		0.0181	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.104	J	0.0453	MDL	0.113	PQL	mg/Kg	J	Z, Q
CHROMIUM	25.8		0.136	MDL	0.453	PQL	mg/Kg	J	Q, E, A
COBALT	15.2		0.0226	MDL	0.113	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: PrepDE092_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-056-SA5A-SB-7.0-8.0** ***Collected:*** **2/25/2011 3:47:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	11.1		0.0747	MDL	0.453	PQL	mg/Kg	J	Q, E, A
LEAD	6.70		0.0118	MDL	0.226	PQL	mg/Kg	J	A
NICKEL	15.0		0.113	MDL	0.453	PQL	mg/Kg	J	Q, E, A
SILVER	0.0153	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z, Q
THALLIUM	0.330		0.0339	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	48.2		0.0249	MDL	0.113	PQL	mg/Kg	J	Q, E, A
ZINC	67.7		0.634	MDL	3.39	PQL	mg/Kg	J	E, A

Sample ID: **SL-126-SA5A-SS-0.0-0.5** ***Collected:*** **2/25/2011 8:50:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.142	J	0.0475	MDL	0.475	PQL	mg/Kg	J	Z

Sample ID: **SL-126-SA5A-SS-0.0-0.5** ***Collected:*** **2/25/2011 8:50:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.08		0.0594	MDL	0.119	PQL	mg/Kg	J	Q, E

Sample ID: **SL-126-SA5A-SS-0.0-0.5** ***Collected:*** **2/25/2011 8:50:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	118		0.128	MDL	0.475	PQL	mg/Kg	J	E, A

Sample ID: **SL-126-SA5A-SS-0.0-0.5** ***Collected:*** **2/25/2011 8:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.227	J	0.0713	MDL	0.238	PQL	mg/Kg	J	Z, Q
ARSENIC	4.79		0.0951	MDL	0.475	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.653		0.0190	MDL	0.119	PQL	mg/Kg	J	Q
CADMIUM	0.334		0.0475	MDL	0.119	PQL	mg/Kg	J	Q
CHROMIUM	22.2		0.143	MDL	0.475	PQL	mg/Kg	J	Q, E, A
COBALT	6.37		0.0238	MDL	0.119	PQL	mg/Kg	J	E, A
COPPER	11.9		0.0784	MDL	0.475	PQL	mg/Kg	J	Q, E, A
LEAD	18.1		0.0124	MDL	0.238	PQL	mg/Kg	J	A
NICKEL	13.4		0.119	MDL	0.475	PQL	mg/Kg	J	Q, E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-126-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 8:50:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0447	J	0.0143	MDL	0.119	PQL	mg/Kg	J	Z, Q
THALLIUM	0.300		0.0357	MDL	0.119	PQL	mg/Kg	J	Q
VANADIUM	40.8		0.0261	MDL	0.119	PQL	mg/Kg	J	Q, E, A
ZINC	125		0.666	MDL	3.57	PQL	mg/Kg	J	E, A

Sample ID: SL-127-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:05:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.179	J	0.0459	MDL	0.459	PQL	mg/Kg	J	Z

Sample ID: SL-127-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:05:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.00		0.0574	MDL	0.115	PQL	mg/Kg	J	Q, E

Sample ID: SL-127-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:05:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	147		0.124	MDL	0.459	PQL	mg/Kg	J	E, A

Sample ID: SL-127-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.191	J	0.0689	MDL	0.230	PQL	mg/Kg	J	Z, Q
ARSENIC	6.02		0.0919	MDL	0.459	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.811		0.0184	MDL	0.115	PQL	mg/Kg	J	Q
CADMIUM	0.301		0.0459	MDL	0.115	PQL	mg/Kg	J	Q
CHROMIUM	25.5		0.138	MDL	0.459	PQL	mg/Kg	J	Q, E, A
COBALT	7.12		0.0230	MDL	0.115	PQL	mg/Kg	J	E, A
COPPER	12.6		0.0758	MDL	0.459	PQL	mg/Kg	J	Q, E, A
LEAD	11.9		0.0119	MDL	0.230	PQL	mg/Kg	J	A
NICKEL	15.2		0.115	MDL	0.459	PQL	mg/Kg	J	Q, E, A
SILVER	0.0455	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z, Q
THALLIUM	0.346		0.0345	MDL	0.115	PQL	mg/Kg	J	Q
VANADIUM	48.6		0.0253	MDL	0.115	PQL	mg/Kg	J	Q, E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-127-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	103		0.643	MDL	3.45	PQL	mg/Kg	J	E, A

Sample ID: SL-132-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:20:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.131	J	0.0452	MDL	0.452	PQL	mg/Kg	J	Z

Sample ID: SL-132-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:20:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.760		0.0566	MDL	0.113	PQL	mg/Kg	J	Q, E

Sample ID: SL-132-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:20:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	105		0.122	MDL	0.452	PQL	mg/Kg	J	E, A

Sample ID: SL-132-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:20:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.193	J	0.0679	MDL	0.226	PQL	mg/Kg	J	Z, Q
ARSENIC	5.75		0.0905	MDL	0.452	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.733		0.0181	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.217		0.0452	MDL	0.113	PQL	mg/Kg	J	Q
CHROMIUM	21.9		0.136	MDL	0.452	PQL	mg/Kg	J	Q, E, A
COBALT	6.24		0.0226	MDL	0.113	PQL	mg/Kg	J	E, A
COPPER	9.58		0.0747	MDL	0.452	PQL	mg/Kg	J	Q, E, A
LEAD	17.8		0.0118	MDL	0.226	PQL	mg/Kg	J	A
NICKEL	13.1		0.113	MDL	0.452	PQL	mg/Kg	J	Q, E, A
SILVER	0.0322	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z, Q
THALLIUM	0.329		0.0339	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	42.4		0.0249	MDL	0.113	PQL	mg/Kg	J	Q, E, A
ZINC	83.3		0.633	MDL	3.39	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-133-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:00:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.142	J	0.0445	MDL	0.445	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:00:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.726		0.0556	MDL	0.111	PQL	mg/Kg	J	Q, E

Sample ID: SL-133-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:00:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	113		0.120	MDL	0.445	PQL	mg/Kg	J	E, A

Sample ID: SL-133-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:00:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.208	J	0.0667	MDL	0.222	PQL	mg/Kg	J	Z, Q
ARSENIC	5.98		0.0889	MDL	0.445	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.803		0.0178	MDL	0.111	PQL	mg/Kg	J	Q
CADMIUM	0.220		0.0445	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	24.0		0.133	MDL	0.445	PQL	mg/Kg	J	Q, E, A
COBALT	6.79		0.0222	MDL	0.111	PQL	mg/Kg	J	E, A
COPPER	10.7		0.0734	MDL	0.445	PQL	mg/Kg	J	Q, E, A
LEAD	13.5		0.0116	MDL	0.222	PQL	mg/Kg	J	A
NICKEL	14.3		0.111	MDL	0.445	PQL	mg/Kg	J	Q, E, A
SILVER	0.0319	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z, Q
THALLIUM	0.351		0.0333	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	46.2		0.0245	MDL	0.111	PQL	mg/Kg	J	Q, E, A
ZINC	82.5		0.622	MDL	3.33	PQL	mg/Kg	J	E, A

Sample ID: SL-144-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 11:05:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.165	J	0.0447	MDL	0.447	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-144-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 11:05:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.919		0.0559	MDL	0.112	PQL	mg/Kg	J	Q, E

Sample ID: SL-144-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 11:05:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	119		0.121	MDL	0.447	PQL	mg/Kg	J	E, A

Sample ID: SL-144-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 11:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.178	J	0.0671	MDL	0.224	PQL	mg/Kg	J	Z, Q
ARSENIC	5.57		0.0894	MDL	0.447	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.867		0.0179	MDL	0.112	PQL	mg/Kg	J	Q
CADMIUM	0.497		0.0447	MDL	0.112	PQL	mg/Kg	J	Q
CHROMIUM	26.0		0.134	MDL	0.447	PQL	mg/Kg	J	Q, E, A
COBALT	6.75		0.0224	MDL	0.112	PQL	mg/Kg	J	E, A
COPPER	12.3		0.0738	MDL	0.447	PQL	mg/Kg	J	Q, E, A
LEAD	14.0		0.0116	MDL	0.224	PQL	mg/Kg	J	A
NICKEL	14.3		0.112	MDL	0.447	PQL	mg/Kg	J	Q, E, A
SILVER	0.171		0.0134	MDL	0.112	PQL	mg/Kg	J	Q
THALLIUM	0.336		0.0335	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	43.7		0.0246	MDL	0.112	PQL	mg/Kg	J	Q, E, A
ZINC	95.3		0.626	MDL	3.35	PQL	mg/Kg	J	E, A

Sample ID: SL-146-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:45:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.231		0.0459	MDL	0.115	PQL	mg/Kg	J	Q

Sample ID: SL-146-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:45:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.159	J	0.0459	MDL	0.459	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE092 **Laboratory:** LL

EDD Filename: PrepDE092_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-146-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:45:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.09		0.0573	MDL	0.115	PQL	mg/Kg	J	Q, E

Sample ID: SL-146-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:45:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	124		0.124	MDL	0.459	PQL	mg/Kg	J	E, A

Sample ID: SL-146-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:45:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.228	J	0.0688	MDL	0.229	PQL	mg/Kg	J	Z, Q
ARSENIC	6.38		0.0917	MDL	0.459	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.903		0.0183	MDL	0.115	PQL	mg/Kg	J	Q
CHROMIUM	24.1		0.138	MDL	0.459	PQL	mg/Kg	J	Q, E, A
COBALT	6.87		0.0229	MDL	0.115	PQL	mg/Kg	J	E, A
COPPER	11.9		0.0757	MDL	0.459	PQL	mg/Kg	J	Q, E, A
LEAD	15.1		0.0119	MDL	0.229	PQL	mg/Kg	J	A
NICKEL	15.3		0.115	MDL	0.459	PQL	mg/Kg	J	Q, E, A
SILVER	0.140		0.0138	MDL	0.115	PQL	mg/Kg	J	Q
THALLIUM	0.348		0.0344	MDL	0.115	PQL	mg/Kg	J	Q
VANADIUM	47.8		0.0252	MDL	0.115	PQL	mg/Kg	J	Q, E, A
ZINC	188		0.642	MDL	3.44	PQL	mg/Kg	J	E, A

Sample ID: SL-171-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:10:00 *Analysis Type:* REA *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	181		1.57	MDL	8.43	PQL	mg/Kg	J	E, A

Sample ID: SL-171-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:10:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.177	J	0.0450	MDL	0.450	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-171-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:10:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.740		0.0562	MDL	0.112	PQL	mg/Kg	J	Q, E

Sample ID: SL-171-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:10:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	109		0.121	MDL	0.450	PQL	mg/Kg	J	E, A

Sample ID: SL-171-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:10:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.167	J	0.0674	MDL	0.225	PQL	mg/Kg	J	Z, Q
ARSENIC	4.44		0.0899	MDL	0.450	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.585		0.0180	MDL	0.112	PQL	mg/Kg	J	Q
CADMIUM	0.526		0.0450	MDL	0.112	PQL	mg/Kg	J	Q
CHROMIUM	20.4		0.135	MDL	0.450	PQL	mg/Kg	J	Q, E, A
COBALT	5.54		0.0225	MDL	0.112	PQL	mg/Kg	J	E, A
COPPER	10.2		0.0742	MDL	0.450	PQL	mg/Kg	J	Q, E, A
LEAD	8.50		0.0117	MDL	0.225	PQL	mg/Kg	J	A
NICKEL	12.4		0.112	MDL	0.450	PQL	mg/Kg	J	Q, E, A
SILVER	0.0413	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z, Q
THALLIUM	0.297		0.0337	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	39.9		0.0247	MDL	0.112	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-172-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:45:00 *Analysis Type:* REA *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	136		1.55	MDL	8.28	PQL	mg/Kg	J	E, A

Sample ID: SL-172-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:45:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.152	J	0.0442	MDL	0.442	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-172-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:45:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.726		0.0552	MDL	0.110	PQL	mg/Kg	J	Q, E

Sample ID: SL-172-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:45:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	123		0.119	MDL	0.442	PQL	mg/Kg	J	E, A

Sample ID: SL-172-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:45:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.148	J	0.0662	MDL	0.221	PQL	mg/Kg	J	Z, Q
ARSENIC	5.11		0.0883	MDL	0.442	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.610		0.0177	MDL	0.110	PQL	mg/Kg	J	Q
CADMIUM	0.760		0.0442	MDL	0.110	PQL	mg/Kg	J	Q
CHROMIUM	21.3		0.132	MDL	0.442	PQL	mg/Kg	J	Q, E, A
COBALT	6.11		0.0221	MDL	0.110	PQL	mg/Kg	J	E, A
COPPER	10.7		0.0729	MDL	0.442	PQL	mg/Kg	J	Q, E, A
LEAD	13.1		0.0115	MDL	0.221	PQL	mg/Kg	J	A
NICKEL	12.9		0.110	MDL	0.442	PQL	mg/Kg	J	Q, E, A
SILVER	0.124		0.0132	MDL	0.110	PQL	mg/Kg	J	Q
THALLIUM	0.298		0.0331	MDL	0.110	PQL	mg/Kg	J	Q
VANADIUM	41.3		0.0243	MDL	0.110	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-173-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:25:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.138	J	0.0441	MDL	0.441	PQL	mg/Kg	J	Z

Sample ID: SL-173-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:25:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.683		0.0551	MDL	0.110	PQL	mg/Kg	J	Q, E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE092 **Laboratory:** LL

EDD Filename: PrepDE092_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-173-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:25:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	106		0.119	MDL	0.441	PQL	mg/Kg	J	E, A

Sample ID: SL-173-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:25:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.178	J	0.0661	MDL	0.220	PQL	mg/Kg	J	Z, Q
ARSENIC	4.28		0.0882	MDL	0.441	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.576		0.0176	MDL	0.110	PQL	mg/Kg	J	Q
CADMIUM	1.90		0.0441	MDL	0.110	PQL	mg/Kg	J	Q
CHROMIUM	19.4		0.132	MDL	0.441	PQL	mg/Kg	J	Q, E, A
COBALT	5.47		0.0220	MDL	0.110	PQL	mg/Kg	J	E, A
COPPER	8.96		0.0727	MDL	0.441	PQL	mg/Kg	J	Q, E, A
LEAD	10.6		0.0115	MDL	0.220	PQL	mg/Kg	J	A
NICKEL	11.5		0.110	MDL	0.441	PQL	mg/Kg	J	Q, E, A
SILVER	0.0671	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z, Q
THALLIUM	0.280		0.0331	MDL	0.110	PQL	mg/Kg	J	Q
VANADIUM	37.4		0.0242	MDL	0.110	PQL	mg/Kg	J	Q, E, A
ZINC	196		0.617	MDL	3.31	PQL	mg/Kg	J	E, A

Sample ID: SL-174-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 2:10:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.152	J	0.0464	MDL	0.464	PQL	mg/Kg	J	Z

Sample ID: SL-174-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 2:10:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.857		0.0579	MDL	0.116	PQL	mg/Kg	J	Q, E

Sample ID: SL-174-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 2:10:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	121		0.125	MDL	0.464	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-174-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 2:10:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.159	J	0.0695	MDL	0.232	PQL	mg/Kg	J	Z, Q
ARSENIC	4.86		0.0927	MDL	0.464	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.659		0.0185	MDL	0.116	PQL	mg/Kg	J	Q
CADMIUM	0.337		0.0464	MDL	0.116	PQL	mg/Kg	J	Q
CHROMIUM	21.5		0.139	MDL	0.464	PQL	mg/Kg	J	Q, E, A
COBALT	6.04		0.0232	MDL	0.116	PQL	mg/Kg	J	E, A
COPPER	11.0		0.0765	MDL	0.464	PQL	mg/Kg	J	Q, E, A
LEAD	7.73		0.0121	MDL	0.232	PQL	mg/Kg	J	A
NICKEL	12.8		0.116	MDL	0.464	PQL	mg/Kg	J	Q, E, A
SILVER	0.0447	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z, Q
THALLIUM	0.308		0.0348	MDL	0.116	PQL	mg/Kg	J	Q
VANADIUM	41.8		0.0255	MDL	0.116	PQL	mg/Kg	J	Q, E, A
ZINC	202		0.649	MDL	3.48	PQL	mg/Kg	J	E, A

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-054-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 11:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.39	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-054-SA5A-SB-9.0-10.0 *Collected:* 2/25/2011 11:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.27	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-055-SA5A-SB-2.0-3.0 *Collected:* 2/25/2011 12:38:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.45	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE092 **Laboratory:** LL

EDD Filename: PrepDE092_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-056-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 3:43:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.43	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-056-SA5A-SB-7.0-8.0 *Collected:* 2/25/2011 3:47:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.50	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-126-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 8:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.89	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-127-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.28	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-132-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.44	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.30	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-146-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.61	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.34	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-173-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.44	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-174-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 2:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.27	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: SL-053-SA5A-SB-3.0-4.0 *Collected:* 2/25/2011 9:28:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0060	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: SL-054-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 11:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0036	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: SL-054-SA5A-SB-9.0-10.0 *Collected:* 2/25/2011 11:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0066	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: SL-055-SA5A-SB-2.0-3.0 *Collected:* 2/25/2011 12:38:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0058	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: SL-126-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 8:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0053	J	0.0032	MDL	0.113	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: SL-133-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0847	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-144-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0374	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-146-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0134	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z

Sample ID: SL-171-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0189	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0189	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z

Sample ID: SL-173-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0059	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-174-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 2:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0039	J	0.0033	MDL	0.117	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 **Laboratory:** LL

EDD Filename: PrepDE092_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-132-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	0.41		0.074	MDL	0.38	PQL	ug/Kg	J	L
ENDRIN ALDEHYDE	0.082	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z
MIREX	0.12	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z

Sample ID: SL-133-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	0.50		0.074	MDL	0.38	PQL	ug/Kg	J	L

Sample ID: SL-144-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 11:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEPTACHLOR	0.43		0.068	MDL	0.19	PQL	ug/Kg	J	L

Sample ID: SL-146-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEPTACHLOR	0.14	J	0.069	MDL	0.19	PQL	ug/Kg	J	Z, L

Sample ID: SL-171-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:10:00 *Analysis Type:* DL-BASE/NEUTRAL *Dilution:* 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	12		0.75	MDL	3.9	PQL	ug/Kg	J	L

Sample ID: SL-171-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.66		0.075	MDL	0.39	PQL	ug/Kg	J	L
DIELDRIN	1.2		0.075	MDL	0.39	PQL	ug/Kg	J	L
ENDRIN ALDEHYDE	0.095	J	0.075	MDL	0.39	PQL	ug/Kg	J	Z
ENDRIN KETONE	0.15	J	0.075	MDL	0.39	PQL	ug/Kg	J	Z

Sample ID: SL-173-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.14	J	0.075	MDL	0.39	PQL	ug/Kg	J	Z, L

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-173-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	3.0		0.075	MDL	0.39	PQL	ug/Kg	J	L
DIELDRIN	0.24	J	0.075	MDL	0.39	PQL	ug/Kg	J	Z, L

Sample ID: SL-174-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 2:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	1.6		0.078	MDL	0.40	PQL	ug/Kg	J	L
DIELDRIN	2.0		0.078	MDL	0.40	PQL	ug/Kg	J	L
HEPTACHLOR	0.090	J	0.071	MDL	0.20	PQL	ug/Kg	J	Z, L
METHOXYCHLOR	0.49	J	0.40	MDL	2.0	PQL	ug/Kg	J	Z, L
MIREX	0.13	J	0.078	MDL	0.40	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-127-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.7	J	0.45	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5460	3.1	J	1.2	MDL	3.8	PQL	ug/Kg	J	Z

Sample ID: SL-133-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	1.8	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z

Sample ID: SL-146-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.7	J	0.45	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5460	3.3	J	1.1	MDL	3.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8151A **Matrix:** SO

Sample ID: SL-126-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 8:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.96	U	0.96	MDL	2.9	PQL	ug/Kg	UJ	Q
MCPP	90	U	90	MDL	300	PQL	ug/Kg	R	Q

Sample ID: SL-146-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	180	J	87	MDL	290	PQL	ug/Kg	J	Z

Sample ID: SL-171-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICHLOROPROP	1.0	J	0.91	MDL	1.9	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-053-SA5A-SB-3.0-4.0 *Collected:* 2/25/2011 9:28:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	22	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-054-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 11:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	22	J	19	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-054-SA5A-SB-9.0-10.0 *Collected:* 2/25/2011 11:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	20	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-055-SA5A-SB-2.0-3.0 *Collected:* 2/25/2011 12:38:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	26	J	19	MDL	380	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: PrepDE092_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-056-SA5A-SB-4.0-5.0** ***Collected:*** **2/25/2011 3:43:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	29	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: **SL-056-SA5A-SB-7.0-8.0** ***Collected:*** **2/25/2011 3:47:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	49	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: **SL-126-SA5A-SS-0.0-0.5** ***Collected:*** **2/25/2011 8:50:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	46	J	20	MDL	400	PQL	ug/Kg	J	Z
Butylbenzylphthalate	22	J	20	MDL	200	PQL	ug/Kg	J	Z
FLUORANTHENE	20	J	20	MDL	200	PQL	ug/Kg	J	Z

Sample ID: **SL-127-SA5A-SS-0.0-0.5** ***Collected:*** **2/25/2011 9:05:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	36	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: **SL-132-SA5A-SS-0.0-0.5** ***Collected:*** **2/25/2011 9:20:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	25	J	19	MDL	370	PQL	ug/Kg	J	Z

Sample ID: **SL-133-SA5A-SS-0.0-0.5** ***Collected:*** **2/25/2011 10:00:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	25	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: **SL-144-SA5A-SS-0.0-0.5** ***Collected:*** **2/25/2011 11:05:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	24	J	19	MDL	380	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 **Laboratory:** LL

EDD Filename: PrepDE092_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-146-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	46	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	34	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	55	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	28	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	26	J	19	MDL	190	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	27	J	19	MDL	380	PQL	ug/Kg	J	Z
CHRYSENE	54	J	19	MDL	190	PQL	ug/Kg	J	Z
FLUORANTHENE	100	J	19	MDL	190	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	27	J	19	MDL	190	PQL	ug/Kg	J	Z
PHENANTHRENE	70	J	19	MDL	190	PQL	ug/Kg	J	Z
PYRENE	79	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: SL-171-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	31	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-172-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	18	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	38	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	40	J	18	MDL	370	PQL	ug/Kg	J	Z
Butylbenzylphthalate	42	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-173-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	26	J	19	MDL	190	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	35	J	19	MDL	370	PQL	ug/Kg	J	Z
Di-n-butylphthalate	140	J	19	MDL	190	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 8270C **Matrix:** SO

Sample ID: SL-174-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 2:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	27	J	20	MDL	390	PQL	ug/Kg	J	Z

Method Category: SVOA **Method:** 8270C SIM **Matrix:** SO

Sample ID: SL-054-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 11:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	0.75	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-butylphthalate	12	J	6.7	MDL	20	PQL	ug/Kg	U	B
Di-n-octylphthalate	14	J	6.7	MDL	20	PQL	ug/Kg	U	B

Sample ID: SL-126-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 8:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.60	J	0.40	MDL	2.0	PQL	ug/Kg	J	Z
ANTHRACENE	1.4	J	0.40	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	16		0.80	MDL	2.0	PQL	ug/Kg	J	Q
FLUORENE	1.4	J	0.80	MDL	2.0	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.8	J	0.80	MDL	2.0	PQL	ug/Kg	J	Z
NAPHTHALENE	1.6	J	0.80	MDL	2.0	PQL	ug/Kg	J	Z, Q

Sample ID: SL-127-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.40	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
ANTHRACENE	0.88	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.0	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.0	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.1	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
Butylbenzylphthalate	8.7	J	7.0	MDL	21	PQL	ug/Kg	U	B
Di-n-octylphthalate	24		7.0	MDL	21	PQL	ug/Kg	U	B
INDENO(1,2,3-CD)PYRENE	0.79	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-132-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 9:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.66	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	0.94	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.99	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-butylphthalate	16	J	6.8	MDL	20	PQL	ug/Kg	U	B
Di-n-octylphthalate	20	J	6.8	MDL	20	PQL	ug/Kg	U	B
INDENO(1,2,3-CD)PYRENE	0.77	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	0.76	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.4	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-133-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.2	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.3	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	15	J	6.8	MDL	20	PQL	ug/Kg	U	B
INDENO(1,2,3-CD)PYRENE	0.94	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.5	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.3	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-144-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 11:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.47	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.97	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-butylphthalate	18	J	6.8	MDL	21	PQL	ug/Kg	U	B
Di-n-octylphthalate	15	J	6.8	MDL	21	PQL	ug/Kg	U	B
NAPHTHALENE	1.5	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-146-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 10:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	1.3	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.1	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.1	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-171-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	1.5	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.84	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
Butylbenzylphthalate	11	J	6.8	MDL	20	PQL	ug/Kg	U	B
CHRYSENE	1.6	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	14	J	6.8	MDL	20	PQL	ug/Kg	U	B
NAPHTHALENE	0.83	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.2	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.8	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-172-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	1.1	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	0.88	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-butylphthalate	17	J	6.8	MDL	20	PQL	ug/Kg	U	B
Di-n-octylphthalate	14	J	6.8	MDL	20	PQL	ug/Kg	U	B
NAPHTHALENE	1.7	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-173-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 1:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Butylbenzylphthalate	18	J	6.8	MDL	20	PQL	ug/Kg	U	B
DIBENZO(A,H)ANTHRACENE	0.93	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	14	J	6.8	MDL	20	PQL	ug/Kg	U	B
FLUORANTHENE	1.2	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.2	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	0.88	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	0.93	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-174-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 2:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	1.5	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
Butylbenzylphthalate	23		7.1	MDL	21	PQL	ug/Kg	U	B
DIBENZO(A,H)ANTHRACENE	1.7	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: PrepDE092_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-174-SA5A-SS-0.0-0.5 *Collected:* 2/25/2011 2:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-butylphthalate	18	J	7.1	MDL	21	PQL	ug/Kg	U	B
Di-n-octylphthalate	14	J	7.1	MDL	21	PQL	ug/Kg	U	B
NAPHTHALENE	1.5	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-053-SA5A-SB-3.0-4.0 *Collected:* 2/25/2011 9:28:00 *Analysis Type:* RES *Dilution:* 1.04

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.19	J	0.07	MDL	4.7	PQL	ug/Kg	J	Z
m,p-Xylene	0.61	J	0.20	MDL	4.7	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.60	J	0.28	MDL	4.7	PQL	ug/Kg	U	B
TOLUENE	0.12	J	0.09	MDL	4.7	PQL	ug/Kg	J	Z

Sample ID: SL-054-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 11:25:00 *Analysis Type:* RES *Dilution:* 0.94

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.07	J	0.06	MDL	4.2	PQL	ug/Kg	J	Z
m,p-Xylene	0.22	J	0.18	MDL	4.2	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.60	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: SL-055-SA5A-SB-2.0-3.0 *Collected:* 2/25/2011 12:38:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.11	J	0.07	MDL	4.5	PQL	ug/Kg	J	Z
m,p-Xylene	0.33	J	0.19	MDL	4.5	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.49	J	0.27	MDL	4.5	PQL	ug/Kg	U	B

Sample ID: SL-056-SA5A-SB-4.0-5.0 *Collected:* 2/25/2011 3:43:00 *Analysis Type:* RES *Dilution:* 0.87

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.51	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: PrepDE092_v1 **eQAPP Name: CDM_SSFL_110509**

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: PrepDE092_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: PrepDE092_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: PrepDE092_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DE092

Method Blank Outlier Report

Lab Reporting Batch ID: DE092 | Laboratory: LL

EDD Filename: DE092_v1 | eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06608BB221207	3/9/2011 12:07:00 PM	CALCIUM PHOSPHORUS TIN	8.61 mg/Kg 1.08 mg/Kg 1.47 mg/Kg	SL-053-SA5A-SB-3.0-4.0 SL-054-SA5A-SB-4.0-5.0 SL-054-SA5A-SB-9.0-10.0 SL-055-SA5A-SB-2.0-3.0 SL-056-SA5A-SB-4.0-5.0 SL-056-SA5A-SB-7.0-8.0 SL-126-SA5A-SS-0.0-0.5 SL-127-SA5A-SS-0.0-0.5 SL-132-SA5A-SS-0.0-0.5 SL-133-SA5A-SS-0.0-0.5 SL-144-SA5A-SS-0.0-0.5 SL-146-SA5A-SS-0.0-0.5 SL-171-SA5A-SS-0.0-0.5 SL-172-SA5A-SS-0.0-0.5 SL-173-SA5A-SS-0.0-0.5 SL-174-SA5A-SS-0.0-0.5
P06608BB221843	3/10/2011 6:43:00 PM	ALUMINUM	5.50 mg/Kg	SL-053-SA5A-SB-3.0-4.0 SL-054-SA5A-SB-4.0-5.0 SL-054-SA5A-SB-9.0-10.0 SL-055-SA5A-SB-2.0-3.0 SL-056-SA5A-SB-4.0-5.0 SL-056-SA5A-SB-7.0-8.0 SL-126-SA5A-SS-0.0-0.5 SL-127-SA5A-SS-0.0-0.5 SL-132-SA5A-SS-0.0-0.5 SL-133-SA5A-SS-0.0-0.5 SL-144-SA5A-SS-0.0-0.5 SL-146-SA5A-SS-0.0-0.5 SL-171-SA5A-SS-0.0-0.5 SL-172-SA5A-SS-0.0-0.5 SL-173-SA5A-SS-0.0-0.5 SL-174-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-053-SA5A-SB-3.0-4.0(RES)	TIN	3.25 mg/Kg	3.25U mg/Kg
SL-054-SA5A-SB-4.0-5.0(RES)	TIN	2.75 mg/Kg	2.75U mg/Kg
SL-054-SA5A-SB-9.0-10.0(RES)	TIN	3.19 mg/Kg	3.19U mg/Kg
SL-055-SA5A-SB-2.0-3.0(RES)	TIN	3.33 mg/Kg	3.33U mg/Kg
SL-056-SA5A-SB-4.0-5.0(RES)	TIN	2.91 mg/Kg	2.91U mg/Kg
SL-056-SA5A-SB-7.0-8.0(RES)	TIN	2.94 mg/Kg	2.94U mg/Kg
SL-126-SA5A-SS-0.0-0.5(RES)	TIN	2.86 mg/Kg	2.86U mg/Kg
SL-127-SA5A-SS-0.0-0.5(RES)	TIN	2.92 mg/Kg	2.92U mg/Kg
SL-132-SA5A-SS-0.0-0.5(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-133-SA5A-SS-0.0-0.5(RES)	TIN	2.76 mg/Kg	2.76U mg/Kg
SL-144-SA5A-SS-0.0-0.5(RES)	TIN	2.88 mg/Kg	2.88U mg/Kg
SL-146-SA5A-SS-0.0-0.5(RES)	TIN	2.81 mg/Kg	2.81U mg/Kg
SL-171-SA5A-SS-0.0-0.5(RES)	TIN	2.59 mg/Kg	2.59U mg/Kg
SL-172-SA5A-SS-0.0-0.5(RES)	TIN	2.83 mg/Kg	2.83U mg/Kg
SL-173-SA5A-SS-0.0-0.5(RES)	TIN	2.71 mg/Kg	2.71U mg/Kg
SL-174-SA5A-SS-0.0-0.5(RES)	TIN	2.83 mg/Kg	2.83U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: DE092_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06626BB221159A	3/11/2011 11:59:00 AM	COPPER LEAD	0.113 mg/Kg 0.0139 mg/Kg	SL-053-SA5A-SB-3.0-4.0 SL-054-SA5A-SB-4.0-5.0 SL-054-SA5A-SB-9.0-10.0 SL-055-SA5A-SB-2.0-3.0 SL-056-SA5A-SB-4.0-5.0 SL-056-SA5A-SB-7.0-8.0 SL-126-SA5A-SS-0.0-0.5 SL-127-SA5A-SS-0.0-0.5 SL-132-SA5A-SS-0.0-0.5 SL-133-SA5A-SS-0.0-0.5 SL-144-SA5A-SS-0.0-0.5 SL-146-SA5A-SS-0.0-0.5 SL-171-SA5A-SS-0.0-0.5 SL-172-SA5A-SS-0.0-0.5 SL-173-SA5A-SS-0.0-0.5 SL-174-SA5A-SS-0.0-0.5
P06626BB221159C	3/11/2011 11:59:00 AM	MOLYBDENUM	0.0636 mg/Kg	SL-053-SA5A-SB-3.0-4.0 SL-054-SA5A-SB-4.0-5.0 SL-054-SA5A-SB-9.0-10.0 SL-055-SA5A-SB-2.0-3.0 SL-056-SA5A-SB-4.0-5.0 SL-056-SA5A-SB-7.0-8.0 SL-126-SA5A-SS-0.0-0.5 SL-127-SA5A-SS-0.0-0.5 SL-132-SA5A-SS-0.0-0.5 SL-133-SA5A-SS-0.0-0.5 SL-144-SA5A-SS-0.0-0.5 SL-146-SA5A-SS-0.0-0.5 SL-171-SA5A-SS-0.0-0.5 SL-172-SA5A-SS-0.0-0.5 SL-173-SA5A-SS-0.0-0.5 SL-174-SA5A-SS-0.0-0.5

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB80B212159A	2/28/2011 9:59:00 PM	METHYLENE CHLORIDE	0.57 ug/Kg	SL-053-SA5A-SB-3.0-4.0 SL-054-SA5A-SB-4.0-5.0 SL-055-SA5A-SB-2.0-3.0 SL-056-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-053-SA5A-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	0.60 ug/Kg	4.7U ug/Kg
SL-054-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.60 ug/Kg	4.2U ug/Kg
SL-055-SA5A-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	0.49 ug/Kg	4.5U ug/Kg
SL-056-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.51 ug/Kg	4.0U ug/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: DE092_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLA06B261908	3/9/2011 7:08:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	11 ug/Kg	SL-053-SA5A-SB-3.0-4.0
		Butylbenzylphthalate	6.2 ug/Kg	SL-054-SA5A-SB-4.0-5.0
		Diethylphthalate	7.4 ug/Kg	SL-054-SA5A-SB-9.0-10.0
		Di-n-butylphthalate	13 ug/Kg	SL-055-SA5A-SB-2.0-3.0
		Di-n-octylphthalate	12 ug/Kg	SL-056-SA5A-SB-4.0-5.0
				SL-056-SA5A-SB-7.0-8.0
				SL-126-SA5A-SS-0.0-0.5
				SL-127-SA5A-SS-0.0-0.5
				SL-132-SA5A-SS-0.0-0.5
				SL-133-SA5A-SS-0.0-0.5
				SL-144-SA5A-SS-0.0-0.5
				SL-146-SA5A-SS-0.0-0.5
				SL-171-SA5A-SS-0.0-0.5
				SL-172-SA5A-SS-0.0-0.5
				SL-173-SA5A-SS-0.0-0.5
				SL-174-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-054-SA5A-SB-4.0-5.0(RES)	Di-n-butylphthalate	12 ug/Kg	20U ug/Kg
SL-054-SA5A-SB-4.0-5.0(RES)	Di-n-octylphthalate	14 ug/Kg	20U ug/Kg
SL-127-SA5A-SS-0.0-0.5(RES)	Butylbenzylphthalate	8.7 ug/Kg	21U ug/Kg
SL-127-SA5A-SS-0.0-0.5(RES)	Di-n-octylphthalate	24 ug/Kg	24U ug/Kg
SL-132-SA5A-SS-0.0-0.5(RES)	Di-n-butylphthalate	16 ug/Kg	20U ug/Kg
SL-132-SA5A-SS-0.0-0.5(RES)	Di-n-octylphthalate	20 ug/Kg	20U ug/Kg
SL-133-SA5A-SS-0.0-0.5(RES)	Di-n-octylphthalate	15 ug/Kg	20U ug/Kg
SL-144-SA5A-SS-0.0-0.5(RES)	Di-n-butylphthalate	18 ug/Kg	21U ug/Kg
SL-144-SA5A-SS-0.0-0.5(RES)	Di-n-octylphthalate	15 ug/Kg	21U ug/Kg
SL-171-SA5A-SS-0.0-0.5(RES)	Butylbenzylphthalate	11 ug/Kg	20U ug/Kg
SL-171-SA5A-SS-0.0-0.5(RES)	Di-n-octylphthalate	14 ug/Kg	20U ug/Kg
SL-172-SA5A-SS-0.0-0.5(RES)	Di-n-butylphthalate	17 ug/Kg	20U ug/Kg
SL-172-SA5A-SS-0.0-0.5(RES)	Di-n-octylphthalate	14 ug/Kg	20U ug/Kg
SL-173-SA5A-SS-0.0-0.5(RES)	Butylbenzylphthalate	18 ug/Kg	20U ug/Kg
SL-173-SA5A-SS-0.0-0.5(RES)	Di-n-octylphthalate	14 ug/Kg	20U ug/Kg
SL-174-SA5A-SS-0.0-0.5(RES)	Butylbenzylphthalate	23 ug/Kg	23U ug/Kg
SL-174-SA5A-SS-0.0-0.5(RES)	Di-n-butylphthalate	18 ug/Kg	21U ug/Kg
SL-174-SA5A-SS-0.0-0.5(RES)	Di-n-octylphthalate	14 ug/Kg	21U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: DE092_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-126-SA5A-SS-0.0-0.5MS	BENZO(B)FLUORANTHENE	-	157	43.00-155.00	-	BENZO(B)FLUORANTHENE	J (all detects)
SL-126-SA5A-SS-0.0-0.5MSD	Dimethylphthalate	122	-	74.00-118.00	-	Dimethylphthalate	
(SL-126-SA5A-SS-0.0-0.5)	NAPHTHALENE	104	106	61.00-102.00	-	NAPHTHALENE	

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-126-SA5A-SS-0.0-0.5MS	ARSENIC	159	-	75.00-125.00	-	ARSENIC	J(all detects) Pb No Qual, >4x
SL-126-SA5A-SS-0.0-0.5MSD	BERYLLIUM	147	-	75.00-125.00	-	BERYLLIUM	
(SL-053-SA5A-SB-3.0-4.0	CADMIUM	139	140	75.00-125.00	-	CADMIUM	
SL -054-SA5A-SB-4.0-5.0	CHROMIUM	157	-	75.00-125.00	-	CHROMIUM	
SL -054-SA5A-SB-9.0-10.0	COPPER	131	-	75.00-125.00	-	COPPER	
SL -055-SA5A-SB-2.0-3.0	LEAD	204	-	75.00-125.00	-	LEAD	
SL -056-SA5A-SB-4.0-5.0	NICKEL	138	-	75.00-125.00	-	NICKEL	
SL -056-SA5A-SB-7.0-8.0	SILVER	146	133	75.00-125.00	-	SILVER	
SL -126-SA5A-SS-0.0-0.5	THALLIUM	149	-	75.00-125.00	-	THALLIUM	
SL -127-SA5A-SS-0.0-0.5	VANADIUM	175	-	75.00-125.00	-	VANADIUM	
SL -132-SA5A-SS-0.0-0.5							
SL -133-SA5A-SS-0.0-0.5							
SL -144-SA5A-SS-0.0-0.5							
SL -146-SA5A-SS-0.0-0.5							
SL -171-SA5A-SS-0.0-0.5							
SL -172-SA5A-SS-0.0-0.5							
SL -173-SA5A-SS-0.0-0.5							
SL -174-SA5A-SS-0.0-0.5)							
SL-126-SA5A-SS-0.0-0.5MS	ANTIMONY	43	44	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects) Zn No Qual, >4x
SL-126-SA5A-SS-0.0-0.5MSD	ZINC	210	31	75.00-125.00	-	ZINC	
(SL-053-SA5A-SB-3.0-4.0							
SL -054-SA5A-SB-4.0-5.0							
SL -054-SA5A-SB-9.0-10.0							
SL -055-SA5A-SB-2.0-3.0							
SL -056-SA5A-SB-4.0-5.0							
SL -056-SA5A-SB-7.0-8.0							
SL -126-SA5A-SS-0.0-0.5							
SL -127-SA5A-SS-0.0-0.5							
SL -132-SA5A-SS-0.0-0.5							
SL -133-SA5A-SS-0.0-0.5							
SL -144-SA5A-SS-0.0-0.5							
SL -146-SA5A-SS-0.0-0.5							
SL -171-SA5A-SS-0.0-0.5							
SL -172-SA5A-SS-0.0-0.5							
SL -173-SA5A-SS-0.0-0.5							
SL -174-SA5A-SS-0.0-0.5)							

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: DE092_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-126-SA5A-SS-0.0-0.5MS SL-126-SA5A-SS-0.0-0.5MSD (SL-053-SA5A-SB-3.0-4.0 SL -054-SA5A-SB-4.0-5.0 SL -054-SA5A-SB-9.0-10.0 SL -055-SA5A-SB-2.0-3.0 SL -056-SA5A-SB-4.0-5.0 SL -056-SA5A-SB-7.0-8.0 SL -126-SA5A-SS-0.0-0.5 SL -127-SA5A-SS-0.0-0.5 SL -132-SA5A-SS-0.0-0.5 SL -133-SA5A-SS-0.0-0.5 SL -144-SA5A-SS-0.0-0.5 SL -146-SA5A-SS-0.0-0.5 SL -171-SA5A-SS-0.0-0.5 SL -172-SA5A-SS-0.0-0.5 SL -173-SA5A-SS-0.0-0.5 SL -174-SA5A-SS-0.0-0.5)	MOLYBDENUM	148	135	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-126-SA5A-SS-0.0-0.5MS SL-126-SA5A-SS-0.0-0.5MSD (SL-053-SA5A-SB-3.0-4.0 SL -054-SA5A-SB-4.0-5.0 SL -054-SA5A-SB-9.0-10.0 SL -055-SA5A-SB-2.0-3.0 SL -056-SA5A-SB-4.0-5.0 SL -056-SA5A-SB-7.0-8.0 SL -126-SA5A-SS-0.0-0.5 SL -127-SA5A-SS-0.0-0.5 SL -132-SA5A-SS-0.0-0.5 SL -133-SA5A-SS-0.0-0.5 SL -144-SA5A-SS-0.0-0.5 SL -146-SA5A-SS-0.0-0.5 SL -171-SA5A-SS-0.0-0.5 SL -172-SA5A-SS-0.0-0.5 SL -173-SA5A-SS-0.0-0.5 SL -174-SA5A-SS-0.0-0.5)	BARIUM	195	19	75.00-125.00	-	BARIUM	No Qual, >4x

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-126-SA5A-SS-0.0-0.5MS	ALUMINUM	1398	1387	75.00-125.00	-	ALUMINUM	
SL-126-SA5A-SS-0.0-0.5MSD	CALCIUM	169	136	75.00-125.00	-	CALCIUM	
(SL-053-SA5A-SB-3.0-4.0	MAGNESIUM	169	-	75.00-125.00	-	MAGNESIUM	
SL -054-SA5A-SB-4.0-5.0	TITANIUM	304	263	75.00-125.00	-	TITANIUM	
SL -054-SA5A-SB-9.0-10.0 SL -055-SA5A-SB-2.0-3.0 SL -056-SA5A-SB-4.0-5.0 SL -056-SA5A-SB-7.0-8.0 SL -126-SA5A-SS-0.0-0.5 SL -127-SA5A-SS-0.0-0.5 SL -132-SA5A-SS-0.0-0.5 SL -133-SA5A-SS-0.0-0.5 SL -144-SA5A-SS-0.0-0.5 SL -146-SA5A-SS-0.0-0.5 SL -171-SA5A-SS-0.0-0.5 SL -172-SA5A-SS-0.0-0.5 SL -173-SA5A-SS-0.0-0.5 SL -174-SA5A-SS-0.0-0.5)							No Qual, >4x

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: DE092_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-126-SA5A-SS-0.0-0.5MS **SL-126-SA5A-SS-0.0-0.5MSD** (SL-053-SA5A-SB-3.0-4.0 SL -054-SA5A-SB-4.0-5.0 SL -054-SA5A-SB-9.0-10.0 SL -055-SA5A-SB-2.0-3.0 SL -056-SA5A-SB-4.0-5.0 SL -056-SA5A-SB-7.0-8.0 SL -126-SA5A-SS-0.0-0.5 SL -127-SA5A-SS-0.0-0.5 SL -132-SA5A-SS-0.0-0.5 SL -133-SA5A-SS-0.0-0.5 SL -144-SA5A-SS-0.0-0.5 SL -146-SA5A-SS-0.0-0.5 SL -171-SA5A-SS-0.0-0.5 SL -172-SA5A-SS-0.0-0.5 SL -173-SA5A-SS-0.0-0.5 SL -174-SA5A-SS-0.0-0.5)	IRON	-57	-308	75.00-125.00	-	IRON	No Qual, >4x
SL-126-SA5A-SS-0.0-0.5MS **SL-126-SA5A-SS-0.0-0.5MSD** (SL-053-SA5A-SB-3.0-4.0 SL -054-SA5A-SB-4.0-5.0 SL -054-SA5A-SB-9.0-10.0 SL -055-SA5A-SB-2.0-3.0 SL -056-SA5A-SB-4.0-5.0 SL -056-SA5A-SB-7.0-8.0 SL -126-SA5A-SS-0.0-0.5 SL -127-SA5A-SS-0.0-0.5 SL -132-SA5A-SS-0.0-0.5 SL -133-SA5A-SS-0.0-0.5 SL -144-SA5A-SS-0.0-0.5 SL -146-SA5A-SS-0.0-0.5 SL -171-SA5A-SS-0.0-0.5 SL -172-SA5A-SS-0.0-0.5 SL -173-SA5A-SS-0.0-0.5 SL -174-SA5A-SS-0.0-0.5)	PHOSPHORUS	72	52	75.00-125.00	-	PHOSPHORUS	No Qual, >4x

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-126-SA5A-SS-0.0-0.5MS (SL-126-SA5A-SS-0.0-0.5 SL -127-SA5A-SS-0.0-0.5 SL -132-SA5A-SS-0.0-0.5 SL -133-SA5A-SS-0.0-0.5 SL -144-SA5A-SS-0.0-0.5 SL -146-SA5A-SS-0.0-0.5 SL -171-SA5A-SS-0.0-0.5 SL -172-SA5A-SS-0.0-0.5 SL -173-SA5A-SS-0.0-0.5)	FLUORIDE	70	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-174-SA5A-SS-0.0-0.5MS (SL-053-SA5A-SB-3.0-4.0 SL -054-SA5A-SB-4.0-5.0 SL -054-SA5A-SB-9.0-10.0 SL -055-SA5A-SB-2.0-3.0 SL -056-SA5A-SB-4.0-5.0 SL -056-SA5A-SB-7.0-8.0 SL -174-SA5A-SS-0.0-0.5)	FLUORIDE	57	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: DE092_v1 **eQAPP Name: CDM_SSFL_110509**

***Method:* 8081A**
***Matrix:* SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-126-SA5A-SS-0.0-0.5MS SL-126-SA5A-SS-0.0-0.5MSD (SL-126-SA5A-SS-0.0-0.5)	4,4'-DDE ALDRIN	178 130	200 130	18.00-161.00 16.00-126.00	- -	4,4'-DDE ALDRIN	J(all detects)

***Method:* 8151A**
***Matrix:* SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-126-SA5A-SS-0.0-0.5MSD (SL-126-SA5A-SS-0.0-0.5)	DALAPON DICAMBA DICHLOROPROP	- - -	- 194 -	10.00-125.00 10.00-190.00 33.00-178.00	86 (50.00) - 51 (50.00)	DALAPON DICAMBA DICHLOROPROP	J(all detects)
SL-126-SA5A-SS-0.0-0.5MS SL-126-SA5A-SS-0.0-0.5MSD (SL-126-SA5A-SS-0.0-0.5)	MCPP	0	0	10.00-184.00	-	MCPP	J(all detects) R(all non-detects)
SL-126-SA5A-SS-0.0-0.5MS SL-126-SA5A-SS-0.0-0.5MSD (SL-126-SA5A-SS-0.0-0.5)	DINOSEB	6	-	10.00-46.00	122 (35.00)	DINOSEB	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: DE092_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-126-SA5A-SS-0.0-0.5DUP (SL-126-SA5A-SS-0.0-0.5 SL-127-SA5A-SS-0.0-0.5 SL-132-SA5A-SS-0.0-0.5 SL-133-SA5A-SS-0.0-0.5 SL-144-SA5A-SS-0.0-0.5 SL-146-SA5A-SS-0.0-0.5 SL-171-SA5A-SS-0.0-0.5 SL-172-SA5A-SS-0.0-0.5 SL-173-SA5A-SS-0.0-0.5)	FLUORIDE	200	20.00	No Qual OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-126-SA5A-SS-0.0-0.5DUP (SL-053-SA5A-SB-3.0-4.0 SL-054-SA5A-SB-4.0-5.0 SL-054-SA5A-SB-9.0-10.0 SL-055-SA5A-SB-2.0-3.0 SL-056-SA5A-SB-4.0-5.0 SL-056-SA5A-SB-7.0-8.0 SL-126-SA5A-SS-0.0-0.5 SL-127-SA5A-SS-0.0-0.5 SL-132-SA5A-SS-0.0-0.5 SL-133-SA5A-SS-0.0-0.5 SL-144-SA5A-SS-0.0-0.5 SL-146-SA5A-SS-0.0-0.5 SL-171-SA5A-SS-0.0-0.5 SL-172-SA5A-SS-0.0-0.5 SL-173-SA5A-SS-0.0-0.5 SL-174-SA5A-SS-0.0-0.5)	ANTIMONY	90	20.00	J(all detects) UJ(all non-detects) Sb, Be, Cd, Ag, Tl No Qual OK by difference
	ARSENIC	31	20.00	
	BARIUM	36	20.00	
	BERYLLIUM	38	20.00	
	CADMIUM	51	20.00	
	CHROMIUM	30	20.00	
	COBALT	34	20.00	
	COPPER	32	20.00	
	MOLYBDENUM	26	20.00	
	NICKEL	33	20.00	
	SILVER	36	20.00	
	THALLIUM	35	20.00	
	VANADIUM	32	20.00	
	ZINC	26	20.00	

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-126-SA5A-SS-0.0-0.5DUP (SL-053-SA5A-SB-3.0-4.0 SL-054-SA5A-SB-4.0-5.0 SL-054-SA5A-SB-9.0-10.0 SL-055-SA5A-SB-2.0-3.0 SL-056-SA5A-SB-4.0-5.0 SL-056-SA5A-SB-7.0-8.0 SL-126-SA5A-SS-0.0-0.5 SL-127-SA5A-SS-0.0-0.5 SL-132-SA5A-SS-0.0-0.5 SL-133-SA5A-SS-0.0-0.5 SL-144-SA5A-SS-0.0-0.5 SL-146-SA5A-SS-0.0-0.5 SL-171-SA5A-SS-0.0-0.5 SL-172-SA5A-SS-0.0-0.5 SL-173-SA5A-SS-0.0-0.5 SL-174-SA5A-SS-0.0-0.5)	MERCURY	200	20.00	No Qual OK by difference

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: DE092_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-054-SA5A-SB-4.0-5.0DUP (SL-053-SA5A-SB-3.0-4.0 SL -054-SA5A-SB-4.0-5.0 SL -054-SA5A-SB-9.0-10.0 SL -055-SA5A-SB-2.0-3.0 SL -056-SA5A-SB-4.0-5.0 SL -056-SA5A-SB-7.0-8.0 SL -126-SA5A-SS-0.0-0.5 SL -127-SA5A-SS-0.0-0.5 SL -132-SA5A-SS-0.0-0.5 SL -133-SA5A-SS-0.0-0.5 SL -144-SA5A-SS-0.0-0.5 SL -146-SA5A-SS-0.0-0.5 SL -171-SA5A-SS-0.0-0.5 SL -172-SA5A-SS-0.0-0.5 SL -173-SA5A-SS-0.0-0.5 SL -174-SA5A-SS-0.0-0.5)	HEXAVALENT CHROMIUM	21	20.00	No Qual OK by difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: DE092_v1 eQAPP Name: CDM_SSFL_110509

Method: 8081A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10606AQ241638A	4,4'-DDD	160	-	60.00-137.00	-	4,4'-DDD	
(SL-126-SA5A-SS-0.0-0.5	4,4'-DDT	175	-	54.00-130.00	-	4,4'-DDT	
SL-127-SA5A-SS-0.0-0.5	DIELDRIN	156	-	65.00-129.00	-	DIELDRIN	
SL-132-SA5A-SS-0.0-0.5	ENDOSULFAN I	148	-	45.00-123.00	-	ENDOSULFAN I	
SL-133-SA5A-SS-0.0-0.5	ENDRIN	153	-	62.00-129.00	-	ENDRIN	
SL-144-SA5A-SS-0.0-0.5	gamma-BHC (Lindane)	130	-	46.00-127.00	-	gamma-BHC (Lindane)	J (all detects)
SL-146-SA5A-SS-0.0-0.5	HEPTACHLOR	155	-	43.00-124.00	-	HEPTACHLOR	
SL-171-SA5A-SS-0.0-0.5	METHOXYCHLOR	174	-	59.00-125.00	-	METHOXYCHLOR	
SL-172-SA5A-SS-0.0-0.5							
SL-173-SA5A-SS-0.0-0.5							
SL-174-SA5A-SS-0.0-0.5)							

Reporting Limit Outliers

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: DE092_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-126-SA5A-SS-0.0-0.5	FLUORIDE	J	1.1	1.2	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-053-SA5A-SB-3.0-4.0	BORON	J	2.41	5.53	PQL	mg/Kg	J (all detects)
	SODIUM	J	109	111	PQL	mg/Kg	
	TIN	J	3.25	11.1	PQL	mg/Kg	
	Zirconium	J	3.91	5.53	PQL	mg/Kg	
SL-054-SA5A-SB-4.0-5.0	BORON	J	3.36	5.44	PQL	mg/Kg	J (all detects)
	SODIUM	J	107	109	PQL	mg/Kg	
	TIN	J	2.75	10.9	PQL	mg/Kg	
	Zirconium	J	3.94	5.44	PQL	mg/Kg	
SL-054-SA5A-SB-9.0-10.0	BORON	J	3.01	5.70	PQL	mg/Kg	J (all detects)
	TIN	J	3.19	11.4	PQL	mg/Kg	
	Zirconium	J	4.29	5.70	PQL	mg/Kg	
SL-055-SA5A-SB-2.0-3.0	TIN	J	3.33	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.91	5.43	PQL	mg/Kg	
SL-056-SA5A-SB-4.0-5.0	BORON	J	3.04	5.51	PQL	mg/Kg	J (all detects)
	SODIUM	J	73.6	110	PQL	mg/Kg	
	TIN	J	2.91	11.0	PQL	mg/Kg	
	Zirconium	J	4.56	5.51	PQL	mg/Kg	
SL-056-SA5A-SB-7.0-8.0	BORON	J	2.00	5.60	PQL	mg/Kg	J (all detects)
	SODIUM	J	109	112	PQL	mg/Kg	
	TIN	J	2.94	11.2	PQL	mg/Kg	
	Zirconium	J	4.12	5.60	PQL	mg/Kg	
SL-126-SA5A-SS-0.0-0.5	SODIUM	J	62.4	115	PQL	mg/Kg	J (all detects)
	TIN	J	2.86	11.5	PQL	mg/Kg	
	Zirconium	J	5.35	5.77	PQL	mg/Kg	
SL-127-SA5A-SS-0.0-0.5	BORON	J	4.60	5.69	PQL	mg/Kg	J (all detects)
	SODIUM	J	60.5	114	PQL	mg/Kg	
	TIN	J	2.92	11.4	PQL	mg/Kg	
	Zirconium	J	3.29	5.69	PQL	mg/Kg	
SL-132-SA5A-SS-0.0-0.5	BORON	J	4.50	5.55	PQL	mg/Kg	J (all detects)
	SODIUM	J	61.4	111	PQL	mg/Kg	
	TIN	J	2.65	11.1	PQL	mg/Kg	
	Zirconium	J	3.64	5.55	PQL	mg/Kg	
SL-133-SA5A-SS-0.0-0.5	BORON	J	5.01	5.50	PQL	mg/Kg	J (all detects)
	SODIUM	J	71.5	110	PQL	mg/Kg	
	TIN	J	2.76	11.0	PQL	mg/Kg	
	Zirconium	J	4.90	5.50	PQL	mg/Kg	
SL-144-SA5A-SS-0.0-0.5	BORON	J	4.69	5.64	PQL	mg/Kg	J (all detects)
	SODIUM	J	72.5	113	PQL	mg/Kg	
	TIN	J	2.88	11.3	PQL	mg/Kg	
	Zirconium	J	4.64	5.64	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: DE092_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-146-SA5A-SS-0.0-0.5	BORON	J	3.68	5.57	PQL	mg/Kg	J (all detects)
	SODIUM	J	60.7	111	PQL	mg/Kg	
	TIN	J	2.81	11.1	PQL	mg/Kg	
	Zirconium	J	3.99	5.57	PQL	mg/Kg	
SL-171-SA5A-SS-0.0-0.5	BORON	J	5.43	5.51	PQL	mg/Kg	J (all detects)
	SODIUM	J	71.2	110	PQL	mg/Kg	
	TIN	J	2.59	11.0	PQL	mg/Kg	
	Zirconium	J	3.27	5.51	PQL	mg/Kg	
SL-172-SA5A-SS-0.0-0.5	BORON	J	4.11	5.52	PQL	mg/Kg	J (all detects)
	SODIUM	J	86.6	110	PQL	mg/Kg	
	TIN	J	2.83	11.0	PQL	mg/Kg	
	Zirconium	J	3.97	5.52	PQL	mg/Kg	
SL-173-SA5A-SS-0.0-0.5	BORON	J	4.73	5.46	PQL	mg/Kg	J (all detects)
	TIN	J	2.71	10.9	PQL	mg/Kg	
	Zirconium	J	3.72	5.46	PQL	mg/Kg	
SL-174-SA5A-SS-0.0-0.5	BORON	J	4.45	5.91	PQL	mg/Kg	J (all detects)
	SODIUM	J	107	118	PQL	mg/Kg	
	TIN	J	2.83	11.8	PQL	mg/Kg	
	Zirconium	J	2.75	5.91	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-053-SA5A-SB-3.0-4.0	ANTIMONY	J	0.124	0.226	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0709	0.113	PQL	mg/Kg	
	SELENIUM	J	0.104	0.451	PQL	mg/Kg	
SL-054-SA5A-SB-4.0-5.0	ANTIMONY	J	0.143	0.222	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.106	0.444	PQL	mg/Kg	
SL-054-SA5A-SB-9.0-10.0	ANTIMONY	J	0.217	0.228	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0821	0.456	PQL	mg/Kg	
	SILVER	J	0.0597	0.114	PQL	mg/Kg	
SL-055-SA5A-SB-2.0-3.0	SELENIUM	J	0.436	0.439	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0297	0.110	PQL	mg/Kg	
SL-056-SA5A-SB-4.0-5.0	ANTIMONY	J	0.151	0.227	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.109	0.114	PQL	mg/Kg	
	SELENIUM	J	0.130	0.454	PQL	mg/Kg	
	SILVER	J	0.0644	0.114	PQL	mg/Kg	
SL-056-SA5A-SB-7.0-8.0	ANTIMONY	J	0.159	0.226	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.104	0.113	PQL	mg/Kg	
	SELENIUM	J	0.120	0.453	PQL	mg/Kg	
	SILVER	J	0.0153	0.113	PQL	mg/Kg	
SL-126-SA5A-SS-0.0-0.5	ANTIMONY	J	0.227	0.238	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.142	0.475	PQL	mg/Kg	
	SILVER	J	0.0447	0.119	PQL	mg/Kg	
SL-127-SA5A-SS-0.0-0.5	ANTIMONY	J	0.191	0.230	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.179	0.459	PQL	mg/Kg	
	SILVER	J	0.0455	0.115	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: DE092_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-132-SA5A-SS-0.0-0.5	ANTIMONY	J	0.193	0.226	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.131	0.452	PQL	mg/Kg	
	SILVER	J	0.0322	0.113	PQL	mg/Kg	
SL-133-SA5A-SS-0.0-0.5	ANTIMONY	J	0.208	0.222	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.142	0.445	PQL	mg/Kg	
	SILVER	J	0.0319	0.111	PQL	mg/Kg	
SL-144-SA5A-SS-0.0-0.5	ANTIMONY	J	0.178	0.224	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.165	0.447	PQL	mg/Kg	
SL-146-SA5A-SS-0.0-0.5	ANTIMONY	J	0.228	0.229	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.159	0.459	PQL	mg/Kg	
SL-171-SA5A-SS-0.0-0.5	ANTIMONY	J	0.167	0.225	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.177	0.450	PQL	mg/Kg	
	SILVER	J	0.0413	0.112	PQL	mg/Kg	
SL-172-SA5A-SS-0.0-0.5	ANTIMONY	J	0.148	0.221	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.152	0.442	PQL	mg/Kg	
SL-173-SA5A-SS-0.0-0.5	ANTIMONY	J	0.178	0.220	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.138	0.441	PQL	mg/Kg	
	SILVER	J	0.0671	0.110	PQL	mg/Kg	
SL-174-SA5A-SS-0.0-0.5	ANTIMONY	J	0.159	0.232	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.152	0.464	PQL	mg/Kg	
	SILVER	J	0.0447	0.116	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-054-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.39	1.1	PQL	mg/Kg	J (all detects)
SL-054-SA5A-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.27	1.2	PQL	mg/Kg	J (all detects)
SL-055-SA5A-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.45	1.1	PQL	mg/Kg	J (all detects)
SL-056-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.43	1.1	PQL	mg/Kg	J (all detects)
SL-056-SA5A-SB-7.0-8.0	HEXAVALENT CHROMIUM	J	0.50	1.2	PQL	mg/Kg	J (all detects)
SL-126-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.89	1.2	PQL	mg/Kg	J (all detects)
SL-127-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.28	1.2	PQL	mg/Kg	J (all detects)
SL-132-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.44	1.1	PQL	mg/Kg	J (all detects)
SL-133-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.30	1.1	PQL	mg/Kg	J (all detects)
SL-146-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.61	1.1	PQL	mg/Kg	J (all detects)
SL-172-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.34	1.1	PQL	mg/Kg	J (all detects)
SL-173-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.44	1.1	PQL	mg/Kg	J (all detects)
SL-174-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.27	1.2	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: DE092_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-053-SA5A-SB-3.0-4.0	MERCURY	J	0.0060	0.105	PQL	mg/Kg	J (all detects)
SL-054-SA5A-SB-4.0-5.0	MERCURY	J	0.0036	0.109	PQL	mg/Kg	J (all detects)
SL-054-SA5A-SB-9.0-10.0	MERCURY	J	0.0066	0.109	PQL	mg/Kg	J (all detects)
SL-055-SA5A-SB-2.0-3.0	MERCURY	J	0.0058	0.105	PQL	mg/Kg	J (all detects)
SL-126-SA5A-SS-0.0-0.5	MERCURY	J	0.0053	0.113	PQL	mg/Kg	J (all detects)
SL-133-SA5A-SS-0.0-0.5	MERCURY	J	0.0847	0.112	PQL	mg/Kg	J (all detects)
SL-144-SA5A-SS-0.0-0.5	MERCURY	J	0.0374	0.107	PQL	mg/Kg	J (all detects)
SL-146-SA5A-SS-0.0-0.5	MERCURY	J	0.0134	0.115	PQL	mg/Kg	J (all detects)
SL-171-SA5A-SS-0.0-0.5	MERCURY	J	0.0189	0.112	PQL	mg/Kg	J (all detects)
SL-172-SA5A-SS-0.0-0.5	MERCURY	J	0.0189	0.106	PQL	mg/Kg	J (all detects)
SL-173-SA5A-SS-0.0-0.5	MERCURY	J	0.0059	0.107	PQL	mg/Kg	J (all detects)
SL-174-SA5A-SS-0.0-0.5	MERCURY	J	0.0039	0.117	PQL	mg/Kg	J (all detects)

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-132-SA5A-SS-0.0-0.5	ENDRIN ALDEHYDE MIREX	J J	0.082 0.12	0.38 0.38	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-146-SA5A-SS-0.0-0.5	HEPTACHLOR	J	0.14	0.19	PQL	ug/Kg	J (all detects)
SL-171-SA5A-SS-0.0-0.5	ENDRIN ALDEHYDE ENDRIN KETONE	J J	0.095 0.15	0.39 0.39	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-173-SA5A-SS-0.0-0.5	4,4'-DDD DIELDRIN	J J	0.14 0.24	0.39 0.39	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-174-SA5A-SS-0.0-0.5	HEPTACHLOR METHOXYCHLOR MIREX	J J J	0.090 0.49 0.13	0.20 2.0 0.40	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-127-SA5A-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J J	1.7 3.1	2.0 3.8	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-133-SA5A-SS-0.0-0.5	Aroclor 5460	J	1.8	3.7	PQL	ug/Kg	J (all detects)
SL-146-SA5A-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J J	1.7 3.3	1.9 3.8	PQL PQL	ug/Kg ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE092 Laboratory: LL

EDD Filename: DE092_v1 eQAPP Name: CDM_SSFL_110509

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-146-SA5A-SS-0.0-0.5	MCPA	J	180	290	PQL	ug/Kg	J (all detects)
SL-171-SA5A-SS-0.0-0.5	DICHLOROPROP	J	1.0	1.9	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-053-SA5A-SB-3.0-4.0	ETHYLBENZENE	J	0.19	4.7	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.61	4.7	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	0.60	4.7	PQL	ug/Kg	
	TOLUENE	J	0.12	4.7	PQL	ug/Kg	
SL-054-SA5A-SB-4.0-5.0	ETHYLBENZENE	J	0.07	4.2	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.22	4.2	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	0.60	4.2	PQL	ug/Kg	
SL-055-SA5A-SB-2.0-3.0	ETHYLBENZENE	J	0.11	4.5	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.33	4.5	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	0.49	4.5	PQL	ug/Kg	
SL-056-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.51	4.0	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-053-SA5A-SB-3.0-4.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	22	380	PQL	ug/Kg	J (all detects)
SL-054-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	22	370	PQL	ug/Kg	J (all detects)
SL-054-SA5A-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	380	PQL	ug/Kg	J (all detects)
SL-055-SA5A-SB-2.0-3.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	26	380	PQL	ug/Kg	J (all detects)
SL-056-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	29	380	PQL	ug/Kg	J (all detects)
SL-056-SA5A-SB-7.0-8.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	49	390	PQL	ug/Kg	J (all detects)
SL-126-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	46	400	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	22	200	PQL	ug/Kg	
	FLUORANTHENE	J	20	200	PQL	ug/Kg	
SL-127-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	36	390	PQL	ug/Kg	J (all detects)
SL-132-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	370	PQL	ug/Kg	J (all detects)
SL-133-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	380	PQL	ug/Kg	J (all detects)
SL-144-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	380	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: DE092_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-146-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	46	190	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	34	190	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	55	190	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	28	190	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	26	190	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	380	PQL	ug/Kg	
	CHRYSENE	J	54	190	PQL	ug/Kg	
	FLUORANTHENE	J	100	190	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	27	190	PQL	ug/Kg	
	PHENANTHRENE	J	70	190	PQL	ug/Kg	
	PYRENE	J	79	190	PQL	ug/Kg	
SL-171-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	31	380	PQL	ug/Kg	J (all detects)
SL-172-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	18	180	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	38	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	40	370	PQL	ug/Kg	
	Butylbenzylphthalate	J	42	180	PQL	ug/Kg	
SL-173-SA5A-SS-0.0-0.5	BENZO(A)PYRENE	J	26	190	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	35	370	PQL	ug/Kg	
	Di-n-butylphthalate	J	140	190	PQL	ug/Kg	
SL-174-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	390	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-054-SA5A-SB-4.0-5.0	BENZO(G,H,I)PERYLENE	J	0.75	1.9	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	12	20	PQL	ug/Kg	
	Di-n-octylphthalate	J	14	20	PQL	ug/Kg	
SL-126-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	0.60	2.0	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	1.4	2.0	PQL	ug/Kg	
	FLUORENE	J	1.4	2.0	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.8	2.0	PQL	ug/Kg	
	NAPHTHALENE	J	1.6	2.0	PQL	ug/Kg	
SL-127-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	0.40	1.9	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.88	1.9	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.0	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.0	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.1	1.9	PQL	ug/Kg	
	Butylbenzylphthalate	J	8.7	21	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.79	1.9	PQL	ug/Kg	
SL-132-SA5A-SS-0.0-0.5	ANTHRACENE	J	0.66	1.9	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	0.94	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.99	1.9	PQL	ug/Kg	
	Di-n-butylphthalate	J	16	20	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.77	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	0.76	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	1.9	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE092 **Laboratory: LL**

EDD Filename: DE092_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-133-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.2	1.9	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	1.3	1.9	PQL	ug/Kg	
	Di-n-octylphthalate	J	15	20	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.94	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.5	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.3	1.9	PQL	ug/Kg	
SL-144-SA5A-SS-0.0-0.5	ANTHRACENE	J	0.47	1.9	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	0.97	1.9	PQL	ug/Kg	
	Di-n-butylphthalate	J	18	21	PQL	ug/Kg	
	Di-n-octylphthalate	J	15	21	PQL	ug/Kg	
	NAPHTHALENE	J	1.5	1.9	PQL	ug/Kg	
SL-146-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	1.3	1.9	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	1.1	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	1.9	PQL	ug/Kg	
SL-171-SA5A-SS-0.0-0.5	BENZO(A)PYRENE	J	1.5	1.9	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.84	1.9	PQL	ug/Kg	
	Butylbenzylphthalate	J	11	20	PQL	ug/Kg	
	CHRYSENE	J	1.6	1.9	PQL	ug/Kg	
	Di-n-octylphthalate	J	14	20	PQL	ug/Kg	
	NAPHTHALENE	J	0.83	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	1.9	PQL	ug/Kg	
	PYRENE	J	1.8	1.9	PQL	ug/Kg	
SL-172-SA5A-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	1.1	1.9	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.88	1.9	PQL	ug/Kg	
	Di-n-butylphthalate	J	17	20	PQL	ug/Kg	
	Di-n-octylphthalate	J	14	20	PQL	ug/Kg	
	NAPHTHALENE	J	1.7	1.9	PQL	ug/Kg	
SL-173-SA5A-SS-0.0-0.5	Butylbenzylphthalate	J	18	20	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	0.93	1.9	PQL	ug/Kg	
	Di-n-octylphthalate	J	14	20	PQL	ug/Kg	
	FLUORANTHENE	J	1.2	1.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.2	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	0.88	1.9	PQL	ug/Kg	
	PYRENE	J	0.93	1.9	PQL	ug/Kg	
SL-174-SA5A-SS-0.0-0.5	ANTHRACENE	J	1.5	2.0	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	1.7	2.0	PQL	ug/Kg	
	Di-n-butylphthalate	J	18	21	PQL	ug/Kg	
	Di-n-octylphthalate	J	14	21	PQL	ug/Kg	
	NAPHTHALENE	J	1.5	2.0	PQL	ug/Kg	

LDC #: 25911D4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/31/11

SDG #: DE092 ADR

Laboratory: Lancaster Laboratories Reviewer: CR

2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ba, Ca, Fe, Pb, Mg, Mn, P, Ti, Zn >4X)
VII.	Duplicate Sample Analysis	N	D (Sb, Be, Cd, Hg, Ag, Tl <5x)
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	J/UJ/A
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	↓	
XV	Field Blanks	↓	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	SL-126-SA5A-SS-0.0-0.5	11	SL-053-SA5A-SB-3.0-4.0	21		31	
2	SL-127-SA5A-SS-0.0-0.5	12	SL-054-SA5A-SB-4.0-5.0	22		32	
3	SL-132-SA5A-SS-0.0-0.5	13	SL-054-SA5A-SB-9.0-10.0	23		33	
4	SL-133-SA5A-SS-0.0-0.5	14	SL-055-SA5A-SB-2.0-3.0	24		34	
5	SL-144-SA5A-SS-0.0-0.5	15	SL-056-SA5A-SB-4.0-5.0	25		35	
6	SL-146-SA5A-SS-0.0-0.5	16	SL-056-SA5A-SB-7.0-8.0	26		36	
7	SL-171-SA5A-SS-0.0-0.5	17	(X1) MS	27		37	
8	SL-172-SA5A-SS-0.0-0.5	18	MSD	28		38	
9	SL-173-SA5A-SS-0.0-0.5	19	DUP	29		39	
10	SL-174-SA5A-SS-0.0-0.5	20		30		40	

Notes: _____

LDC #: 25911B4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x x MS: 2xdil
Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 1-12

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	1	2	3	4	5	6	7	8	9	10	11	12
Zr			12.7	6.35	5.4	3.3	3.6	4.9	4.6	4.0	3.3	4.0	3.7	2.8	3.9	3.9

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 13-16

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	13	14	15	16						
Zr			9.1	4.55	4.3	~~4.9~~	~~4.6~~	4.1						

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE092
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6216870BKG Serial Dilution Lab Sample ID: 6216870L
Batch ID(s): P06608B, P06626B
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		104612.5600		110701.9500		6		P
Antimony	121	0.9535	B	1.5000	U	100		MS
Arsenic	75	20.1400		35.6200		77		MS
Barium	137	498.0000		843.5000		69	E	MS
Beryllium	9	2.7460		4.7365		72		MS
Boron		55.5600		81.8000	B	47		P
Cadmium	111	1.4040		1.7915	B	28		MS
Calcium		29102.3200		29989.6000		3		P
Chromium	52	93.4400		158.7500		70	E	MS
Cobalt	59	26.7800		47.2600		76	E	MS
Copper	63	49.8700		84.9000		70	E	MS
Iron		157743.0200		162991.8000		3		P
Lead	208	76.2600		126.6500		66	E	MS
Lithium		171.1000		122.3000		29	E	P
Magnesium		34864.5700		35947.4500		3		P
Manganese		2443.5700		2479.3000		1		P
Molybdenum	98	4.5590		7.9200		74		MS
Nickel	60	56.1600		102.6500		83	E	MS
Phosphorus		5290.6800		5228.6500		1		P
Potassium		33324.5900		32978.2000		1		P
Selenium	78	0.5994	B	1.0070	B	68		MS
Silver	107	0.1879	B	0.3931	B	109		MS
Sodium		540.2900	B	1865.0000	U	100		P
Strontium		171.6200		175.2000		2		P
Thallium	203	1.2620		1.6580	B	31		MS
Tin		24.8200	B	50.0000	U	100		P
Titanium		9288.5000		9474.6000		2		P
Vanadium	51	171.6000		298.8500		74	E	MS
Zinc	66	524.8000		891.0000		70	E	MS
Zirconium		46.3900	B	76.2000	B	64		P

NOTE: An E in column Q indicates the presence of a chemical or physical interference in the matrix when the % difference is greater than 10%. This applies only when (I) is greater than or equal to 50x MDL for ICP, 100x MDL for ICP-MS (6020), 50x MDL for ICP-MS (200.8), or 25x MDL for GFAA.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ
FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

DE092 4214

SAMPLE DELIVERY GROUP

DE093

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Feb-2011	SL-145-SA5A-SS-0.0-0.5	6217801	N	3050B	6010B	III
28-Feb-2011	SL-145-SA5A-SS-0.0-0.5	6217801	N	3050B	6020	III
28-Feb-2011	SL-145-SA5A-SS-0.0-0.5	6217801	N	3060A	7199	III
28-Feb-2011	SL-145-SA5A-SS-0.0-0.5	6217801	N	3550B	8081A	III
28-Feb-2011	SL-145-SA5A-SS-0.0-0.5	6217801	N	3550B	8082	III
28-Feb-2011	SL-145-SA5A-SS-0.0-0.5	6217801	N	3550B	8151A	III
28-Feb-2011	SL-145-SA5A-SS-0.0-0.5	6217801	N	3550B	8270C	III
28-Feb-2011	SL-145-SA5A-SS-0.0-0.5	6217801	N	3550B	8270C SIM	III
28-Feb-2011	SL-145-SA5A-SS-0.0-0.5	6217801	N	Gen Prep	9045M	III
28-Feb-2011	SL-145-SA5A-SS-0.0-0.5	6217801	N	METHOD	300.0	III
28-Feb-2011	SL-145-SA5A-SS-0.0-0.5	6217801	N	METHOD	314.0	III
28-Feb-2011	SL-145-SA5A-SS-0.0-0.5	6217801	N	METHOD	7471A	III
28-Feb-2011	SL-111-SA5A-SS-0.0-0.5	6217800	N	3050B	6010B	III
28-Feb-2011	SL-111-SA5A-SS-0.0-0.5	6217800	N	3050B	6020	III
28-Feb-2011	SL-111-SA5A-SS-0.0-0.5	6217800	N	3060A	7199	III
28-Feb-2011	SL-111-SA5A-SS-0.0-0.5	6217800	N	3550B	8081A	III
28-Feb-2011	SL-111-SA5A-SS-0.0-0.5	6217800	N	3550B	8082	III
28-Feb-2011	SL-111-SA5A-SS-0.0-0.5	6217800	N	3550B	8151A	III
28-Feb-2011	SL-111-SA5A-SS-0.0-0.5	6217800	N	3550B	8270C	III
28-Feb-2011	SL-111-SA5A-SS-0.0-0.5	6217800	N	3550B	8270C SIM	III
28-Feb-2011	SL-111-SA5A-SS-0.0-0.5	6217800	N	Gen Prep	9045M	III
28-Feb-2011	SL-111-SA5A-SS-0.0-0.5	6217800	N	METHOD	300.0	III
28-Feb-2011	SL-111-SA5A-SS-0.0-0.5	6217800	N	METHOD	314.0	III
28-Feb-2011	SL-111-SA5A-SS-0.0-0.5	6217800	N	METHOD	7471A	III
28-Feb-2011	SL-253-SA5A-SS-0.0-0.5	6217802	N	3050B	6010B	III
28-Feb-2011	SL-253-SA5A-SS-0.0-0.5	6217802	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Feb-2011	SL-253-SA5A-SS-0.0-0.5	6217802	N	3060A	7199	III
28-Feb-2011	SL-253-SA5A-SS-0.0-0.5	6217802	N	3550B	8081A	III
28-Feb-2011	SL-253-SA5A-SS-0.0-0.5	6217802	N	3550B	8082	III
28-Feb-2011	SL-253-SA5A-SS-0.0-0.5	6217802	N	3550B	8151A	III
28-Feb-2011	SL-253-SA5A-SS-0.0-0.5	6217802	N	3550B	8270C	III
28-Feb-2011	SL-253-SA5A-SS-0.0-0.5	6217802	N	3550B	8270C SIM	III
28-Feb-2011	SL-253-SA5A-SS-0.0-0.5	6217802	N	Gen Prep	9045M	III
28-Feb-2011	SL-253-SA5A-SS-0.0-0.5	6217802	N	METHOD	300.0	III
28-Feb-2011	SL-253-SA5A-SS-0.0-0.5	6217802	N	METHOD	314.0	III
28-Feb-2011	SL-253-SA5A-SS-0.0-0.5	6217802	N	METHOD	7471A	III
28-Feb-2011	SL-253-SA5A-SS-0.0-0.5DUP	P217802D291225B	DUP	Gen Prep	9045M	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5	6217791	N	3050B	6010B	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5	6217791	N	3050B	6020	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5	6217791	N	3060A	7199	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5	6217791	N	3550B	8081A	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5	6217791	N	3550B	8082	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5	6217791	N	3550B	8151A	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5	6217791	N	3550B	8270C	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5	6217791	N	3550B	8270C SIM	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5	6217791	N	Gen Prep	9045M	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5	6217791	N	METHOD	300.0	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5	6217791	N	METHOD	314.0	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5	6217791	N	METHOD	7471A	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MS	6217792	MS	3050B	6010B	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MS	6217792	MS	3050B	6020	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MS	6217792	MS	3060A	7199	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MS	6217792	MS	3550B	8081A	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MS	6217792	MS	3550B	8082	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MS	6217792	MS	3550B	8151A	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MS	6217792	MS	3550B	8270C	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MS	6217792	MS	3550B	8270C SIM	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MS	6217792	MS	METHOD	300.0	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MS	6217792	MS	METHOD	314.0	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MS	6217792	MS	METHOD	7471A	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MSD	6217793	MSD	3050B	6010B	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MSD	6217793	MSD	3050B	6020	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MSD	6217793	MSD	3550B	8081A	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MSD	6217793	MSD	3550B	8082	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MSD	6217793	MSD	3550B	8151A	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MSD	6217793	MSD	3550B	8270C	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MSD	6217793	MSD	3550B	8270C SIM	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5MSD	6217793	MSD	METHOD	7471A	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5DUP	6217794	DUP	3050B	6010B	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5DUP	6217794	DUP	3050B	6020	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5DUP	6217794	DUP	3060A	7199	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5DUP	6217794	DUP	Gen Prep	9045M	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5DUP	6217794	DUP	METHOD	300.0	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5DUP	6217794	DUP	METHOD	314.0	III
28-Feb-2011	SL-087-SA5A-SS-0.0-0.5DUP	6217794	DUP	METHOD	7471A	III
28-Feb-2011	DUP-05-SA5A-QC-022811	6217790	FD	3050B	6010B	III
28-Feb-2011	DUP-05-SA5A-QC-022811	6217790	FD	3050B	6020	III
28-Feb-2011	DUP-05-SA5A-QC-022811	6217790	FD	3060A	7199	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Feb-2011	DUP-05-SA5A-QC-022811	6217790	FD	3550B	8081A	III
28-Feb-2011	DUP-05-SA5A-QC-022811	6217790	FD	3550B	8082	III
28-Feb-2011	DUP-05-SA5A-QC-022811	6217790	FD	3550B	8151A	III
28-Feb-2011	DUP-05-SA5A-QC-022811	6217790	FD	3550B	8270C	III
28-Feb-2011	DUP-05-SA5A-QC-022811	6217790	FD	3550B	8270C SIM	III
28-Feb-2011	DUP-05-SA5A-QC-022811	6217790	FD	Gen Prep	9045M	III
28-Feb-2011	DUP-05-SA5A-QC-022811	6217790	FD	METHOD	300.0	III
28-Feb-2011	DUP-05-SA5A-QC-022811	6217790	FD	METHOD	314.0	III
28-Feb-2011	DUP-05-SA5A-QC-022811	6217790	FD	METHOD	7471A	III
28-Feb-2011	EB02-SA5A-022811	6217804	EB	3005A	6010B	III
28-Feb-2011	EB02-SA5A-022811	6217804	EB	3020A	6020	III
28-Feb-2011	EB02-SA5A-022811	6217804	EB	3510C	8081A	III
28-Feb-2011	EB02-SA5A-022811	6217804	EB	3510C	8082	III
28-Feb-2011	EB02-SA5A-022811	6217804	EB	3510C	8270C	III
28-Feb-2011	EB02-SA5A-022811	6217804	EB	3510C	8270C SIM	III
28-Feb-2011	EB02-SA5A-022811	6217804	EB	Gen Prep	300.0	III
28-Feb-2011	EB02-SA5A-022811	6217804	EB	Gen Prep	314.0	III
28-Feb-2011	EB02-SA5A-022811	6217804	EB	Gen Prep	7199	III
28-Feb-2011	EB02-SA5A-022811	6217804	EB	METHOD	7470A	III
28-Feb-2011	EB02-SA5A-022811	6217804	EB	METHOD	8151A	III
28-Feb-2011	SL-106-SA5A-SS-0.0-0.5	6217796	N	3050B	6010B	III
28-Feb-2011	SL-106-SA5A-SS-0.0-0.5	6217796	N	3050B	6020	III
28-Feb-2011	SL-106-SA5A-SS-0.0-0.5	6217796	N	3060A	7199	III
28-Feb-2011	SL-106-SA5A-SS-0.0-0.5	6217796	N	3550B	8081A	III
28-Feb-2011	SL-106-SA5A-SS-0.0-0.5	6217796	N	3550B	8082	III
28-Feb-2011	SL-106-SA5A-SS-0.0-0.5	6217796	N	3550B	8151A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Feb-2011	SL-106-SA5A-SS-0.0-0.5	6217796	N	3550B	8270C	III
28-Feb-2011	SL-106-SA5A-SS-0.0-0.5	6217796	N	3550B	8270C SIM	III
28-Feb-2011	SL-106-SA5A-SS-0.0-0.5	6217796	N	Gen Prep	9045M	III
28-Feb-2011	SL-106-SA5A-SS-0.0-0.5	6217796	N	METHOD	300.0	III
28-Feb-2011	SL-106-SA5A-SS-0.0-0.5	6217796	N	METHOD	314.0	III
28-Feb-2011	SL-106-SA5A-SS-0.0-0.5	6217796	N	METHOD	7471A	III
28-Feb-2011	SL-106-SA5A-SS-0.0-0.5DUP	P217796D271117B	DUP	METHOD	314.0	III
28-Feb-2011	SL-106-SA5A-SS-0.0-0.5MS	P217796R271141B	MS	METHOD	314.0	III
28-Feb-2011	SL-105-SA5A-SS-0.0-0.5	6217795	N	3050B	6010B	III
28-Feb-2011	SL-105-SA5A-SS-0.0-0.5	6217795	N	3050B	6020	III
28-Feb-2011	SL-105-SA5A-SS-0.0-0.5	6217795	N	3060A	7199	III
28-Feb-2011	SL-105-SA5A-SS-0.0-0.5	6217795	N	3550B	8081A	III
28-Feb-2011	SL-105-SA5A-SS-0.0-0.5	6217795	N	3550B	8082	III
28-Feb-2011	SL-105-SA5A-SS-0.0-0.5	6217795	N	3550B	8151A	III
28-Feb-2011	SL-105-SA5A-SS-0.0-0.5	6217795	N	3550B	8270C	III
28-Feb-2011	SL-105-SA5A-SS-0.0-0.5	6217795	N	3550B	8270C SIM	III
28-Feb-2011	SL-105-SA5A-SS-0.0-0.5	6217795	N	Gen Prep	9045M	III
28-Feb-2011	SL-105-SA5A-SS-0.0-0.5	6217795	N	METHOD	300.0	III
28-Feb-2011	SL-105-SA5A-SS-0.0-0.5	6217795	N	METHOD	314.0	III
28-Feb-2011	SL-105-SA5A-SS-0.0-0.5	6217795	N	METHOD	7471A	III
28-Feb-2011	SL-107-SA5A-SS-0.0-0.5	6217797	N	3050B	6010B	III
28-Feb-2011	SL-107-SA5A-SS-0.0-0.5	6217797	N	3050B	6020	III
28-Feb-2011	SL-107-SA5A-SS-0.0-0.5	6217797	N	3060A	7199	III
28-Feb-2011	SL-107-SA5A-SS-0.0-0.5	6217797	N	3550B	8081A	III
28-Feb-2011	SL-107-SA5A-SS-0.0-0.5	6217797	N	3550B	8082	III
28-Feb-2011	SL-107-SA5A-SS-0.0-0.5	6217797	N	3550B	8151A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Feb-2011	SL-107-SA5A-SS-0.0-0.5	6217797	N	3550B	8270C	III
28-Feb-2011	SL-107-SA5A-SS-0.0-0.5	6217797	N	3550B	8270C SIM	III
28-Feb-2011	SL-107-SA5A-SS-0.0-0.5	6217797	N	Gen Prep	9045M	III
28-Feb-2011	SL-107-SA5A-SS-0.0-0.5	6217797	N	METHOD	300.0	III
28-Feb-2011	SL-107-SA5A-SS-0.0-0.5	6217797	N	METHOD	314.0	III
28-Feb-2011	SL-107-SA5A-SS-0.0-0.5	6217797	N	METHOD	7471A	III
28-Feb-2011	SL-108-SA5A-SS-0.0-0.5	6217798	N	3050B	6010B	III
28-Feb-2011	SL-108-SA5A-SS-0.0-0.5	6217798	N	3050B	6020	III
28-Feb-2011	SL-108-SA5A-SS-0.0-0.5	6217798	N	3060A	7199	III
28-Feb-2011	SL-108-SA5A-SS-0.0-0.5	6217798	N	3550B	8081A	III
28-Feb-2011	SL-108-SA5A-SS-0.0-0.5	6217798	N	3550B	8082	III
28-Feb-2011	SL-108-SA5A-SS-0.0-0.5	6217798	N	3550B	8151A	III
28-Feb-2011	SL-108-SA5A-SS-0.0-0.5	6217798	N	3550B	8270C	III
28-Feb-2011	SL-108-SA5A-SS-0.0-0.5	6217798	N	3550B	8270C SIM	III
28-Feb-2011	SL-108-SA5A-SS-0.0-0.5	6217798	N	Gen Prep	9045M	III
28-Feb-2011	SL-108-SA5A-SS-0.0-0.5	6217798	N	METHOD	300.0	III
28-Feb-2011	SL-108-SA5A-SS-0.0-0.5	6217798	N	METHOD	314.0	III
28-Feb-2011	SL-108-SA5A-SS-0.0-0.5	6217798	N	METHOD	7471A	III
28-Feb-2011	SL-109-SA5A-SS-0.0-0.5	6217799	N	3050B	6010B	III
28-Feb-2011	SL-109-SA5A-SS-0.0-0.5	6217799	N	3050B	6020	III
28-Feb-2011	SL-109-SA5A-SS-0.0-0.5	6217799	N	3060A	7199	III
28-Feb-2011	SL-109-SA5A-SS-0.0-0.5	6217799	N	3550B	8081A	III
28-Feb-2011	SL-109-SA5A-SS-0.0-0.5	6217799	N	3550B	8082	III
28-Feb-2011	SL-109-SA5A-SS-0.0-0.5	6217799	N	3550B	8151A	III
28-Feb-2011	SL-109-SA5A-SS-0.0-0.5	6217799	N	3550B	8270C	III
28-Feb-2011	SL-109-SA5A-SS-0.0-0.5	6217799	N	3550B	8270C SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Feb-2011	SL-109-SA5A-SS-0.0-0.5	6217799	N	Gen Prep	9045M	III
28-Feb-2011	SL-109-SA5A-SS-0.0-0.5	6217799	N	METHOD	300.0	III
28-Feb-2011	SL-109-SA5A-SS-0.0-0.5	6217799	N	METHOD	314.0	III
28-Feb-2011	SL-109-SA5A-SS-0.0-0.5	6217799	N	METHOD	7471A	III
28-Feb-2011	SL-237-SA5A-SB-4.0-5.0	6217806	N	3050B	6010B	III
28-Feb-2011	SL-237-SA5A-SB-4.0-5.0	6217806	N	3050B	6020	III
28-Feb-2011	SL-237-SA5A-SB-4.0-5.0	6217806	N	3060A	7199	III
28-Feb-2011	SL-237-SA5A-SB-4.0-5.0	6217806	N	3550B	8082	III
28-Feb-2011	SL-237-SA5A-SB-4.0-5.0	6217806	N	3550B	8270C	III
28-Feb-2011	SL-237-SA5A-SB-4.0-5.0	6217806	N	3550B	8270C SIM	III
28-Feb-2011	SL-237-SA5A-SB-4.0-5.0	6217806	N	5035	8260B	III
28-Feb-2011	SL-237-SA5A-SB-4.0-5.0	6217806	N	5035	8260B SIM	III
28-Feb-2011	SL-237-SA5A-SB-4.0-5.0	6217806	N	Gen Prep	9045M	III
28-Feb-2011	SL-237-SA5A-SB-4.0-5.0	6217806	N	METHOD	300.0	III
28-Feb-2011	SL-237-SA5A-SB-4.0-5.0	6217806	N	METHOD	314.0	III
28-Feb-2011	SL-237-SA5A-SB-4.0-5.0	6217806	N	METHOD	7471A	III
28-Feb-2011	EB03-SA5A-022811	6217805	EB	3005A	6010B	III
28-Feb-2011	EB03-SA5A-022811	6217805	EB	3020A	6020	III
28-Feb-2011	EB03-SA5A-022811	6217805	EB	3510C	8081A	III
28-Feb-2011	EB03-SA5A-022811	6217805	EB	3510C	8082	III
28-Feb-2011	EB03-SA5A-022811	6217805	EB	3510C	8270C	III
28-Feb-2011	EB03-SA5A-022811	6217805	EB	3510C	8270C SIM	III
28-Feb-2011	EB03-SA5A-022811	6217805	EB	Gen Prep	300.0	III
28-Feb-2011	EB03-SA5A-022811	6217805	EB	Gen Prep	314.0	III
28-Feb-2011	EB03-SA5A-022811	6217805	EB	Gen Prep	7199	III
28-Feb-2011	EB03-SA5A-022811	6217805	EB	METHOD	7470A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Feb-2011	EB03-SA5A-022811	6217805	EB	METHOD	8151A	III
28-Feb-2011	SL-237-SA5A-SB-9.0-10.0	6217807	N	3050B	6010B	III
28-Feb-2011	SL-237-SA5A-SB-9.0-10.0	6217807	N	3050B	6020	III
28-Feb-2011	SL-237-SA5A-SB-9.0-10.0	6217807	N	3060A	7199	III
28-Feb-2011	SL-237-SA5A-SB-9.0-10.0	6217807	N	3550B	8082	III
28-Feb-2011	SL-237-SA5A-SB-9.0-10.0	6217807	N	3550B	8270C	III
28-Feb-2011	SL-237-SA5A-SB-9.0-10.0	6217807	N	3550B	8270C SIM	III
28-Feb-2011	SL-237-SA5A-SB-9.0-10.0	6217807	N	Gen Prep	9045M	III
28-Feb-2011	SL-237-SA5A-SB-9.0-10.0	6217807	N	METHOD	300.0	III
28-Feb-2011	SL-237-SA5A-SB-9.0-10.0	6217807	N	METHOD	314.0	III
28-Feb-2011	SL-237-SA5A-SB-9.0-10.0	6217807	N	METHOD	7471A	III
28-Feb-2011	SL-255-SA5A-SS-0.0-0.5	6217803	N	3050B	6010B	III
28-Feb-2011	SL-255-SA5A-SS-0.0-0.5	6217803	N	3050B	6020	III
28-Feb-2011	SL-255-SA5A-SS-0.0-0.5	6217803	N	3060A	7199	III
28-Feb-2011	SL-255-SA5A-SS-0.0-0.5	6217803	N	3550B	8081A	III
28-Feb-2011	SL-255-SA5A-SS-0.0-0.5	6217803	N	3550B	8082	III
28-Feb-2011	SL-255-SA5A-SS-0.0-0.5	6217803	N	3550B	8151A	III
28-Feb-2011	SL-255-SA5A-SS-0.0-0.5	6217803	N	3550B	8270C	III
28-Feb-2011	SL-255-SA5A-SS-0.0-0.5	6217803	N	3550B	8270C SIM	III
28-Feb-2011	SL-255-SA5A-SS-0.0-0.5	6217803	N	Gen Prep	9045M	III
28-Feb-2011	SL-255-SA5A-SS-0.0-0.5	6217803	N	METHOD	300.0	III
28-Feb-2011	SL-255-SA5A-SS-0.0-0.5	6217803	N	METHOD	314.0	III
28-Feb-2011	SL-255-SA5A-SS-0.0-0.5	6217803	N	METHOD	7471A	III
28-Feb-2011	SL-255-SA5A-SS-0.0-0.5DUP	P217803D271116B	DUP	METHOD	300.0	III
28-Feb-2011	SL-255-SA5A-SS-0.0-0.5MS	P217803R271130B	MS	METHOD	300.0	III
28-Feb-2011	TB-022811	6217808	TB	5030B	8260B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Feb-2011	TB-022811	6217808	TB	5030B	8260B SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE093 Laboratory: LL

EDD Filename: DE093_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: DUP-05-SA5A-QC-022811 *Collected:* 2/28/2011 12:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.5		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-087-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 12:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.8		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-105-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:22:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.8		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-107-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-108-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:56:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.9		0.97	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-109-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:12:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-111-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 10:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		1.0	MDL	1.3	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-145-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 9:42:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.9		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-253-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 11:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.97	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-255-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.0	J	0.87	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix:** AQ

Sample ID: EB03-SA5A-022811 *Collected:* 2/28/2011 3:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	0.0665	J	0.0522	MDL	0.200	PQL	mg/L	J	Z
MANGANESE	0.00088	J	0.00084	MDL	0.0050	PQL	mg/L	J	Z

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: DUP-05-SA5A-QC-022811 *Collected:* 2/28/2011 12:05:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3400		21.0	MDL	58.3	PQL	mg/Kg	J	Q
SODIUM	67.9	J	43.5	MDL	117	PQL	mg/Kg	J	Z
TIN	2.90	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	1.18	J	0.979	MDL	5.83	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-087-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 12:00:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3310		20.5	MDL	56.9	PQL	mg/Kg	J	Q
SODIUM	76.1	J	42.5	MDL	114	PQL	mg/Kg	J	Z
TIN	2.91	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	1.12	J	0.956	MDL	5.69	PQL	mg/Kg	J	Z

Sample ID: SL-105-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:22:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3650		20.8	MDL	57.7	PQL	mg/Kg	J	Q
SODIUM	77.4	J	43.1	MDL	115	PQL	mg/Kg	J	Z
TIN	2.94	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	1.45	J	0.970	MDL	5.77	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:05:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3480		20.4	MDL	56.7	PQL	mg/Kg	J	Q
SODIUM	80.5	J	42.3	MDL	113	PQL	mg/Kg	J	Z
TIN	2.96	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	3.12	J	0.953	MDL	5.67	PQL	mg/Kg	J	Z

Sample ID: SL-107-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:40:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3790		20.7	MDL	57.4	PQL	mg/Kg	J	Q
SODIUM	103	J	42.8	MDL	115	PQL	mg/Kg	J	Z
TIN	3.14	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	1.64	J	0.964	MDL	5.74	PQL	mg/Kg	J	Z

Sample ID: SL-108-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:56:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2960		21.6	MDL	59.9	PQL	mg/Kg	J	Q
SODIUM	70.1	J	44.7	MDL	120	PQL	mg/Kg	J	Z
TIN	2.90	J	1.20	MDL	12.0	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-109-SA5A-SS-0.0-0.5 ***Collected:*** 2/28/2011 3:12:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2880		20.7	MDL	57.5	PQL	mg/Kg	J	Q
SODIUM	68.1	J	42.9	MDL	115	PQL	mg/Kg	J	Z
TIN	2.63	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	1.08	J	0.967	MDL	5.75	PQL	mg/Kg	J	Z

Sample ID: SL-111-SA5A-SS-0.0-0.5 ***Collected:*** 2/28/2011 10:25:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.28	J	1.10	MDL	6.16	PQL	mg/Kg	J	Z
POTASSIUM	2430		22.2	MDL	61.6	PQL	mg/Kg	J	Q
SODIUM	52.1	J	46.0	MDL	123	PQL	mg/Kg	J	Z
TIN	2.62	J	1.23	MDL	12.3	PQL	mg/Kg	U	B

Sample ID: SL-145-SA5A-SS-0.0-0.5 ***Collected:*** 2/28/2011 9:42:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2770		20.0	MDL	55.6	PQL	mg/Kg	J	Q
SODIUM	59.1	J	41.5	MDL	111	PQL	mg/Kg	J	Z
TIN	2.72	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.01	J	0.935	MDL	5.56	PQL	mg/Kg	J	Z

Sample ID: SL-237-SA5A-SB-4.0-5.0 ***Collected:*** 2/28/2011 3:35:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3550		19.8	MDL	54.9	PQL	mg/Kg	J	Q
TIN	2.67	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.42	J	0.923	MDL	5.49	PQL	mg/Kg	J	Z

Sample ID: SL-237-SA5A-SB-9.0-10.0 ***Collected:*** 2/28/2011 3:40:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.99	J	0.985	MDL	5.53	PQL	mg/Kg	J	Z
POTASSIUM	2790		19.9	MDL	55.3	PQL	mg/Kg	J	Q
TIN	2.56	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	2.89	J	0.929	MDL	5.53	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-253-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 11:10:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3720		21.3	MDL	59.2	PQL	mg/Kg	J	Q
SODIUM	55.6	J	44.2	MDL	118	PQL	mg/Kg	J	Z
TIN	2.74	J	1.18	MDL	11.8	PQL	mg/Kg	U	B

Sample ID: SL-255-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:58:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.28	J	0.954	MDL	5.36	PQL	mg/Kg	J	Z
POTASSIUM	575		19.3	MDL	53.6	PQL	mg/Kg	J	Q
SODIUM	58.4	J	40.0	MDL	107	PQL	mg/Kg	J	Z
TIN	1.67	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	1.61	J	0.900	MDL	5.36	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: AQ**

Sample ID: EB03-SA5A-022811 *Collected:* 2/28/2011 3:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	0.000066	J	0.000052	MDL	0.0010	PQL	mg/L	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: DUP-05-SA5A-QC-022811 *Collected:* 2/28/2011 12:05:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.236	J	0.0713	MDL	0.238	PQL	mg/Kg	J	Z, Q
ARSENIC	7.71		0.0951	MDL	0.476	PQL	mg/Kg	J	Q
BERYLLIUM	0.937		0.0190	MDL	0.119	PQL	mg/Kg	J	Q
CHROMIUM	30.3		0.143	MDL	0.476	PQL	mg/Kg	J	Q
COBALT	7.72		0.0238	MDL	0.119	PQL	mg/Kg	J	Q
LEAD	14.4		0.0124	MDL	0.238	PQL	mg/Kg	J	Q, A
NICKEL	18.6		0.119	MDL	0.476	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP-05-SA5A-QC-022811 *Collected:* 2/28/2011 12:05:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0525	J	0.0143	MDL	0.119	PQL	mg/Kg	J	Z, Q
THALLIUM	0.412		0.0357	MDL	0.119	PQL	mg/Kg	J	Q

Sample ID: DUP-05-SA5A-QC-022811 *Collected:* 2/28/2011 12:05:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.226	J	0.0476	MDL	0.476	PQL	mg/Kg	J	Z

Sample ID: DUP-05-SA5A-QC-022811 *Collected:* 2/28/2011 12:05:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.243		0.0476	MDL	0.119	PQL	mg/Kg	J	Q
COPPER	11.6		0.0785	MDL	0.476	PQL	mg/Kg	J	Q, A

Sample ID: DUP-05-SA5A-QC-022811 *Collected:* 2/28/2011 12:05:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.07		0.0595	MDL	0.119	PQL	mg/Kg	J	Q, E

Sample ID: SL-087-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 12:00:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.259		0.0690	MDL	0.230	PQL	mg/Kg	J	Q
ARSENIC	7.16		0.0919	MDL	0.460	PQL	mg/Kg	J	Q
BERYLLIUM	0.922		0.0184	MDL	0.115	PQL	mg/Kg	J	Q
CHROMIUM	29.6		0.138	MDL	0.460	PQL	mg/Kg	J	Q
COBALT	7.59		0.0230	MDL	0.115	PQL	mg/Kg	J	Q
LEAD	13.3		0.0120	MDL	0.230	PQL	mg/Kg	J	Q, A
NICKEL	17.2		0.115	MDL	0.460	PQL	mg/Kg	J	Q
SILVER	0.0838	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z, Q
THALLIUM	0.316		0.0345	MDL	0.115	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-087-SA5A-SS-0.0-0.5 ***Collected:*** 2/28/2011 12:00:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.200	J	0.0460	MDL	0.460	PQL	mg/Kg	J	Z

Sample ID: SL-087-SA5A-SS-0.0-0.5 ***Collected:*** 2/28/2011 12:00:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	9.40		0.0774	MDL	0.469	PQL	mg/Kg	J	Q, A

Sample ID: SL-087-SA5A-SS-0.0-0.5 ***Collected:*** 2/28/2011 12:00:00 ***Analysis Type:*** REA8 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.186		0.0469	MDL	0.117	PQL	mg/Kg	J	Q

Sample ID: SL-087-SA5A-SS-0.0-0.5 ***Collected:*** 2/28/2011 12:00:00 ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.738		0.0586	MDL	0.117	PQL	mg/Kg	J	Q, E

Sample ID: SL-105-SA5A-SS-0.0-0.5 ***Collected:*** 2/28/2011 2:22:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.282		0.0700	MDL	0.233	PQL	mg/Kg	J	Q
ARSENIC	7.13		0.0933	MDL	0.466	PQL	mg/Kg	J	Q
BERYLLIUM	0.990		0.0187	MDL	0.117	PQL	mg/Kg	J	Q
CHROMIUM	32.7		0.140	MDL	0.466	PQL	mg/Kg	J	Q
COBALT	9.43		0.0233	MDL	0.117	PQL	mg/Kg	J	Q
LEAD	26.1		0.0121	MDL	0.233	PQL	mg/Kg	J	Q, A
NICKEL	21.7		0.117	MDL	0.466	PQL	mg/Kg	J	Q
SILVER	0.0723	J	0.0140	MDL	0.117	PQL	mg/Kg	J	Z, Q
THALLIUM	0.380		0.0350	MDL	0.117	PQL	mg/Kg	J	Q

Sample ID: SL-105-SA5A-SS-0.0-0.5 ***Collected:*** 2/28/2011 2:22:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.193	J	0.0466	MDL	0.466	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-105-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:22:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.526		0.0462	MDL	0.115	PQL	mg/Kg	J	Q
COPPER	15.0		0.0762	MDL	0.462	PQL	mg/Kg	J	Q, A

Sample ID: SL-105-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:22:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	14.5		0.0577	MDL	0.115	PQL	mg/Kg	J	Q, E

Sample ID: SL-106-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:05:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.230		0.0680	MDL	0.227	PQL	mg/Kg	J	Q
ARSENIC	9.96		0.0907	MDL	0.454	PQL	mg/Kg	J	Q
BERYLLIUM	1.19		0.0181	MDL	0.113	PQL	mg/Kg	J	Q
CHROMIUM	35.4		0.136	MDL	0.454	PQL	mg/Kg	J	Q
COBALT	10.1		0.0227	MDL	0.113	PQL	mg/Kg	J	Q
LEAD	11.8		0.0118	MDL	0.227	PQL	mg/Kg	J	Q, A
NICKEL	22.2		0.113	MDL	0.454	PQL	mg/Kg	J	Q
SILVER	0.0714	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z, Q
THALLIUM	0.428		0.0340	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:05:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.223	J	0.0454	MDL	0.454	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:05:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	15.8		0.0741	MDL	0.449	PQL	mg/Kg	J	Q, A

Sample ID: SL-106-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:05:00 *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.167		0.0449	MDL	0.112	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-106-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:05:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.02		0.0562	MDL	0.112	PQL	mg/Kg	J	Q, E

Sample ID: SL-107-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:40:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.206	J	0.0695	MDL	0.232	PQL	mg/Kg	J	Z, Q
ARSENIC	5.96		0.0927	MDL	0.463	PQL	mg/Kg	J	Q
BERYLLIUM	0.634		0.0185	MDL	0.116	PQL	mg/Kg	J	Q
CHROMIUM	25.3		0.139	MDL	0.463	PQL	mg/Kg	J	Q
COBALT	7.36		0.0232	MDL	0.116	PQL	mg/Kg	J	Q
LEAD	59.7		0.0120	MDL	0.232	PQL	mg/Kg	J	Q, A
NICKEL	18.5		0.116	MDL	0.463	PQL	mg/Kg	J	Q
SILVER	0.106	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z, Q
THALLIUM	0.264		0.0348	MDL	0.116	PQL	mg/Kg	J	Q

Sample ID: SL-107-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:40:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.180	J	0.0463	MDL	0.463	PQL	mg/Kg	J	Z

Sample ID: SL-107-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:40:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.750		0.0473	MDL	0.118	PQL	mg/Kg	J	Q
COPPER	18.4		0.0780	MDL	0.473	PQL	mg/Kg	J	Q, A

Sample ID: SL-107-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:40:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.41		0.0591	MDL	0.118	PQL	mg/Kg	J	Q, E

Sample ID: SL-108-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:56:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.280		0.0726	MDL	0.242	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-108-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:56:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	8.54		0.0969	MDL	0.484	PQL	mg/Kg	J	Q
BERYLLIUM	0.825		0.0194	MDL	0.121	PQL	mg/Kg	J	Q
CHROMIUM	25.8		0.145	MDL	0.484	PQL	mg/Kg	J	Q
COBALT	7.48		0.0242	MDL	0.121	PQL	mg/Kg	J	Q
LEAD	27.8		0.0126	MDL	0.242	PQL	mg/Kg	J	Q, A
NICKEL	18.2		0.121	MDL	0.484	PQL	mg/Kg	J	Q
SILVER	0.0506	J	0.0145	MDL	0.121	PQL	mg/Kg	J	Z, Q
THALLIUM	0.326		0.0363	MDL	0.121	PQL	mg/Kg	J	Q

Sample ID: SL-108-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:56:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.233	J	0.0484	MDL	0.484	PQL	mg/Kg	J	Z

Sample ID: SL-108-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:56:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	12.3		0.0768	MDL	0.466	PQL	mg/Kg	J	Q, A

Sample ID: SL-108-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:56:00 *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.112	J	0.0466	MDL	0.116	PQL	mg/Kg	J	Z, Q

Sample ID: SL-108-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:56:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.801		0.0582	MDL	0.116	PQL	mg/Kg	J	Q, E

Sample ID: SL-109-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:12:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.197	J	0.0697	MDL	0.232	PQL	mg/Kg	J	Z, Q
ARSENIC	5.77		0.0930	MDL	0.465	PQL	mg/Kg	J	Q
BERYLLIUM	0.603		0.0186	MDL	0.116	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-109-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:12:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	27.6		0.139	MDL	0.465	PQL	mg/Kg	J	Q
COBALT	6.46		0.0232	MDL	0.116	PQL	mg/Kg	J	Q
LEAD	17.9		0.0121	MDL	0.232	PQL	mg/Kg	J	Q, A
NICKEL	15.1		0.116	MDL	0.465	PQL	mg/Kg	J	Q
SILVER	0.135		0.0139	MDL	0.116	PQL	mg/Kg	J	Q
THALLIUM	0.250		0.0349	MDL	0.116	PQL	mg/Kg	J	Q

Sample ID: SL-109-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:12:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.136	J	0.0465	MDL	0.465	PQL	mg/Kg	J	Z

Sample ID: SL-109-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:12:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.214		0.0460	MDL	0.115	PQL	mg/Kg	J	Q
COPPER	14.2		0.0759	MDL	0.460	PQL	mg/Kg	J	Q, A

Sample ID: SL-109-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:12:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	6.42		0.0575	MDL	0.115	PQL	mg/Kg	J	Q, E

Sample ID: SL-111-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 10:25:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.202	J	0.0754	MDL	0.251	PQL	mg/Kg	J	Z, Q
ARSENIC	3.97		0.101	MDL	0.503	PQL	mg/Kg	J	Q
BERYLLIUM	0.623		0.0201	MDL	0.126	PQL	mg/Kg	J	Q
CHROMIUM	21.9		0.151	MDL	0.503	PQL	mg/Kg	J	Q
COBALT	5.56		0.0251	MDL	0.126	PQL	mg/Kg	J	Q
LEAD	33.9		0.0131	MDL	0.251	PQL	mg/Kg	J	Q, A
NICKEL	11.6		0.126	MDL	0.503	PQL	mg/Kg	J	Q
SILVER	0.414		0.0151	MDL	0.126	PQL	mg/Kg	J	Q
THALLIUM	0.281		0.0377	MDL	0.126	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-111-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 10:25:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0990	J	0.0503	MDL	0.503	PQL	mg/Kg	J	Z

Sample ID: SL-111-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 10:25:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	7.75		0.0821	MDL	0.498	PQL	mg/Kg	J	Q, A

Sample ID: SL-111-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 10:25:00 *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.226		0.0498	MDL	0.124	PQL	mg/Kg	J	Q

Sample ID: SL-111-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 10:25:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.637		0.0622	MDL	0.124	PQL	mg/Kg	J	Q, E

Sample ID: SL-145-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 9:42:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.190	J	0.0674	MDL	0.225	PQL	mg/Kg	J	Z, Q
ARSENIC	5.20		0.0899	MDL	0.449	PQL	mg/Kg	J	Q
BERYLLIUM	0.728		0.0180	MDL	0.112	PQL	mg/Kg	J	Q
CHROMIUM	21.1		0.135	MDL	0.449	PQL	mg/Kg	J	Q
COBALT	6.30		0.0225	MDL	0.112	PQL	mg/Kg	J	Q
LEAD	9.64		0.0117	MDL	0.225	PQL	mg/Kg	J	Q, A
NICKEL	12.8		0.112	MDL	0.449	PQL	mg/Kg	J	Q
SILVER	0.620		0.0135	MDL	0.112	PQL	mg/Kg	J	Q
THALLIUM	0.337		0.0337	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: SL-145-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 9:42:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.108	J	0.0449	MDL	0.449	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-145-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 9:42:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.173		0.0458	MDL	0.115	PQL	mg/Kg	J	Q
COPPER	8.68		0.0756	MDL	0.458	PQL	mg/Kg	J	Q, A

Sample ID: SL-145-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 9:42:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.691		0.0573	MDL	0.115	PQL	mg/Kg	J	Q, E

Sample ID: SL-237-SA5A-SB-4.0-5.0 *Collected:* 2/28/2011 3:35:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.149	J	0.0640	MDL	0.213	PQL	mg/Kg	J	Z, Q
ARSENIC	5.12		0.0854	MDL	0.427	PQL	mg/Kg	J	Q
BERYLLIUM	0.843		0.0171	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	21.9		0.128	MDL	0.427	PQL	mg/Kg	J	Q
COBALT	7.66		0.0213	MDL	0.107	PQL	mg/Kg	J	Q
LEAD	6.91		0.0111	MDL	0.213	PQL	mg/Kg	J	Q, A
NICKEL	15.4		0.107	MDL	0.427	PQL	mg/Kg	J	Q
SILVER	0.0718	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.404		0.0320	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-237-SA5A-SB-4.0-5.0 *Collected:* 2/28/2011 3:35:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.162	J	0.0427	MDL	0.427	PQL	mg/Kg	J	Z

Sample ID: SL-237-SA5A-SB-4.0-5.0 *Collected:* 2/28/2011 3:35:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.324		0.0435	MDL	0.109	PQL	mg/Kg	J	Q
COPPER	10.5		0.0718	MDL	0.435	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-237-SA5A-SB-4.0-5.0 *Collected:* 2/28/2011 3:35:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.17		0.0544	MDL	0.109	PQL	mg/Kg	J	Q, E

Sample ID: SL-237-SA5A-SB-9.0-10.0 *Collected:* 2/28/2011 3:40:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.108	J	0.0657	MDL	0.219	PQL	mg/Kg	J	Z, Q
ARSENIC	3.49		0.0876	MDL	0.438	PQL	mg/Kg	J	Q
BERYLLIUM	0.464		0.0175	MDL	0.110	PQL	mg/Kg	J	Q
CHROMIUM	17.4		0.131	MDL	0.438	PQL	mg/Kg	J	Q
COBALT	5.14		0.0219	MDL	0.110	PQL	mg/Kg	J	Q
LEAD	5.66		0.0114	MDL	0.219	PQL	mg/Kg	J	Q, A
NICKEL	10.5		0.110	MDL	0.438	PQL	mg/Kg	J	Q
SILVER	0.0270	J	0.0131	MDL	0.110	PQL	mg/Kg	J	Z, Q
THALLIUM	0.247		0.0329	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: SL-237-SA5A-SB-9.0-10.0 *Collected:* 2/28/2011 3:40:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0897	J	0.0438	MDL	0.438	PQL	mg/Kg	J	Z

Sample ID: SL-237-SA5A-SB-9.0-10.0 *Collected:* 2/28/2011 3:40:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.142		0.0438	MDL	0.110	PQL	mg/Kg	J	Q
COPPER	8.86		0.0723	MDL	0.438	PQL	mg/Kg	J	Q, A

Sample ID: SL-237-SA5A-SB-9.0-10.0 *Collected:* 2/28/2011 3:40:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	2.82		0.0548	MDL	0.110	PQL	mg/Kg	J	Q, E

Sample ID: SL-253-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 11:10:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.235		0.0704	MDL	0.235	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-253-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 11:10:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	4.62		0.0938	MDL	0.469	PQL	mg/Kg	J	Q
BERYLLIUM	0.651		0.0188	MDL	0.117	PQL	mg/Kg	J	Q
CHROMIUM	19.6		0.141	MDL	0.469	PQL	mg/Kg	J	Q
COBALT	5.83		0.0235	MDL	0.117	PQL	mg/Kg	J	Q
LEAD	17.9		0.0122	MDL	0.235	PQL	mg/Kg	J	Q, A
NICKEL	12.5		0.117	MDL	0.469	PQL	mg/Kg	J	Q
SILVER	1.04		0.0141	MDL	0.117	PQL	mg/Kg	J	Q
THALLIUM	0.314		0.0352	MDL	0.117	PQL	mg/Kg	J	Q

Sample ID: SL-253-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 11:10:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.147	J	0.0469	MDL	0.469	PQL	mg/Kg	J	Z

Sample ID: SL-253-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 11:10:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.409		0.0478	MDL	0.120	PQL	mg/Kg	J	Q
COPPER	12.6		0.0789	MDL	0.478	PQL	mg/Kg	J	Q, A

Sample ID: SL-253-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 11:10:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.20		0.0598	MDL	0.120	PQL	mg/Kg	J	Q, E

Sample ID: SL-255-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:58:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.105	J	0.0643	MDL	0.214	PQL	mg/Kg	J	Z, Q
ARSENIC	3.17		0.0857	MDL	0.429	PQL	mg/Kg	J	Q
BERYLLIUM	0.174		0.0171	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	13.3		0.129	MDL	0.429	PQL	mg/Kg	J	Q
COBALT	2.38		0.0214	MDL	0.107	PQL	mg/Kg	J	Q
LEAD	2.22		0.0111	MDL	0.214	PQL	mg/Kg	J	Q, A
NICKEL	6.90		0.107	MDL	0.429	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 Laboratory: LL

EDD Filename: DE093_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-255-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:58:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.0581	J	0.0321	MDL	0.107	PQL	mg/Kg	J	Z, Q

Sample ID: SL-255-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:58:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.178	J	0.0429	MDL	0.429	PQL	mg/Kg	J	Z

Sample ID: SL-255-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:58:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.207		0.0424	MDL	0.106	PQL	mg/Kg	J	Q
COPPER	4.88		0.0700	MDL	0.424	PQL	mg/Kg	J	Q, A

Sample ID: SL-255-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:58:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.917		0.0531	MDL	0.106	PQL	mg/Kg	J	Q, E

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: DUP-05-SA5A-QC-022811 *Collected:* 2/28/2011 12:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.74	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-087-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 12:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.64	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-105-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:22:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.82	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-106-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.40	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-107-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.92	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-108-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:56:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.55	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-111-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 10:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	1.0	J	0.25	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-237-SA5A-SB-4.0-5.0 *Collected:* 2/28/2011 3:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.44	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-237-SA5A-SB-9.0-10.0 *Collected:* 2/28/2011 3:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.31	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-253-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 11:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.43	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: DUP-05-SA5A-QC-022811 *Collected:* 2/28/2011 12:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0082	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z, FD

Sample ID: SL-087-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 12:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0155	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z, FD

Sample ID: SL-105-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:22:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0311	J	0.0032	MDL	0.113	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0245	J	0.0031	MDL	0.107	PQL	mg/Kg	U	B

Sample ID: SL-107-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0308	J	0.0033	MDL	0.114	PQL	mg/Kg	U	B

Sample ID: SL-108-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:56:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0177	J	0.0033	MDL	0.115	PQL	mg/Kg	U	B

Sample ID: SL-109-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:12:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0196	J	0.0033	MDL	0.115	PQL	mg/Kg	U	B

Sample ID: SL-111-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 10:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0331	J	0.0035	MDL	0.121	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 Laboratory: LL

EDD Filename: DE093_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 7471A Matrix: SO

Sample ID: SL-145-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 9:42:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0707	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z

Sample ID: SL-237-SA5A-SB-4.0-5.0 *Collected:* 2/28/2011 3:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0181	J	0.0030	MDL	0.105	PQL	mg/Kg	U	B

Sample ID: SL-237-SA5A-SB-9.0-10.0 *Collected:* 2/28/2011 3:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0419	J	0.0031	MDL	0.108	PQL	mg/Kg	U	B

Sample ID: SL-253-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 11:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0272	J	0.0034	MDL	0.118	PQL	mg/Kg	U	B

Method Category: SVOA

Method: 8081A Matrix: SO

Sample ID: DUP-05-SA5A-QC-022811 *Collected:* 2/28/2011 12:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.30	J	0.078	MDL	0.40	PQL	ug/Kg	J	Z, FD
4,4'-DDT	0.40		0.078	MDL	0.40	PQL	ug/Kg	J	FD

Sample ID: SL-087-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 12:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.22	U	0.22	MDL	0.40	PQL	ug/Kg	UJ	FD
4,4'-DDT	0.39	U	0.39	MDL	0.40	PQL	ug/Kg	UJ	FD

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: SL-106-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.15	J	0.076	MDL	0.39	PQL	ug/Kg	J	Z

Sample ID: SL-108-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:56:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	2.5		0.080	MDL	0.41	PQL	ug/Kg	J	S

Sample ID: SL-111-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 10:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	2.6		0.084	MDL	0.43	PQL	ug/Kg	J	S

Sample ID: SL-145-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 9:42:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	0.70		0.076	MDL	0.39	PQL	ug/Kg	J	S

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: DUP-05-SA5A-QC-022811 *Collected:* 2/28/2011 12:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.46	U	0.46	MDL	2.0	PQL	ug/Kg	UJ	FD
Aroclor 5460	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	FD

Sample ID: SL-087-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 12:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.68	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z, FD
Aroclor 5460	1.2	J	1.2	MDL	3.9	PQL	ug/Kg	J	Z, FD

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-106-SA5A-SS-0.0-0.5 ***Collected:*** 2/28/2011 2:05:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.88	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-107-SA5A-SS-0.0-0.5 ***Collected:*** 2/28/2011 2:40:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	8.4	J	2.3	MDL	10	PQL	ug/Kg	J	Z

Sample ID: SL-108-SA5A-SS-0.0-0.5 ***Collected:*** 2/28/2011 2:56:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.72	J	0.47	MDL	2.1	PQL	ug/Kg	J	Z

Sample ID: SL-109-SA5A-SS-0.0-0.5 ***Collected:*** 2/28/2011 3:12:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	3.4	J	0.77	MDL	4.0	PQL	ug/Kg	J	Z
AROCLOR 1260	2.7	J	0.92	MDL	4.0	PQL	ug/Kg	J	Z

Sample ID: SL-111-SA5A-SS-0.0-0.5 ***Collected:*** 2/28/2011 10:25:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	5.8	J	2.5	MDL	11	PQL	ug/Kg	J	Z
Aroclor 5460	16	J	6.3	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-253-SA5A-SS-0.0-0.5 ***Collected:*** 2/28/2011 11:10:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.1	J	0.47	MDL	2.1	PQL	ug/Kg	J	Z
Aroclor 5460	3.2	J	1.2	MDL	4.0	PQL	ug/Kg	J	Z

Sample ID: SL-255-SA5A-SS-0.0-0.5 ***Collected:*** 2/28/2011 3:58:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	5.6	J	2.1	MDL	9.2	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8151A **Matrix: SO**

Sample ID: DUP-05-SA5A-QC-022811 *Collected:* 2/28/2011 12:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DB	20		0.74	MDL	2.0	PQL	ug/Kg	J	FD
DICHLOROPROP	1.4	J	0.95	MDL	2.0	PQL	ug/Kg	J	Z, FD

Sample ID: SL-087-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 12:00:00 *Analysis Type:* DL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DB	39	U	39	MDL	39	PQL	ug/Kg	UJ	FD

Sample ID: SL-087-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 12:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICHLOROPROP	3.4		0.94	MDL	2.0	PQL	ug/Kg	J	FD
DINOSEB	0.94	U	0.94	MDL	2.8	PQL	ug/Kg	UJ	Q

Sample ID: SL-109-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:12:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	160	J	89	MDL	290	PQL	ug/Kg	J	Z

Sample ID: SL-253-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 11:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-D	2.0	J	1.4	MDL	4.3	PQL	ug/Kg	J	Z
DICHLOROPROP	1.1	J	0.97	MDL	2.1	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-087-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 12:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	1400	U	1400	MDL	3900	PQL	ug/Kg	UJ	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-105-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:22:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	42	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	33	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	24	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	28	J	20	MDL	200	PQL	ug/Kg	J	Z
CHRYSENE	58	J	20	MDL	200	PQL	ug/Kg	J	Z
FLUORANTHENE	81	J	20	MDL	200	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	21	J	20	MDL	200	PQL	ug/Kg	J	Z
PHENANTHRENE	29	J	20	MDL	200	PQL	ug/Kg	J	Z
PYRENE	96	J	20	MDL	200	PQL	ug/Kg	J	Z

Sample ID: SL-107-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	27	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	68	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	73	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	130	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	89	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	76	J	20	MDL	200	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	54	J	20	MDL	400	PQL	ug/Kg	U	B
Butylbenzylphthalate	22	J	20	MDL	200	PQL	ug/Kg	J	Z
CARBAZOLE	33	J	20	MDL	200	PQL	ug/Kg	J	Z
CHRYSENE	150	J	20	MDL	200	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	38	J	20	MDL	200	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	72	J	20	MDL	200	PQL	ug/Kg	J	Z
PHENANTHRENE	96	J	20	MDL	200	PQL	ug/Kg	J	Z

Sample ID: SL-108-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:56:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	34	J	20	MDL	400	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-109-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:12:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	27	J	20	MDL	390	PQL	ug/Kg	U	B

Sample ID: SL-145-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 9:42:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	23	J	19	MDL	390	PQL	ug/Kg	U	B

Sample ID: SL-237-SA5A-SB-9.0-10.0 *Collected:* 2/28/2011 3:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	71	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	35	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	61	J	18	MDL	370	PQL	ug/Kg	U	B
CHRYSENE	100	J	18	MDL	180	PQL	ug/Kg	J	Z
Di-n-butylphthalate	32	J	18	MDL	180	PQL	ug/Kg	J	Z
PHENANTHRENE	40	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	37	J	18	MDL	180	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix:** AQ

Sample ID: EB02-SA5A-022811 *Collected:* 2/28/2011 12:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	0.15	J	0.054	MDL	1.1	PQL	ug/L	U	B
Diethylphthalate	0.077	J	0.054	MDL	1.1	PQL	ug/L	U	B
Di-n-butylphthalate	0.39	J	0.054	MDL	1.1	PQL	ug/L	J	Z
NAPHTHALENE	0.035	J	0.032	MDL	0.054	PQL	ug/L	J	Z
PHENANTHRENE	0.020	J	0.011	MDL	0.054	PQL	ug/L	J	Z

Sample ID: EB03-SA5A-022811 *Collected:* 2/28/2011 3:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	0.16	J	0.053	MDL	1.1	PQL	ug/L	U	B
Diethylphthalate	0.10	J	0.053	MDL	1.1	PQL	ug/L	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: AQ**

Sample ID: EB03-SA5A-022811 *Collected:* 2/28/2011 3:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-butylphthalate	0.32	J	0.053	MDL	1.1	PQL	ug/L	U	B
NAPHTHALENE	0.035	J	0.032	MDL	0.053	PQL	ug/L	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: DUP-05-SA5A-QC-022811 *Collected:* 2/28/2011 12:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	0.79	U	0.79	MDL	2.0	PQL	ug/Kg	UJ	FD
ACENAPHTHYLENE	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	FD
ANTHRACENE	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	FD
BENZO(A)ANTHRACENE	0.79	U	0.79	MDL	2.0	PQL	ug/Kg	UJ	FD
BENZO(A)PYRENE	0.79	U	0.79	MDL	2.0	PQL	ug/Kg	UJ	FD
BENZO(B)FLUORANTHENE	1.5	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z, FD
BENZO(G,H,I)PERYLENE	0.79	U	0.79	MDL	2.0	PQL	ug/Kg	UJ	FD
BENZO(K)FLUORANTHENE	0.79	U	0.79	MDL	2.0	PQL	ug/Kg	UJ	FD
BIS(2-ETHYLHEXYL)PHTHALATE	7.1	U	7.1	MDL	21	PQL	ug/Kg	UJ	FD
CHRYSENE	0.53	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z, FD
DIBENZO(A,H)ANTHRACENE	0.79	U	0.79	MDL	2.0	PQL	ug/Kg	UJ	FD
Di-n-octylphthalate	7.1	U	7.1	MDL	21	PQL	ug/Kg	UJ	FD
FLUORANTHENE	0.79	U	0.79	MDL	2.0	PQL	ug/Kg	UJ	FD
FLUORENE	0.79	U	0.79	MDL	2.0	PQL	ug/Kg	UJ	FD
INDENO(1,2,3-CD)PYRENE	0.79	U	0.79	MDL	2.0	PQL	ug/Kg	UJ	FD
PHENANTHRENE	0.79	U	0.79	MDL	2.0	PQL	ug/Kg	UJ	FD
PYRENE	0.79	U	0.79	MDL	2.0	PQL	ug/Kg	UJ	FD

Sample ID: SL-087-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 12:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	0.78	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z, FD
ACENAPHTHYLENE	0.67	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z, FD
ANTHRACENE	1.6	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z, FD
BENZO(A)ANTHRACENE	2.8		0.78	MDL	1.9	PQL	ug/Kg	J	FD

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-087-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 12:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	3.3		0.78	MDL	1.9	PQL	ug/Kg	J	FD
BENZO(B)FLUORANTHENE	12		0.78	MDL	1.9	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	1.4	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z, FD
BENZO(K)FLUORANTHENE	3.1		0.78	MDL	1.9	PQL	ug/Kg	J	FD
BIS(2-ETHYLHEXYL)PHTHALATE	16	J	7.0	MDL	21	PQL	ug/Kg	J	Z, FD
CHRYSENE	4.4		0.39	MDL	1.9	PQL	ug/Kg	J	FD
DIBENZO(A,H)ANTHRACENE	0.94	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z, FD
Di-n-octylphthalate	14	J	7.0	MDL	21	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	7.0		0.78	MDL	1.9	PQL	ug/Kg	J	FD
FLUORENE	1.4	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z, FD
INDENO(1,2,3-CD)PYRENE	1.5	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	3.6		0.78	MDL	1.9	PQL	ug/Kg	J	FD
PYRENE	6.6		0.78	MDL	1.9	PQL	ug/Kg	J	FD

Sample ID: SL-105-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:22:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	2.4	J	1.9	MDL	9.7	PQL	ug/Kg	J	Z

Sample ID: SL-106-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.6	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-108-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 2:56:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	2.4	J	2.0	MDL	10	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	8.7	J	4.0	MDL	10	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	8.3	J	4.0	MDL	10	PQL	ug/Kg	J	Z

Sample ID: SL-109-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:12:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	13	J	7.0	MDL	21	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-111-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 10:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.51	J	0.42	MDL	2.1	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.3	J	0.83	MDL	2.1	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.8	J	0.83	MDL	2.1	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.3	J	0.83	MDL	2.1	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.5	J	0.83	MDL	2.1	PQL	ug/Kg	J	Z
Di-n-octylphthalate	12	J	7.5	MDL	22	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.94	J	0.83	MDL	2.1	PQL	ug/Kg	J	Z
PHENANTHRENE	1.5	J	0.83	MDL	2.1	PQL	ug/Kg	J	Z

Sample ID: SL-145-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 9:42:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	6.7	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	7.3	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	4.0	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	5.3	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z
PHENANTHRENE	6.7	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z

Sample ID: SL-237-SA5A-SB-4.0-5.0 *Collected:* 2/28/2011 3:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	11	J	6.6	MDL	20	PQL	ug/Kg	J	Z
NAPHTHALENE	0.86	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-237-SA5A-SB-9.0-10.0 *Collected:* 2/28/2011 3:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.60	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.7	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.2	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
Di-n-octylphthalate	12	J	6.6	MDL	20	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.74	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	0.75	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory:** LL

EDD Filename: DE093_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-253-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 11:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.3	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.4	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.3	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	11	J	7.1	MDL	21	PQL	ug/Kg	J	Z
Di-n-octylphthalate	11	J	7.1	MDL	21	PQL	ug/Kg	J	Z
FLUORENE	1.6	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
PYRENE	1.9	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-255-SA5A-SS-0.0-0.5 *Collected:* 2/28/2011 3:58:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	10	J	6.5	MDL	19	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-237-SA5A-SB-4.0-5.0 *Collected:* 2/28/2011 3:35:00 *Analysis Type:* RES *Dilution:* 0.84

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.45	J	0.22	MDL	3.7	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE093

Method Blank Outlier Report

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06708BB220305	3/11/2011 3:05:00 AM	PHOSPHORUS TIN	1.25 mg/Kg 1.43 mg/Kg	DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-237-SA5A-SB-4.0-5.0 SL-237-SA5A-SB-9.0-10.0 SL-253-SA5A-SS-0.0-0.5 SL-255-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-05-SA5A-QC-022811(REA)	TIN	2.90 mg/Kg	2.90U mg/Kg
SL-087-SA5A-SS-0.0-0.5(REA)	TIN	2.91 mg/Kg	2.91U mg/Kg
SL-105-SA5A-SS-0.0-0.5(REA)	TIN	2.94 mg/Kg	2.94U mg/Kg
SL-106-SA5A-SS-0.0-0.5(REA)	TIN	2.96 mg/Kg	2.96U mg/Kg
SL-107-SA5A-SS-0.0-0.5(REA)	TIN	3.14 mg/Kg	3.14U mg/Kg
SL-108-SA5A-SS-0.0-0.5(REA)	TIN	2.90 mg/Kg	2.90U mg/Kg
SL-109-SA5A-SS-0.0-0.5(REA)	TIN	2.63 mg/Kg	2.63U mg/Kg
SL-111-SA5A-SS-0.0-0.5(REA)	TIN	2.62 mg/Kg	2.62U mg/Kg
SL-145-SA5A-SS-0.0-0.5(REA)	TIN	2.72 mg/Kg	2.72U mg/Kg
SL-237-SA5A-SB-4.0-5.0(REA)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-237-SA5A-SB-9.0-10.0(REA)	TIN	2.56 mg/Kg	2.56U mg/Kg
SL-253-SA5A-SS-0.0-0.5(REA)	TIN	2.74 mg/Kg	2.74U mg/Kg
SL-255-SA5A-SS-0.0-0.5(REA)	TIN	1.67 mg/Kg	1.67U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P07326AB221209A	3/15/2011 12:09:00 PM	COPPER	0.118 mg/Kg	DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-237-SA5A-SB-4.0-5.0 SL-237-SA5A-SB-9.0-10.0 SL-253-SA5A-SS-0.0-0.5 SL-255-SA5A-SS-0.0-0.5

Method Blank Outlier Report

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB83B210135A	3/2/2011 1:35:00 AM	METHYLENE CHLORIDE	0.47 ug/Kg	SL-237-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-237-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.45 ug/Kg	3.7U ug/Kg

Method: **8270C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLB06B260537	3/14/2011 5:37:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE	17 ug/Kg	DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-237-SA5A-SB-4.0-5.0 SL-237-SA5A-SB-9.0-10.0 SL-253-SA5A-SS-0.0-0.5 SL-255-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-107-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	54 ug/Kg	400U ug/Kg
SL-108-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	34 ug/Kg	400U ug/Kg
SL-109-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	27 ug/Kg	390U ug/Kg
SL-145-SA5A-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	23 ug/Kg	390U ug/Kg
SL-237-SA5A-SB-9.0-10.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	61 ug/Kg	370U ug/Kg

Method: **8270C SIM**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWC06B260128	3/16/2011 1:28:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE Diethylphthalate Di-n-butylphthalate	0.13 ug/L 0.053 ug/L 0.066 ug/L	EB02-SA5A-022811 EB03-SA5A-022811

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB02-SA5A-022811(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.15 ug/L	1.1U ug/L

Method Blank Outlier Report

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB02-SA5A-022811(RES)	Diethylphthalate	0.077 ug/L	1.1U ug/L
EB03-SA5A-022811(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.16 ug/L	1.1U ug/L
EB03-SA5A-022811(RES)	Diethylphthalate	0.10 ug/L	1.1U ug/L
EB03-SA5A-022811(RES)	Di-n-butylphthalate	0.32 ug/L	1.1U ug/L

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-087-SA5A-SS-0.0-0.5MS SL-087-SA5A-SS-0.0-0.5MSD (SL-087-SA5A-SS-0.0-0.5)	ANILINE	110	113	35.00-95.00	-	ANILINE	J (all detects)
SL-087-SA5A-SS-0.0-0.5MS SL-087-SA5A-SS-0.0-0.5MSD (SL-087-SA5A-SS-0.0-0.5)	BENZIDINE	25	31	35.00-141.00	-	BENZIDINE	J(all detects) UJ(all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-087-SA5A-SS-0.0-0.5MS SL-087-SA5A-SS-0.0-0.5MSD (DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-237-SA5A-SB-4.0-5.0 SL-237-SA5A-SB-9.0-10.0 SL-253-SA5A-SS-0.0-0.5 SL-255-SA5A-SS-0.0-0.5)	ARSENIC BERYLLIUM CHROMIUM COBALT LEAD NICKEL SILVER THALLIUM VANADIUM ZINC	195 154 158 126 177 154 155 150 180 230	197 165 173 130 230 158 155 162 202 239	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - - - - - -	ARSENIC BERYLLIUM CHROMIUM COBALT LEAD NICKEL SILVER THALLIUM VANADIUM ZINC	J(all detects) V, Zn No Qual, >4x
SL-087-SA5A-SS-0.0-0.5MS SL-087-SA5A-SS-0.0-0.5MSD (DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-237-SA5A-SB-4.0-5.0 SL-237-SA5A-SB-9.0-10.0 SL-253-SA5A-SS-0.0-0.5 SL-255-SA5A-SS-0.0-0.5)	ANTIMONY	66	53	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)
SL-087-SA5A-SS-0.0-0.5MS SL-087-SA5A-SS-0.0-0.5MSD (DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-237-SA5A-SB-4.0-5.0 SL-237-SA5A-SB-9.0-10.0 SL-253-SA5A-SS-0.0-0.5 SL-255-SA5A-SS-0.0-0.5)	BARIUM	204	262	75.00-125.00	-	BARIUM	No Qual, >4x

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-087-SA5A-SS-0.0-0.5MS SL-087-SA5A-SS-0.0-0.5MSD (DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-237-SA5A-SB-4.0-5.0 SL-237-SA5A-SB-9.0-10.0 SL-253-SA5A-SS-0.0-0.5 SL-255-SA5A-SS-0.0-0.5)	ALUMINUM CALCIUM MAGNESIUM POTASSIUM TITANIUM	1385 131 190 128 226	1359 135 - - 202	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	ALUMINUM CALCIUM MAGNESIUM POTASSIUM TITANIUM	J(all detects) Al, Ca, Mg, Ti No Qual, >4x
SL-087-SA5A-SS-0.0-0.5MS SL-087-SA5A-SS-0.0-0.5MSD (DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-237-SA5A-SB-4.0-5.0 SL-237-SA5A-SB-9.0-10.0 SL-253-SA5A-SS-0.0-0.5 SL-255-SA5A-SS-0.0-0.5)	IRON	-142	-858	75.00-125.00	-	IRON	No Qual, >4x
SL-087-SA5A-SS-0.0-0.5MS SL-087-SA5A-SS-0.0-0.5MSD (DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-237-SA5A-SB-4.0-5.0 SL-237-SA5A-SB-9.0-10.0 SL-253-SA5A-SS-0.0-0.5 SL-255-SA5A-SS-0.0-0.5)	MANGANESE	129	72	75.00-125.00	-	MANGANESE	No Qual, >4x

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-087-SA5A-SS-0.0-0.5MS (DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-253-SA5A-SS-0.0-0.5)	FLUORIDE	41	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-087-SA5A-SS-0.0-0.5MS SL-087-SA5A-SS-0.0-0.5MSD (DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-237-SA5A-SB-4.0-5.0 SL-237-SA5A-SB-9.0-10.0 SL-253-SA5A-SS-0.0-0.5 SL-255-SA5A-SS-0.0-0.5)	CADMIUM COPPER	144 130	155 156	75.00-125.00 75.00-125.00	- -	CADMIUM COPPER	J(all detects)
SL-087-SA5A-SS-0.0-0.5MS SL-087-SA5A-SS-0.0-0.5MSD (DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-237-SA5A-SB-4.0-5.0 SL-237-SA5A-SB-9.0-10.0 SL-253-SA5A-SS-0.0-0.5 SL-255-SA5A-SS-0.0-0.5)	MOLYBDENUM	178	199	75.00-125.00	-	MOLYBDENUM	J(all detects)

Method: 8081A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-087-SA5A-SS-0.0-0.5MSD (SL-087-SA5A-SS-0.0-0.5)	DELTA-BHC ENDOSULFAN I HEPTACHLOR	- - -	- - 151	23.00-140.00 16.00-137.00 13.00-126.00	67 (50.00) 71 (50.00) 68 (50.00)	DELTA-BHC ENDOSULFAN I HEPTACHLOR	J(all detects)

Method: 8151A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-087-SA5A-SS-0.0-0.5MS SL-087-SA5A-SS-0.0-0.5MSD (SL-087-SA5A-SS-0.0-0.5)	2,4,5-T 2,4-DB DALAPON MCPP	- 430 - -	- 470 - -	10.00-156.00 10.00-201.00 10.00-125.00 10.00-184.00	63 (35.00) - 53 (50.00) 96 (50.00)	2,4,5-T 2,4-DB DALAPON MCPP	J(all detects)
SL-087-SA5A-SS-0.0-0.5MS SL-087-SA5A-SS-0.0-0.5MSD (SL-087-SA5A-SS-0.0-0.5)	DINOSEB	8	8	10.00-46.00	-	DINOSEB	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-255-SA5A-SS-0.0-0.5DUP (SL-237-SA5A-SB-4.0-5.0 SL-237-SA5A-SB-9.0-10.0 SL-255-SA5A-SS-0.0-0.5)	FLUORIDE	200	20.00	No Qual OK by difference

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-087-SA5A-SS-0.0-0.5DUP (DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-237-SA5A-SB-4.0-5.0 SL-237-SA5A-SB-9.0-10.0 SL-253-SA5A-SS-0.0-0.5 SL-255-SA5A-SS-0.0-0.5)	Zirconium	53	20.00	No Qual OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-087-SA5A-SS-0.0-0.5DUP (DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-237-SA5A-SB-4.0-5.0 SL-237-SA5A-SB-9.0-10.0 SL-253-SA5A-SS-0.0-0.5 SL-255-SA5A-SS-0.0-0.5)	MOLYBDENUM	38	20.00	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-087-SA5A-SS-0.0-0.5DUP (DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-237-SA5A-SB-4.0-5.0 SL-237-SA5A-SB-9.0-10.0 SL-253-SA5A-SS-0.0-0.5 SL-255-SA5A-SS-0.0-0.5)	MERCURY	50	20.00	No Qual OK by difference

Surrogate Outlier Report

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8081A
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-105-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	171	20.00-120.00	All Target Analytes	J (all detects)
SL-107-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	241	20.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-107-SA5A-SS-0.0-0.5	TETRACHLORO-M-XYLENE	44	50.00-130.00	All Target Analytes	No Qual Diluted Out
SL-108-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	196	20.00-120.00	All Target Analytes	J(all detects)
SL-111-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	156	20.00-120.00	All Target Analytes	J(all detects)
SL-145-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	129	20.00-120.00	All Target Analytes	J(all detects)

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-111-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	141	45.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-255-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	124	45.00-120.00	All Target Analytes	No Qual, Diluted Out

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE093 Laboratory: LL

EDD Filename: DE093_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P2WALCSQ262324 (EB02-SA5A-022811 EB03-SA5A-022811)	ANILINE	106	-	49.00-101.00	-	ANILINE	J (all detects)

Method: 8270C SIM
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P3WCLCSQ260159 (EB02-SA5A-022811 EB03-SA5A-022811)	ACENAPHTHENE	110	-	74.00-109.00	-	ACENAPHTHENE	J(all detects)

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P3LBLCSQ260602 (DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-237-SA5A-SB-4.0-5.0 SL-237-SA5A-SB-9.0-10.0 SL-253-SA5A-SS-0.0-0.5 SL-255-SA5A-SS-0.0-0.5)	ANILINE	104	-	34.00-94.00	-	ANILINE	J(all detects)

Method: 8081A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10671AQ240751A (DUP-05-SA5A-QC-022811 SL-087-SA5A-SS-0.0-0.5 SL-105-SA5A-SS-0.0-0.5 SL-106-SA5A-SS-0.0-0.5 SL-107-SA5A-SS-0.0-0.5 SL-108-SA5A-SS-0.0-0.5 SL-109-SA5A-SS-0.0-0.5 SL-111-SA5A-SS-0.0-0.5 SL-145-SA5A-SS-0.0-0.5 SL-253-SA5A-SS-0.0-0.5 SL-255-SA5A-SS-0.0-0.5)	ENDOSULFAN I	128	-	45.00-123.00	-	ENDOSULFAN I	J(all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-087-SA5A-SS-0.0-0.5	DUP-05-SA5A-QC-022811			
MOISTURE	14.7	15.9	8		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-087-SA5A-SS-0.0-0.5	DUP-05-SA5A-QC-022811			
FLUORIDE	1.8	1.5	18	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-087-SA5A-SS-0.0-0.5	DUP-05-SA5A-QC-022811			
ALUMINUM	18900	17500	8	50.00	No Qualifiers Applied
BORON	7.26	6.79	7	50.00	
CALCIUM	2750	2650	4	50.00	
IRON	23900	22800	5	50.00	
LITHIUM	26.3	25.0	5	50.00	
MAGNESIUM	5010	4930	2	50.00	
MANGANESE	304	306	1	50.00	
PHOSPHORUS	399	418	5	50.00	
POTASSIUM	3310	3400	3	50.00	
SODIUM	76.1	67.9	11	50.00	
STRONTIUM	20.1	19.1	5	50.00	
TIN	2.91	2.90	0	50.00	
TITANIUM	1260	1230	2	50.00	
Zirconium	1.12	1.18	5	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-087-SA5A-SS-0.0-0.5	DUP-05-SA5A-QC-022811			
ANTIMONY	0.259	0.236	9	50.00	No Qualifiers Applied
ARSENIC	7.16	7.71	7	50.00	
BARIUM	142	146	3	50.00	
BERYLLIUM	0.922	0.937	2	50.00	
CADMIUM	0.186	0.243	27	50.00	
CHROMIUM	29.6	30.3	2	50.00	
COBALT	7.59	7.72	2	50.00	
COPPER	9.40	11.6	21	50.00	
LEAD	13.3	14.4	8	50.00	
MOLYBDENUM	0.738	1.07	37	50.00	
NICKEL	17.2	18.6	8	50.00	
SELENIUM	0.200	0.226	12	50.00	
SILVER	0.0838	0.0525	46	50.00	
THALLIUM	0.316	0.412	26	50.00	
VANADIUM	54.8	56.7	3	50.00	
ZINC	74.2	82.8	11	50.00	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-087-SA5A-SS-0.0-0.5	DUP-05-SA5A-QC-022811			
HEXAVALENT CHROMIUM	0.64	0.74	14	50.00	No Qualifiers Applied

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-087-SA5A-SS-0.0-0.5	DUP-05-SA5A-QC-022811			
MERCURY	0.0155	0.0082	62	50.00	J(all detects)

Method: 8081A
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-087-SA5A-SS-0.0-0.5	DUP-05-SA5A-QC-022811			
4,4'-DDE	0.40 U	0.30	200	50.00	J(all detects)
4,4'-DDT	0.40 U	0.40	200	50.00	UJ(all non-detects)

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-087-SA5A-SS-0.0-0.5	DUP-05-SA5A-QC-022811			
AROCLOR 1260	0.68	2.0 U	200	50.00	J(all detects)
Aroclor 5460	1.2	3.9 U	200	50.00	UJ(all non-detects)

Method: 8151A
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-087-SA5A-SS-0.0-0.5	DUP-05-SA5A-QC-022811			
2,4-DB	39 U	20	200	50.00	J(all detects)
DICHLOROPROP	3.4	1.4	83	50.00	UJ(all non-detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-087-SA5A-SS-0.0-0.5	DUP-05-SA5A-QC-022811			
ACENAPHTHENE	0.78	2.0 U	200	50.00	
ACENAPHTHYLENE	0.67	2.0 U	200	50.00	
ANTHRACENE	1.6	2.0 U	200	50.00	
BENZO(A)ANTHRACENE	2.8	2.0 U	200	50.00	
BENZO(A)PYRENE	3.3	2.0 U	200	50.00	
BENZO(B)FLUORANTHENE	12	1.5	156	50.00	
BENZO(G,H,I)PERYLENE	1.4	2.0 U	200	50.00	
BENZO(K)FLUORANTHENE	3.1	2.0 U	200	50.00	
BIS(2-ETHYLHEXYL)PHTHALATE	16	21 U	200	50.00	J(all detects) UJ(all non-detects)
CHRYSENE	4.4	0.53	157	50.00	
DIBENZO(A,H)ANTHRACENE	0.94	2.0 U	200	50.00	
Di-n-octylphthalate	14	21 U	200	50.00	
FLUORANTHENE	7.0	2.0 U	200	50.00	
FLUORENE	1.4	2.0 U	200	50.00	
INDENO(1,2,3-CD)PYRENE	1.5	2.0 U	200	50.00	
PHENANTHRENE	3.6	2.0 U	200	50.00	
PYRENE	6.6	2.0 U	200	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-087-SA5A-SS-0.0-0.5	DUP-05-SA5A-QC-022811			
PH	6.42	6.28	2	50.00	No Qualifiers Applied

Method: ASTM D1498
Matrix: SO

Analyte	Concentration (mV)		Sample RPD	eQAPP RPD	Flag
	SL-087-SA5A-SS-0.0-0.5	DUP-05-SA5A-QC-022811			
Oxidation Reduction Potential	390	380	3		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE093 Laboratory: LL

EDD Filename: DE093_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB03-SA5A-022811	IRON	J	0.0665	0.200	PQL	mg/L	J (all detects)
	MANGANESE	J	0.00088	0.0050	PQL	mg/L	

Method: 6020

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB03-SA5A-022811	LEAD	J	0.000066	0.0010	PQL	mg/L	J (all detects)

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB02-SA5A-022811	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.15	1.1	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.077	1.1	PQL	ug/L	
	Di-n-butylphthalate	J	0.39	1.1	PQL	ug/L	
	NAPHTHALENE	J	0.035	0.054	PQL	ug/L	
	PHENANTHRENE	J	0.020	0.054	PQL	ug/L	
EB03-SA5A-022811	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.16	1.1	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.10	1.1	PQL	ug/L	
	Di-n-butylphthalate	J	0.32	1.1	PQL	ug/L	
	NAPHTHALENE	J	0.035	0.053	PQL	ug/L	

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-255-SA5A-SS-0.0-0.5	FLUORIDE	J	1.0	1.1	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-05-SA5A-QC-022811	SODIUM	J	67.9	117	PQL	mg/Kg	J (all detects)
	TIN	J	2.90	11.7	PQL	mg/Kg	
	Zirconium	J	1.18	5.83	PQL	mg/Kg	
SL-087-SA5A-SS-0.0-0.5	SODIUM	J	76.1	114	PQL	mg/Kg	J (all detects)
	TIN	J	2.91	11.4	PQL	mg/Kg	
	Zirconium	J	1.12	5.69	PQL	mg/Kg	
SL-105-SA5A-SS-0.0-0.5	SODIUM	J	77.4	115	PQL	mg/Kg	J (all detects)
	TIN	J	2.94	11.5	PQL	mg/Kg	
	Zirconium	J	1.45	5.77	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-106-SA5A-SS-0.0-0.5	SODIUM	J	80.5	113	PQL	mg/Kg	J (all detects)
	TIN	J	2.96	11.3	PQL	mg/Kg	
	Zirconium	J	3.12	5.67	PQL	mg/Kg	
SL-107-SA5A-SS-0.0-0.5	SODIUM	J	103	115	PQL	mg/Kg	J (all detects)
	TIN	J	3.14	11.5	PQL	mg/Kg	
	Zirconium	J	1.64	5.74	PQL	mg/Kg	
SL-108-SA5A-SS-0.0-0.5	SODIUM	J	70.1	120	PQL	mg/Kg	J (all detects)
	TIN	J	2.90	12.0	PQL	mg/Kg	
SL-109-SA5A-SS-0.0-0.5	SODIUM	J	68.1	115	PQL	mg/Kg	J (all detects)
	TIN	J	2.63	11.5	PQL	mg/Kg	
	Zirconium	J	1.08	5.75	PQL	mg/Kg	
SL-111-SA5A-SS-0.0-0.5	BORON	J	5.28	6.16	PQL	mg/Kg	J (all detects)
	SODIUM	J	52.1	123	PQL	mg/Kg	
	TIN	J	2.62	12.3	PQL	mg/Kg	
SL-145-SA5A-SS-0.0-0.5	SODIUM	J	59.1	111	PQL	mg/Kg	J (all detects)
	TIN	J	2.72	11.1	PQL	mg/Kg	
	Zirconium	J	1.01	5.56	PQL	mg/Kg	
SL-237-SA5A-SB-4.0-5.0	TIN	J	2.67	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.42	5.49	PQL	mg/Kg	
SL-237-SA5A-SB-9.0-10.0	BORON	J	4.99	5.53	PQL	mg/Kg	J (all detects)
	TIN	J	2.56	11.1	PQL	mg/Kg	
	Zirconium	J	2.89	5.53	PQL	mg/Kg	
SL-253-SA5A-SS-0.0-0.5	SODIUM	J	55.6	118	PQL	mg/Kg	J (all detects)
	TIN	J	2.74	11.8	PQL	mg/Kg	
SL-255-SA5A-SS-0.0-0.5	BORON	J	2.28	5.36	PQL	mg/Kg	J (all detects)
	SODIUM	J	58.4	107	PQL	mg/Kg	
	TIN	J	1.67	10.7	PQL	mg/Kg	
	Zirconium	J	1.61	5.36	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-05-SA5A-QC-022811	ANTIMONY	J	0.236	0.238	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.226	0.476	PQL	mg/Kg	
	SILVER	J	0.0525	0.119	PQL	mg/Kg	
SL-087-SA5A-SS-0.0-0.5	SELENIUM	J	0.200	0.460	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0838	0.115	PQL	mg/Kg	
SL-105-SA5A-SS-0.0-0.5	SELENIUM	J	0.193	0.466	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0723	0.117	PQL	mg/Kg	
SL-106-SA5A-SS-0.0-0.5	SELENIUM	J	0.223	0.454	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0714	0.113	PQL	mg/Kg	
SL-107-SA5A-SS-0.0-0.5	ANTIMONY	J	0.206	0.232	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.180	0.463	PQL	mg/Kg	
	SILVER	J	0.106	0.116	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-108-SA5A-SS-0.0-0.5	CADMIUM SELENIUM SILVER	J J J	0.112 0.233 0.0506	0.116 0.484 0.121	PQL PQL PQL	mg/Kg mg/Kg mg/Kg	J (all detects)
SL-109-SA5A-SS-0.0-0.5	ANTIMONY SELENIUM	J J	0.197 0.136	0.232 0.465	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-111-SA5A-SS-0.0-0.5	ANTIMONY SELENIUM	J J	0.202 0.0990	0.251 0.503	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-145-SA5A-SS-0.0-0.5	ANTIMONY SELENIUM	J J	0.190 0.108	0.225 0.449	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-237-SA5A-SB-4.0-5.0	ANTIMONY SELENIUM SILVER	J J J	0.149 0.162 0.0718	0.213 0.427 0.107	PQL PQL PQL	mg/Kg mg/Kg mg/Kg	J (all detects)
SL-237-SA5A-SB-9.0-10.0	ANTIMONY SELENIUM SILVER	J J J	0.108 0.0897 0.0270	0.219 0.438 0.110	PQL PQL PQL	mg/Kg mg/Kg mg/Kg	J (all detects)
SL-253-SA5A-SS-0.0-0.5	SELENIUM	J	0.147	0.469	PQL	mg/Kg	J (all detects)
SL-255-SA5A-SS-0.0-0.5	ANTIMONY SELENIUM THALLIUM	J J J	0.105 0.178 0.0581	0.214 0.429 0.107	PQL PQL PQL	mg/Kg mg/Kg mg/Kg	J (all detects)

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-05-SA5A-QC-022811	HEXAVALENT CHROMIUM	J	0.74	1.2	PQL	mg/Kg	J (all detects)
SL-087-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.64	1.2	PQL	mg/Kg	J (all detects)
SL-105-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.82	1.2	PQL	mg/Kg	J (all detects)
SL-106-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.40	1.1	PQL	mg/Kg	J (all detects)
SL-107-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.92	1.2	PQL	mg/Kg	J (all detects)
SL-108-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.55	1.2	PQL	mg/Kg	J (all detects)
SL-111-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	1.0	1.3	PQL	mg/Kg	J (all detects)
SL-237-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.44	1.1	PQL	mg/Kg	J (all detects)
SL-237-SA5A-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.31	1.1	PQL	mg/Kg	J (all detects)
SL-253-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.43	1.2	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-05-SA5A-QC-022811	MERCURY	J	0.0082	0.114	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-087-SA5A-SS-0.0-0.5	MERCURY	J	0.0155	0.115	PQL	mg/Kg	J (all detects)
SL-105-SA5A-SS-0.0-0.5	MERCURY	J	0.0311	0.113	PQL	mg/Kg	J (all detects)
SL-106-SA5A-SS-0.0-0.5	MERCURY	J	0.0245	0.107	PQL	mg/Kg	J (all detects)
SL-107-SA5A-SS-0.0-0.5	MERCURY	J	0.0308	0.114	PQL	mg/Kg	J (all detects)
SL-108-SA5A-SS-0.0-0.5	MERCURY	J	0.0177	0.115	PQL	mg/Kg	J (all detects)
SL-109-SA5A-SS-0.0-0.5	MERCURY	J	0.0196	0.115	PQL	mg/Kg	J (all detects)
SL-111-SA5A-SS-0.0-0.5	MERCURY	J	0.0331	0.121	PQL	mg/Kg	J (all detects)
SL-145-SA5A-SS-0.0-0.5	MERCURY	J	0.0707	0.115	PQL	mg/Kg	J (all detects)
SL-237-SA5A-SB-4.0-5.0	MERCURY	J	0.0181	0.105	PQL	mg/Kg	J (all detects)
SL-237-SA5A-SB-9.0-10.0	MERCURY	J	0.0419	0.108	PQL	mg/Kg	J (all detects)
SL-253-SA5A-SS-0.0-0.5	MERCURY	J	0.0272	0.118	PQL	mg/Kg	J (all detects)

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-05-SA5A-QC-022811	4,4'-DDE	J	0.30	0.40	PQL	ug/Kg	J (all detects)
SL-106-SA5A-SS-0.0-0.5	4,4'-DDE	J	0.15	0.39	PQL	ug/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-087-SA5A-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J J	0.68 1.2	2.0 3.9	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-106-SA5A-SS-0.0-0.5	AROCLOR 1254	J	0.88	1.9	PQL	ug/Kg	J (all detects)
SL-107-SA5A-SS-0.0-0.5	AROCLOR 1260	J	8.4	10	PQL	ug/Kg	J (all detects)
SL-108-SA5A-SS-0.0-0.5	AROCLOR 1260	J	0.72	2.1	PQL	ug/Kg	J (all detects)
SL-109-SA5A-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260	J J	3.4 2.7	4.0 4.0	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-111-SA5A-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J J	5.8 16	11 21	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-253-SA5A-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J J	1.1 3.2	2.1 4.0	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-255-SA5A-SS-0.0-0.5	AROCLOR 1260	J	5.6	9.2	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-05-SA5A-QC-022811	DICHLOROPROP	J	1.4	2.0	PQL	ug/Kg	J (all detects)
SL-109-SA5A-SS-0.0-0.5	MCPA	J	160	290	PQL	ug/Kg	J (all detects)
SL-253-SA5A-SS-0.0-0.5	2,4-D	J	2.0	4.3	PQL	ug/Kg	J (all detects)
	DICHLOROPROP	J	1.1	2.1	PQL	ug/Kg	

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-237-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.45	3.7	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-105-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	42	200	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	33	200	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	24	200	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	28	200	PQL	ug/Kg	
	CHRYSENE	J	58	200	PQL	ug/Kg	
	FLUORANTHENE	J	81	200	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	21	200	PQL	ug/Kg	
	PHENANTHRENE	J	29	200	PQL	ug/Kg	
	PYRENE	J	96	200	PQL	ug/Kg	
SL-107-SA5A-SS-0.0-0.5	ANTHRACENE	J	27	200	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	68	200	PQL	ug/Kg	
	BENZO(A)PYRENE	J	73	200	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	130	200	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	89	200	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	76	200	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	54	400	PQL	ug/Kg	
	Butylbenzylphthalate	J	22	200	PQL	ug/Kg	
	CARBAZOLE	J	33	200	PQL	ug/Kg	
	CHRYSENE	J	150	200	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	38	200	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	72	200	PQL	ug/Kg	
	PHENANTHRENE	J	96	200	PQL	ug/Kg	
SL-108-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	34	400	PQL	ug/Kg	J (all detects)
SL-109-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	390	PQL	ug/Kg	J (all detects)
SL-145-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	23	390	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-237-SA5A-SB-9.0-10.0	BENZO(A)PYRENE	J	71	180	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	35	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	61	370	PQL	ug/Kg	
	CHRYSENE	J	100	180	PQL	ug/Kg	
	Di-n-butylphthalate	J	32	180	PQL	ug/Kg	
	PHENANTHRENE	J	40	180	PQL	ug/Kg	
	PYRENE	J	37	180	PQL	ug/Kg	

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-05-SA5A-QC-022811	BENZO(B)FLUORANTHENE	J	1.5	2.0	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.53	2.0	PQL	ug/Kg	
SL-087-SA5A-SS-0.0-0.5	ACENAPHTHENE	J	0.78	1.9	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	0.67	1.9	PQL	ug/Kg	
	ANTHRACENE	J	1.6	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.4	1.9	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	16	21	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.94	1.9	PQL	ug/Kg	
	Di-n-octylphthalate	J	14	21	PQL	ug/Kg	
	FLUORENE	J	1.4	1.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.5	1.9	PQL	ug/Kg	
SL-105-SA5A-SS-0.0-0.5	ANTHRACENE	J	2.4	9.7	PQL	ug/Kg	J (all detects)
SL-106-SA5A-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.6	1.9	PQL	ug/Kg	J (all detects)
SL-108-SA5A-SS-0.0-0.5	ANTHRACENE	J	2.4	10	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	8.7	10	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	8.3	10	PQL	ug/Kg	
SL-109-SA5A-SS-0.0-0.5	Di-n-octylphthalate	J	13	21	PQL	ug/Kg	J (all detects)
SL-111-SA5A-SS-0.0-0.5	ANTHRACENE	J	0.51	2.1	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	1.3	2.1	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.8	2.1	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.3	2.1	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.5	2.1	PQL	ug/Kg	
	Di-n-octylphthalate	J	12	22	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.94	2.1	PQL	ug/Kg	
	PHENANTHRENE	J	1.5	2.1	PQL	ug/Kg	
SL-145-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	6.7	9.5	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	7.3	9.5	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	4.0	9.5	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	5.3	9.5	PQL	ug/Kg	
	PHENANTHRENE	J	6.7	9.5	PQL	ug/Kg	
SL-237-SA5A-SB-4.0-5.0	Di-n-octylphthalate	J	11	20	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	0.86	1.8	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE093 **Laboratory: LL**

EDD Filename: DE093_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-237-SA5A-SB-9.0-10.0	ACENAPHTHYLENE	J	0.60	1.8	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	1.7	1.8	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.2	1.8	PQL	ug/Kg	
	Di-n-octylphthalate	J	12	20	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.74	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	0.75	1.8	PQL	ug/Kg	
SL-253-SA5A-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	1.3	2.0	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.4	2.0	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.3	2.0	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	11	21	PQL	ug/Kg	
	Di-n-octylphthalate	J	11	21	PQL	ug/Kg	
	FLUORENE	J	1.6	2.0	PQL	ug/Kg	
	PYRENE	J	1.9	2.0	PQL	ug/Kg	
SL-255-SA5A-SS-0.0-0.5	Di-n-octylphthalate	J	10	19	PQL	ug/Kg	J (all detects)

LDC #: 25911E4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-11
SDG #: DE093 ADR
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ba, Ca, Fe, Mg, Mn, Ti, V, Zn + X)
VII.	Duplicate Sample Analysis	N	Dup (Hg, Zr, Sx)
VIII.	Laboratory Control Samples (LCS)	A	LCS/D
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Cu: 30%, Pb: 11% : J/UJ
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	SW	EB = 12, 13

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	DUP-05-SA5A-QC-022811 D	11	SL-255-SA5A-SS-0.0-0.5	21		31	
2	SL-087-SA5A-SS-0.0-0.5 D	12	EB02-SA5A-022811	22		32	
3	SL-105-SA5A-SS-0.0-0.5	13	EB03-SA5A-022811	23		33	
4	SL-106-SA5A-SS-0.0-0.5	14	SL-237-SA5A-SB-4.0-5.0	24		34	
5	SL-107-SA5A-SS-0.0-0.5	15	SL-237-SA5A-SB-9.0-10.0	25		35	
6	SL-108-SA5A-SS-0.0-0.5	16	SL-087-SA5A-SS-0.0-0.5MS	26		36	
7	SL-109-SA5A-SS-0.0-0.5	17	SL-087-SA5A-SS-0.0-0.5MSD	27		37	
8	SL-111-SA5A-SS-0.0-0.5	18	SL-087-SA5A-SS-0.0-0.5DUP	28		38	
9	SL-145-SA5A-SS-0.0-0.5	19		29		39	
10	SL-253-SA5A-SS-0.0-0.5	20		30		40	

Notes: _____

LDC #: 25911E4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Reviewer: CL
2nd Reviewer: L

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: 1x
Sample Concentration units, unless otherwise noted: mg/Kg
Associated Samples: 4-11, 14, 15

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	4	5	6	7	8	10	14	15				
Hg			0.076	0.06	0.025	0.031	0.018	0.020	0.033	0.027	0.018	0.042				

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 25911E4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: AR
2nd Reviewer: A

METHOD: Trace Metals (EPA SW846 6010B/7000)
Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target analytes detected in the field blanks?
Blank units: ug/L **Associated sample units:** mg/Kg
Sampling date: 2/28/11 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All Soil

Analyte	Blank ID	Sample Identification										
	13	Action Level	No Qualifiers									
Fe	66.5	33.25										
Pb	0.066	0.033										
Mn	0.88	0.44										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

SAMPLE DELIVERY GROUP

DE094

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5	6218905	N	3050B	6010B	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5	6218905	N	3050B	6020	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5	6218905	N	3060A	7199	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5	6218905	N	3550B	8081A	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5	6218905	N	3550B	8082	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5	6218905	N	3550B	8151A	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5	6218905	N	3550B	8270C	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5	6218905	N	3550B	8270C SIM	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5	6218905	N	Gen Prep	9045M	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5	6218905	N	METHOD	300.0	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5	6218905	N	METHOD	314.0	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5	6218905	N	METHOD	7471A	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MS	6218906	MS	3050B	6010B	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MS	6218906	MS	3050B	6020	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MS	6218906	MS	3060A	7199	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MS	6218906	MS	3550B	8081A	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MS	6218906	MS	3550B	8082	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MS	6218906	MS	3550B	8151A	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MS	6218906	MS	3550B	8270C	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MS	6218906	MS	3550B	8270C SIM	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MS	6218906	MS	METHOD	300.0	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MS	6218906	MS	METHOD	314.0	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MS	6218906	MS	METHOD	7471A	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MSD	6218907	MSD	3050B	6010B	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MSD	6218907	MSD	3050B	6020	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MSD	6218907	MSD	3550B	8081A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MSD	6218907	MSD	3550B	8082	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MSD	6218907	MSD	3550B	8151A	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MSD	6218907	MSD	3550B	8270C	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MSD	6218907	MSD	3550B	8270C SIM	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5MSD	6218907	MSD	METHOD	7471A	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5DUP	6218908	DUP	3050B	6010B	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5DUP	6218908	DUP	3050B	6020	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5DUP	6218908	DUP	3060A	7199	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5DUP	6218908	DUP	Gen Prep	9045M	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5DUP	6218908	DUP	METHOD	300.0	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5DUP	6218908	DUP	METHOD	314.0	III
01-Mar-2011	SL-256-SA5A-SS-0.0-0.5DUP	6218908	DUP	METHOD	7471A	III
01-Mar-2011	DUP-06-SA5A-QC-030111	6218894	FD	3050B	6010B	III
01-Mar-2011	DUP-06-SA5A-QC-030111	6218894	FD	3050B	6020	III
01-Mar-2011	DUP-06-SA5A-QC-030111	6218894	FD	3060A	7199	III
01-Mar-2011	DUP-06-SA5A-QC-030111	6218894	FD	3550B	8081A	III
01-Mar-2011	DUP-06-SA5A-QC-030111	6218894	FD	3550B	8082	III
01-Mar-2011	DUP-06-SA5A-QC-030111	6218894	FD	3550B	8151A	III
01-Mar-2011	DUP-06-SA5A-QC-030111	6218894	FD	3550B	8270C	III
01-Mar-2011	DUP-06-SA5A-QC-030111	6218894	FD	3550B	8270C SIM	III
01-Mar-2011	DUP-06-SA5A-QC-030111	6218894	FD	Gen Prep	9045M	III
01-Mar-2011	DUP-06-SA5A-QC-030111	6218894	FD	METHOD	300.0	III
01-Mar-2011	DUP-06-SA5A-QC-030111	6218894	FD	METHOD	314.0	III
01-Mar-2011	DUP-06-SA5A-QC-030111	6218894	FD	METHOD	7471A	III
01-Mar-2011	SL-257-SA5A-SS-0.0-0.5	6218909	N	3050B	6010B	III
01-Mar-2011	SL-257-SA5A-SS-0.0-0.5	6218909	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Mar-2011	SL-257-SA5A-SS-0.0-0.5	6218909	N	3060A	7199	III
01-Mar-2011	SL-257-SA5A-SS-0.0-0.5	6218909	N	3550B	8081A	III
01-Mar-2011	SL-257-SA5A-SS-0.0-0.5	6218909	N	3550B	8082	III
01-Mar-2011	SL-257-SA5A-SS-0.0-0.5	6218909	N	3550B	8151A	III
01-Mar-2011	SL-257-SA5A-SS-0.0-0.5	6218909	N	3550B	8270C	III
01-Mar-2011	SL-257-SA5A-SS-0.0-0.5	6218909	N	3550B	8270C SIM	III
01-Mar-2011	SL-257-SA5A-SS-0.0-0.5	6218909	N	Gen Prep	9045M	III
01-Mar-2011	SL-257-SA5A-SS-0.0-0.5	6218909	N	METHOD	300.0	III
01-Mar-2011	SL-257-SA5A-SS-0.0-0.5	6218909	N	METHOD	314.0	III
01-Mar-2011	SL-257-SA5A-SS-0.0-0.5	6218909	N	METHOD	6850	III
01-Mar-2011	SL-257-SA5A-SS-0.0-0.5	6218909	N	METHOD	7471A	III
01-Mar-2011	SL-072-SA5A-SS-0.0-0.5	6218896	N	3050B	6010B	III
01-Mar-2011	SL-072-SA5A-SS-0.0-0.5	6218896	N	3050B	6020	III
01-Mar-2011	SL-072-SA5A-SS-0.0-0.5	6218896	N	3060A	7199	III
01-Mar-2011	SL-072-SA5A-SS-0.0-0.5	6218896	N	3550B	8081A	III
01-Mar-2011	SL-072-SA5A-SS-0.0-0.5	6218896	N	3550B	8082	III
01-Mar-2011	SL-072-SA5A-SS-0.0-0.5	6218896	N	3550B	8151A	III
01-Mar-2011	SL-072-SA5A-SS-0.0-0.5	6218896	N	3550B	8270C	III
01-Mar-2011	SL-072-SA5A-SS-0.0-0.5	6218896	N	3550B	8270C SIM	III
01-Mar-2011	SL-072-SA5A-SS-0.0-0.5	6218896	N	Gen Prep	9045M	III
01-Mar-2011	SL-072-SA5A-SS-0.0-0.5	6218896	N	METHOD	300.0	III
01-Mar-2011	SL-072-SA5A-SS-0.0-0.5	6218896	N	METHOD	314.0	III
01-Mar-2011	SL-072-SA5A-SS-0.0-0.5	6218896	N	METHOD	7471A	III
01-Mar-2011	SL-076-SA5A-SS-0.0-0.5	6218897	N	3050B	6010B	III
01-Mar-2011	SL-076-SA5A-SS-0.0-0.5	6218897	N	3050B	6020	III
01-Mar-2011	SL-076-SA5A-SS-0.0-0.5	6218897	N	3060A	7199	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Mar-2011	SL-076-SA5A-SS-0.0-0.5	6218897	N	3550B	8081A	III
01-Mar-2011	SL-076-SA5A-SS-0.0-0.5	6218897	N	3550B	8082	III
01-Mar-2011	SL-076-SA5A-SS-0.0-0.5	6218897	N	3550B	8151A	III
01-Mar-2011	SL-076-SA5A-SS-0.0-0.5	6218897	N	3550B	8270C	III
01-Mar-2011	SL-076-SA5A-SS-0.0-0.5	6218897	N	3550B	8270C SIM	III
01-Mar-2011	SL-076-SA5A-SS-0.0-0.5	6218897	N	Gen Prep	9045M	III
01-Mar-2011	SL-076-SA5A-SS-0.0-0.5	6218897	N	METHOD	300.0	III
01-Mar-2011	SL-076-SA5A-SS-0.0-0.5	6218897	N	METHOD	314.0	III
01-Mar-2011	SL-076-SA5A-SS-0.0-0.5	6218897	N	METHOD	6850	III
01-Mar-2011	SL-076-SA5A-SS-0.0-0.5	6218897	N	METHOD	7471A	III
01-Mar-2011	SL-076-SA5A-SS-0.0-0.5MSD	P218897M241419A	MSD	METHOD	6850	III
01-Mar-2011	SL-076-SA5A-SS-0.0-0.5MS	P218897R241400A	MS	METHOD	6850	III
01-Mar-2011	SL-244-SA5A-SB-4.0-5.0	6218911	N	3050B	6010B	III
01-Mar-2011	SL-244-SA5A-SB-4.0-5.0	6218911	N	3050B	6020	III
01-Mar-2011	SL-244-SA5A-SB-4.0-5.0	6218911	N	3060A	7199	III
01-Mar-2011	SL-244-SA5A-SB-4.0-5.0	6218911	N	3550B	8082	III
01-Mar-2011	SL-244-SA5A-SB-4.0-5.0	6218911	N	3550B	8270C	III
01-Mar-2011	SL-244-SA5A-SB-4.0-5.0	6218911	N	3550B	8270C SIM	III
01-Mar-2011	SL-244-SA5A-SB-4.0-5.0	6218911	N	5035	8260B	III
01-Mar-2011	SL-244-SA5A-SB-4.0-5.0	6218911	N	5035	8260B SIM	III
01-Mar-2011	SL-244-SA5A-SB-4.0-5.0	6218911	N	Gen Prep	9045M	III
01-Mar-2011	SL-244-SA5A-SB-4.0-5.0	6218911	N	METHOD	300.0	III
01-Mar-2011	SL-244-SA5A-SB-4.0-5.0	6218911	N	METHOD	314.0	III
01-Mar-2011	SL-244-SA5A-SB-4.0-5.0	6218911	N	METHOD	7471A	III
01-Mar-2011	SL-244-SA5A-SB-9.0-10.0	6218912	N	3050B	6010B	III
01-Mar-2011	SL-244-SA5A-SB-9.0-10.0	6218912	N	3050B	6020	III

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Mar-2011	SL-244-SA5A-SB-9.0-10.0	6218912	N	3060A	7199	III
01-Mar-2011	SL-244-SA5A-SB-9.0-10.0	6218912	N	3550B	8082	III
01-Mar-2011	SL-244-SA5A-SB-9.0-10.0	6218912	N	3550B	8270C	III
01-Mar-2011	SL-244-SA5A-SB-9.0-10.0	6218912	N	3550B	8270C SIM	III
01-Mar-2011	SL-244-SA5A-SB-9.0-10.0	6218912	N	Gen Prep	9045M	III
01-Mar-2011	SL-244-SA5A-SB-9.0-10.0	6218912	N	METHOD	300.0	III
01-Mar-2011	SL-244-SA5A-SB-9.0-10.0	6218912	N	METHOD	314.0	III
01-Mar-2011	SL-244-SA5A-SB-9.0-10.0	6218912	N	METHOD	7471A	III
01-Mar-2011	SL-077-SA5A-SS-0.0-0.5	6218898	N	3050B	6010B	III
01-Mar-2011	SL-077-SA5A-SS-0.0-0.5	6218898	N	3050B	6020	III
01-Mar-2011	SL-077-SA5A-SS-0.0-0.5	6218898	N	3060A	7199	III
01-Mar-2011	SL-077-SA5A-SS-0.0-0.5	6218898	N	3550B	8081A	III
01-Mar-2011	SL-077-SA5A-SS-0.0-0.5	6218898	N	3550B	8082	III
01-Mar-2011	SL-077-SA5A-SS-0.0-0.5	6218898	N	3550B	8151A	III
01-Mar-2011	SL-077-SA5A-SS-0.0-0.5	6218898	N	3550B	8270C	III
01-Mar-2011	SL-077-SA5A-SS-0.0-0.5	6218898	N	3550B	8270C SIM	III
01-Mar-2011	SL-077-SA5A-SS-0.0-0.5	6218898	N	Gen Prep	9045M	III
01-Mar-2011	SL-077-SA5A-SS-0.0-0.5	6218898	N	METHOD	300.0	III
01-Mar-2011	SL-077-SA5A-SS-0.0-0.5	6218898	N	METHOD	314.0	III
01-Mar-2011	SL-077-SA5A-SS-0.0-0.5	6218898	N	METHOD	7471A	III
01-Mar-2011	SL-078-SA5A-SS-0.0-0.5	6218899	N	3050B	6010B	III
01-Mar-2011	SL-078-SA5A-SS-0.0-0.5	6218899	N	3050B	6020	III
01-Mar-2011	SL-078-SA5A-SS-0.0-0.5	6218899	N	3060A	7199	III
01-Mar-2011	SL-078-SA5A-SS-0.0-0.5	6218899	N	3550B	8081A	III
01-Mar-2011	SL-078-SA5A-SS-0.0-0.5	6218899	N	3550B	8082	III
01-Mar-2011	SL-078-SA5A-SS-0.0-0.5	6218899	N	3550B	8151A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Mar-2011	SL-078-SA5A-SS-0.0-0.5	6218899	N	3550B	8270C	III
01-Mar-2011	SL-078-SA5A-SS-0.0-0.5	6218899	N	3550B	8270C SIM	III
01-Mar-2011	SL-078-SA5A-SS-0.0-0.5	6218899	N	Gen Prep	9045M	III
01-Mar-2011	SL-078-SA5A-SS-0.0-0.5	6218899	N	METHOD	300.0	III
01-Mar-2011	SL-078-SA5A-SS-0.0-0.5	6218899	N	METHOD	314.0	III
01-Mar-2011	SL-078-SA5A-SS-0.0-0.5	6218899	N	METHOD	6850	III
01-Mar-2011	SL-078-SA5A-SS-0.0-0.5	6218899	N	METHOD	7471A	III
01-Mar-2011	EB04-SA5A-030111	6218910	EB	3005A	6010B	III
01-Mar-2011	EB04-SA5A-030111	6218910	EB	3020A	6020	III
01-Mar-2011	EB04-SA5A-030111	6218910	EB	3510C	8081A	III
01-Mar-2011	EB04-SA5A-030111	6218910	EB	3510C	8082	III
01-Mar-2011	EB04-SA5A-030111	6218910	EB	3510C	8270C	III
01-Mar-2011	EB04-SA5A-030111	6218910	EB	3510C	8270C SIM	III
01-Mar-2011	EB04-SA5A-030111	6218910	EB	Gen Prep	300.0	III
01-Mar-2011	EB04-SA5A-030111	6218910	EB	Gen Prep	314.0	III
01-Mar-2011	EB04-SA5A-030111	6218910	EB	Gen Prep	7199	III
01-Mar-2011	EB04-SA5A-030111	6218910	EB	METHOD	7470A	III
01-Mar-2011	EB04-SA5A-030111	6218910	EB	METHOD	8151A	III
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5	6218895	N	3050B	6010B	III
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5	6218895	N	3050B	6020	III
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5	6218895	N	3060A	7199	III
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5	6218895	N	3550B	8081A	III
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5	6218895	N	3550B	8082	III
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5	6218895	N	3550B	8151A	III
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5	6218895	N	3550B	8270C	III
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5	6218895	N	3550B	8270C SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5	6218895	N	Gen Prep	9045M	III
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5	6218895	N	METHOD	300.0	III
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5	6218895	N	METHOD	314.0	III
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5	6218895	N	METHOD	7471A	III
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5DUP	P218895D271324A	DUP	METHOD	300.0	III
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5DUP	P218895D271414A	DUP	METHOD	314.0	III
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5DUP	P218895D291440A	DUP	Gen Prep	9045M	III
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5MS	P218895R271338A	MS	METHOD	300.0	III
01-Mar-2011	SL-066-SA5A-SS-0.0-0.5MS	P218895R271438A	MS	METHOD	314.0	III
01-Mar-2011	SL-103-SA5A-SS-0.0-0.5	6218900	N	3050B	6010B	III
01-Mar-2011	SL-103-SA5A-SS-0.0-0.5	6218900	N	3050B	6020	III
01-Mar-2011	SL-103-SA5A-SS-0.0-0.5	6218900	N	3060A	7199	III
01-Mar-2011	SL-103-SA5A-SS-0.0-0.5	6218900	N	3550B	8081A	III
01-Mar-2011	SL-103-SA5A-SS-0.0-0.5	6218900	N	3550B	8082	III
01-Mar-2011	SL-103-SA5A-SS-0.0-0.5	6218900	N	3550B	8151A	III
01-Mar-2011	SL-103-SA5A-SS-0.0-0.5	6218900	N	3550B	8270C	III
01-Mar-2011	SL-103-SA5A-SS-0.0-0.5	6218900	N	3550B	8270C SIM	III
01-Mar-2011	SL-103-SA5A-SS-0.0-0.5	6218900	N	Gen Prep	9045M	III
01-Mar-2011	SL-103-SA5A-SS-0.0-0.5	6218900	N	METHOD	300.0	III
01-Mar-2011	SL-103-SA5A-SS-0.0-0.5	6218900	N	METHOD	314.0	III
01-Mar-2011	SL-103-SA5A-SS-0.0-0.5	6218900	N	METHOD	7471A	III
01-Mar-2011	SL-104-SA5A-SS-0.0-0.5	6218901	N	3050B	6010B	III
01-Mar-2011	SL-104-SA5A-SS-0.0-0.5	6218901	N	3050B	6020	III
01-Mar-2011	SL-104-SA5A-SS-0.0-0.5	6218901	N	3060A	7199	III
01-Mar-2011	SL-104-SA5A-SS-0.0-0.5	6218901	N	3550B	8081A	III
01-Mar-2011	SL-104-SA5A-SS-0.0-0.5	6218901	N	3550B	8082	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Mar-2011	SL-104-SA5A-SS-0.0-0.5	6218901	N	3550B	8151A	III
01-Mar-2011	SL-104-SA5A-SS-0.0-0.5	6218901	N	3550B	8270C	III
01-Mar-2011	SL-104-SA5A-SS-0.0-0.5	6218901	N	3550B	8270C SIM	III
01-Mar-2011	SL-104-SA5A-SS-0.0-0.5	6218901	N	Gen Prep	9045M	III
01-Mar-2011	SL-104-SA5A-SS-0.0-0.5	6218901	N	METHOD	300.0	III
01-Mar-2011	SL-104-SA5A-SS-0.0-0.5	6218901	N	METHOD	314.0	III
01-Mar-2011	SL-104-SA5A-SS-0.0-0.5	6218901	N	METHOD	7471A	III
01-Mar-2011	SL-191-SA5A-SS-0.0-0.5	6218902	N	3050B	6010B	III
01-Mar-2011	SL-191-SA5A-SS-0.0-0.5	6218902	N	3050B	6020	III
01-Mar-2011	SL-191-SA5A-SS-0.0-0.5	6218902	N	3060A	7199	III
01-Mar-2011	SL-191-SA5A-SS-0.0-0.5	6218902	N	3550B	8081A	III
01-Mar-2011	SL-191-SA5A-SS-0.0-0.5	6218902	N	3550B	8082	III
01-Mar-2011	SL-191-SA5A-SS-0.0-0.5	6218902	N	3550B	8151A	III
01-Mar-2011	SL-191-SA5A-SS-0.0-0.5	6218902	N	3550B	8270C	III
01-Mar-2011	SL-191-SA5A-SS-0.0-0.5	6218902	N	3550B	8270C SIM	III
01-Mar-2011	SL-191-SA5A-SS-0.0-0.5	6218902	N	Gen Prep	9045M	III
01-Mar-2011	SL-191-SA5A-SS-0.0-0.5	6218902	N	METHOD	300.0	III
01-Mar-2011	SL-191-SA5A-SS-0.0-0.5	6218902	N	METHOD	314.0	III
01-Mar-2011	SL-191-SA5A-SS-0.0-0.5	6218902	N	METHOD	6850	III
01-Mar-2011	SL-191-SA5A-SS-0.0-0.5	6218902	N	METHOD	7471A	III
01-Mar-2011	SL-194-SA5A-SS-0.0-0.3	6218903	N	3050B	6010B	III
01-Mar-2011	SL-194-SA5A-SS-0.0-0.3	6218903	N	3050B	6020	III
01-Mar-2011	SL-194-SA5A-SS-0.0-0.3	6218903	N	3060A	7199	III
01-Mar-2011	SL-194-SA5A-SS-0.0-0.3	6218903	N	3550B	8081A	III
01-Mar-2011	SL-194-SA5A-SS-0.0-0.3	6218903	N	3550B	8082	III
01-Mar-2011	SL-194-SA5A-SS-0.0-0.3	6218903	N	3550B	8151A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Mar-2011	SL-194-SA5A-SS-0.0-0.3	6218903	N	3550B	8270C	III
01-Mar-2011	SL-194-SA5A-SS-0.0-0.3	6218903	N	3550B	8270C SIM	III
01-Mar-2011	SL-194-SA5A-SS-0.0-0.3	6218903	N	Gen Prep	9045M	III
01-Mar-2011	SL-194-SA5A-SS-0.0-0.3	6218903	N	METHOD	300.0	III
01-Mar-2011	SL-194-SA5A-SS-0.0-0.3	6218903	N	METHOD	314.0	III
01-Mar-2011	SL-194-SA5A-SS-0.0-0.3	6218903	N	METHOD	7471A	III
01-Mar-2011	SL-195-SA5A-SS-0.0-0.2	6218904	N	3050B	6010B	III
01-Mar-2011	SL-195-SA5A-SS-0.0-0.2	6218904	N	3050B	6020	III
01-Mar-2011	SL-195-SA5A-SS-0.0-0.2	6218904	N	3060A	7199	III
01-Mar-2011	SL-195-SA5A-SS-0.0-0.2	6218904	N	3550B	8081A	III
01-Mar-2011	SL-195-SA5A-SS-0.0-0.2	6218904	N	3550B	8082	III
01-Mar-2011	SL-195-SA5A-SS-0.0-0.2	6218904	N	3550B	8151A	III
01-Mar-2011	SL-195-SA5A-SS-0.0-0.2	6218904	N	3550B	8270C	III
01-Mar-2011	SL-195-SA5A-SS-0.0-0.2	6218904	N	3550B	8270C SIM	III
01-Mar-2011	SL-195-SA5A-SS-0.0-0.2	6218904	N	Gen Prep	9045M	III
01-Mar-2011	SL-195-SA5A-SS-0.0-0.2	6218904	N	METHOD	300.0	III
01-Mar-2011	SL-195-SA5A-SS-0.0-0.2	6218904	N	METHOD	314.0	III
01-Mar-2011	SL-195-SA5A-SS-0.0-0.2	6218904	N	METHOD	7471A	III
01-Mar-2011	TB-030111	6218913	TB	5030B	8260B	III
01-Mar-2011	TB-030111	6218913	TB	5030B	8260B SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE094 Laboratory: LL

EDD Filename: DE094_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: DUP-06-SA5A-QC-030111 *Collected:* 3/1/2011 9:00:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-066-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:18:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-072-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 9:58:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.5		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-076-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 10:17:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-077-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 10:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.9		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-078-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.5		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-103-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:35:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.1	J	1.0	MDL	1.3	PQL	mg/Kg	J	Z, Q

Sample ID: SL-104-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:52:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2	J	0.95	MDL	1.2	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-191-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 2:37:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.0	U	1.0	MDL	1.3	PQL	mg/Kg	UJ	Q

Sample ID: SL-194-SA5A-SS-0.0-0.3 *Collected:* 3/1/2011 3:02:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.96	U	0.96	MDL	1.2	PQL	mg/Kg	UJ	Q

Sample ID: SL-195-SA5A-SS-0.0-0.2 *Collected:* 3/1/2011 3:20:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.9		1.1	MDL	1.4	PQL	mg/Kg	J	Q

Sample ID: SL-244-SA5A-SB-4.0-5.0 *Collected:* 3/1/2011 10:42:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-244-SA5A-SB-9.0-10.0 *Collected:* 3/1/2011 10:44:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.3		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-256-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 8:57:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-257-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 9:18:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.9		0.90	MDL	1.1	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: AQ**

Sample ID: EB04-SA5A-030111 *Collected:* 3/1/2011 11:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	0.0066	J	0.0024	MDL	0.0200	PQL	mg/L	U	B

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: DUP-06-SA5A-QC-030111 *Collected:* 3/1/2011 9:00:00 AM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.43	J	0.966	MDL	5.43	PQL	mg/Kg	J	Z
PHOSPHORUS	312		0.608	MDL	10.9	PQL	mg/Kg	J	Q
SODIUM	85.0	J	40.5	MDL	109	PQL	mg/Kg	J	Z
TIN	2.64	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.20	J	0.912	MDL	5.43	PQL	mg/Kg	J	Z

Sample ID: SL-066-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:18:00 PM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	534		0.611	MDL	10.9	PQL	mg/Kg	J	Q
SODIUM	94.6	J	40.7	MDL	109	PQL	mg/Kg	J	Z
TIN	3.02	J	1.09	MDL	10.9	PQL	mg/Kg	U	B

Sample ID: SL-072-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 9:58:00 AM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	530		0.616	MDL	11.0	PQL	mg/Kg	J	Q
SODIUM	102	J	41.0	MDL	110	PQL	mg/Kg	J	Z
TIN	3.06	J	1.10	MDL	11.0	PQL	mg/Kg	U	B

Sample ID: SL-076-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 10:17:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	733		0.588	MDL	10.5	PQL	mg/Kg	J	Q
TIN	2.66	J	1.05	MDL	10.5	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-077-SA5A-SS-0.0-0.5 **Collected:** 3/1/2011 10:45:00 **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	571		0.648	MDL	11.6	PQL	mg/Kg	J	Q
TIN	3.78	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	1.12	J	0.973	MDL	5.79	PQL	mg/Kg	J	Z

Sample ID: SL-078-SA5A-SS-0.0-0.5 **Collected:** 3/1/2011 11:05:00 **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	622		0.620	MDL	11.1	PQL	mg/Kg	J	Q
TIN	3.20	J	1.11	MDL	11.1	PQL	mg/Kg	U	B

Sample ID: SL-103-SA5A-SS-0.0-0.5 **Collected:** 3/1/2011 1:35:00 PM **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	412		0.690	MDL	12.3	PQL	mg/Kg	J	Q
SODIUM	91.0	J	46.0	MDL	123	PQL	mg/Kg	J	Z
TIN	3.43	J	1.23	MDL	12.3	PQL	mg/Kg	U	B
Zirconium	1.05	J	1.03	MDL	6.16	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA5A-SS-0.0-0.5 **Collected:** 3/1/2011 1:52:00 PM **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	428		0.640	MDL	11.4	PQL	mg/Kg	J	Q
SODIUM	91.9	J	42.6	MDL	114	PQL	mg/Kg	J	Z
TIN	3.36	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	1.48	J	0.959	MDL	5.71	PQL	mg/Kg	J	Z

Sample ID: SL-191-SA5A-SS-0.0-0.5 **Collected:** 3/1/2011 2:37:00 PM **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	537		0.703	MDL	12.5	PQL	mg/Kg	J	Q
TIN	4.00	J	1.25	MDL	12.5	PQL	mg/Kg	U	B
Zirconium	1.40	J	1.05	MDL	6.27	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory:** LL

EDD Filename: DE094_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-194-SA5A-SS-0.0-0.3 ***Collected:*** 3/1/2011 3:02:00 PM ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	627		0.656	MDL	11.7	PQL	mg/Kg	J	Q
TIN	2.64	J	1.17	MDL	11.7	PQL	mg/Kg	U	B

Sample ID: SL-195-SA5A-SS-0.0-0.2 ***Collected:*** 3/1/2011 3:20:00 PM ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	835		0.784	MDL	14.0	PQL	mg/Kg	J	Q
TIN	3.56	J	1.40	MDL	14.0	PQL	mg/Kg	U	B
Zirconium	1.80	J	1.18	MDL	7.00	PQL	mg/Kg	J	Z

Sample ID: SL-244-SA5A-SB-4.0-5.0 ***Collected:*** 3/1/2011 10:42:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	145		0.635	MDL	11.3	PQL	mg/Kg	J	Q
TIN	3.06	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	1.80	J	0.953	MDL	5.67	PQL	mg/Kg	J	Z

Sample ID: SL-244-SA5A-SB-9.0-10.0 ***Collected:*** 3/1/2011 10:44:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	161		0.634	MDL	11.3	PQL	mg/Kg	J	Q
TIN	4.21	J	1.13	MDL	11.3	PQL	mg/Kg	U	B

Sample ID: SL-256-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 8:57:00 AM ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.46	J	0.996	MDL	5.59	PQL	mg/Kg	J	Z
PHOSPHORUS	352		0.627	MDL	11.2	PQL	mg/Kg	J	Q
SODIUM	87.9	J	41.7	MDL	112	PQL	mg/Kg	J	Z
TIN	2.62	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	1.37	J	0.940	MDL	5.59	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-257-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 9:18:00 AM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.33	J	0.990	MDL	5.56	PQL	mg/Kg	J	Z
PHOSPHORUS	477		0.623	MDL	11.1	PQL	mg/Kg	J	Q
TIN	2.96	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	0.953	J	0.934	MDL	5.56	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: DUP-06-SA5A-QC-030111 *Collected:* 3/1/2011 9:00:00 AM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.246		0.0657	MDL	0.219	PQL	mg/Kg	J	Q, E
ARSENIC	5.80		0.0877	MDL	0.438	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.674		0.0175	MDL	0.110	PQL	mg/Kg	J	Q
CADMIUM	0.450		0.0438	MDL	0.110	PQL	mg/Kg	J	Q
CHROMIUM	22.7		0.131	MDL	0.438	PQL	mg/Kg	J	Q, E, A
COBALT	6.95		0.0219	MDL	0.110	PQL	mg/Kg	J	Q, E, A
COPPER	7.97		0.0723	MDL	0.438	PQL	mg/Kg	J	Q, E
LEAD	6.85		0.0114	MDL	0.219	PQL	mg/Kg	J	Q, A
NICKEL	12.7		0.110	MDL	0.438	PQL	mg/Kg	J	Q, E, A
SILVER	0.0317	J	0.0131	MDL	0.110	PQL	mg/Kg	J	Z, Q
THALLIUM	0.315		0.0329	MDL	0.110	PQL	mg/Kg	J	Q
VANADIUM	46.1		0.0241	MDL	0.110	PQL	mg/Kg	J	Q, E, A
ZINC	167		0.614	MDL	3.29	PQL	mg/Kg	J	E, E, A

Sample ID: DUP-06-SA5A-QC-030111 *Collected:* 3/1/2011 9:00:00 AM *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.165	J	0.0438	MDL	0.438	PQL	mg/Kg	J	Z

Sample ID: DUP-06-SA5A-QC-030111 *Collected:* 3/1/2011 9:00:00 AM *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	91.3		0.118	MDL	0.438	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-066-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 1:18:00 PM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.589		0.0654	MDL	0.218	PQL	mg/Kg	J	Q, E
ARSENIC	14.3		0.0872	MDL	0.436	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.867		0.0174	MDL	0.109	PQL	mg/Kg	J	Q
CADMIUM	0.338		0.0436	MDL	0.109	PQL	mg/Kg	J	Q
CHROMIUM	36.4		0.131	MDL	0.436	PQL	mg/Kg	J	Q, E, A
COBALT	15.7		0.0218	MDL	0.109	PQL	mg/Kg	J	Q, E, A
COPPER	29.5		0.0720	MDL	0.436	PQL	mg/Kg	J	Q, E
NICKEL	23.0		0.109	MDL	0.436	PQL	mg/Kg	J	Q, E, A
SILVER	0.187		0.0131	MDL	0.109	PQL	mg/Kg	J	Q
THALLIUM	0.391		0.0327	MDL	0.109	PQL	mg/Kg	J	Q
VANADIUM	57.2		0.0240	MDL	0.109	PQL	mg/Kg	J	Q, E, A
ZINC	116		0.611	MDL	3.27	PQL	mg/Kg	J	E, E, A

Sample ID: SL-066-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 1:18:00 PM ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	17.9		0.0113	MDL	0.218	PQL	mg/Kg	J	Q, A

Sample ID: SL-066-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 1:18:00 PM ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.225	J	0.0436	MDL	0.436	PQL	mg/Kg	J	Z

Sample ID: SL-066-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 1:18:00 PM ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	124		0.118	MDL	0.436	PQL	mg/Kg	J	E, A

Sample ID: SL-072-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 9:58:00 AM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.228		0.0660	MDL	0.220	PQL	mg/Kg	J	Q, E
ARSENIC	11.9		0.0880	MDL	0.440	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.791		0.0176	MDL	0.110	PQL	mg/Kg	J	Q
CADMIUM	0.227		0.0440	MDL	0.110	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory:** LL

EDD Filename: DE094_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-072-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 9:58:00 AM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	29.1		0.132	MDL	0.440	PQL	mg/Kg	J	Q, E, A
COBALT	12.4		0.0220	MDL	0.110	PQL	mg/Kg	J	Q, E, A
COPPER	26.3		0.0726	MDL	0.440	PQL	mg/Kg	J	Q, E
LEAD	12.0		0.0114	MDL	0.220	PQL	mg/Kg	J	Q, A
NICKEL	19.3		0.110	MDL	0.440	PQL	mg/Kg	J	Q, E, A
SILVER	0.0900	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z, Q
THALLIUM	0.372		0.0330	MDL	0.110	PQL	mg/Kg	J	Q
VANADIUM	57.5		0.0242	MDL	0.110	PQL	mg/Kg	J	Q, E, A
ZINC	94.4		0.616	MDL	3.30	PQL	mg/Kg	J	E, E, A

Sample ID: SL-072-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 9:58:00 AM ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.219	J	0.0440	MDL	0.440	PQL	mg/Kg	J	Z

Sample ID: SL-072-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 9:58:00 AM ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	123		0.119	MDL	0.440	PQL	mg/Kg	J	E, A

Sample ID: SL-076-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 10:17:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.678		0.0642	MDL	0.214	PQL	mg/Kg	J	Q, E
ARSENIC	30.4		0.0856	MDL	0.428	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.554		0.0171	MDL	0.107	PQL	mg/Kg	J	Q
CADMIUM	0.341		0.0428	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	26.7		0.128	MDL	0.428	PQL	mg/Kg	J	Q, E, A
COBALT	45.6		0.0214	MDL	0.107	PQL	mg/Kg	J	Q, E, A
COPPER	50.9		0.0706	MDL	0.428	PQL	mg/Kg	J	Q, E
LEAD	12.0		0.0111	MDL	0.214	PQL	mg/Kg	J	Q, A
NICKEL	19.1		0.107	MDL	0.428	PQL	mg/Kg	J	Q, E, A
SILVER	0.0546	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.361		0.0321	MDL	0.107	PQL	mg/Kg	J	Q
VANADIUM	69.6		0.0235	MDL	0.107	PQL	mg/Kg	J	Q, E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-076-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 10:17:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	117		0.599	MDL	3.21	PQL	mg/Kg	J	E, E, A

Sample ID: SL-076-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 10:17:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.144	J	0.0428	MDL	0.428	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 10:17:00 ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	128		0.116	MDL	0.428	PQL	mg/Kg	J	E, A

Sample ID: SL-077-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 10:45:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.396		0.0681	MDL	0.227	PQL	mg/Kg	J	Q, E
ARSENIC	18.2		0.0908	MDL	0.454	PQL	mg/Kg	J	Q, E
BERYLLIUM	1.86		0.0182	MDL	0.114	PQL	mg/Kg	J	Q
CADMIUM	0.166		0.0454	MDL	0.114	PQL	mg/Kg	J	Q
CHROMIUM	47.4		0.136	MDL	0.454	PQL	mg/Kg	J	Q, E, A
COBALT	14.8		0.0227	MDL	0.114	PQL	mg/Kg	J	Q, E, A
COPPER	33.7		0.0749	MDL	0.454	PQL	mg/Kg	J	Q, E
NICKEL	33.1		0.114	MDL	0.454	PQL	mg/Kg	J	Q, E, A
SILVER	0.132		0.0136	MDL	0.114	PQL	mg/Kg	J	Q
THALLIUM	0.580		0.0341	MDL	0.114	PQL	mg/Kg	J	Q
VANADIUM	82.7		0.0250	MDL	0.114	PQL	mg/Kg	J	Q, E, A
ZINC	146		0.636	MDL	3.41	PQL	mg/Kg	J	E, E, A

Sample ID: SL-077-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 10:45:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	14.0		0.0118	MDL	0.227	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-077-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 10:45:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.365	J	0.0454	MDL	0.454	PQL	mg/Kg	J	Z

Sample ID: SL-077-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 10:45:00 ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	169		0.123	MDL	0.454	PQL	mg/Kg	J	E, A

Sample ID: SL-078-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 11:05:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.209	J	0.0651	MDL	0.217	PQL	mg/Kg	J	Z, Q, E
ARSENIC	11.4		0.0868	MDL	0.434	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.864		0.0174	MDL	0.108	PQL	mg/Kg	J	Q
CHROMIUM	32.0		0.130	MDL	0.434	PQL	mg/Kg	J	Q, E, A
COBALT	12.0		0.0217	MDL	0.108	PQL	mg/Kg	J	Q, E, A
COPPER	23.3		0.0716	MDL	0.434	PQL	mg/Kg	J	Q, E
LEAD	11.2		0.0113	MDL	0.217	PQL	mg/Kg	J	Q, A
NICKEL	21.2		0.108	MDL	0.434	PQL	mg/Kg	J	Q, E, A
SILVER	0.103	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z, Q
THALLIUM	0.442		0.0325	MDL	0.108	PQL	mg/Kg	J	Q
VANADIUM	60.8		0.0239	MDL	0.108	PQL	mg/Kg	J	Q, E, A
ZINC	99.6		0.607	MDL	3.25	PQL	mg/Kg	J	E, E, A

Sample ID: SL-078-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 11:05:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.140		0.0434	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-078-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 11:05:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.200	J	0.0434	MDL	0.434	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory:** LL

EDD Filename: DE094_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-078-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 11:05:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	152		0.117	MDL	0.434	PQL	mg/Kg	J	E, A

Sample ID: SL-103-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:35:00 PM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.260		0.0739	MDL	0.246	PQL	mg/Kg	J	Q, E
ARSENIC	10.5		0.0986	MDL	0.493	PQL	mg/Kg	J	Q, E
BERYLLIUM	1.22		0.0197	MDL	0.123	PQL	mg/Kg	J	Q
CADMIUM	0.324		0.0493	MDL	0.123	PQL	mg/Kg	J	Q
CHROMIUM	39.1		0.148	MDL	0.493	PQL	mg/Kg	J	Q, E, A
COBALT	9.80		0.0246	MDL	0.123	PQL	mg/Kg	J	Q, E, A
COPPER	21.0		0.0813	MDL	0.493	PQL	mg/Kg	J	Q, E
NICKEL	23.8		0.123	MDL	0.493	PQL	mg/Kg	J	Q, E, A
SILVER	0.140		0.0148	MDL	0.123	PQL	mg/Kg	J	Q
THALLIUM	0.427		0.0370	MDL	0.123	PQL	mg/Kg	J	Q
VANADIUM	69.8		0.0271	MDL	0.123	PQL	mg/Kg	J	Q, E, A
ZINC	115		0.690	MDL	3.70	PQL	mg/Kg	J	E, E, A

Sample ID: SL-103-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:35:00 PM *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	21.1		0.0128	MDL	0.246	PQL	mg/Kg	J	Q, A

Sample ID: SL-103-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:35:00 PM *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.156	J	0.0493	MDL	0.493	PQL	mg/Kg	J	Z

Sample ID: SL-103-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:35:00 PM *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	162		0.133	MDL	0.493	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-104-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 1:52:00 PM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.731		0.0685	MDL	0.228	PQL	mg/Kg	J	Q, E
ARSENIC	10.4		0.0914	MDL	0.457	PQL	mg/Kg	J	Q, E
BERYLLIUM	1.17		0.0183	MDL	0.114	PQL	mg/Kg	J	Q
CADMIUM	0.418		0.0457	MDL	0.114	PQL	mg/Kg	J	Q
CHROMIUM	35.6		0.137	MDL	0.457	PQL	mg/Kg	J	Q, E, A
COBALT	11.2		0.0228	MDL	0.114	PQL	mg/Kg	J	Q, E, A
COPPER	20.9		0.0754	MDL	0.457	PQL	mg/Kg	J	Q, E
NICKEL	25.5		0.114	MDL	0.457	PQL	mg/Kg	J	Q, E, A
SILVER	0.119		0.0137	MDL	0.114	PQL	mg/Kg	J	Q
THALLIUM	0.459		0.0343	MDL	0.114	PQL	mg/Kg	J	Q
VANADIUM	64.9		0.0251	MDL	0.114	PQL	mg/Kg	J	Q, E, A
ZINC	132		0.640	MDL	3.43	PQL	mg/Kg	J	E, E, A

Sample ID: SL-104-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 1:52:00 PM ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	19.8		0.0119	MDL	0.228	PQL	mg/Kg	J	Q, A

Sample ID: SL-104-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 1:52:00 PM ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.232	J	0.0457	MDL	0.457	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 1:52:00 PM ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	161		0.123	MDL	0.457	PQL	mg/Kg	J	E, A

Sample ID: SL-191-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 2:37:00 PM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.00		0.0746	MDL	0.249	PQL	mg/Kg	J	Q, E
ARSENIC	5.45		0.0994	MDL	0.497	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.422		0.0199	MDL	0.124	PQL	mg/Kg	J	Q
CADMIUM	5.68		0.0497	MDL	0.124	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-191-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 2:37:00 PM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	77.1		0.149	MDL	0.497	PQL	mg/Kg	J	Q, E, A
COBALT	8.81		0.0249	MDL	0.124	PQL	mg/Kg	J	Q, E, A
COPPER	63.2		0.0820	MDL	0.497	PQL	mg/Kg	J	Q, E
NICKEL	80.4		0.124	MDL	0.497	PQL	mg/Kg	J	Q, E, A
SILVER	2.18		0.0149	MDL	0.124	PQL	mg/Kg	J	Q
THALLIUM	0.307		0.0373	MDL	0.124	PQL	mg/Kg	J	Q
VANADIUM	40.8		0.0273	MDL	0.124	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-191-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 2:37:00 PM ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	100		0.0129	MDL	0.249	PQL	mg/Kg	J	Q, A

Sample ID: SL-191-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 2:37:00 PM ***Analysis Type:*** REA6 ***Dilution:*** 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	944		6.96	MDL	37.3	PQL	mg/Kg	J	E, E, A

Sample ID: SL-191-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 2:37:00 PM ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.166	J	0.0497	MDL	0.497	PQL	mg/Kg	J	Z

Sample ID: SL-191-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 2:37:00 PM ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	139		0.134	MDL	0.497	PQL	mg/Kg	J	E, A

Sample ID: SL-194-SA5A-SS-0.0-0.3 ***Collected:*** 3/1/2011 3:02:00 PM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	5.49		0.0919	MDL	0.460	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.644		0.0184	MDL	0.115	PQL	mg/Kg	J	Q
CADMIUM	0.773		0.0460	MDL	0.115	PQL	mg/Kg	J	Q
CHROMIUM	35.7		0.138	MDL	0.460	PQL	mg/Kg	J	Q, E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-194-SA5A-SS-0.0-0.3 ***Collected:*** 3/1/2011 3:02:00 PM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	8.63		0.0230	MDL	0.115	PQL	mg/Kg	J	Q, E, A
COPPER	29.3		0.0758	MDL	0.460	PQL	mg/Kg	J	Q, E
NICKEL	39.8		0.115	MDL	0.460	PQL	mg/Kg	J	Q, E, A
SILVER	0.257		0.0138	MDL	0.115	PQL	mg/Kg	J	Q
THALLIUM	0.221		0.0345	MDL	0.115	PQL	mg/Kg	J	Q
VANADIUM	52.7		0.0253	MDL	0.115	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-194-SA5A-SS-0.0-0.3 ***Collected:*** 3/1/2011 3:02:00 PM ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.452		0.0689	MDL	0.230	PQL	mg/Kg	J	Q, E
LEAD	56.0		0.0119	MDL	0.230	PQL	mg/Kg	J	Q, A

Sample ID: SL-194-SA5A-SS-0.0-0.3 ***Collected:*** 3/1/2011 3:02:00 PM ***Analysis Type:*** REA6 ***Dilution:*** 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	580		6.43	MDL	34.5	PQL	mg/Kg	J	E, E, A

Sample ID: SL-194-SA5A-SS-0.0-0.3 ***Collected:*** 3/1/2011 3:02:00 PM ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	93.2		0.124	MDL	0.460	PQL	mg/Kg	J	E, A

Sample ID: SL-195-SA5A-SS-0.0-0.2 ***Collected:*** 3/1/2011 3:20:00 PM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.283		0.0824	MDL	0.275	PQL	mg/Kg	J	Q, E
ARSENIC	7.32		0.110	MDL	0.549	PQL	mg/Kg	J	Q, E
BERYLLIUM	1.06		0.0220	MDL	0.137	PQL	mg/Kg	J	Q
CADMIUM	0.770		0.0549	MDL	0.137	PQL	mg/Kg	J	Q
CHROMIUM	34.4		0.165	MDL	0.549	PQL	mg/Kg	J	Q, E, A
COBALT	12.1		0.0275	MDL	0.137	PQL	mg/Kg	J	Q, E, A
COPPER	20.1		0.0906	MDL	0.549	PQL	mg/Kg	J	Q, E
LEAD	17.3		0.0143	MDL	0.275	PQL	mg/Kg	J	Q, A
NICKEL	25.9		0.137	MDL	0.549	PQL	mg/Kg	J	Q, E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory:** LL

EDD Filename: DE094_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-195-SA5A-SS-0.0-0.2 **Collected:** 3/1/2011 3:20:00 PM **Analysis Type:** REA4 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.124	J	0.0165	MDL	0.137	PQL	mg/Kg	J	Z, Q
THALLIUM	0.439		0.0412	MDL	0.137	PQL	mg/Kg	J	Q
VANADIUM	70.2		0.0302	MDL	0.137	PQL	mg/Kg	J	Q, E, A
ZINC	176		0.769	MDL	4.12	PQL	mg/Kg	J	E, E, A

Sample ID: SL-195-SA5A-SS-0.0-0.2 **Collected:** 3/1/2011 3:20:00 PM **Analysis Type:** REA7 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.332	J	0.0549	MDL	0.549	PQL	mg/Kg	J	Z

Sample ID: SL-195-SA5A-SS-0.0-0.2 **Collected:** 3/1/2011 3:20:00 PM **Analysis Type:** REA9 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	150		0.148	MDL	0.549	PQL	mg/Kg	J	E, A

Sample ID: SL-244-SA5A-SB-4.0-5.0 **Collected:** 3/1/2011 10:42:00 **Analysis Type:** REA4 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.167	J	0.0674	MDL	0.225	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.56		0.0898	MDL	0.449	PQL	mg/Kg	J	Q, E
BERYLLIUM	1.12		0.0180	MDL	0.112	PQL	mg/Kg	J	Q
CADMIUM	0.113		0.0449	MDL	0.112	PQL	mg/Kg	J	Q
CHROMIUM	22.7		0.135	MDL	0.449	PQL	mg/Kg	J	Q, E, A
COBALT	10.1		0.0225	MDL	0.112	PQL	mg/Kg	J	Q, E, A
COPPER	7.70		0.0741	MDL	0.449	PQL	mg/Kg	J	Q, E
LEAD	8.19		0.0117	MDL	0.225	PQL	mg/Kg	J	Q, A
NICKEL	14.5		0.112	MDL	0.449	PQL	mg/Kg	J	Q, E, A
SILVER	0.110	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z, Q
THALLIUM	0.351		0.0337	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	46.2		0.0247	MDL	0.112	PQL	mg/Kg	J	Q, E, A
ZINC	66.1		0.629	MDL	3.37	PQL	mg/Kg	J	E, E, A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory:** LL

EDD Filename: DE094_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-244-SA5A-SB-4.0-5.0 *Collected:* 3/1/2011 10:42:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.108	J	0.0449	MDL	0.449	PQL	mg/Kg	J	Z

Sample ID: SL-244-SA5A-SB-4.0-5.0 *Collected:* 3/1/2011 10:42:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	151		0.121	MDL	0.449	PQL	mg/Kg	J	E, A

Sample ID: SL-244-SA5A-SB-9.0-10.0 *Collected:* 3/1/2011 10:44:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.106	J	0.0679	MDL	0.226	PQL	mg/Kg	J	Z, Q, E
ARSENIC	7.37		0.0905	MDL	0.453	PQL	mg/Kg	J	Q, E
BERYLLIUM	1.60		0.0181	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.0454	J	0.0453	MDL	0.113	PQL	mg/Kg	J	Z, Q
CHROMIUM	20.5		0.136	MDL	0.453	PQL	mg/Kg	J	Q, E, A
COBALT	5.67		0.0226	MDL	0.113	PQL	mg/Kg	J	Q, E, A
COPPER	12.8		0.0747	MDL	0.453	PQL	mg/Kg	J	Q, E
LEAD	12.6		0.0118	MDL	0.226	PQL	mg/Kg	J	Q, A
NICKEL	10.1		0.113	MDL	0.453	PQL	mg/Kg	J	Q, E, A
SILVER	0.0373	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z, Q
THALLIUM	0.446		0.0339	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	51.4		0.0249	MDL	0.113	PQL	mg/Kg	J	Q, E, A
ZINC	133		0.634	MDL	3.39	PQL	mg/Kg	J	E, E, A

Sample ID: SL-244-SA5A-SB-9.0-10.0 *Collected:* 3/1/2011 10:44:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.324	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

Sample ID: SL-244-SA5A-SB-9.0-10.0 *Collected:* 3/1/2011 10:44:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	153		0.122	MDL	0.453	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-256-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 8:57:00 AM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.161	J	0.0671	MDL	0.224	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.69		0.0895	MDL	0.448	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.606		0.0179	MDL	0.112	PQL	mg/Kg	J	Q
CADMIUM	0.388		0.0448	MDL	0.112	PQL	mg/Kg	J	Q
CHROMIUM	21.3		0.134	MDL	0.448	PQL	mg/Kg	J	Q, E, A
COBALT	6.10		0.0224	MDL	0.112	PQL	mg/Kg	J	Q, E, A
COPPER	6.93		0.0738	MDL	0.448	PQL	mg/Kg	J	Q, E
LEAD	5.42		0.0116	MDL	0.224	PQL	mg/Kg	J	Q, A
NICKEL	11.3		0.112	MDL	0.448	PQL	mg/Kg	J	Q, E, A
SILVER	0.0242	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z, Q
THALLIUM	0.232		0.0336	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	42.1		0.0246	MDL	0.112	PQL	mg/Kg	J	Q, E, A
ZINC	157		0.627	MDL	3.36	PQL	mg/Kg	J	E, E, A

Sample ID: SL-256-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 8:57:00 AM ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.144	J	0.0448	MDL	0.448	PQL	mg/Kg	J	Z

Sample ID: SL-256-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 8:57:00 AM ***Analysis Type:*** REA9 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	83.8		0.121	MDL	0.448	PQL	mg/Kg	J	E, A

Sample ID: SL-257-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 9:18:00 AM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.169	J	0.0667	MDL	0.222	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.23		0.0890	MDL	0.445	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.530		0.0178	MDL	0.111	PQL	mg/Kg	J	Q
CADMIUM	0.728		0.0445	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	21.5		0.133	MDL	0.445	PQL	mg/Kg	J	Q, E, A
COBALT	5.61		0.0222	MDL	0.111	PQL	mg/Kg	J	Q, E, A
COPPER	9.20		0.0734	MDL	0.445	PQL	mg/Kg	J	Q, E
LEAD	8.39		0.0116	MDL	0.222	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-257-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 9:18:00 AM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	10.1		0.111	MDL	0.445	PQL	mg/Kg	J	Q, E, A
SILVER	0.0295	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z, Q
THALLIUM	0.262		0.0334	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	36.5		0.0245	MDL	0.111	PQL	mg/Kg	J	Q, E, A
ZINC	162		0.623	MDL	3.34	PQL	mg/Kg	J	E, E, A

Sample ID: SL-257-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 9:18:00 AM *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.144	J	0.0445	MDL	0.445	PQL	mg/Kg	J	Z

Sample ID: SL-257-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 9:18:00 AM *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	72.7		0.120	MDL	0.445	PQL	mg/Kg	J	E, A

Method Category: METALS

Method: 7199 **Matrix: AQ**

Sample ID: EB04-SA5A-030111 *Collected:* 3/1/2011 11:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	5.0	U	5.0	MDL	10.0	PQL	ug/L	UJ	H

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: DUP-06-SA5A-QC-030111 *Collected:* 3/1/2011 9:00:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.24	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z, FD

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-076-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 10:17:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.36	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-194-SA5A-SS-0.0-0.3 *Collected:* 3/1/2011 3:02:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.61	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-195-SA5A-SS-0.0-0.2 *Collected:* 3/1/2011 3:20:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.57	J	0.28	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-244-SA5A-SB-9.0-10.0 *Collected:* 3/1/2011 10:44:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.35	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-256-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 8:57:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.23	U	0.23	MDL	1.1	PQL	mg/Kg	UJ	FD

Sample ID: SL-257-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 9:18:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.25	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: DUP-06-SA5A-QC-030111 *Collected:* 3/1/2011 9:00:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0031	U	0.0031	MDL	0.110	PQL	mg/Kg	UJ	FD

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-076-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 10:17:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0114	J	0.0029	MDL	0.102	PQL	mg/Kg	J	Z

Sample ID: SL-103-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:35:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0051	J	0.0034	MDL	0.118	PQL	mg/Kg	J	Z

Sample ID: SL-194-SA5A-SS-0.0-0.3 *Collected:* 3/1/2011 3:02:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0167	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-195-SA5A-SS-0.0-0.2 *Collected:* 3/1/2011 3:20:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0106	J	0.0038	MDL	0.132	PQL	mg/Kg	J	Z

Sample ID: SL-244-SA5A-SB-4.0-5.0 *Collected:* 3/1/2011 10:42:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0055	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-256-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 8:57:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0133	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z, FD

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: DUP-06-SA5A-QC-030111 *Collected:* 3/1/2011 9:00:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MIREX	0.11	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z, FD

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: SL-066-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 1:18:00 PM ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.20	U	0.20	MDL	0.39	PQL	ug/Kg	UJ	S
4,4'-DDE	0.078	U	0.078	MDL	0.39	PQL	ug/Kg	UJ	S
4,4'-DDT	1.2		0.075	MDL	0.39	PQL	ug/Kg	J	S
ALDRIN	0.075	U	0.075	MDL	0.19	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.039	U	0.039	MDL	0.19	PQL	ug/Kg	UJ	S
BETA-BHC	0.068	U	0.068	MDL	0.19	PQL	ug/Kg	UJ	S
Chlordane	1.9	U	1.9	MDL	3.9	PQL	ug/Kg	UJ	S
DELTA-BHC	0.041	U	0.041	MDL	0.19	PQL	ug/Kg	UJ	S
DIELDRIN	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.050	U	0.050	MDL	0.19	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.087	U	0.087	MDL	0.39	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	S
ENDRIN	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.039	U	0.039	MDL	0.19	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.068	U	0.068	MDL	0.19	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.039	U	0.039	MDL	0.19	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.39	U	0.39	MDL	1.9	PQL	ug/Kg	UJ	S
MIREX	0.075	U	0.075	MDL	0.39	PQL	ug/Kg	UJ	S
TOXAPHENE	2.5	U	2.5	MDL	7.5	PQL	ug/Kg	UJ	S

Sample ID: SL-072-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 9:58:00 AM ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN KETONE	0.23	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z

Sample ID: SL-076-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 10:17:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDOSULFAN II	0.10	J	0.071	MDL	0.37	PQL	ug/Kg	J	Z, L
gamma-BHC (Lindane)	0.069	J	0.037	MDL	0.18	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: SL-077-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 10:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDOSULFAN SULFATE	0.10	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z
ENDRIN KETONE	0.15	J	0.077	MDL	0.40	PQL	ug/Kg	J	Z
METHOXYCHLOR	0.66	J	0.40	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-103-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:35:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	2.2		0.084	MDL	0.43	PQL	ug/Kg	J	S

Sample ID: SL-195-SA5A-SS-0.0-0.2 *Collected:* 3/1/2011 3:20:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.31	J	0.092	MDL	0.48	PQL	ug/Kg	J	Z, S

Sample ID: SL-256-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 8:57:00 AM *Analysis Type:* DL-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIELDRIN	4.2		0.37	MDL	1.9	PQL	ug/Kg	J	Q

Sample ID: SL-256-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 8:57:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	1.3		0.075	MDL	0.38	PQL	ug/Kg	J	Q, S
4,4'-DDE	0.075	U	0.075	MDL	0.38	PQL	ug/Kg	UJ	S
4,4'-DDT	1.3		0.075	MDL	0.38	PQL	ug/Kg	J	S
ALDRIN	0.075	U	0.075	MDL	0.19	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.038	U	0.038	MDL	0.19	PQL	ug/Kg	UJ	S
BETA-BHC	0.068	U	0.068	MDL	0.19	PQL	ug/Kg	UJ	S
Chlordane	11	U	11	MDL	11	PQL	ug/Kg	UJ	S
DELTA-BHC	0.041	U	0.041	MDL	0.19	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.050	U	0.050	MDL	0.19	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.075	U	0.075	MDL	0.38	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.075	U	0.075	MDL	0.38	PQL	ug/Kg	UJ	S
ENDRIN	0.075	U	0.075	MDL	0.38	PQL	ug/Kg	R	Q
ENDRIN ALDEHYDE	0.075	U	0.075	MDL	0.38	PQL	ug/Kg	UJ	S

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory:** LL

EDD Filename: DE094_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-256-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 8:57:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN KETONE	0.075	U	0.075	MDL	0.38	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.038	U	0.038	MDL	0.19	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.068	U	0.068	MDL	0.19	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.038	U	0.038	MDL	0.19	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.38	U	0.38	MDL	1.9	PQL	ug/Kg	UJ	S
MIREX	0.34	J	0.075	MDL	0.38	PQL	ug/Kg	J	Z, S, FD
TOXAPHENE	2.5	U	2.5	MDL	7.5	PQL	ug/Kg	UJ	S

Sample ID: SL-257-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 9:18:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	1.5		0.074	MDL	0.38	PQL	ug/Kg	J	S
ENDOSULFAN II	0.11	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z, L, S
ENDRIN ALDEHYDE	0.35	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z, S
ENDRIN KETONE	0.59		0.074	MDL	0.38	PQL	ug/Kg	J	S
HEPTACHLOR EPOXIDE	0.16	J	0.038	MDL	0.19	PQL	ug/Kg	J	Z, S
MIREX	0.84		0.074	MDL	0.38	PQL	ug/Kg	J	S

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: DUP-06-SA5A-QC-030111 *Collected:* 3/1/2011 9:00:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	5.1	J	2.2	MDL	9.6	PQL	ug/Kg	J	Z, FD

Sample ID: SL-066-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:18:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	12	J	3.7	MDL	19	PQL	ug/Kg	J	Z
Aroclor 5460	18	J	11	MDL	37	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory:** LL

EDD Filename: DE094_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-103-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:35:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1248	0.71	J	0.42	MDL	2.2	PQL	ug/Kg	J	Z
AROCLOR 1254	1.8	J	0.42	MDL	2.2	PQL	ug/Kg	J	Z
AROCLOR 1260	2.1	J	0.49	MDL	2.2	PQL	ug/Kg	J	Z

Sample ID: SL-195-SA5A-SS-0.0-0.2 *Collected:* 3/1/2011 3:20:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.46	U	0.46	MDL	2.4	PQL	ug/Kg	R	S
AROCLOR 1221	0.46	U	0.46	MDL	2.4	PQL	ug/Kg	R	S
AROCLOR 1232	0.46	U	0.46	MDL	2.4	PQL	ug/Kg	R	S
AROCLOR 1242	0.46	U	0.46	MDL	2.4	PQL	ug/Kg	R	S
AROCLOR 1248	0.94	J	0.46	MDL	2.4	PQL	ug/Kg	J	Z, S
AROCLOR 1254	3.3		0.46	MDL	2.4	PQL	ug/Kg	J	S
AROCLOR 1260	5.1		0.55	MDL	2.4	PQL	ug/Kg	J	S
Aroclor 1262	0.46	U	0.46	MDL	2.4	PQL	ug/Kg	R	S
Aroclor 1268	0.46	U	0.46	MDL	2.4	PQL	ug/Kg	R	S
Aroclor 5432	1.4	U	1.4	MDL	4.6	PQL	ug/Kg	R	S
Aroclor 5442	1.4	U	1.4	MDL	4.6	PQL	ug/Kg	R	S
Aroclor 5460	1.4	U	1.4	MDL	4.6	PQL	ug/Kg	R	S

Sample ID: SL-256-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 8:57:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.44	U	0.44	MDL	1.9	PQL	ug/Kg	UJ	FD

Method Category: SVOA

Method: 8151A **Matrix:** SO

Sample ID: DUP-06-SA5A-QC-030111 *Collected:* 3/1/2011 9:00:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DB	1.5	J	0.70	MDL	1.9	PQL	ug/Kg	J	Z, FD

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8151A **Matrix: SO**

Sample ID: SL-066-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:18:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.46	J	0.45	MDL	1.4	PQL	ug/Kg	J	Z

Sample ID: SL-072-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 9:58:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	130	J	85	MDL	280	PQL	ug/Kg	J	Z

Sample ID: SL-076-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 10:17:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	130	J	82	MDL	270	PQL	ug/Kg	J	Z

Sample ID: SL-103-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:35:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	200	J	96	MDL	320	PQL	ug/Kg	J	Z
MCPP	200	J	95	MDL	320	PQL	ug/Kg	J	Z

Sample ID: SL-104-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:52:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.60	J	0.48	MDL	1.4	PQL	ug/Kg	J	Z

Sample ID: SL-194-SA5A-SS-0.0-0.3 *Collected:* 3/1/2011 3:02:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPP	180	J	90	MDL	300	PQL	ug/Kg	J	Z

Sample ID: SL-195-SA5A-SS-0.0-0.2 *Collected:* 3/1/2011 3:20:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.60	J	0.56	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8151A **Matrix: SO**

Sample ID: SL-256-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 8:57:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DB	0.70	U	0.70	MDL	1.9	PQL	ug/Kg	UJ	FD

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-066-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:18:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	25	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	91	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	74	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	89	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	47	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	49	J	19	MDL	190	PQL	ug/Kg	J	Z
CARBAZOLE	22	J	19	MDL	190	PQL	ug/Kg	J	Z
CHRYSENE	120	J	19	MDL	190	PQL	ug/Kg	J	Z
Di-n-butylphthalate	40	J	19	MDL	190	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	40	J	19	MDL	190	PQL	ug/Kg	J	Z
PHENANTHRENE	170	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: SL-103-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:35:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	30	J	21	MDL	210	PQL	ug/Kg	J	Z
FLUORANTHENE	47	J	21	MDL	210	PQL	ug/Kg	J	Z
PHENANTHRENE	30	J	21	MDL	210	PQL	ug/Kg	J	Z
PYRENE	39	J	21	MDL	210	PQL	ug/Kg	J	Z

Sample ID: SL-104-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:52:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	20	J	20	MDL	200	PQL	ug/Kg	J	Z
FLUORANTHENE	34	J	20	MDL	200	PQL	ug/Kg	J	Z
PYRENE	28	J	20	MDL	200	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-191-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 2:37:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Butylbenzylphthalate	63	J	21	MDL	210	PQL	ug/Kg	J	Z
Di-n-butylphthalate	110	J	21	MDL	210	PQL	ug/Kg	J	Z

Sample ID: SL-194-SA5A-SS-0.0-0.3 *Collected:* 3/1/2011 3:02:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CARBAZOLE	31	J	20	MDL	200	PQL	ug/Kg	J	Z
DIBENZOFURAN	110	J	20	MDL	200	PQL	ug/Kg	J	Z

Sample ID: SL-195-SA5A-SS-0.0-0.2 *Collected:* 3/1/2011 3:20:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIBENZOFURAN	31	J	23	MDL	230	PQL	ug/Kg	J	Z
FLUORANTHENE	38	J	23	MDL	230	PQL	ug/Kg	J	Z
PHENANTHRENE	100	J	23	MDL	230	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: AQ**

Sample ID: EB04-SA5A-030111 *Collected:* 3/1/2011 11:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	0.34	J	0.052	MDL	1.0	PQL	ug/L	U	B
Butylbenzylphthalate	0.071	J	0.052	MDL	1.0	PQL	ug/L	J	Z
CHRYSENE	0.025	J	0.010	MDL	0.052	PQL	ug/L	J	Z
Diethylphthalate	0.074	J	0.052	MDL	1.0	PQL	ug/L	U	B
Di-n-butylphthalate	0.33	J	0.052	MDL	1.0	PQL	ug/L	U	B
NAPHTHALENE	0.033	J	0.031	MDL	0.052	PQL	ug/L	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory:** LL

EDD Filename: DE094_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: DUP-06-SA5A-QC-030111 *Collected:* 3/1/2011 9:00:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	3.8	U	3.8	MDL	9.4	PQL	ug/Kg	UJ	FD
BENZO(A)PYRENE	3.8	J	3.8	MDL	9.4	PQL	ug/Kg	J	Z, FD
BENZO(B)FLUORANTHENE	21		3.8	MDL	9.4	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	3.9	J	3.8	MDL	9.4	PQL	ug/Kg	J	Z, FD
BENZO(K)FLUORANTHENE	3.8	U	3.8	MDL	9.4	PQL	ug/Kg	UJ	FD
BIS(2-ETHYLHEXYL)PHTHALATE	38	J	34	MDL	100	PQL	ug/Kg	J	Z, FD
CHRYSENE	7.5	J	1.9	MDL	9.4	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	3.9	J	3.8	MDL	9.4	PQL	ug/Kg	J	Z, FD
INDENO(1,2,3-CD)PYRENE	3.8	U	3.8	MDL	9.4	PQL	ug/Kg	UJ	FD
PYRENE	5.3	J	3.8	MDL	9.4	PQL	ug/Kg	J	Z, FD

Sample ID: SL-076-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 10:17:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	7.3	J	3.6	MDL	8.9	PQL	ug/Kg	J	Z
CHRYSENE	5.1	J	1.8	MDL	8.9	PQL	ug/Kg	J	Z
FLUORANTHENE	5.6	J	3.6	MDL	8.9	PQL	ug/Kg	J	Z
PYRENE	5.6	J	3.6	MDL	8.9	PQL	ug/Kg	J	Z

Sample ID: SL-077-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 10:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	8.0	J	6.9	MDL	21	PQL	ug/Kg	J	Z
Di-n-octylphthalate	11	J	6.9	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-078-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 11:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	11	J	6.6	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-103-SA5A-SS-0.0-0.5 *Collected:* 3/1/2011 1:35:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	4.8	J	4.2	MDL	10	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	5.8	J	4.2	MDL	10	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-103-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 1:35:00 PM ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(K)FLUORANTHENE	4.9	J	4.2	MDL	10	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	48	J	37	MDL	110	PQL	ug/Kg	J	Z

Sample ID: SL-104-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 1:52:00 PM ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	5.3	J	4.0	MDL	9.9	PQL	ug/Kg	J	Z
PHENANTHRENE	5.9	J	4.0	MDL	9.9	PQL	ug/Kg	J	Z

Sample ID: SL-191-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 2:37:00 PM ***Analysis Type:*** RES ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	9.1	J	4.2	MDL	10	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	4.5	J	2.1	MDL	10	PQL	ug/Kg	J	Z
NAPHTHALENE	7.5	J	4.2	MDL	10	PQL	ug/Kg	J	Z

Sample ID: SL-194-SA5A-SS-0.0-0.3 ***Collected:*** 3/1/2011 3:02:00 PM ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	6.7	J	4.0	MDL	9.9	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	9.1	J	2.0	MDL	9.9	PQL	ug/Kg	J	Z
FLUORENE	8.3	J	4.0	MDL	9.9	PQL	ug/Kg	J	Z

Sample ID: SL-195-SA5A-SS-0.0-0.2 ***Collected:*** 3/1/2011 3:20:00 PM ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	9.6	J	4.6	MDL	23	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	14	J	9.2	MDL	23	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	100	J	83	MDL	250	PQL	ug/Kg	J	Z

Sample ID: SL-256-SA5A-SS-0.0-0.5 ***Collected:*** 3/1/2011 8:57:00 AM ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.2	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	1.6	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z, FD

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory:** LL

EDD Filename: DE094_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-256-SA5A-SS-0.0-0.5 **Collected:** 3/1/2011 8:57:00 AM **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.9		0.75	MDL	1.9	PQL	ug/Kg	J	Q, FD
BENZO(G,H,I)PERYLENE	1.1	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z, Q, FD
BENZO(K)FLUORANTHENE	0.75	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z, FD
BIS(2-ETHYLHEXYL)PHTHALATE	6.7	U	6.7	MDL	20	PQL	ug/Kg	UJ	FD
CHRYSENE	1.3	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	0.80	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z, FD
INDENO(1,2,3-CD)PYRENE	0.89	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z, Q, FD
PYRENE	0.86	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z, FD

Method Category: VOA

Method: 8260B **Matrix:** AQ

Sample ID: TB-030111 **Collected:** 3/1/2011 4:30:00 PM **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZENE	0.5	J	0.5	MDL	5	PQL	ug/L	J	Z

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-244-SA5A-SB-4.0-5.0 **Collected:** 3/1/2011 10:42:00 **Analysis Type:** RES **Dilution:** 0.84

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.15	J	0.06	MDL	3.9	PQL	ug/Kg	J	Z
m,p-Xylene	0.51	J	0.16	MDL	3.9	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.72	J	0.23	MDL	3.9	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE094

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE094
EDD Filename: DE094_v1

Laboratory: LL
eQAPP Name: CDM_SSFL_110509

Method: 7199 **Preparation Method: Gen Prep**
Matrix: AQ

Sample ID	*Type*	*Actual*	*Criteria*	*Units*	*Flag*
EB04-SA5A-030111 (RES)	Sampling To Analysis	26.00	24.00	HOURS	J (all detects) UJ (all non-detects)

Method Blank Outlier Report

Lab Reporting Batch ID: DE094 Laboratory: LL

EDD Filename: DE094_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06848CB221929	3/10/2011 7:29:00 PM	LITHIUM	0.0049 mg/L	EB04-SA5A-030111

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB04-SA5A-030111(RES)	LITHIUM	0.0066 mg/L	0.0066U mg/L

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06908DB220545	3/11/2011 5:45:00 AM	CALCIUM PHOSPHORUS TIN	7.51 mg/Kg 1.37 mg/Kg 1.47 mg/Kg	DUP-06-SA5A-QC-030111 SL-066-SA5A-SS-0.0-0.5 SL-072-SA5A-SS-0.0-0.5 SL-076-SA5A-SS-0.0-0.5 SL-077-SA5A-SS-0.0-0.5 SL-078-SA5A-SS-0.0-0.5 SL-103-SA5A-SS-0.0-0.5 SL-104-SA5A-SS-0.0-0.5 SL-191-SA5A-SS-0.0-0.5 SL-194-SA5A-SS-0.0-0.3 SL-195-SA5A-SS-0.0-0.2 SL-244-SA5A-SB-4.0-5.0 SL-244-SA5A-SB-9.0-10.0 SL-256-SA5A-SS-0.0-0.5 SL-257-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-06-SA5A-QC-030111(REA)	TIN	2.64 mg/Kg	2.64U mg/Kg
SL-066-SA5A-SS-0.0-0.5(REA)	TIN	3.02 mg/Kg	3.02U mg/Kg
SL-072-SA5A-SS-0.0-0.5(REA)	TIN	3.06 mg/Kg	3.06U mg/Kg
SL-076-SA5A-SS-0.0-0.5(REA)	TIN	2.66 mg/Kg	2.66U mg/Kg
SL-077-SA5A-SS-0.0-0.5(REA)	TIN	3.78 mg/Kg	3.78U mg/Kg
SL-078-SA5A-SS-0.0-0.5(REA)	TIN	3.20 mg/Kg	3.20U mg/Kg
SL-103-SA5A-SS-0.0-0.5(REA)	TIN	3.43 mg/Kg	3.43U mg/Kg
SL-104-SA5A-SS-0.0-0.5(REA)	TIN	3.36 mg/Kg	3.36U mg/Kg
SL-191-SA5A-SS-0.0-0.5(REA)	TIN	4.00 mg/Kg	4.00U mg/Kg
SL-194-SA5A-SS-0.0-0.3(REA)	TIN	2.64 mg/Kg	2.64U mg/Kg
SL-195-SA5A-SS-0.0-0.2(REA)	TIN	3.56 mg/Kg	3.56U mg/Kg
SL-244-SA5A-SB-4.0-5.0(REA)	TIN	3.06 mg/Kg	3.06U mg/Kg
SL-244-SA5A-SB-9.0-10.0(REA)	TIN	4.21 mg/Kg	4.21U mg/Kg
SL-256-SA5A-SS-0.0-0.5(REA)	TIN	2.62 mg/Kg	2.62U mg/Kg
SL-257-SA5A-SS-0.0-0.5(REA)	TIN	2.96 mg/Kg	2.96U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06926BB221308A	3/12/2011 1:08:00 PM	COPPER	0.241 mg/Kg	DUP-06-SA5A-QC-030111 SL-066-SA5A-SS-0.0-0.5 SL-072-SA5A-SS-0.0-0.5 SL-076-SA5A-SS-0.0-0.5 SL-077-SA5A-SS-0.0-0.5 SL-078-SA5A-SS-0.0-0.5 SL-103-SA5A-SS-0.0-0.5 SL-104-SA5A-SS-0.0-0.5 SL-191-SA5A-SS-0.0-0.5 SL-194-SA5A-SS-0.0-0.3 SL-195-SA5A-SS-0.0-0.2 SL-244-SA5A-SB-4.0-5.0 SL-244-SA5A-SB-9.0-10.0 SL-256-SA5A-SS-0.0-0.5 SL-257-SA5A-SS-0.0-0.5

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB84B211702A	3/3/2011 5:02:00 PM	METHYLENE CHLORIDE TOLUENE	1.1 ug/Kg 0.12 ug/Kg	SL-244-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-244-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.72 ug/Kg	3.9U ug/Kg

Method: **8270C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLC06B262326	3/14/2011 11:26:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	44 ug/Kg	DUP-06-SA5A-QC-030111 SL-066-SA5A-SS-0.0-0.5 SL-072-SA5A-SS-0.0-0.5 SL-076-SA5A-SS-0.0-0.5 SL-077-SA5A-SS-0.0-0.5 SL-078-SA5A-SS-0.0-0.5 SL-103-SA5A-SS-0.0-0.5 SL-104-SA5A-SS-0.0-0.5 SL-191-SA5A-SS-0.0-0.5 SL-194-SA5A-SS-0.0-0.3 SL-195-SA5A-SS-0.0-0.2 SL-244-SA5A-SB-4.0-5.0 SL-244-SA5A-SB-9.0-10.0 SL-256-SA5A-SS-0.0-0.5 SL-257-SA5A-SS-0.0-0.5

Method Blank Outlier Report

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWC06B260128	3/16/2011 1:28:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE Diethylphthalate Di-n-butylphthalate	0.13 ug/L 0.053 ug/L 0.066 ug/L	EB04-SA5A-030111

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB04-SA5A-030111(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.34 ug/L	1.0U ug/L
EB04-SA5A-030111(RES)	Diethylphthalate	0.074 ug/L	1.0U ug/L
EB04-SA5A-030111(RES)	Di-n-butylphthalate	0.33 ug/L	1.0U ug/L

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE094 Laboratory: LL

EDD Filename: DE094_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-256-SA5A-SS-0.0-0.5MS SL-256-SA5A-SS-0.0-0.5MSD (SL-256-SA5A-SS-0.0-0.5)	ANILINE	110	113	35.00-95.00	-	ANILINE	J (all detects)

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-256-SA5A-SS-0.0-0.5MSD (SL-256-SA5A-SS-0.0-0.5)	BENZO(B)FLUORANTHENE	-	162	43.00-155.00	-	BENZO(B)FLUORANTHENE	J(all detects)
	BENZO(G,H,I)PERYLENE	-	-	33.00-141.00	42 (30.00)	BENZO(G,H,I)PERYLENE	
	BIS(2-ETHYLHEXYL)PHTHALAT	-	4512	39.00-167.00	188 (30.00)	BIS(2-ETHYLHEXYL)PHTHALA	
	Butylbenzylphthalate	-	-	57.00-173.00	31 (30.00)	Butylbenzylphthalate	
	DIBENZO(A,H)ANTHRACENE	-	-	22.00-133.00	32 (30.00)	DIBENZO(A,H)ANTHRACENE	
	Di-n-octylphthalate	-	234	40.00-192.00	58 (30.00)	Di-n-octylphthalate	
	INDENO(1,2,3-CD)PYRENE	-	-	21.00-143.00	34 (30.00)	INDENO(1,2,3-CD)PYRENE	

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-066-SA5A-SS-0.0-0.5MS (DUP-06-SA5A-QC-030111 SL-066-SA5A-SS-0.0-0.5 SL-072-SA5A-SS-0.0-0.5 SL-076-SA5A-SS-0.0-0.5 SL-077-SA5A-SS-0.0-0.5 SL-078-SA5A-SS-0.0-0.5 SL-103-SA5A-SS-0.0-0.5 SL-104-SA5A-SS-0.0-0.5 SL-191-SA5A-SS-0.0-0.5 SL-194-SA5A-SS-0.0-0.3)	FLUORIDE	52	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-256-SA5A-SS-0.0-0.5MS (SL-195-SA5A-SS-0.0-0.2 SL-244-SA5A-SB-4.0-5.0 SL-244-SA5A-SB-9.0-10.0 SL-256-SA5A-SS-0.0-0.5 SL-257-SA5A-SS-0.0-0.5)	FLUORIDE	75	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6020**

Matrix: **SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-256-SA5A-SS-0.0-0.5MS **SL-256-SA5A-SS-0.0-0.5MSD** (DUP-06-SA5A-QC-030111 SL-066-SA5A-SS-0.0-0.5 SL-072-SA5A-SS-0.0-0.5 SL-076-SA5A-SS-0.0-0.5 SL-077-SA5A-SS-0.0-0.5 SL-078-SA5A-SS-0.0-0.5 SL-103-SA5A-SS-0.0-0.5 SL-104-SA5A-SS-0.0-0.5 SL-191-SA5A-SS-0.0-0.5 SL-194-SA5A-SS-0.0-0.3 SL-195-SA5A-SS-0.0-0.2 SL-244-SA5A-SB-4.0-5.0 SL-244-SA5A-SB-9.0-10.0 SL-256-SA5A-SS-0.0-0.5 SL-257-SA5A-SS-0.0-0.5)	ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT COPPER LEAD NICKEL SILVER THALLIUM VANADIUM	136 136 145 - 129 128 148 131 144 138 -	150 163 159 150 138 146 200 144 146 151 159	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - - - - - - -	ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT COPPER LEAD NICKEL SILVER THALLIUM VANADIUM	J(all detects)
SL-256-SA5A-SS-0.0-0.5MS **SL-256-SA5A-SS-0.0-0.5MSD** (DUP-06-SA5A-QC-030111 SL-066-SA5A-SS-0.0-0.5 SL-072-SA5A-SS-0.0-0.5 SL-076-SA5A-SS-0.0-0.5 SL-077-SA5A-SS-0.0-0.5 SL-078-SA5A-SS-0.0-0.5 SL-103-SA5A-SS-0.0-0.5 SL-104-SA5A-SS-0.0-0.5 SL-191-SA5A-SS-0.0-0.5 SL-194-SA5A-SS-0.0-0.3 SL-195-SA5A-SS-0.0-0.2 SL-244-SA5A-SB-4.0-5.0 SL-244-SA5A-SB-9.0-10.0 SL-256-SA5A-SS-0.0-0.5 SL-257-SA5A-SS-0.0-0.5)	ZINC	-91	271	75.00-125.00	24 (20.00)	ZINC	J(all detects) UJ(all non-detects) No Qual %R, >4x
SL-256-SA5A-SS-0.0-0.5MS **SL-256-SA5A-SS-0.0-0.5MSD** (DUP-06-SA5A-QC-030111 SL-066-SA5A-SS-0.0-0.5 SL-072-SA5A-SS-0.0-0.5 SL-076-SA5A-SS-0.0-0.5 SL-077-SA5A-SS-0.0-0.5 SL-078-SA5A-SS-0.0-0.5 SL-103-SA5A-SS-0.0-0.5 SL-104-SA5A-SS-0.0-0.5 SL-191-SA5A-SS-0.0-0.5 SL-194-SA5A-SS-0.0-0.3 SL-195-SA5A-SS-0.0-0.2 SL-244-SA5A-SB-4.0-5.0 SL-244-SA5A-SB-9.0-10.0 SL-256-SA5A-SS-0.0-0.5 SL-257-SA5A-SS-0.0-0.5)	ANTIMONY	201	-	75.00-125.00	66 (20.00)	ANTIMONY	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-256-SA5A-SS-0.0-0.5MSD (DUP-06-SA5A-QC-030111 SL-066-SA5A-SS-0.0-0.5 SL-072-SA5A-SS-0.0-0.5 SL-076-SA5A-SS-0.0-0.5 SL-077-SA5A-SS-0.0-0.5 SL-078-SA5A-SS-0.0-0.5 SL-103-SA5A-SS-0.0-0.5 SL-104-SA5A-SS-0.0-0.5 SL-191-SA5A-SS-0.0-0.5 SL-194-SA5A-SS-0.0-0.3 SL-195-SA5A-SS-0.0-0.2 SL-244-SA5A-SB-4.0-5.0 SL-244-SA5A-SB-9.0-10.0 SL-256-SA5A-SS-0.0-0.5 SL-257-SA5A-SS-0.0-0.5)	BARIUM	-	154	75.00-125.00	-	BARIUM	No Qual, >4x

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-256-SA5A-SS-0.0-0.5MS SL-256-SA5A-SS-0.0-0.5MSD (DUP-06-SA5A-QC-030111 SL-066-SA5A-SS-0.0-0.5 SL-072-SA5A-SS-0.0-0.5 SL-076-SA5A-SS-0.0-0.5 SL-077-SA5A-SS-0.0-0.5 SL-078-SA5A-SS-0.0-0.5 SL-103-SA5A-SS-0.0-0.5 SL-104-SA5A-SS-0.0-0.5 SL-191-SA5A-SS-0.0-0.5 SL-194-SA5A-SS-0.0-0.3 SL-195-SA5A-SS-0.0-0.2 SL-244-SA5A-SB-4.0-5.0 SL-244-SA5A-SB-9.0-10.0 SL-256-SA5A-SS-0.0-0.5 SL-257-SA5A-SS-0.0-0.5)	ALUMINUM IRON MAGNESIUM MANGANESE TITANIUM	1026 1003 301 - 304	1025 1059 211 148 273	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	ALUMINUM IRON MAGNESIUM MANGANESE TITANIUM	No Qual, >4x
SL-256-SA5A-SS-0.0-0.5MS SL-256-SA5A-SS-0.0-0.5MSD (DUP-06-SA5A-QC-030111 SL-066-SA5A-SS-0.0-0.5 SL-072-SA5A-SS-0.0-0.5 SL-076-SA5A-SS-0.0-0.5 SL-077-SA5A-SS-0.0-0.5 SL-078-SA5A-SS-0.0-0.5 SL-103-SA5A-SS-0.0-0.5 SL-104-SA5A-SS-0.0-0.5 SL-191-SA5A-SS-0.0-0.5 SL-194-SA5A-SS-0.0-0.3 SL-195-SA5A-SS-0.0-0.2 SL-244-SA5A-SB-4.0-5.0 SL-244-SA5A-SB-9.0-10.0 SL-256-SA5A-SS-0.0-0.5 SL-257-SA5A-SS-0.0-0.5)	CALCIUM	-104	9	75.00-125.00	-	CALCIUM	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-256-SA5A-SS-0.0-0.5MS (DUP-06-SA5A-QC-030111 SL-066-SA5A-SS-0.0-0.5 SL-072-SA5A-SS-0.0-0.5 SL-076-SA5A-SS-0.0-0.5 SL-077-SA5A-SS-0.0-0.5 SL-078-SA5A-SS-0.0-0.5 SL-103-SA5A-SS-0.0-0.5 SL-104-SA5A-SS-0.0-0.5 SL-191-SA5A-SS-0.0-0.5 SL-194-SA5A-SS-0.0-0.3 SL-195-SA5A-SS-0.0-0.2 SL-244-SA5A-SB-4.0-5.0 SL-244-SA5A-SB-9.0-10.0 SL-256-SA5A-SS-0.0-0.5 SL-257-SA5A-SS-0.0-0.5)	PHOSPHORUS	63	-	75.00-125.00	-	PHOSPHORUS	J(all detects) UJ(all non-detects)

Method: 8081A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-256-SA5A-SS-0.0-0.5MSD (SL-256-SA5A-SS-0.0-0.5)	DIELDRIN	-	273	19.00-154.00	-	DIELDRIN	J(all detects)
SL-256-SA5A-SS-0.0-0.5MS SL-256-SA5A-SS-0.0-0.5MSD (SL-256-SA5A-SS-0.0-0.5)	4,4'-DDD ENDRIN	-21 0	- 0	16.00-163.00 11.00-149.00	- -	4,4'-DDD ENDRIN	J(all detects) R(all non-detects)

Method: 8151A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-256-SA5A-SS-0.0-0.5MSD (SL-256-SA5A-SS-0.0-0.5)	2,4,5-T DALAPON	- -	- -	10.00-156.00 10.00-125.00	39 (35.00) 200 (50.00)	2,4,5-T DALAPON	J(all detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-256-SA5A-SS-0.0-0.5DUP (DUP-06-SA5A-QC-030111 SL -066-SA5A-SS-0.0-0.5 SL -072-SA5A-SS-0.0-0.5 SL -076-SA5A-SS-0.0-0.5 SL -077-SA5A-SS-0.0-0.5 SL -078-SA5A-SS-0.0-0.5 SL -103-SA5A-SS-0.0-0.5 SL -104-SA5A-SS-0.0-0.5 SL -191-SA5A-SS-0.0-0.5 SL -194-SA5A-SS-0.0-0.3 SL -195-SA5A-SS-0.0-0.2 SL -244-SA5A-SB-4.0-5.0 SL -244-SA5A-SB-9.0-10.0 SL -256-SA5A-SS-0.0-0.5 SL -257-SA5A-SS-0.0-0.5)	Zirconium	37	20.00	No Qual OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-256-SA5A-SS-0.0-0.5DUP	ANTIMONY	38	20.00	
(DUP-06-SA5A-QC-030111	ARSENIC	46	20.00	
SL -066-SA5A-SS-0.0-0.5	BARIUM	36	20.00	
SL -072-SA5A-SS-0.0-0.5	BERYLLIUM	31	20.00	
SL -076-SA5A-SS-0.0-0.5	CADMIUM	52	20.00	
SL -077-SA5A-SS-0.0-0.5	CHROMIUM	35	20.00	J(all detects)
SL -078-SA5A-SS-0.0-0.5	COBALT	29	20.00	UJ(all non-detects)
SL -103-SA5A-SS-0.0-0.5	COPPER	22	20.00	
SL -104-SA5A-SS-0.0-0.5	NICKEL	31	20.00	Sb, Be, Cd, Ag
SL -191-SA5A-SS-0.0-0.5	SILVER	25	20.00	No Qual
SL -194-SA5A-SS-0.0-0.3	VANADIUM	34	20.00	OK by difference
SL -195-SA5A-SS-0.0-0.2	ZINC	43	20.00	
SL -244-SA5A-SB-4.0-5.0				
SL -244-SA5A-SB-9.0-10.0				
SL -256-SA5A-SS-0.0-0.5				
SL -257-SA5A-SS-0.0-0.5)				

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P2WALCSQ262324 (EB04-SA5A-030111)	ANILINE	106	-	49.00-101.00	-	ANILINE	J (all detects)

Method: 8270C SIM
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P3WCLCSQ260159 (EB04-SA5A-030111)	ACENAPHTHENE	110	-	74.00-109.00	-	ACENAPHTHENE	J(all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P06926BQ221311A (DUP-06-SA5A-QC-030111 SL-066-SA5A-SS-0.0-0.5 SL-072-SA5A-SS-0.0-0.5 SL-076-SA5A-SS-0.0-0.5 SL-077-SA5A-SS-0.0-0.5 SL-078-SA5A-SS-0.0-0.5 SL-103-SA5A-SS-0.0-0.5 SL-104-SA5A-SS-0.0-0.5 SL-191-SA5A-SS-0.0-0.5 SL-194-SA5A-SS-0.0-0.3 SL-195-SA5A-SS-0.0-0.2 SL-244-SA5A-SB-4.0-5.0 SL-244-SA5A-SB-9.0-10.0 SL-256-SA5A-SS-0.0-0.5 SL-257-SA5A-SS-0.0-0.5)	ANTIMONY	124	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Method: 8081A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10637AQ241655A (DUP-06-SA5A-QC-030111 SL-066-SA5A-SS-0.0-0.5 SL-072-SA5A-SS-0.0-0.5 SL-076-SA5A-SS-0.0-0.5 SL-077-SA5A-SS-0.0-0.5 SL-078-SA5A-SS-0.0-0.5 SL-103-SA5A-SS-0.0-0.5 SL-104-SA5A-SS-0.0-0.5 SL-191-SA5A-SS-0.0-0.5 SL-194-SA5A-SS-0.0-0.3 SL-195-SA5A-SS-0.0-0.2 SL-256-SA5A-SS-0.0-0.5 SL-257-SA5A-SS-0.0-0.5)	ENDOSULFAN I ENDOSULFAN II	131 162	- -	45.00-123.00 63.00-127.00	- -	ENDOSULFAN I ENDOSULFAN II	J(all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSB84Q211517A (SL-244-SA5A-SB-4.0-5.0)	BROMOCHLOROMETHANE	126	-	79.00-124.00	-	BROMOCHLOROMETHANE	J(all detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8081A
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-066-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	142	20.00-120.00	All Target Analytes	J(all detects)
SL-066-SA5A-SS-0.0-0.5	TETRACHLORO-M-XYLENE	45	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-103-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	169	20.00-120.00	All Target Analytes	J(all detects)
SL-191-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	466	20.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-194-SA5A-SS-0.0-0.3	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	385 198	20.00-120.00 50.00-130.00	All Target Analytes	No Qual, Diluted Out
SL-195-SA5A-SS-0.0-0.2	DECACHLOROBIPHENYL	182	20.00-120.00	All Target Analytes	J(all detects)
SL-256-SA5A-SS-0.0-0.5	TETRACHLORO-M-XYLENE	46	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-257-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	137	20.00-120.00	All Target Analytes	J(all detects)

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DUP-06-SA5A-QC-030111	DECACHLOROBIPHENYL	131	45.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-066-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	149	45.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-076-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	141	45.00-120.00	All Target Analytes	J(all detects)
SL-077-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	125	45.00-120.00	All Target Analytes	J(all detects)
SL-078-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	197 142	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)
SL-191-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	134	45.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-195-SA5A-SS-0.0-0.2	DECACHLOROBIPHENYL	4	45.00-120.00	All Target Analytes	J(all detects) R(all non-detects)

Method: 8270C SIM
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-194-SA5A-SS-0.0-0.3	Nitrobenzene-d5	134	40.00-130.00	No Affected Compounds	No Qualifiers

Field Duplicate RPD Report

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-256-SA5A-SS-0.0-0.5	DUP-06-SA5A-QC-030111			
MOISTURE	11.5	11.4	1		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-256-SA5A-SS-0.0-0.5	DUP-06-SA5A-QC-030111			
FLUORIDE	1.7	1.3	27	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-256-SA5A-SS-0.0-0.5	DUP-06-SA5A-QC-030111			
ALUMINUM	12200	13000	6	50.00	No Qualifiers Applied
BORON	4.46	4.43	1	50.00	
CALCIUM	4390	3990	10	50.00	
IRON	16700	17600	5	50.00	
LITHIUM	18.5	19.6	6	50.00	
MAGNESIUM	3990	4310	8	50.00	
MANGANESE	246	258	5	50.00	
PHOSPHORUS	352	312	12	50.00	
POTASSIUM	2040	2020	1	50.00	
SODIUM	87.9	85.0	3	50.00	
STRONTIUM	17.7	17.7	0	50.00	
TIN	2.62	2.64	1	50.00	
TITANIUM	1080	1200	11	50.00	
Zirconium	1.37	1.20	13	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-256-SA5A-SS-0.0-0.5	DUP-06-SA5A-QC-030111			
ANTIMONY	0.161	0.246	42	50.00	No Qualifiers Applied
ARSENIC	5.69	5.80	2	50.00	
BARIUM	83.8	91.3	9	50.00	
BERYLLIUM	0.606	0.674	11	50.00	
CADMIUM	0.388	0.450	15	50.00	
CHROMIUM	21.3	22.7	6	50.00	
COBALT	6.10	6.95	13	50.00	
COPPER	6.93	7.97	14	50.00	
LEAD	5.42	6.85	23	50.00	
MOLYBDENUM	0.372	0.311	18	50.00	
NICKEL	11.3	12.7	12	50.00	
SELENIUM	0.144	0.165	14	50.00	
SILVER	0.0242	0.0317	27	50.00	
THALLIUM	0.232	0.315	30	50.00	
VANADIUM	42.1	46.1	9	50.00	
ZINC	157	167	6	50.00	

Field Duplicate RPD Report

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-256-SA5A-SS-0.0-0.5	DUP-06-SA5A-QC-030111			
HEXAVALENT CHROMIUM	1.1 U	0.24	200	50.00	J(all detects) UJ(all non-detects)

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-256-SA5A-SS-0.0-0.5	DUP-06-SA5A-QC-030111			
MERCURY	0.0133	0.110 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 8081A
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-256-SA5A-SS-0.0-0.5	DUP-06-SA5A-QC-030111			
4,4'-DDD	1.3	1.9	37	50.00	
4,4'-DDT	1.3	0.96	30	50.00	No Qualifiers Applied
DIELDRIN	4.2	4.4	5	50.00	
MIREX	0.34	0.11	102	50.00	J(all detects)

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-256-SA5A-SS-0.0-0.5	DUP-06-SA5A-QC-030111			
AROCLOR 1260	1.9 U	5.1	200	50.00	J(all detects) UJ(all non-detects)

Method: 8151A
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-256-SA5A-SS-0.0-0.5	DUP-06-SA5A-QC-030111			
2,4-DB	1.9 U	1.5	200	50.00	J(all detects) UJ(all non-detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-256-SA5A-SS-0.0-0.5	DUP-06-SA5A-QC-030111			
BENZO(A)ANTHRACENE	1.2	9.4 U	200	50.00	J(all detects) UJ(all non-detects)
BENZO(A)PYRENE	1.6	3.8	81	50.00	
BENZO(B)FLUORANTHENE	1.9	21	167	50.00	
BENZO(G,H,I)PERYLENE	1.1	3.9	112	50.00	
BENZO(K)FLUORANTHENE	0.75	9.4 U	200	50.00	
BIS(2-ETHYLHEXYL)PHTHALATE	20 U	38	200	50.00	
CHRYSENE	1.3	7.5	141	50.00	
FLUORANTHENE	0.80	3.9	132	50.00	
INDENO(1,2,3-CD)PYRENE	0.89	9.4 U	200	50.00	
PYRENE	0.86	5.3	144	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-256-SA5A-SS-0.0-0.5	DUP-06-SA5A-QC-030111			
PH	8.05	7.94	1	50.00	No Qualifiers Applied

Method: ASTM D1498
Matrix: SO

Analyte	Concentration (mV)		Sample RPD	eQAPP RPD	Flag
	SL-256-SA5A-SS-0.0-0.5	DUP-06-SA5A-QC-030111			
Oxidation Reduction Potential	437	328	28		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB04-SA5A-030111	LITHIUM	J	0.0066	0.0200	PQL	mg/L	J (all detects)

Method: 8260B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TB-030111	BENZENE	J	0.5	5	PQL	ug/L	J (all detects)

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB04-SA5A-030111	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.34	1.0	PQL	ug/L	J (all detects)
	Butylbenzylphthalate	J	0.071	1.0	PQL	ug/L	
	CHRYSENE	J	0.025	0.052	PQL	ug/L	
	Diethylphthalate	J	0.074	1.0	PQL	ug/L	
	Di-n-butylphthalate	J	0.33	1.0	PQL	ug/L	
	NAPHTHALENE	J	0.033	0.052	PQL	ug/L	

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-103-SA5A-SS-0.0-0.5	FLUORIDE	J	1.1	1.3	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-06-SA5A-QC-030111	BORON	J	4.43	5.43	PQL	mg/Kg	J (all detects)
	SODIUM	J	85.0	109	PQL	mg/Kg	
	TIN	J	2.64	10.9	PQL	mg/Kg	
	Zirconium	J	1.20	5.43	PQL	mg/Kg	
SL-066-SA5A-SS-0.0-0.5	SODIUM	J	94.6	109	PQL	mg/Kg	J (all detects)
	TIN	J	3.02	10.9	PQL	mg/Kg	
SL-072-SA5A-SS-0.0-0.5	SODIUM	J	102	110	PQL	mg/Kg	J (all detects)
	TIN	J	3.06	11.0	PQL	mg/Kg	
SL-076-SA5A-SS-0.0-0.5	TIN	J	2.66	10.5	PQL	mg/Kg	J (all detects)
SL-077-SA5A-SS-0.0-0.5	TIN	J	3.78	11.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.12	5.79	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-078-SA5A-SS-0.0-0.5	TIN	J	3.20	11.1	PQL	mg/Kg	J (all detects)
SL-103-SA5A-SS-0.0-0.5	SODIUM	J	91.0	123	PQL	mg/Kg	J (all detects)
	TIN	J	3.43	12.3	PQL	mg/Kg	
	Zirconium	J	1.05	6.16	PQL	mg/Kg	
SL-104-SA5A-SS-0.0-0.5	SODIUM	J	91.9	114	PQL	mg/Kg	J (all detects)
	TIN	J	3.36	11.4	PQL	mg/Kg	
	Zirconium	J	1.48	5.71	PQL	mg/Kg	
SL-191-SA5A-SS-0.0-0.5	TIN	J	4.00	12.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.40	6.27	PQL	mg/Kg	
SL-194-SA5A-SS-0.0-0.3	TIN	J	2.64	11.7	PQL	mg/Kg	J (all detects)
SL-195-SA5A-SS-0.0-0.2	TIN	J	3.56	14.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.80	7.00	PQL	mg/Kg	
SL-244-SA5A-SB-4.0-5.0	TIN	J	3.06	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.80	5.67	PQL	mg/Kg	
SL-244-SA5A-SB-9.0-10.0	TIN	J	4.21	11.3	PQL	mg/Kg	J (all detects)
SL-256-SA5A-SS-0.0-0.5	BORON	J	4.46	5.59	PQL	mg/Kg	J (all detects)
	SODIUM	J	87.9	112	PQL	mg/Kg	
	TIN	J	2.62	11.2	PQL	mg/Kg	
	Zirconium	J	1.37	5.59	PQL	mg/Kg	
SL-257-SA5A-SS-0.0-0.5	BORON	J	5.33	5.56	PQL	mg/Kg	J (all detects)
	TIN	J	2.96	11.1	PQL	mg/Kg	
	Zirconium	J	0.953	5.56	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-06-SA5A-QC-030111	SELENIUM	J	0.165	0.438	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0317	0.110	PQL	mg/Kg	
SL-066-SA5A-SS-0.0-0.5	SELENIUM	J	0.225	0.436	PQL	mg/Kg	J (all detects)
SL-072-SA5A-SS-0.0-0.5	SELENIUM	J	0.219	0.440	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0900	0.110	PQL	mg/Kg	
SL-076-SA5A-SS-0.0-0.5	SELENIUM	J	0.144	0.428	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0546	0.107	PQL	mg/Kg	
SL-077-SA5A-SS-0.0-0.5	SELENIUM	J	0.365	0.454	PQL	mg/Kg	J (all detects)
SL-078-SA5A-SS-0.0-0.5	ANTIMONY	J	0.209	0.217	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.200	0.434	PQL	mg/Kg	
	SILVER	J	0.103	0.108	PQL	mg/Kg	
SL-103-SA5A-SS-0.0-0.5	SELENIUM	J	0.156	0.493	PQL	mg/Kg	J (all detects)
SL-104-SA5A-SS-0.0-0.5	SELENIUM	J	0.232	0.457	PQL	mg/Kg	J (all detects)
SL-191-SA5A-SS-0.0-0.5	SELENIUM	J	0.166	0.497	PQL	mg/Kg	J (all detects)
SL-195-SA5A-SS-0.0-0.2	SELENIUM	J	0.332	0.549	PQL	mg/Kg	J (all detects)
	SILVER	J	0.124	0.137	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-244-SA5A-SB-4.0-5.0	ANTIMONY	J	0.167	0.225	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.108	0.449	PQL	mg/Kg	
	SILVER	J	0.110	0.112	PQL	mg/Kg	
SL-244-SA5A-SB-9.0-10.0	ANTIMONY	J	0.106	0.226	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0454	0.113	PQL	mg/Kg	
	SELENIUM	J	0.324	0.453	PQL	mg/Kg	
	SILVER	J	0.0373	0.113	PQL	mg/Kg	
SL-256-SA5A-SS-0.0-0.5	ANTIMONY	J	0.161	0.224	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.144	0.448	PQL	mg/Kg	
	SILVER	J	0.0242	0.112	PQL	mg/Kg	
SL-257-SA5A-SS-0.0-0.5	ANTIMONY	J	0.169	0.222	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.144	0.445	PQL	mg/Kg	
	SILVER	J	0.0295	0.111	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-06-SA5A-QC-030111	HEXAVALENT CHROMIUM	J	0.24	1.1	PQL	mg/Kg	J (all detects)
SL-076-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.36	1.1	PQL	mg/Kg	J (all detects)
SL-194-SA5A-SS-0.0-0.3	HEXAVALENT CHROMIUM	J	0.61	1.2	PQL	mg/Kg	J (all detects)
SL-195-SA5A-SS-0.0-0.2	HEXAVALENT CHROMIUM	J	0.57	1.4	PQL	mg/Kg	J (all detects)
SL-244-SA5A-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.35	1.2	PQL	mg/Kg	J (all detects)
SL-257-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.25	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-076-SA5A-SS-0.0-0.5	MERCURY	J	0.0114	0.102	PQL	mg/Kg	J (all detects)
SL-103-SA5A-SS-0.0-0.5	MERCURY	J	0.0051	0.118	PQL	mg/Kg	J (all detects)
SL-194-SA5A-SS-0.0-0.3	MERCURY	J	0.0167	0.114	PQL	mg/Kg	J (all detects)
SL-195-SA5A-SS-0.0-0.2	MERCURY	J	0.0106	0.132	PQL	mg/Kg	J (all detects)
SL-244-SA5A-SB-4.0-5.0	MERCURY	J	0.0055	0.114	PQL	mg/Kg	J (all detects)
SL-256-SA5A-SS-0.0-0.5	MERCURY	J	0.0133	0.111	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-06-SA5A-QC-030111	MIREX	J	0.11	0.38	PQL	ug/Kg	J (all detects)
SL-072-SA5A-SS-0.0-0.5	ENDRIN KETONE	J	0.23	0.38	PQL	ug/Kg	J (all detects)
SL-076-SA5A-SS-0.0-0.5	ENDOSULFAN II gamma-BHC (Lindane)	J J	0.10 0.069	0.37 0.18	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-077-SA5A-SS-0.0-0.5	ENDOSULFAN SULFATE ENDRIN KETONE METHOXYCHLOR	J J J	0.10 0.15 0.66	0.40 0.40 1.9	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-195-SA5A-SS-0.0-0.2	4,4'-DDE	J	0.31	0.48	PQL	ug/Kg	J (all detects)
SL-256-SA5A-SS-0.0-0.5	MIREX	J	0.34	0.38	PQL	ug/Kg	J (all detects)
SL-257-SA5A-SS-0.0-0.5	ENDOSULFAN II ENDRIN ALDEHYDE HEPTACHLOR EPOXIDE	J J J	0.11 0.35 0.16	0.38 0.38 0.19	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-06-SA5A-QC-030111	AROCLOR 1260	J	5.1	9.6	PQL	ug/Kg	J (all detects)
SL-066-SA5A-SS-0.0-0.5	AROCLOR 1254 Aroclor 5460	J J	12 18	19 37	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-103-SA5A-SS-0.0-0.5	AROCLOR 1248 AROCLOR 1254 AROCLOR 1260	J J J	0.71 1.8 2.1	2.2 2.2 2.2	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-195-SA5A-SS-0.0-0.2	AROCLOR 1248	J	0.94	2.4	PQL	ug/Kg	J (all detects)

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-06-SA5A-QC-030111	2,4-DB	J	1.5	1.9	PQL	ug/Kg	J (all detects)
SL-066-SA5A-SS-0.0-0.5	DICAMBA	J	0.46	1.4	PQL	ug/Kg	J (all detects)
SL-072-SA5A-SS-0.0-0.5	MCPA	J	130	280	PQL	ug/Kg	J (all detects)
SL-076-SA5A-SS-0.0-0.5	MCPA	J	130	270	PQL	ug/Kg	J (all detects)
SL-103-SA5A-SS-0.0-0.5	MCPA MCPP	J J	200 200	320 320	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-104-SA5A-SS-0.0-0.5	DICAMBA	J	0.60	1.4	PQL	ug/Kg	J (all detects)
SL-194-SA5A-SS-0.0-0.3	MCPP	J	180	300	PQL	ug/Kg	J (all detects)
SL-195-SA5A-SS-0.0-0.2	DICAMBA	J	0.60	1.7	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-244-SA5A-SB-4.0-5.0	ETHYLBENZENE	J	0.15	3.9	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.51	3.9	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	0.72	3.9	PQL	ug/Kg	

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-066-SA5A-SS-0.0-0.5	ANTHRACENE	J	25	190	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	91	190	PQL	ug/Kg	
	BENZO(A)PYRENE	J	74	190	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	89	190	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	47	190	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	49	190	PQL	ug/Kg	
	CARBAZOLE	J	22	190	PQL	ug/Kg	
	CHRYSENE	J	120	190	PQL	ug/Kg	
	Di-n-butylphthalate	J	40	190	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	40	190	PQL	ug/Kg	
	PHENANTHRENE	J	170	190	PQL	ug/Kg	
SL-103-SA5A-SS-0.0-0.5	CHRYSENE	J	30	210	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	47	210	PQL	ug/Kg	
	PHENANTHRENE	J	30	210	PQL	ug/Kg	
	PYRENE	J	39	210	PQL	ug/Kg	
SL-104-SA5A-SS-0.0-0.5	CHRYSENE	J	20	200	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	34	200	PQL	ug/Kg	
	PYRENE	J	28	200	PQL	ug/Kg	
SL-191-SA5A-SS-0.0-0.5	Butylbenzylphthalate	J	63	210	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	110	210	PQL	ug/Kg	
SL-194-SA5A-SS-0.0-0.3	CARBAZOLE	J	31	200	PQL	ug/Kg	J (all detects)
	DIBENZOFURAN	J	110	200	PQL	ug/Kg	
SL-195-SA5A-SS-0.0-0.2	DIBENZOFURAN	J	31	230	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	38	230	PQL	ug/Kg	
	PHENANTHRENE	J	100	230	PQL	ug/Kg	

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-06-SA5A-QC-030111	BENZO(A)PYRENE	J	3.8	9.4	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	3.9	9.4	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	38	100	PQL	ug/Kg	
	CHRYSENE	J	7.5	9.4	PQL	ug/Kg	
	FLUORANTHENE	J	3.9	9.4	PQL	ug/Kg	
	PYRENE	J	5.3	9.4	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE094 **Laboratory: LL**

EDD Filename: DE094_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-076-SA5A-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	7.3	8.9	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	5.1	8.9	PQL	ug/Kg	
	FLUORANTHENE	J	5.6	8.9	PQL	ug/Kg	
	PYRENE	J	5.6	8.9	PQL	ug/Kg	
SL-077-SA5A-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.0	21	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	11	21	PQL	ug/Kg	
SL-078-SA5A-SS-0.0-0.5	Di-n-octylphthalate	J	11	20	PQL	ug/Kg	J (all detects)
SL-103-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	4.8	10	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	5.8	10	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	4.9	10	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	48	110	PQL	ug/Kg	
SL-104-SA5A-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	5.3	9.9	PQL	ug/Kg	J (all detects)
	PHENANTHRENE	J	5.9	9.9	PQL	ug/Kg	
SL-191-SA5A-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	9.1	10	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	4.5	10	PQL	ug/Kg	
	NAPHTHALENE	J	7.5	10	PQL	ug/Kg	
SL-194-SA5A-SS-0.0-0.3	ACENAPHTHENE	J	6.7	9.9	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	9.1	9.9	PQL	ug/Kg	
	FLUORENE	J	8.3	9.9	PQL	ug/Kg	
SL-195-SA5A-SS-0.0-0.2	ANTHRACENE	J	9.6	23	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	14	23	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	100	250	PQL	ug/Kg	
SL-256-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.2	1.9	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.6	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.1	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.75	1.9	PQL	ug/Kg	
	CHRYSENE	J	1.3	1.9	PQL	ug/Kg	
	FLUORANTHENE	J	0.80	1.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.89	1.9	PQL	ug/Kg	
	PYRENE	J	0.86	1.9	PQL	ug/Kg	

LDC #: 25911I4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-11

SDG #: DE094 ADR

Laboratory: Lancaster Laboratories

Reviewer: CR

2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ba, Co, Fe, Mg, Mn, Ti, Zn >4X)
VII.	Duplicate Sample Analysis	N	Dup (Sb, Be, Cd, Ag, Zr <5x)
VIII.	Laboratory Control Samples (LCS)	A	LCS/D
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	J/UJ
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	SW	EB=14

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	DUP-06-SA5A-QC-030111?	11	SL-195-SA5A-S-0.0-0.2	21		31	
2	SL-066-SA5A-S-0.0-0.5	12	SL-256-SA5A-S-0.0-0.5?	22		32	
3	SL-072-SA5A-S-0.0-0.5	13	SL-257-SA5A-S-0.0-0.5	23		33	
4	SL-076-SA5A-S-0.0-0.5	14	EB04-SA5A-030111	24		34	
5	SL-177-SA5A-S-0.0-0.5	15	SL-244-SA5A-SB-4.0-5.0	25		35	
6	SL-078-SA5A-S-0.0-0.5	16	SL-244-SA5A-SB-9.0-10.0	26		36	
7	SL-103-SA5A-S-0.0-0.5	17	SL-256-SA5A-S-0.0-0.5MS	27		37	
8	SL-104-SA5A-S-0.0-0.5	18	SL-256-SA5A-S-0.0-0.5MSD	28		38	
9	SL-191-SA5A-S-0.0-0.5	19	SL-256-SA5A-S-0.0-0.5DUP	29		39	
10	SL-194-SA5A-S-0.0-0.3	20		30		40	

Notes: _____

LDC #: 25911I4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Reviewer:
2nd Reviewer:

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: 100x x MS: 2xdil
Sample Concentration units, unless otherwise noted: ug/L
Associated Samples: All Water

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	14											
Li			8.6	43	6.6											

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 25911l4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: QR
2nd Reviewer: A

METHOD: Trace Metals (EPA SW846 6010B/7000)
Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target analytes detected in the field blanks?
Blank units: ug/L **Associated sample units:** mg/Kg
Sampling date: 3/1/11 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All Soil

Analyte	Blank ID	Sample Identification										
	13	Action Level	No Qualifiers									
Li	6.6	3.3										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE094
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6218905BKG Serial Dilution Lab Sample ID: 6218905L
Batch ID(s): P06908D, P06926B
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		109452.9500		104637.0000		4		P
Antimony	121	0.7206	B	1.5000	U	100		MS
Arsenic	75	25.4500		19.1650		25		MS
Barium	137	374.7000		304.1000		19	E	MS
Beryllium	9	2.7090		2.2840	B	16		MS
Boron		39.8300	B	54.7000	B	37		P
Cadmium	111	1.7330		2.2405	B	29		MS
Calcium		39213.1800		41134.6500		5		P
Chromium	52	95.3100		81.1500		15	E	MS
Cobalt	59	27.2700		24.2400		11	E	MS
Copper	63	30.9500		27.9400		10		MS
Iron		149206.7700		154040.2500		3		P
Lead	208	24.2400		20.8350		14	E	MS
Lithium		165.0100		161.7500		2		P
Magnesium		35663.2200		36396.2000		2		P
Manganese		2195.4500		2283.5500		4		P
Molybdenum	98	1.6640		1.9325	B	16		MS
Nickel	60	50.3900		40.6950		19	E	MS
Phosphorus		3149.0700		3105.2000		1		P
Potassium		18208.6000		18494.5000		2		P
Selenium	78	0.6425	B	1.0000	U	100		MS
Silver	107	0.1081	B	0.3000	U	100		MS
Sodium		785.3900	B	1865.0000	U	100		P
Strontium		158.1800		158.6500		0		P
Thallium	203	1.0380		0.9880	B	5		MS
Tin		23.4000	B	50.0000	U	100		P
Titanium		9686.8400		10311.3000		6		P
Vanadium	51	188.3000		161.4000		14	E	MS
Zinc	66	703.7000		541.5000		23	E	MS
Zirconium		12.2700	B	42.0000	U	100		P

NOTE: An E in column Q indicates the presence of a chemical or physical interference in the matrix when the % difference is greater than 10%. This applies only when (I) is greater than or equal to 50x MDL for ICP, 100x MDL for ICP-MS (6020), 50x MDL for ICP-MS (200.8), or 25x MDL for GFAA.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ
FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

SAMPLE DELIVERY GROUP

DE095

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5	6220791	N	3050B	6010B	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5	6220791	N	3050B	6020	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5	6220791	N	3060A	7199	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5	6220791	N	3550B	8081A	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5	6220791	N	3550B	8082	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5	6220791	N	3550B	8151A	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5	6220791	N	3550B	8270C	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5	6220791	N	3550B	8270C SIM	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5	6220791	N	Gen Prep	9045M	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5	6220791	N	METHOD	300.0	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5	6220791	N	METHOD	314.0	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5	6220791	N	METHOD	7471A	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MS	6220792	MS	3050B	6010B	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MS	6220792	MS	3050B	6020	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MS	6220792	MS	3060A	7199	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MS	6220792	MS	3550B	8081A	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MS	6220792	MS	3550B	8082	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MS	6220792	MS	3550B	8151A	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MS	6220792	MS	3550B	8270C	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MS	6220792	MS	3550B	8270C SIM	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MS	6220792	MS	METHOD	300.0	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MS	6220792	MS	METHOD	314.0	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MS	6220792	MS	METHOD	7471A	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MSD	6220793	MSD	3050B	6010B	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MSD	6220793	MSD	3050B	6020	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MSD	6220793	MSD	3550B	8081A	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MSD	6220793	MSD	3550B	8082	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MSD	6220793	MSD	3550B	8151A	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MSD	6220793	MSD	3550B	8270C	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MSD	6220793	MSD	3550B	8270C SIM	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5MSD	6220793	MSD	METHOD	7471A	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5DUP	6220794	DUP	3050B	6010B	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5DUP	6220794	DUP	3050B	6020	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5DUP	6220794	DUP	3060A	7199	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5DUP	6220794	DUP	Gen Prep	9045M	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5DUP	6220794	DUP	METHOD	300.0	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5DUP	6220794	DUP	METHOD	314.0	IV
02-Mar-2011	SL-048-SA5A-SS-0.0-0.5DUP	6220794	DUP	METHOD	7471A	IV
02-Mar-2011	DUP-07-SA5A-QC-030211	6220787	FD	3050B	6010B	IV
02-Mar-2011	DUP-07-SA5A-QC-030211	6220787	FD	3050B	6020	IV
02-Mar-2011	DUP-07-SA5A-QC-030211	6220787	FD	3060A	7199	IV
02-Mar-2011	DUP-07-SA5A-QC-030211	6220787	FD	3550B	8081A	IV
02-Mar-2011	DUP-07-SA5A-QC-030211	6220787	FD	3550B	8082	IV
02-Mar-2011	DUP-07-SA5A-QC-030211	6220787	FD	3550B	8151A	IV
02-Mar-2011	DUP-07-SA5A-QC-030211	6220787	FD	3550B	8270C	IV
02-Mar-2011	DUP-07-SA5A-QC-030211	6220787	FD	3550B	8270C SIM	IV
02-Mar-2011	DUP-07-SA5A-QC-030211	6220787	FD	Gen Prep	9045M	IV
02-Mar-2011	DUP-07-SA5A-QC-030211	6220787	FD	METHOD	300.0	IV
02-Mar-2011	DUP-07-SA5A-QC-030211	6220787	FD	METHOD	314.0	IV
02-Mar-2011	DUP-07-SA5A-QC-030211	6220787	FD	METHOD	7471A	IV
02-Mar-2011	SL-045-SA5A-SS-0.0-0.5	6220790	N	3050B	6010B	IV
02-Mar-2011	SL-045-SA5A-SS-0.0-0.5	6220790	N	3050B	6020	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Mar-2011	SL-045-SA5A-SS-0.0-0.5	6220790	N	3060A	7199	IV
02-Mar-2011	SL-045-SA5A-SS-0.0-0.5	6220790	N	3550B	8081A	IV
02-Mar-2011	SL-045-SA5A-SS-0.0-0.5	6220790	N	3550B	8082	IV
02-Mar-2011	SL-045-SA5A-SS-0.0-0.5	6220790	N	3550B	8151A	IV
02-Mar-2011	SL-045-SA5A-SS-0.0-0.5	6220790	N	3550B	8270C	IV
02-Mar-2011	SL-045-SA5A-SS-0.0-0.5	6220790	N	3550B	8270C SIM	IV
02-Mar-2011	SL-045-SA5A-SS-0.0-0.5	6220790	N	Gen Prep	9045M	IV
02-Mar-2011	SL-045-SA5A-SS-0.0-0.5	6220790	N	METHOD	300.0	IV
02-Mar-2011	SL-045-SA5A-SS-0.0-0.5	6220790	N	METHOD	314.0	IV
02-Mar-2011	SL-045-SA5A-SS-0.0-0.5	6220790	N	METHOD	6850	IV
02-Mar-2011	SL-045-SA5A-SS-0.0-0.5	6220790	N	METHOD	7471A	IV
02-Mar-2011	SL-044-SA5A-SS-0.0-0.5	6220789	N	3050B	6010B	IV
02-Mar-2011	SL-044-SA5A-SS-0.0-0.5	6220789	N	3050B	6020	IV
02-Mar-2011	SL-044-SA5A-SS-0.0-0.5	6220789	N	3060A	7199	IV
02-Mar-2011	SL-044-SA5A-SS-0.0-0.5	6220789	N	3550B	8081A	IV
02-Mar-2011	SL-044-SA5A-SS-0.0-0.5	6220789	N	3550B	8082	IV
02-Mar-2011	SL-044-SA5A-SS-0.0-0.5	6220789	N	3550B	8151A	IV
02-Mar-2011	SL-044-SA5A-SS-0.0-0.5	6220789	N	3550B	8270C	IV
02-Mar-2011	SL-044-SA5A-SS-0.0-0.5	6220789	N	3550B	8270C SIM	IV
02-Mar-2011	SL-044-SA5A-SS-0.0-0.5	6220789	N	Gen Prep	9045M	IV
02-Mar-2011	SL-044-SA5A-SS-0.0-0.5	6220789	N	METHOD	300.0	IV
02-Mar-2011	SL-044-SA5A-SS-0.0-0.5	6220789	N	METHOD	314.0	IV
02-Mar-2011	SL-044-SA5A-SS-0.0-0.5	6220789	N	METHOD	7471A	IV
02-Mar-2011	SL-042-SA5A-SS-0.0-0.5	6220788	N	3050B	6010B	IV
02-Mar-2011	SL-042-SA5A-SS-0.0-0.5	6220788	N	3050B	6020	IV
02-Mar-2011	SL-042-SA5A-SS-0.0-0.5	6220788	N	3060A	7199	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Mar-2011	SL-042-SA5A-SS-0.0-0.5	6220788	N	3550B	8081A	IV
02-Mar-2011	SL-042-SA5A-SS-0.0-0.5	6220788	N	3550B	8082	IV
02-Mar-2011	SL-042-SA5A-SS-0.0-0.5	6220788	N	3550B	8151A	IV
02-Mar-2011	SL-042-SA5A-SS-0.0-0.5	6220788	N	3550B	8270C	IV
02-Mar-2011	SL-042-SA5A-SS-0.0-0.5	6220788	N	3550B	8270C SIM	IV
02-Mar-2011	SL-042-SA5A-SS-0.0-0.5	6220788	N	Gen Prep	9045M	IV
02-Mar-2011	SL-042-SA5A-SS-0.0-0.5	6220788	N	METHOD	300.0	IV
02-Mar-2011	SL-042-SA5A-SS-0.0-0.5	6220788	N	METHOD	314.0	IV
02-Mar-2011	SL-042-SA5A-SS-0.0-0.5	6220788	N	METHOD	7471A	IV
02-Mar-2011	SL-179-SA5A-SS-0.0-0.3	6220797	N	3050B	6010B	IV
02-Mar-2011	SL-179-SA5A-SS-0.0-0.3	6220797	N	3050B	6020	IV
02-Mar-2011	SL-179-SA5A-SS-0.0-0.3	6220797	N	3060A	7199	IV
02-Mar-2011	SL-179-SA5A-SS-0.0-0.3	6220797	N	3550B	8081A	IV
02-Mar-2011	SL-179-SA5A-SS-0.0-0.3	6220797	N	3550B	8082	IV
02-Mar-2011	SL-179-SA5A-SS-0.0-0.3	6220797	N	3550B	8151A	IV
02-Mar-2011	SL-179-SA5A-SS-0.0-0.3	6220797	N	3550B	8270C	IV
02-Mar-2011	SL-179-SA5A-SS-0.0-0.3	6220797	N	3550B	8270C SIM	IV
02-Mar-2011	SL-179-SA5A-SS-0.0-0.3	6220797	N	Gen Prep	9045M	IV
02-Mar-2011	SL-179-SA5A-SS-0.0-0.3	6220797	N	METHOD	300.0	IV
02-Mar-2011	SL-179-SA5A-SS-0.0-0.3	6220797	N	METHOD	314.0	IV
02-Mar-2011	SL-179-SA5A-SS-0.0-0.3	6220797	N	METHOD	7471A	IV
02-Mar-2011	SL-178-SA5A-SS-0.0-0.4	6220796	N	3050B	6010B	IV
02-Mar-2011	SL-178-SA5A-SS-0.0-0.4	6220796	N	3050B	6020	IV
02-Mar-2011	SL-178-SA5A-SS-0.0-0.4	6220796	N	3060A	7199	IV
02-Mar-2011	SL-178-SA5A-SS-0.0-0.4	6220796	N	3550B	8081A	IV
02-Mar-2011	SL-178-SA5A-SS-0.0-0.4	6220796	N	3550B	8082	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Mar-2011	SL-178-SA5A-SS-0.0-0.4	6220796	N	3550B	8151A	IV
02-Mar-2011	SL-178-SA5A-SS-0.0-0.4	6220796	N	3550B	8270C	IV
02-Mar-2011	SL-178-SA5A-SS-0.0-0.4	6220796	N	3550B	8270C SIM	IV
02-Mar-2011	SL-178-SA5A-SS-0.0-0.4	6220796	N	Gen Prep	9045M	IV
02-Mar-2011	SL-178-SA5A-SS-0.0-0.4	6220796	N	METHOD	300.0	IV
02-Mar-2011	SL-178-SA5A-SS-0.0-0.4	6220796	N	METHOD	314.0	IV
02-Mar-2011	SL-178-SA5A-SS-0.0-0.4	6220796	N	METHOD	7471A	IV
02-Mar-2011	SL-176-SA5A-SS-0.0-0.3	6220795	N	3050B	6010B	IV
02-Mar-2011	SL-176-SA5A-SS-0.0-0.3	6220795	N	3050B	6020	IV
02-Mar-2011	SL-176-SA5A-SS-0.0-0.3	6220795	N	3060A	7199	IV
02-Mar-2011	SL-176-SA5A-SS-0.0-0.3	6220795	N	3550B	8081A	IV
02-Mar-2011	SL-176-SA5A-SS-0.0-0.3	6220795	N	3550B	8082	IV
02-Mar-2011	SL-176-SA5A-SS-0.0-0.3	6220795	N	3550B	8151A	IV
02-Mar-2011	SL-176-SA5A-SS-0.0-0.3	6220795	N	3550B	8270C	IV
02-Mar-2011	SL-176-SA5A-SS-0.0-0.3	6220795	N	3550B	8270C SIM	IV
02-Mar-2011	SL-176-SA5A-SS-0.0-0.3	6220795	N	Gen Prep	9045M	IV
02-Mar-2011	SL-176-SA5A-SS-0.0-0.3	6220795	N	METHOD	300.0	IV
02-Mar-2011	SL-176-SA5A-SS-0.0-0.3	6220795	N	METHOD	314.0	IV
02-Mar-2011	SL-176-SA5A-SS-0.0-0.3	6220795	N	METHOD	6850	IV
02-Mar-2011	SL-176-SA5A-SS-0.0-0.3	6220795	N	METHOD	7471A	IV
02-Mar-2011	EB05-SA5A-030211	6220802	EB	3005A	6010B	IV
02-Mar-2011	EB05-SA5A-030211	6220802	EB	3020A	6020	IV
02-Mar-2011	EB05-SA5A-030211	6220802	EB	3510C	8081A	IV
02-Mar-2011	EB05-SA5A-030211	6220802	EB	3510C	8082	IV
02-Mar-2011	EB05-SA5A-030211	6220802	EB	3510C	8270C	IV
02-Mar-2011	EB05-SA5A-030211	6220802	EB	3510C	8270C SIM	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Mar-2011	EB05-SA5A-030211	6220802	EB	Gen Prep	300.0	IV
02-Mar-2011	EB05-SA5A-030211	6220802	EB	Gen Prep	314.0	IV
02-Mar-2011	EB05-SA5A-030211	6220802	EB	Gen Prep	7199	IV
02-Mar-2011	EB05-SA5A-030211	6220802	EB	METHOD	7470A	IV
02-Mar-2011	EB05-SA5A-030211	6220802	EB	METHOD	8151A	IV
02-Mar-2011	SL-186-SA5A-SS-0.0-0.5	6220799	N	3050B	6010B	IV
02-Mar-2011	SL-186-SA5A-SS-0.0-0.5	6220799	N	3050B	6020	IV
02-Mar-2011	SL-186-SA5A-SS-0.0-0.5	6220799	N	3060A	7199	IV
02-Mar-2011	SL-186-SA5A-SS-0.0-0.5	6220799	N	3550B	8081A	IV
02-Mar-2011	SL-186-SA5A-SS-0.0-0.5	6220799	N	3550B	8082	IV
02-Mar-2011	SL-186-SA5A-SS-0.0-0.5	6220799	N	3550B	8151A	IV
02-Mar-2011	SL-186-SA5A-SS-0.0-0.5	6220799	N	3550B	8270C	IV
02-Mar-2011	SL-186-SA5A-SS-0.0-0.5	6220799	N	3550B	8270C SIM	IV
02-Mar-2011	SL-186-SA5A-SS-0.0-0.5	6220799	N	Gen Prep	9045M	IV
02-Mar-2011	SL-186-SA5A-SS-0.0-0.5	6220799	N	METHOD	300.0	IV
02-Mar-2011	SL-186-SA5A-SS-0.0-0.5	6220799	N	METHOD	314.0	IV
02-Mar-2011	SL-186-SA5A-SS-0.0-0.5	6220799	N	METHOD	7471A	IV
02-Mar-2011	SL-188-SA5A-SS-0.0-0.5	6220800	N	3050B	6010B	IV
02-Mar-2011	SL-188-SA5A-SS-0.0-0.5	6220800	N	3050B	6020	IV
02-Mar-2011	SL-188-SA5A-SS-0.0-0.5	6220800	N	3060A	7199	IV
02-Mar-2011	SL-188-SA5A-SS-0.0-0.5	6220800	N	3550B	8081A	IV
02-Mar-2011	SL-188-SA5A-SS-0.0-0.5	6220800	N	3550B	8082	IV
02-Mar-2011	SL-188-SA5A-SS-0.0-0.5	6220800	N	3550B	8151A	IV
02-Mar-2011	SL-188-SA5A-SS-0.0-0.5	6220800	N	3550B	8270C	IV
02-Mar-2011	SL-188-SA5A-SS-0.0-0.5	6220800	N	3550B	8270C SIM	IV
02-Mar-2011	SL-188-SA5A-SS-0.0-0.5	6220800	N	Gen Prep	9045M	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Mar-2011	SL-188-SA5A-SS-0.0-0.5	6220800	N	METHOD	300.0	IV
02-Mar-2011	SL-188-SA5A-SS-0.0-0.5	6220800	N	METHOD	314.0	IV
02-Mar-2011	SL-188-SA5A-SS-0.0-0.5	6220800	N	METHOD	7471A	IV
02-Mar-2011	SL-189-SA5A-SS-0.0-0.5	6220801	N	3050B	6010B	IV
02-Mar-2011	SL-189-SA5A-SS-0.0-0.5	6220801	N	3050B	6020	IV
02-Mar-2011	SL-189-SA5A-SS-0.0-0.5	6220801	N	3060A	7199	IV
02-Mar-2011	SL-189-SA5A-SS-0.0-0.5	6220801	N	3550B	8081A	IV
02-Mar-2011	SL-189-SA5A-SS-0.0-0.5	6220801	N	3550B	8082	IV
02-Mar-2011	SL-189-SA5A-SS-0.0-0.5	6220801	N	3550B	8151A	IV
02-Mar-2011	SL-189-SA5A-SS-0.0-0.5	6220801	N	3550B	8270C	IV
02-Mar-2011	SL-189-SA5A-SS-0.0-0.5	6220801	N	3550B	8270C SIM	IV
02-Mar-2011	SL-189-SA5A-SS-0.0-0.5	6220801	N	Gen Prep	9045M	IV
02-Mar-2011	SL-189-SA5A-SS-0.0-0.5	6220801	N	METHOD	300.0	IV
02-Mar-2011	SL-189-SA5A-SS-0.0-0.5	6220801	N	METHOD	314.0	IV
02-Mar-2011	SL-189-SA5A-SS-0.0-0.5	6220801	N	METHOD	7471A	IV
02-Mar-2011	SL-189-SA5A-SS-0.0-0.5DUP	P220801D271905B	DUP	METHOD	300.0	IV
02-Mar-2011	SL-189-SA5A-SS-0.0-0.5DUP	P220801D272025B	DUP	METHOD	314.0	IV
02-Mar-2011	SL-189-SA5A-SS-0.0-0.5MS	P220801R271920B	MS	METHOD	300.0	IV
02-Mar-2011	SL-189-SA5A-SS-0.0-0.5MS	P220801R272049B	MS	METHOD	314.0	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE095 Laboratory: LL

EDD Filename: DE095_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: DUP-07-SA5A-QC-030211 *Collected:* 3/2/2011 8:58:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-042-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 10:11:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.4		0.99	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-044-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 9:58:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.6		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-045-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 9:30:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.96	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-048-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 8:55:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.5		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-176-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-178-SA5A-SS-0.0-0.4 *Collected:* 3/2/2011 11:17:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.85	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-179-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.85	U	0.85	MDL	1.1	PQL	mg/Kg	UJ	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-186-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 1:25:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.9		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-188-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:01:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.4		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-189-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:15:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix: AQ**

Sample ID: EB05-SA5A-030211 *Collected:* 3/2/2011 12:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	0.0045	J	0.0024	MDL	0.0200	PQL	mg/L	U	B

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: DUP-07-SA5A-QC-030211 *Collected:* 3/2/2011 8:58:00 AM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.16	J	1.01	MDL	5.66	PQL	mg/Kg	J	Z
SODIUM	81.6	J	42.3	MDL	113	PQL	mg/Kg	J	Z
TIN	3.03	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	1.55	J	0.952	MDL	5.66	PQL	mg/Kg	U	B

Sample ID: SL-042-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 10:11:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.72	J	1.07	MDL	6.04	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-042-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 10:11:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	4.02	J	1.21	MDL	12.1	PQL	mg/Kg	U	B
Zirconium	2.40	J	1.01	MDL	6.04	PQL	mg/Kg	U	B

Sample ID: SL-044-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 9:58:00 AM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.99	J	1.00	MDL	5.64	PQL	mg/Kg	J	Z
SODIUM	87.8	J	42.1	MDL	113	PQL	mg/Kg	J	Z
TIN	3.06	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	1.78	J	0.948	MDL	5.64	PQL	mg/Kg	U	B

Sample ID: SL-045-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 9:30:00 AM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.55	J	1.04	MDL	5.86	PQL	mg/Kg	J	Z
SODIUM	84.9	J	43.7	MDL	117	PQL	mg/Kg	J	Z
TIN	3.19	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	1.83	J	0.984	MDL	5.86	PQL	mg/Kg	U	B

Sample ID: SL-048-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 8:55:00 AM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.38	J	0.988	MDL	5.55	PQL	mg/Kg	J	Z
SODIUM	81.4	J	41.4	MDL	111	PQL	mg/Kg	J	Z
TIN	2.84	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.94	J	0.932	MDL	5.55	PQL	mg/Kg	U	B

Sample ID: SL-176-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:49:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	5.57	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.64	J	0.914	MDL	5.44	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-178-SA5A-SS-0.0-0.4 *Collected:* 3/2/2011 11:17:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.10	J	0.923	MDL	5.19	PQL	mg/Kg	J	Z
TIN	3.17	J	1.04	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	0.925	J	0.871	MDL	5.19	PQL	mg/Kg	U	B

Sample ID: SL-179-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:00:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.52	J	0.939	MDL	5.28	PQL	mg/Kg	J	Z
TIN	3.01	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	1.48	J	0.887	MDL	5.28	PQL	mg/Kg	U	B

Sample ID: SL-186-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 1:25:00 PM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.79	J	1.18	MDL	11.8	PQL	mg/Kg	U	B
Zirconium	1.86	J	0.990	MDL	5.89	PQL	mg/Kg	U	B

Sample ID: SL-188-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:01:00 PM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.96	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.61	J	0.925	MDL	5.51	PQL	mg/Kg	U	B

Sample ID: SL-189-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:15:00 PM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.85	J	1.04	MDL	5.87	PQL	mg/Kg	J	Z
TIN	2.63	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	4.72	J	0.985	MDL	5.87	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: DUP-07-SA5A-QC-030211 *Collected:* 3/2/2011 8:58:00 AM *Analysis Type:* REA10 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	11.5		0.0719	MDL	0.436	PQL	mg/Kg	J	E, A

Sample ID: DUP-07-SA5A-QC-030211 *Collected:* 3/2/2011 8:58:00 AM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.162	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z, FD

Sample ID: DUP-07-SA5A-QC-030211 *Collected:* 3/2/2011 8:58:00 AM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.717		0.0566	MDL	0.113	PQL	mg/Kg	J	Q, E

Sample ID: DUP-07-SA5A-QC-030211 *Collected:* 3/2/2011 8:58:00 AM *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	140		0.122	MDL	0.453	PQL	mg/Kg	J	E, A

Sample ID: DUP-07-SA5A-QC-030211 *Collected:* 3/2/2011 8:58:00 AM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.141	J	0.0680	MDL	0.227	PQL	mg/Kg	J	Z, Q
ARSENIC	5.35		0.0906	MDL	0.453	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.632		0.0181	MDL	0.113	PQL	mg/Kg	J	E
CADMIUM	0.258		0.0453	MDL	0.113	PQL	mg/Kg	J	Q
CHROMIUM	23.3		0.136	MDL	0.453	PQL	mg/Kg	J	E, A
COBALT	6.86		0.0227	MDL	0.113	PQL	mg/Kg	J	E
LEAD	11.3		0.0118	MDL	0.227	PQL	mg/Kg	J	E, A
NICKEL	16.2		0.113	MDL	0.453	PQL	mg/Kg	J	E
SILVER	0.114		0.0136	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	43.1		0.0249	MDL	0.113	PQL	mg/Kg	J	E, A
ZINC	80.9		0.634	MDL	3.40	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-042-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 10:11:00 ***Analysis Type:*** REA10 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	49.5		0.0789	MDL	0.478	PQL	mg/Kg	J	E, A

Sample ID: SL-042-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 10:11:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.457	J	0.0483	MDL	0.483	PQL	mg/Kg	J	Z

Sample ID: SL-042-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 10:11:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	2.04		0.0604	MDL	0.121	PQL	mg/Kg	J	Q, E

Sample ID: SL-042-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 10:11:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	191		0.130	MDL	0.483	PQL	mg/Kg	J	E, A

Sample ID: SL-042-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 10:11:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.328		0.0724	MDL	0.241	PQL	mg/Kg	J	Q
ARSENIC	12.0		0.0966	MDL	0.483	PQL	mg/Kg	J	Q, E
BERYLLIUM	1.19		0.0193	MDL	0.121	PQL	mg/Kg	J	E
CADMIUM	2.63		0.0483	MDL	0.121	PQL	mg/Kg	J	Q
CHROMIUM	57.8		0.145	MDL	0.483	PQL	mg/Kg	J	E, A
COBALT	10.5		0.0241	MDL	0.121	PQL	mg/Kg	J	E
LEAD	29.5		0.0126	MDL	0.241	PQL	mg/Kg	J	E, A
NICKEL	28.9		0.121	MDL	0.483	PQL	mg/Kg	J	E
SILVER	59.2		0.0145	MDL	0.121	PQL	mg/Kg	J	Q
VANADIUM	65.6		0.0266	MDL	0.121	PQL	mg/Kg	J	E, A
ZINC	171		0.676	MDL	3.62	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-044-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 9:58:00 AM ***Analysis Type:*** REA10 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	15.1		0.0709	MDL	0.430	PQL	mg/Kg	J	E, A

Sample ID: SL-044-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 9:58:00 AM ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.205	J	0.0443	MDL	0.443	PQL	mg/Kg	J	Z

Sample ID: SL-044-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 9:58:00 AM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.929		0.0553	MDL	0.111	PQL	mg/Kg	J	Q, E

Sample ID: SL-044-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 9:58:00 AM ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	125		0.120	MDL	0.443	PQL	mg/Kg	J	E, A

Sample ID: SL-044-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 9:58:00 AM ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.177	J	0.0664	MDL	0.221	PQL	mg/Kg	J	Z, Q
ARSENIC	7.24		0.0885	MDL	0.443	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.786		0.0177	MDL	0.111	PQL	mg/Kg	J	E
CADMIUM	0.702		0.0443	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	30.8		0.133	MDL	0.443	PQL	mg/Kg	J	E, A
COBALT	7.40		0.0221	MDL	0.111	PQL	mg/Kg	J	E
LEAD	16.9		0.0115	MDL	0.221	PQL	mg/Kg	J	E, A
NICKEL	19.1		0.111	MDL	0.443	PQL	mg/Kg	J	E
SILVER	13.9		0.0133	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	42.2		0.0243	MDL	0.111	PQL	mg/Kg	J	E, A
ZINC	98.0		0.620	MDL	3.32	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory:** LL

EDD Filename: DE095_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-045-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 9:30:00 AM ***Analysis Type:*** REA10 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	14.8		0.0773	MDL	0.469	PQL	mg/Kg	J	E, A

Sample ID: SL-045-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 9:30:00 AM ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.273	J	0.0464	MDL	0.464	PQL	mg/Kg	J	Z

Sample ID: SL-045-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 9:30:00 AM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.02		0.0580	MDL	0.116	PQL	mg/Kg	J	Q, E

Sample ID: SL-045-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 9:30:00 AM ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	182		0.125	MDL	0.464	PQL	mg/Kg	J	E, A

Sample ID: SL-045-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 9:30:00 AM ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.153	J	0.0696	MDL	0.232	PQL	mg/Kg	J	Z, Q
ARSENIC	9.44		0.0928	MDL	0.464	PQL	mg/Kg	J	Q, E
BERYLLIUM	1.06		0.0186	MDL	0.116	PQL	mg/Kg	J	E
CADMIUM	0.437		0.0464	MDL	0.116	PQL	mg/Kg	J	Q
CHROMIUM	34.7		0.139	MDL	0.464	PQL	mg/Kg	J	E, A
COBALT	9.49		0.0232	MDL	0.116	PQL	mg/Kg	J	E
LEAD	16.1		0.0121	MDL	0.232	PQL	mg/Kg	J	E, A
NICKEL	22.5		0.116	MDL	0.464	PQL	mg/Kg	J	E
SILVER	0.0846	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z, Q
VANADIUM	56.5		0.0255	MDL	0.116	PQL	mg/Kg	J	E, A
ZINC	112		0.650	MDL	3.48	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-048-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 8:55:00 AM *Analysis Type:* REA10 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	11.3		0.0718	MDL	0.435	PQL	mg/Kg	J	E, A

Sample ID: SL-048-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 8:55:00 AM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.554		0.0453	MDL	0.453	PQL	mg/Kg	J	FD

Sample ID: SL-048-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 8:55:00 AM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.04		0.0566	MDL	0.113	PQL	mg/Kg	J	Q, E

Sample ID: SL-048-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 8:55:00 AM *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	165		0.122	MDL	0.453	PQL	mg/Kg	J	E, A

Sample ID: SL-048-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 8:55:00 AM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.167	J	0.0679	MDL	0.226	PQL	mg/Kg	J	Z, Q
ARSENIC	7.30		0.0905	MDL	0.453	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.853		0.0181	MDL	0.113	PQL	mg/Kg	J	E
CADMIUM	0.259		0.0453	MDL	0.113	PQL	mg/Kg	J	Q
CHROMIUM	29.1		0.136	MDL	0.453	PQL	mg/Kg	J	E, A
COBALT	7.73		0.0226	MDL	0.113	PQL	mg/Kg	J	E
LEAD	14.9		0.0118	MDL	0.226	PQL	mg/Kg	J	E, A
NICKEL	18.8		0.113	MDL	0.453	PQL	mg/Kg	J	E
SILVER	0.180		0.0136	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	52.1		0.0249	MDL	0.113	PQL	mg/Kg	J	E, A
ZINC	92.2		0.634	MDL	3.39	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-176-SA5A-SS-0.0-0.3 ***Collected:*** 3/2/2011 11:49:00 ***Analysis Type:*** REA ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	381		1.55	MDL	8.32	PQL	mg/Kg	J	E, A

Sample ID: SL-176-SA5A-SS-0.0-0.3 ***Collected:*** 3/2/2011 11:49:00 ***Analysis Type:*** REA10 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	26.0		0.0711	MDL	0.431	PQL	mg/Kg	J	E, A

Sample ID: SL-176-SA5A-SS-0.0-0.3 ***Collected:*** 3/2/2011 11:49:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.167	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

Sample ID: SL-176-SA5A-SS-0.0-0.3 ***Collected:*** 3/2/2011 11:49:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	2.17		0.0555	MDL	0.111	PQL	mg/Kg	J	Q, E

Sample ID: SL-176-SA5A-SS-0.0-0.3 ***Collected:*** 3/2/2011 11:49:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	130		0.120	MDL	0.444	PQL	mg/Kg	J	E, A

Sample ID: SL-176-SA5A-SS-0.0-0.3 ***Collected:*** 3/2/2011 11:49:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.400		0.0666	MDL	0.222	PQL	mg/Kg	J	Q
ARSENIC	5.25		0.0888	MDL	0.444	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.404		0.0178	MDL	0.111	PQL	mg/Kg	J	E
CADMIUM	1.79		0.0444	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	33.7		0.133	MDL	0.444	PQL	mg/Kg	J	E, A
COBALT	7.24		0.0222	MDL	0.111	PQL	mg/Kg	J	E
LEAD	55.6		0.0115	MDL	0.222	PQL	mg/Kg	J	E, A
NICKEL	24.7		0.111	MDL	0.444	PQL	mg/Kg	J	E
SILVER	1.65		0.0133	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	38.3		0.0244	MDL	0.111	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-178-SA5A-SS-0.0-0.4 ***Collected:*** 3/2/2011 11:17:00 ***Analysis Type:*** REA10 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	117		0.0691	MDL	0.419	PQL	mg/Kg	J	E, A

Sample ID: SL-178-SA5A-SS-0.0-0.4 ***Collected:*** 3/2/2011 11:17:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.162	J	0.0419	MDL	0.419	PQL	mg/Kg	J	Z

Sample ID: SL-178-SA5A-SS-0.0-0.4 ***Collected:*** 3/2/2011 11:17:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	2.94		0.0524	MDL	0.105	PQL	mg/Kg	J	Q, E

Sample ID: SL-178-SA5A-SS-0.0-0.4 ***Collected:*** 3/2/2011 11:17:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	131		0.113	MDL	0.419	PQL	mg/Kg	J	E, A

Sample ID: SL-178-SA5A-SS-0.0-0.4 ***Collected:*** 3/2/2011 11:17:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.390		0.0629	MDL	0.210	PQL	mg/Kg	J	Q
ARSENIC	6.39		0.0838	MDL	0.419	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.541		0.0168	MDL	0.105	PQL	mg/Kg	J	E
CADMIUM	1.20		0.0419	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	56.3		0.126	MDL	0.419	PQL	mg/Kg	J	E, A
COBALT	8.89		0.0210	MDL	0.105	PQL	mg/Kg	J	E
LEAD	46.5		0.0109	MDL	0.210	PQL	mg/Kg	J	E, A
NICKEL	30.9		0.105	MDL	0.419	PQL	mg/Kg	J	E
SILVER	0.162		0.0126	MDL	0.105	PQL	mg/Kg	J	Q
VANADIUM	52.0		0.0230	MDL	0.105	PQL	mg/Kg	J	E, A
ZINC	172		0.587	MDL	3.14	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-179-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:00:00 *Analysis Type:* REA *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	110		0.0267	MDL	0.513	PQL	mg/Kg	J	E, A

Sample ID: SL-179-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:00:00 *Analysis Type:* REA10 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	20.7		0.0683	MDL	0.414	PQL	mg/Kg	J	E, A

Sample ID: SL-179-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:00:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.165	J	0.0410	MDL	0.410	PQL	mg/Kg	J	Z

Sample ID: SL-179-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:00:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	2.69		0.0513	MDL	0.103	PQL	mg/Kg	J	Q, E

Sample ID: SL-179-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:00:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	132		0.111	MDL	0.410	PQL	mg/Kg	J	E, A

Sample ID: SL-179-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:00:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.405		0.0615	MDL	0.205	PQL	mg/Kg	J	Q
ARSENIC	7.45		0.0820	MDL	0.410	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.504		0.0164	MDL	0.103	PQL	mg/Kg	J	E
CADMIUM	7.18		0.0410	MDL	0.103	PQL	mg/Kg	J	Q
CHROMIUM	33.4		0.123	MDL	0.410	PQL	mg/Kg	J	E, A
COBALT	8.97		0.0205	MDL	0.103	PQL	mg/Kg	J	E
NICKEL	21.7		0.103	MDL	0.410	PQL	mg/Kg	J	E
SILVER	0.247		0.0123	MDL	0.103	PQL	mg/Kg	J	Q
VANADIUM	51.3		0.0226	MDL	0.103	PQL	mg/Kg	J	E, A
ZINC	137		0.574	MDL	3.08	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-186-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 1:25:00 PM ***Analysis Type:*** REA ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	161		1.62	MDL	8.67	PQL	mg/Kg	J	E, A

Sample ID: SL-186-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 1:25:00 PM ***Analysis Type:*** REA10 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	11.3		0.0755	MDL	0.458	PQL	mg/Kg	J	E, A

Sample ID: SL-186-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 1:25:00 PM ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.255	J	0.0462	MDL	0.462	PQL	mg/Kg	J	Z

Sample ID: SL-186-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 1:25:00 PM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.785		0.0578	MDL	0.116	PQL	mg/Kg	J	Q, E

Sample ID: SL-186-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 1:25:00 PM ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	147		0.125	MDL	0.462	PQL	mg/Kg	J	E, A

Sample ID: SL-186-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 1:25:00 PM ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.623		0.0693	MDL	0.231	PQL	mg/Kg	J	Q
ARSENIC	3.80		0.0925	MDL	0.462	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.456		0.0185	MDL	0.116	PQL	mg/Kg	J	E
CADMIUM	0.627		0.0462	MDL	0.116	PQL	mg/Kg	J	Q
CHROMIUM	20.0		0.139	MDL	0.462	PQL	mg/Kg	J	E, A
COBALT	7.27		0.0231	MDL	0.116	PQL	mg/Kg	J	E
LEAD	15.8		0.0120	MDL	0.231	PQL	mg/Kg	J	E, A
NICKEL	24.5		0.116	MDL	0.462	PQL	mg/Kg	J	E
SILVER	6.58		0.0139	MDL	0.116	PQL	mg/Kg	J	Q
VANADIUM	49.5		0.0254	MDL	0.116	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-188-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 2:01:00 PM ***Analysis Type:*** REA10 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	11.7		0.0713	MDL	0.432	PQL	mg/Kg	J	E, A

Sample ID: SL-188-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 2:01:00 PM ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.168	J	0.0441	MDL	0.441	PQL	mg/Kg	J	Z

Sample ID: SL-188-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 2:01:00 PM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.799		0.0551	MDL	0.110	PQL	mg/Kg	J	Q, E

Sample ID: SL-188-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 2:01:00 PM ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	138		0.119	MDL	0.441	PQL	mg/Kg	J	E, A

Sample ID: SL-188-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 2:01:00 PM ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.140	J	0.0661	MDL	0.220	PQL	mg/Kg	J	Z, Q
ARSENIC	5.42		0.0881	MDL	0.441	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.686		0.0176	MDL	0.110	PQL	mg/Kg	J	E
CADMIUM	0.336		0.0441	MDL	0.110	PQL	mg/Kg	J	Q
CHROMIUM	22.9		0.132	MDL	0.441	PQL	mg/Kg	J	E, A
COBALT	7.58		0.0220	MDL	0.110	PQL	mg/Kg	J	E
LEAD	8.25		0.0115	MDL	0.220	PQL	mg/Kg	J	E, A
NICKEL	15.6		0.110	MDL	0.441	PQL	mg/Kg	J	E
SILVER	1.25		0.0132	MDL	0.110	PQL	mg/Kg	J	Q
VANADIUM	42.8		0.0242	MDL	0.110	PQL	mg/Kg	J	E, A
ZINC	104		0.617	MDL	3.30	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-189-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:15:00 PM *Analysis Type:* REA10 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	11.0		0.0782	MDL	0.474	PQL	mg/Kg	J	E, A

Sample ID: SL-189-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:15:00 PM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0872	J	0.0469	MDL	0.469	PQL	mg/Kg	J	Z

Sample ID: SL-189-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:15:00 PM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.745		0.0587	MDL	0.117	PQL	mg/Kg	J	Q, E

Sample ID: SL-189-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:15:00 PM *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	164		0.127	MDL	0.469	PQL	mg/Kg	J	E, A

Sample ID: SL-189-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:15:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.140	J	0.0704	MDL	0.235	PQL	mg/Kg	J	Z, Q
ARSENIC	4.28		0.0938	MDL	0.469	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.471		0.0188	MDL	0.117	PQL	mg/Kg	J	E
CADMIUM	0.184		0.0469	MDL	0.117	PQL	mg/Kg	J	Q
CHROMIUM	19.0		0.141	MDL	0.469	PQL	mg/Kg	J	E, A
COBALT	7.25		0.0235	MDL	0.117	PQL	mg/Kg	J	E
LEAD	8.00		0.0122	MDL	0.235	PQL	mg/Kg	J	E, A
NICKEL	11.6		0.117	MDL	0.469	PQL	mg/Kg	J	E
SILVER	0.405		0.0141	MDL	0.117	PQL	mg/Kg	J	Q
VANADIUM	48.4		0.0258	MDL	0.117	PQL	mg/Kg	J	E, A
ZINC	81.0		0.657	MDL	3.52	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: AQ**

Sample ID: EB05-SA5A-030211 *Collected:* 3/2/2011 12:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	5.0	U	5.0	MDL	10.0	PQL	ug/L	UJ	H

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: DUP-07-SA5A-QC-030211 *Collected:* 3/2/2011 8:58:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.47	J	0.23	MDL	1.1	PQL	mg/Kg	U	B

Sample ID: SL-044-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 9:58:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.85	J	0.23	MDL	1.1	PQL	mg/Kg	U	B

Sample ID: SL-045-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 9:30:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	1.6		0.24	MDL	1.2	PQL	mg/Kg	U	B

Sample ID: SL-048-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 8:55:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.41	J	0.23	MDL	1.1	PQL	mg/Kg	U	B

Sample ID: SL-176-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	1.3		0.22	MDL	1.1	PQL	mg/Kg	U	B

Sample ID: SL-178-SA5A-SS-0.0-0.4 *Collected:* 3/2/2011 11:17:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.53	J	0.21	MDL	1.1	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-179-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.65	J	0.21	MDL	1.1	PQL	mg/Kg	U	B

Sample ID: SL-186-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 1:25:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.32	J	0.24	MDL	1.2	PQL	mg/Kg	U	B

Sample ID: SL-188-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:01:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.37	J	0.22	MDL	1.1	PQL	mg/Kg	U	B

Sample ID: SL-189-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:15:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.29	J	0.24	MDL	1.2	PQL	mg/Kg	U	B

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: DUP-07-SA5A-QC-030211 *Collected:* 3/2/2011 8:58:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0448	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z, FD

Sample ID: SL-042-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 10:11:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.100	J	0.0034	MDL	0.117	PQL	mg/Kg	J	Z

Sample ID: SL-044-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 9:58:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0314	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-045-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 9:30:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0044	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-048-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 8:55:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0040	J	0.0032	MDL	0.110	PQL	mg/Kg	J	Z, FD

Sample ID: SL-186-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 1:25:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.109	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-188-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:01:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0687	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: SL-189-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:15:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0979	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8081A **Matrix: AQ**

Sample ID: EB05-SA5A-030211 *Collected:* 3/2/2011 12:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIELDRIN	0.0054	U	0.0054	MDL	0.020	PQL	ug/L	UJ	C, C, C

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory:** LL

EDD Filename: DE095_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-042-SA5A-SS-0.0-0.5 **Collected:** 3/2/2011 10:11:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DELTA-BHC	0.13	J	0.044	MDL	0.20	PQL	ug/Kg	J	Z

Sample ID: SL-044-SA5A-SS-0.0-0.5 **Collected:** 3/2/2011 9:58:00 AM **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DELTA-BHC	0.062	J	0.041	MDL	0.19	PQL	ug/Kg	J	Z, S

Sample ID: SL-179-SA5A-SS-0.0-0.3 **Collected:** 3/2/2011 11:00:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	C
4,4'-DDE	4.5		0.35	MDL	1.8	PQL	ug/Kg	J	C
4,4'-DDT	5.6		0.35	MDL	1.8	PQL	ug/Kg	J	C
ALDRIN	0.35	U	0.35	MDL	0.88	PQL	ug/Kg	UJ	C
ALPHA-BHC	0.18	U	0.18	MDL	0.88	PQL	ug/Kg	UJ	C
BETA-BHC	0.32	U	0.32	MDL	0.88	PQL	ug/Kg	UJ	C
Chlordane	4.3	U	4.3	MDL	18	PQL	ug/Kg	UJ	C
DELTA-BHC	0.19	U	0.19	MDL	0.88	PQL	ug/Kg	UJ	C
DIELDRIN	0.54	U	0.54	MDL	1.8	PQL	ug/Kg	UJ	C
ENDOSULFAN I	0.23	U	0.23	MDL	0.88	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	C
ENDRIN	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.71	U	0.71	MDL	1.8	PQL	ug/Kg	UJ	C
ENDRIN KETONE	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	C
gamma-BHC (Lindane)	0.18	U	0.18	MDL	0.88	PQL	ug/Kg	UJ	C
HEPTACHLOR	0.32	U	0.32	MDL	0.88	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.22	U	0.22	MDL	0.88	PQL	ug/Kg	UJ	C
METHOXYCHLOR	1.8	U	1.8	MDL	8.8	PQL	ug/Kg	UJ	C
MIREX	0.85	U	0.85	MDL	1.8	PQL	ug/Kg	UJ	C
TOXAPHENE	12	U	12	MDL	35	PQL	ug/Kg	UJ	C

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-186-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 1:25:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.78	U	0.78	MDL	4.0	PQL	ug/Kg	UJ	C
4,4'-DDE	0.78	U	0.78	MDL	4.0	PQL	ug/Kg	UJ	C
4,4'-DDT	3.2	U	3.2	MDL	4.0	PQL	ug/Kg	UJ	C
ALDRIN	0.78	U	0.78	MDL	2.0	PQL	ug/Kg	UJ	C
ALPHA-BHC	0.40	U	0.40	MDL	2.0	PQL	ug/Kg	UJ	C
BETA-BHC	0.71	U	0.71	MDL	2.0	PQL	ug/Kg	UJ	C
Chlordane	20	U	20	MDL	40	PQL	ug/Kg	UJ	C
DELTA-BHC	0.43	U	0.43	MDL	2.0	PQL	ug/Kg	UJ	C
DIELDRIN	0.78	U	0.78	MDL	4.0	PQL	ug/Kg	UJ	C
ENDOSULFAN I	0.52	U	0.52	MDL	2.0	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.78	U	0.78	MDL	4.0	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.78	U	0.78	MDL	4.0	PQL	ug/Kg	UJ	C
ENDRIN	0.78	U	0.78	MDL	4.0	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.78	U	0.78	MDL	4.0	PQL	ug/Kg	UJ	C
ENDRIN KETONE	2.7	U	2.7	MDL	4.0	PQL	ug/Kg	UJ	C
gamma-BHC (Lindane)	0.40	U	0.40	MDL	2.0	PQL	ug/Kg	UJ	C
HEPTACHLOR	0.71	U	0.71	MDL	2.0	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.41	U	0.41	MDL	2.0	PQL	ug/Kg	UJ	C
METHOXYCHLOR	4.0	U	4.0	MDL	20	PQL	ug/Kg	UJ	C
MIREX	3.5	U	3.5	MDL	4.0	PQL	ug/Kg	UJ	C
TOXAPHENE	26	U	26	MDL	78	PQL	ug/Kg	UJ	C

Sample ID: SL-188-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:01:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.52	U	0.52	MDL	0.52	PQL	ug/Kg	UJ	C
4,4'-DDE	0.44	U	0.44	MDL	0.44	PQL	ug/Kg	UJ	C
4,4'-DDT	2.6	U	2.6	MDL	2.6	PQL	ug/Kg	UJ	C
ALDRIN	0.074	U	0.074	MDL	0.19	PQL	ug/Kg	UJ	C
ALPHA-BHC	0.038	U	0.038	MDL	0.19	PQL	ug/Kg	UJ	C
BETA-BHC	0.067	U	0.067	MDL	0.19	PQL	ug/Kg	UJ	C
Chlordane	3.0	U	3.0	MDL	3.8	PQL	ug/Kg	UJ	C
DELTA-BHC	0.040	U	0.040	MDL	0.19	PQL	ug/Kg	UJ	C
DIELDRIN	0.074	U	0.074	MDL	0.38	PQL	ug/Kg	UJ	C

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory:** LL

EDD Filename: DE095_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-188-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:01:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDOSULFAN I	0.049	U	0.049	MDL	0.19	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.30	U	0.30	MDL	0.38	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.074	U	0.074	MDL	0.38	PQL	ug/Kg	UJ	C
ENDRIN	0.074	U	0.074	MDL	0.38	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.50	U	0.50	MDL	0.50	PQL	ug/Kg	UJ	C
ENDRIN KETONE	1.3	U	1.3	MDL	1.3	PQL	ug/Kg	UJ	C
gamma-BHC (Lindane)	0.038	U	0.038	MDL	0.19	PQL	ug/Kg	UJ	C
HEPTACHLOR	0.067	U	0.067	MDL	0.19	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.14	U	0.14	MDL	0.19	PQL	ug/Kg	UJ	C
METHOXYCHLOR	0.38	U	0.38	MDL	1.9	PQL	ug/Kg	UJ	C
MIREX	1.5	U	1.5	MDL	1.5	PQL	ug/Kg	UJ	C
TOXAPHENE	2.5	U	2.5	MDL	7.4	PQL	ug/Kg	UJ	C

Sample ID: SL-189-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:15:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.11	U	0.11	MDL	0.40	PQL	ug/Kg	UJ	C
4,4'-DDE	0.18	U	0.18	MDL	0.40	PQL	ug/Kg	UJ	C
4,4'-DDT	0.86	U	0.86	MDL	0.86	PQL	ug/Kg	UJ	C
ALDRIN	0.078	U	0.078	MDL	0.20	PQL	ug/Kg	UJ	C
ALPHA-BHC	0.040	U	0.040	MDL	0.20	PQL	ug/Kg	UJ	C
BETA-BHC	0.071	U	0.071	MDL	0.20	PQL	ug/Kg	UJ	C
Chlordane	1.5	U	1.5	MDL	4.0	PQL	ug/Kg	UJ	C
DELTA-BHC	0.043	U	0.043	MDL	0.20	PQL	ug/Kg	UJ	C
DIELDRIN	0.078	U	0.078	MDL	0.40	PQL	ug/Kg	UJ	C
ENDOSULFAN I	0.052	U	0.052	MDL	0.20	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.078	U	0.078	MDL	0.40	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.078	U	0.078	MDL	0.40	PQL	ug/Kg	UJ	C
ENDRIN	0.078	U	0.078	MDL	0.40	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.078	U	0.078	MDL	0.40	PQL	ug/Kg	UJ	C
ENDRIN KETONE	0.078	U	0.078	MDL	0.40	PQL	ug/Kg	UJ	C
gamma-BHC (Lindane)	0.040	U	0.040	MDL	0.20	PQL	ug/Kg	UJ	C
HEPTACHLOR	0.071	U	0.071	MDL	0.20	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.040	U	0.040	MDL	0.20	PQL	ug/Kg	UJ	C

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: SL-189-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:15:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHOXYCHLOR	0.40	U	0.40	MDL	2.0	PQL	ug/Kg	UJ	C
MIREX	0.72	U	0.72	MDL	0.72	PQL	ug/Kg	UJ	C
TOXAPHENE	2.6	U	2.6	MDL	7.8	PQL	ug/Kg	UJ	C

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: DUP-07-SA5A-QC-030211 *Collected:* 3/2/2011 8:58:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.98	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z, FD
AROCLOR 1260	0.65	J	0.45	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5460	2.1	J	1.1	MDL	3.8	PQL	ug/Kg	J	Z

Sample ID: SL-042-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 10:11:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	75		2.0	MDL	10	PQL	ug/Kg	J	*XIII

Sample ID: SL-044-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 9:58:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	8.8		0.37	MDL	1.9	PQL	ug/Kg	J	*XIII

Sample ID: SL-045-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 9:30:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.2	J	0.47	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5460	2.0	J	1.2	MDL	3.9	PQL	ug/Kg	J	Z

Sample ID: SL-048-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 8:55:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.38	U	0.38	MDL	1.9	PQL	ug/Kg	UJ	FD
AROCLOR 1260	0.88	J	0.45	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-048-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 8:55:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	1.3	J	1.1	MDL	3.8	PQL	ug/Kg	J	Z

Sample ID: SL-188-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:01:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1242	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	C
AROCLOR 1248	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	C
AROCLOR 1254	14		0.37	MDL	1.9	PQL	ug/Kg	J	C
AROCLOR 1260	3.5		0.44	MDL	1.9	PQL	ug/Kg	J	C

Sample ID: SL-189-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:15:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1242	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	C
AROCLOR 1248	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	C
AROCLOR 1254	11		0.39	MDL	2.0	PQL	ug/Kg	J	C
AROCLOR 1260	2.9		0.46	MDL	2.0	PQL	ug/Kg	J	C

Method Category: SVOA

Method: 8151A **Matrix: SO**

Sample ID: SL-042-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 10:11:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-D	1.5	J	1.5	MDL	4.4	PQL	ug/Kg	J	Z, *IX

Sample ID: SL-044-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 9:58:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-TP (Silvex)	0.16	J	0.085	MDL	0.19	PQL	ug/Kg	J	Z, * IX

Sample ID: SL-176-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	170	J	85	MDL	280	PQL	ug/Kg	J	Z, * IX

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8151A **Matrix: SO**

Sample ID: SL-176-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPP	390		84	MDL	280	PQL	ug/Kg	J	* IX

Sample ID: SL-179-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPP	250	J	79	MDL	260	PQL	ug/Kg	J	Z, * IX

Sample ID: SL-186-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 1:25:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DB	8.5		0.74	MDL	2.0	PQL	ug/Kg	J	* IX
MCPA	460		90	MDL	300	PQL	ug/Kg	J	* IX

Sample ID: SL-188-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:01:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-TP (Silvex)	0.14	J	0.084	MDL	0.19	PQL	ug/Kg	J	Z, * IX
MCPA	190	J	85	MDL	280	PQL	ug/Kg	J	Z

Sample ID: SL-189-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:15:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DB	1.1	J	0.73	MDL	2.0	PQL	ug/Kg	J	Z, * IX

Method Category: SVOA

Method: 8270C **Matrix: AQ**

Sample ID: EB05-SA5A-030211 *Collected:* 3/2/2011 12:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-CHLOROANILINE	1	U	1	MDL	5	PQL	ug/L	UJ	C
BENZIDINE	21	U	21	MDL	64	PQL	ug/L	UJ	C

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: DUP-07-SA5A-QC-030211 *Collected:* 3/2/2011 8:58:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-CHLOROANILINE	76	U	76	MDL	190	PQL	ug/Kg	UJ	C
ANILINE	190	U	190	MDL	570	PQL	ug/Kg	UJ	C
BENZIDINE	1300	U	1300	MDL	3800	PQL	ug/Kg	UJ	C

Sample ID: SL-042-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 10:11:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-CHLOROANILINE	82	U	82	MDL	200	PQL	ug/Kg	UJ	C
ANILINE	200	U	200	MDL	610	PQL	ug/Kg	UJ	C
BENZIDINE	1400	U	1400	MDL	4100	PQL	ug/Kg	UJ	C
BENZO(G,H,I)PERYLENE	22	J	20	MDL	200	PQL	ug/Kg	J	Z

Sample ID: SL-044-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 9:58:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-CHLOROANILINE	75	U	75	MDL	190	PQL	ug/Kg	UJ	C
ANILINE	190	U	190	MDL	560	PQL	ug/Kg	UJ	C
BENZIDINE	1300	U	1300	MDL	3800	PQL	ug/Kg	UJ	C

Sample ID: SL-045-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 9:30:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-CHLOROANILINE	80	U	80	MDL	200	PQL	ug/Kg	UJ	C
ANILINE	200	U	200	MDL	600	PQL	ug/Kg	UJ	C
BENZIDINE	1400	U	1400	MDL	4000	PQL	ug/Kg	UJ	C

Sample ID: SL-048-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 8:55:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-CHLOROANILINE	76	U	76	MDL	190	PQL	ug/Kg	UJ	C
ANILINE	190	U	190	MDL	570	PQL	ug/Kg	UJ	C
BENZIDINE	1300	U	1300	MDL	3800	PQL	ug/Kg	UJ	Q, C

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-176-SA5A-SS-0.0-0.3 ***Collected:*** 3/2/2011 11:49:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	25	J	19	MDL	190	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	21	J	19	MDL	190	PQL	ug/Kg	J	Z
4-CHLOROANILINE	74	U	74	MDL	190	PQL	ug/Kg	UJ	C
ACENAPHTHENE	74	J	19	MDL	190	PQL	ug/Kg	J	Z
ANILINE	190	U	190	MDL	560	PQL	ug/Kg	UJ	C
BENZIDINE	1300	U	1300	MDL	3700	PQL	ug/Kg	UJ	C
Butylbenzylphthalate	21	J	19	MDL	190	PQL	ug/Kg	J	Z
CARBAZOLE	98	J	19	MDL	190	PQL	ug/Kg	J	Z
DIBENZOFURAN	35	J	19	MDL	190	PQL	ug/Kg	J	Z
FLUORENE	62	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: SL-178-SA5A-SS-0.0-0.4 ***Collected:*** 3/2/2011 11:17:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-CHLOROANILINE	71	U	71	MDL	180	PQL	ug/Kg	UJ	C
ACENAPHTHENE	67	J	18	MDL	180	PQL	ug/Kg	J	Z
ANILINE	180	U	180	MDL	530	PQL	ug/Kg	UJ	C
ANTHRACENE	99	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZIDINE	1200	U	1200	MDL	3500	PQL	ug/Kg	UJ	C
CARBAZOLE	58	J	18	MDL	180	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	73	J	18	MDL	180	PQL	ug/Kg	J	Z
DIBENZOFURAN	21	J	18	MDL	180	PQL	ug/Kg	J	Z
FLUORENE	37	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-179-SA5A-SS-0.0-0.3 ***Collected:*** 3/2/2011 11:00:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-CHLOROANILINE	71	U	71	MDL	180	PQL	ug/Kg	UJ	C
ANILINE	180	U	180	MDL	530	PQL	ug/Kg	UJ	C
BENZIDINE	1200	U	1200	MDL	3500	PQL	ug/Kg	UJ	C
BENZO(G,H,I)PERYLENE	21	J	18	MDL	180	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-186-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 1:25:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-CHLOROANILINE	78	U	78	MDL	200	PQL	ug/Kg	UJ	C
ANILINE	200	U	200	MDL	590	PQL	ug/Kg	UJ	C
BENZIDINE	1400	U	1400	MDL	3900	PQL	ug/Kg	UJ	C

Sample ID: SL-188-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:01:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-CHLOROANILINE	75	U	75	MDL	190	PQL	ug/Kg	UJ	C
ANILINE	190	U	190	MDL	560	PQL	ug/Kg	UJ	C
BENZIDINE	1300	U	1300	MDL	3700	PQL	ug/Kg	UJ	C

Sample ID: SL-189-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 2:15:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-CHLOROANILINE	78	U	78	MDL	200	PQL	ug/Kg	UJ	C
ANILINE	200	U	200	MDL	590	PQL	ug/Kg	UJ	C
BENZIDINE	1400	U	1400	MDL	3900	PQL	ug/Kg	UJ	C

Method Category: SVOA

Method: 8270C SIM **Matrix: AQ**

Sample ID: EB05-SA5A-030211 *Collected:* 3/2/2011 12:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	0.12	J	0.053	MDL	1.1	PQL	ug/L	U	B
Diethylphthalate	0.072	J	0.053	MDL	1.1	PQL	ug/L	U	B
Di-n-butylphthalate	0.34	J	0.053	MDL	1.1	PQL	ug/L	U	B

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: DUP-07-SA5A-QC-030211 *Collected:* 3/2/2011 8:58:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.94	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z, FD

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory:** LL

EDD Filename: DE095_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: DUP-07-SA5A-QC-030211 ***Collected:*** 3/2/2011 8:58:00 AM ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	5.3		0.76	MDL	1.9	PQL	ug/Kg	J	FD
BIS(2-ETHYLHEXYL)PHTHALATE	7.6	J	6.9	MDL	21	PQL	ug/Kg	J	Z, FD
CHRYSENE	1.6	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z, FD
Di-n-butylphthalate	13	J	6.9	MDL	21	PQL	ug/Kg	J	Z
Di-n-octylphthalate	12	J	6.9	MDL	21	PQL	ug/Kg	J	Z
FLUORANTHENE	2.5		0.76	MDL	1.9	PQL	ug/Kg	J	FD
PHENANTHRENE	1.1	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z, FD
PYRENE	1.9		0.76	MDL	1.9	PQL	ug/Kg	J	FD

Sample ID: SL-042-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 10:11:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	1.3	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.72	J	0.41	MDL	2.0	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	9.7	J	7.3	MDL	22	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.1	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-butylphthalate	14	J	7.3	MDL	22	PQL	ug/Kg	J	Z
Di-n-octylphthalate	13	J	7.3	MDL	22	PQL	ug/Kg	J	Z
NAPHTHALENE	1.3	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-044-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 9:58:00 AM ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.3	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.7	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	8.2	J	6.7	MDL	20	PQL	ug/Kg	J	Z
Di-n-butylphthalate	13	J	6.7	MDL	20	PQL	ug/Kg	J	Z
Di-n-octylphthalate	12	J	6.7	MDL	20	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.6	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.3	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-045-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 9:30:00 AM ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	1.1	J	0.40	MDL	2.0	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-045-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 9:30:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-butylphthalate	14	J	7.1	MDL	21	PQL	ug/Kg	J	Z
Di-n-octylphthalate	12	J	7.1	MDL	21	PQL	ug/Kg	J	Z
FLUORANTHENE	1.3	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
PHENANTHRENE	0.84	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
PYRENE	1.1	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-048-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 8:55:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.76	U	0.76	MDL	1.9	PQL	ug/Kg	UJ	FD
BENZO(B)FLUORANTHENE	2.9		0.76	MDL	1.9	PQL	ug/Kg	J	FD
BIS(2-ETHYLHEXYL)PHTHALATE	6.9	U	6.9	MDL	21	PQL	ug/Kg	UJ	FD
CHRYSENE	0.90	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z, FD
Di-n-butylphthalate	12	J	6.9	MDL	21	PQL	ug/Kg	J	Z
Di-n-octylphthalate	12	J	6.9	MDL	21	PQL	ug/Kg	J	Z
FLUORANTHENE	0.94	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	0.76	U	0.76	MDL	1.9	PQL	ug/Kg	UJ	FD
PYRENE	0.76	U	0.76	MDL	1.9	PQL	ug/Kg	UJ	FD

Sample ID: SL-176-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:49:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	4.9	J	1.9	MDL	9.3	PQL	ug/Kg	J	Z
Di-n-octylphthalate	68	J	34	MDL	100	PQL	ug/Kg	J	Z

Sample ID: SL-179-SA5A-SS-0.0-0.3 *Collected:* 3/2/2011 11:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-butylphthalate	58	J	32	MDL	96	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	4.6	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z

Sample ID: SL-186-SA5A-SS-0.0-0.5 *Collected:* 3/2/2011 1:25:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	3.6	J	2.0	MDL	9.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-186-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 1:25:00 PM ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Butylbenzylphthalate	48	J	36	MDL	110	PQL	ug/Kg	J	Z
Di-n-octylphthalate	72	J	36	MDL	110	PQL	ug/Kg	J	Z
FLUORENE	4.7	J	4.0	MDL	9.9	PQL	ug/Kg	J	Z

Sample ID: SL-188-SA5A-SS-0.0-0.5 ***Collected:*** 3/2/2011 2:01:00 PM ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	7.4	J	1.9	MDL	9.3	PQL	ug/Kg	J	Z
Di-n-butylphthalate	61	J	33	MDL	100	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*XIII and * IX	Compound Quantitation and CRQL
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE095

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE095 **Laboratory: LL**
EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199 **Preparation Method: Gen Prep**
Matrix: AQ

Sample ID	*Type*	*Actual*	*Criteria*	*Units*	*Flag*
EB05-SA5A-030211 (RES)	Sampling To Analysis	25.00	24.00	HOURS	J (all detects) UJ (all non-detects)

Method Blank Outlier Report

Lab Reporting Batch ID: DE095 Laboratory: LL

EDD Filename: DE095_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06848CB221929	3/10/2011 7:29:00 PM	LITHIUM	0.0049 mg/L	EB05-SA5A-030211

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB05-SA5A-030211(RES)	LITHIUM	0.0045 mg/L	0.0045U mg/L

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06808BB221730	3/11/2011 5:30:00 PM	PHOSPHORUS TIN	1.22 mg/Kg 1.61 mg/Kg	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-07-SA5A-QC-030211(REA)	TIN	3.03 mg/Kg	3.03U mg/Kg
SL-042-SA5A-SS-0.0-0.5(REA)	TIN	4.02 mg/Kg	4.02U mg/Kg
SL-044-SA5A-SS-0.0-0.5(REA)	TIN	3.06 mg/Kg	3.06U mg/Kg
SL-045-SA5A-SS-0.0-0.5(REA)	TIN	3.19 mg/Kg	3.19U mg/Kg
SL-048-SA5A-SS-0.0-0.5(REA)	TIN	2.84 mg/Kg	2.84U mg/Kg
SL-176-SA5A-SS-0.0-0.3(REA)	TIN	5.57 mg/Kg	5.57U mg/Kg
SL-178-SA5A-SS-0.0-0.4(REA)	TIN	3.17 mg/Kg	3.17U mg/Kg
SL-179-SA5A-SS-0.0-0.3(REA)	TIN	3.01 mg/Kg	3.01U mg/Kg
SL-186-SA5A-SS-0.0-0.5(REA)	TIN	2.79 mg/Kg	2.79U mg/Kg
SL-188-SA5A-SS-0.0-0.5(REA)	TIN	2.96 mg/Kg	2.96U mg/Kg
SL-189-SA5A-SS-0.0-0.5(REA)	TIN	2.63 mg/Kg	2.63U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06826BB221548C	3/12/2011 3:48:00 PM	MOLYBDENUM	0.0669 mg/Kg	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5
P06826BB221548D	3/12/2011 3:48:00 PM	BARIUM	0.203 mg/Kg	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5
P07426BB220847A	3/16/2011 8:47:00 AM	COPPER	0.0727 mg/Kg	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5

Method: **7199**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
11066BB271726A	3/8/2011 5:26:00 PM	HEXAVALENT CHROMIUM	0.49 mg/Kg	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-07-SA5A-QC-030211(RES)	HEXAVALENT CHROMIUM	0.47 mg/Kg	0.47U mg/Kg
SL-044-SA5A-SS-0.0-0.5(RES)	HEXAVALENT CHROMIUM	0.85 mg/Kg	0.85U mg/Kg
SL-045-SA5A-SS-0.0-0.5(RES)	HEXAVALENT CHROMIUM	1.6 mg/Kg	1.6U mg/Kg
SL-048-SA5A-SS-0.0-0.5(RES)	HEXAVALENT CHROMIUM	0.41 mg/Kg	0.41U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE095 | Laboratory: LL

EDD Filename: DE095_v1 | eQAPP Name: CDM_SSFL_110509

Method: 7199
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-176-SA5A-SS-0.0-0.3(RES)	HEXAVALENT CHROMIUM	1.3 mg/Kg	1.3U mg/Kg
SL-178-SA5A-SS-0.0-0.4(RES)	HEXAVALENT CHROMIUM	0.53 mg/Kg	0.53U mg/Kg
SL-179-SA5A-SS-0.0-0.3(RES)	HEXAVALENT CHROMIUM	0.65 mg/Kg	0.65U mg/Kg
SL-186-SA5A-SS-0.0-0.5(RES)	HEXAVALENT CHROMIUM	0.32 mg/Kg	0.32U mg/Kg
SL-188-SA5A-SS-0.0-0.5(RES)	HEXAVALENT CHROMIUM	0.37 mg/Kg	0.37U mg/Kg
SL-189-SA5A-SS-0.0-0.5(RES)	HEXAVALENT CHROMIUM	0.29 mg/Kg	0.29U mg/Kg

Method: 8270C
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLA06B261221	3/11/2011 12:21:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	26 ug/Kg	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5

Method: 8270C SIM
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWC06B260128	3/16/2011 1:28:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE Diethylphthalate Di-n-butylphthalate	0.13 ug/L 0.053 ug/L 0.066 ug/L	EB05-SA5A-030211

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB05-SA5A-030211(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.12 ug/L	1.1U ug/L
EB05-SA5A-030211(RES)	Diethylphthalate	0.072 ug/L	1.1U ug/L
EB05-SA5A-030211(RES)	Di-n-butylphthalate	0.34 ug/L	1.1U ug/L

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE095 Laboratory: LL

EDD Filename: DE095_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-048-SA5A-SS-0.0-0.5MSD (SL-048-SA5A-SS-0.0-0.5)	ANILINE	-	100	35.00-95.00	-	ANILINE	J (all detects)
SL-048-SA5A-SS-0.0-0.5MS SL-048-SA5A-SS-0.0-0.5MSD (SL-048-SA5A-SS-0.0-0.5)	BENZIDINE	19	18	35.00-141.00	-	BENZIDINE	J(all detects) UJ(all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-048-SA5A-SS-0.0-0.5MS (DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5)	CADMIUM	135	-	75.00-125.00	-	CADMIUM	J(all detects)
	SILVER	131	-	75.00-125.00	-	SILVER	
SL-048-SA5A-SS-0.0-0.5MS SL-048-SA5A-SS-0.0-0.5MSD (DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5)	ANTIMONY	54	54	75.00-125.00	-	ANTIMONY	Pb, V, Zn No Qual, >4x
	ARSENIC	-	73	75.00-125.00	-	ARSENIC	
	LEAD	68	49	75.00-125.00	-	LEAD	
	VANADIUM	-	70	75.00-125.00	-	VANADIUM	J(all detects)
	ZINC	-	60	75.00-125.00	-	ZINC	UJ(all non-detects)
SL-048-SA5A-SS-0.0-0.5MS SL-048-SA5A-SS-0.0-0.5MSD (DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5)	MOLYBDENUM	138	129	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-048-SA5A-SS-0.0-0.5MSD (DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5)	BARIUM	-	8	75.00-125.00	-	BARIUM	No Qual, >4x

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-048-SA5A-SS-0.0-0.5MS SL-048-SA5A-SS-0.0-0.5MSD (DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5)	ALUMINUM CALCIUM TITANIUM	634 130 227	934 149 289	75.00-125.00 75.00-125.00 75.00-125.00	- - -	ALUMINUM CALCIUM TITANIUM	No Qual, >4x
SL-048-SA5A-SS-0.0-0.5MS SL-048-SA5A-SS-0.0-0.5MSD (DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5)	IRON MAGNESIUM	-1326 -60	-286 136	75.00-125.00 75.00-125.00	- -	IRON MAGNESIUM	No Qual, >4x
SL-048-SA5A-SS-0.0-0.5MS (DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5)	MANGANESE PHOSPHORUS	67 56	- -	75.00-125.00 75.00-125.00	- -	MANGANESE PHOSPHORUS	No Qual, >4x

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-048-SA5A-SS-0.0-0.5MS (SL-048-SA5A-SS-0.0-0.5)	BIS(2-ETHYLHEXYL)PHTHALAT	168	-	39.00-167.00	-	BIS(2-ETHYLHEXYL)PHTHALA	J(all detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-048-SA5A-SS-0.0-0.5MS (DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5)	FLUORIDE	49	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-189-SA5A-SS-0.0-0.5MS (SL-189-SA5A-SS-0.0-0.5)	FLUORIDE	79	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Method: 8151A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-048-SA5A-SS-0.0-0.5MSD (SL-048-SA5A-SS-0.0-0.5)	DINOSEB MCPP	- -	- -	10.00-46.00 10.00-184.00	46 (35.00) 69 (50.00)	DINOSEB MCPP	J(all detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE095 Laboratory: LL

EDD Filename: DE095_v1 eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-048-SA5A-SS-0.0-0.5DUP	ANTIMONY	30	20.00	
(DUP-07-SA5A-QC-030211	ARSENIC	40	20.00	
SL -042-SA5A-SS-0.0-0.5	BARIUM	38	20.00	
SL -044-SA5A-SS-0.0-0.5	BERYLLIUM	0.3475	0.226 mg/Kg	
SL -045-SA5A-SS-0.0-0.5	CHROMIUM	40	20.00	J (all detects)
SL -048-SA5A-SS-0.0-0.5	COBALT	38	20.00	UJ (all non-detects)
SL -176-SA5A-SS-0.0-0.3	COPPER	25	20.00	
SL -178-SA5A-SS-0.0-0.4	LEAD	42	20.00	Sb, Se, Ag, Tl
SL -179-SA5A-SS-0.0-0.3	MOLYBDENUM	51	20.00	No Qual
SL -186-SA5A-SS-0.0-0.5	NICKEL	36	20.00	OK by difference
SL -188-SA5A-SS-0.0-0.5	SELENIUM	124	20.00	
SL -189-SA5A-SS-0.0-0.5)	SILVER	49	20.00	
	THALLIUM	47	20.00	
	VANADIUM	43	20.00	
	ZINC	31	20.00	

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-048-SA5A-SS-0.0-0.5DUP	HEXAVALENT CHROMIUM	32	20.00	
(DUP-07-SA5A-QC-030211				
SL -042-SA5A-SS-0.0-0.5				
SL -044-SA5A-SS-0.0-0.5				
SL -045-SA5A-SS-0.0-0.5				
SL -048-SA5A-SS-0.0-0.5				No Qual
SL -176-SA5A-SS-0.0-0.3				OK by difference
SL -178-SA5A-SS-0.0-0.4				
SL -179-SA5A-SS-0.0-0.3				
SL -186-SA5A-SS-0.0-0.5				
SL -188-SA5A-SS-0.0-0.5				
SL -189-SA5A-SS-0.0-0.5)				

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-048-SA5A-SS-0.0-0.5DUP	MERCURY	200	20.00	
(DUP-07-SA5A-QC-030211				
SL -042-SA5A-SS-0.0-0.5				
SL -044-SA5A-SS-0.0-0.5				
SL -045-SA5A-SS-0.0-0.5				
SL -048-SA5A-SS-0.0-0.5				No Qual
SL -176-SA5A-SS-0.0-0.3				OK by difference
SL -178-SA5A-SS-0.0-0.4				
SL -179-SA5A-SS-0.0-0.3				
SL -186-SA5A-SS-0.0-0.5				
SL -188-SA5A-SS-0.0-0.5				
SL -189-SA5A-SS-0.0-0.5)				

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P2WALCSQ262324 (EB05-SA5A-030211)	ANILINE	106	-	49.00-101.00	-	ANILINE	J (all detects)

Method: 8270C SIM
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P3WCLCSQ260159 (EB05-SA5A-030211)	ACENAPHTHENE	110	-	74.00-109.00	-	ACENAPHTHENE	J(all detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE095 Laboratory: LL

EDD Filename: DE095_v1 eQAPP Name: CDM_SSFL_110509

Method: 8081A
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-042-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	487	20.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-044-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	169	20.00-120.00	All Target Analytes	J(all detects)
SL-179-SA5A-SS-0.0-0.3	DECACHLOROBIPHENYL	289	20.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-188-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	165	20.00-120.00	All Target Analytes	J(all detects)
SL-189-SA5A-SS-0.0-0.5	DECACHLOROBIPHENYL	286	20.00-120.00	All Target Analytes	J(all detects)

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-176-SA5A-SS-0.0-0.3	TETRACHLORO-M-XYLENE	49	53.00-139.00	All Target Analytes	No Qual Diluted Out

Field Duplicate RPD Report

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-048-SA5A-SS-0.0-0.5	DUP-07-SA5A-QC-030211			
MOISTURE	12.5	12.6	1		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-048-SA5A-SS-0.0-0.5	DUP-07-SA5A-QC-030211			
FLUORIDE	1.5	1.6	6	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-048-SA5A-SS-0.0-0.5	DUP-07-SA5A-QC-030211			
ALUMINUM	17600	17100	3	50.00	
BORON	3.38	3.16	7	50.00	
CALCIUM	3150	3000	5	50.00	
IRON	23600	23500	0	50.00	
LITHIUM	27.6	27.1	2	50.00	
MAGNESIUM	5550	5460	2	50.00	
MANGANESE	370	367	1	50.00	
PHOSPHORUS	696	664	5	50.00	No Qualifiers Applied
POTASSIUM	4460	4420	1	50.00	
SODIUM	81.4	81.6	0	50.00	
STRONTIUM	20.3	19.7	3	50.00	
TIN	2.84	3.03	6	50.00	
TITANIUM	1290	1270	2	50.00	
Zirconium	1.94	1.55	22	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-048-SA5A-SS-0.0-0.5	DUP-07-SA5A-QC-030211			
ANTIMONY	0.167	0.141	17	50.00	
ARSENIC	7.30	5.35	31	50.00	
BARIUM	165	140	16	50.00	
BERYLLIUM	0.853	0.632	30	50.00	
CADMIUM	0.259	0.258	0	50.00	
CHROMIUM	29.1	23.3	22	50.00	
COBALT	7.73	6.86	12	50.00	
COPPER	11.3	11.5	2	50.00	No Qualifiers Applied
LEAD	14.9	11.3	27	50.00	
MOLYBDENUM	1.04	0.717	37	50.00	
NICKEL	18.8	16.2	15	50.00	
SILVER	0.180	0.114	45	50.00	
THALLIUM	0.379	0.304	22	50.00	
VANADIUM	52.1	43.1	19	50.00	
ZINC	92.2	80.9	13	50.00	
SELENIUM	0.554	0.162	109	50.00	J(all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-048-SA5A-SS-0.0-0.5	DUP-07-SA5A-QC-030211			
HEXAVALENT CHROMIUM	0.41	0.47	14	50.00	No Qualifiers Applied

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-048-SA5A-SS-0.0-0.5	DUP-07-SA5A-QC-030211			
MERCURY	0.0040	0.0448	167	50.00	J(all detects)

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-048-SA5A-SS-0.0-0.5	DUP-07-SA5A-QC-030211			
AROCLOR 1260	0.88	0.65	30	50.00	No Qualifiers Applied
Aroclor 5460	1.3	2.1	47	50.00	
AROCLOR 1254	1.9 U	0.98	200	50.00	J(all detects) UJ(all non-detects)

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-048-SA5A-SS-0.0-0.5	DUP-07-SA5A-QC-030211			
Di-n-butylphthalate	12	13	8	50.00	No Qualifiers Applied
Di-n-octylphthalate	12	12	0	50.00	
BENZO(A)PYRENE	1.9 U	0.94	200	50.00	J(all detects) UJ(all non-detects)
BENZO(B)FLUORANTHENE	2.9	5.3	59	50.00	
BIS(2-ETHYLHEXYL)PHTHALATE	21 U	7.6	200	50.00	
CHRYSENE	0.90	1.6	56	50.00	
FLUORANTHENE	0.94	2.5	91	50.00	
PHENANTHRENE	1.9 U	1.1	200	50.00	
PYRENE	1.9 U	1.9	200	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-048-SA5A-SS-0.0-0.5	DUP-07-SA5A-QC-030211			
PH	6.33	6.20	2	50.00	No Qualifiers Applied

Method: ASTM D1498
Matrix: SO

Analyte	Concentration (mV)		Sample RPD	eQAPP RPD	Flag
	SL-048-SA5A-SS-0.0-0.5	DUP-07-SA5A-QC-030211			
Oxidation Reduction Potential	388	356	9		No Qualifiers Applied

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB05-SA5A-030211	LITHIUM	J	0.0045	0.0200	PQL	mg/L	J (all detects)

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB05-SA5A-030211	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.12	1.1	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.072	1.1	PQL	ug/L	
	Di-n-butylphthalate	J	0.34	1.1	PQL	ug/L	

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-07-SA5A-QC-030211	BORON	J	3.16	5.66	PQL	mg/Kg	J (all detects)
	SODIUM	J	81.6	113	PQL	mg/Kg	
	TIN	J	3.03	11.3	PQL	mg/Kg	
	Zirconium	J	1.55	5.66	PQL	mg/Kg	
SL-042-SA5A-SS-0.0-0.5	BORON	J	5.72	6.04	PQL	mg/Kg	J (all detects)
	TIN	J	4.02	12.1	PQL	mg/Kg	
	Zirconium	J	2.40	6.04	PQL	mg/Kg	
SL-044-SA5A-SS-0.0-0.5	BORON	J	3.99	5.64	PQL	mg/Kg	J (all detects)
	SODIUM	J	87.8	113	PQL	mg/Kg	
	TIN	J	3.06	11.3	PQL	mg/Kg	
	Zirconium	J	1.78	5.64	PQL	mg/Kg	
SL-045-SA5A-SS-0.0-0.5	BORON	J	4.55	5.86	PQL	mg/Kg	J (all detects)
	SODIUM	J	84.9	117	PQL	mg/Kg	
	TIN	J	3.19	11.7	PQL	mg/Kg	
	Zirconium	J	1.83	5.86	PQL	mg/Kg	
SL-048-SA5A-SS-0.0-0.5	BORON	J	3.38	5.55	PQL	mg/Kg	J (all detects)
	SODIUM	J	81.4	111	PQL	mg/Kg	
	TIN	J	2.84	11.1	PQL	mg/Kg	
	Zirconium	J	1.94	5.55	PQL	mg/Kg	
SL-176-SA5A-SS-0.0-0.3	TIN	J	5.57	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.64	5.44	PQL	mg/Kg	
SL-178-SA5A-SS-0.0-0.4	BORON	J	4.10	5.19	PQL	mg/Kg	J (all detects)
	TIN	J	3.17	10.4	PQL	mg/Kg	
	Zirconium	J	0.925	5.19	PQL	mg/Kg	
SL-179-SA5A-SS-0.0-0.3	BORON	J	4.52	5.28	PQL	mg/Kg	J (all detects)
	TIN	J	3.01	10.6	PQL	mg/Kg	
	Zirconium	J	1.48	5.28	PQL	mg/Kg	
SL-186-SA5A-SS-0.0-0.5	TIN	J	2.79	11.8	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.86	5.89	PQL	mg/Kg	
SL-188-SA5A-SS-0.0-0.5	TIN	J	2.96	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.61	5.51	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-189-SA5A-SS-0.0-0.5	BORON	J	3.85	5.87	PQL	mg/Kg	J (all detects)
	TIN	J	2.63	11.7	PQL	mg/Kg	
	Zirconium	J	4.72	5.87	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-07-SA5A-QC-030211	ANTIMONY	J	0.141	0.227	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.162	0.453	PQL	mg/Kg	
SL-042-SA5A-SS-0.0-0.5	SELENIUM	J	0.457	0.483	PQL	mg/Kg	J (all detects)
SL-044-SA5A-SS-0.0-0.5	ANTIMONY	J	0.177	0.221	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.205	0.443	PQL	mg/Kg	
SL-045-SA5A-SS-0.0-0.5	ANTIMONY	J	0.153	0.232	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.273	0.464	PQL	mg/Kg	
	SILVER	J	0.0846	0.116	PQL	mg/Kg	
SL-048-SA5A-SS-0.0-0.5	ANTIMONY	J	0.167	0.226	PQL	mg/Kg	J (all detects)
SL-176-SA5A-SS-0.0-0.3	SELENIUM	J	0.167	0.444	PQL	mg/Kg	J (all detects)
SL-178-SA5A-SS-0.0-0.4	SELENIUM	J	0.162	0.419	PQL	mg/Kg	J (all detects)
SL-179-SA5A-SS-0.0-0.3	SELENIUM	J	0.165	0.410	PQL	mg/Kg	J (all detects)
SL-186-SA5A-SS-0.0-0.5	SELENIUM	J	0.255	0.462	PQL	mg/Kg	J (all detects)
SL-188-SA5A-SS-0.0-0.5	ANTIMONY	J	0.140	0.220	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.168	0.441	PQL	mg/Kg	
SL-189-SA5A-SS-0.0-0.5	ANTIMONY	J	0.140	0.235	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0872	0.469	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-07-SA5A-QC-030211	HEXAVALENT CHROMIUM	J	0.47	1.1	PQL	mg/Kg	J (all detects)
SL-044-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.85	1.1	PQL	mg/Kg	J (all detects)
SL-048-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.41	1.1	PQL	mg/Kg	J (all detects)
SL-178-SA5A-SS-0.0-0.4	HEXAVALENT CHROMIUM	J	0.53	1.1	PQL	mg/Kg	J (all detects)
SL-179-SA5A-SS-0.0-0.3	HEXAVALENT CHROMIUM	J	0.65	1.1	PQL	mg/Kg	J (all detects)
SL-186-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.32	1.2	PQL	mg/Kg	J (all detects)
SL-188-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.37	1.1	PQL	mg/Kg	J (all detects)
SL-189-SA5A-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.29	1.2	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-07-SA5A-QC-030211	MERCURY	J	0.0448	0.111	PQL	mg/Kg	J (all detects)
SL-042-SA5A-SS-0.0-0.5	MERCURY	J	0.100	0.117	PQL	mg/Kg	J (all detects)
SL-044-SA5A-SS-0.0-0.5	MERCURY	J	0.0314	0.108	PQL	mg/Kg	J (all detects)
SL-045-SA5A-SS-0.0-0.5	MERCURY	J	0.0044	0.114	PQL	mg/Kg	J (all detects)
SL-048-SA5A-SS-0.0-0.5	MERCURY	J	0.0040	0.110	PQL	mg/Kg	J (all detects)
SL-186-SA5A-SS-0.0-0.5	MERCURY	J	0.109	0.111	PQL	mg/Kg	J (all detects)
SL-188-SA5A-SS-0.0-0.5	MERCURY	J	0.0687	0.105	PQL	mg/Kg	J (all detects)
SL-189-SA5A-SS-0.0-0.5	MERCURY	J	0.0979	0.115	PQL	mg/Kg	J (all detects)

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-042-SA5A-SS-0.0-0.5	DELTA-BHC	J	0.13	0.20	PQL	ug/Kg	J (all detects)
SL-044-SA5A-SS-0.0-0.5	DELTA-BHC	J	0.062	0.19	PQL	ug/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-07-SA5A-QC-030211	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	0.98 0.65 2.1	1.9 1.9 3.8	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-045-SA5A-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J J	1.2 2.0	2.0 3.9	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-048-SA5A-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J J	0.88 1.3	1.9 3.8	PQL PQL	ug/Kg ug/Kg	J (all detects)

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-042-SA5A-SS-0.0-0.5	2,4-D	J	1.5	4.4	PQL	ug/Kg	J (all detects)
SL-044-SA5A-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.16	0.19	PQL	ug/Kg	J (all detects)
SL-176-SA5A-SS-0.0-0.3	MCPA	J	170	280	PQL	ug/Kg	J (all detects)
SL-179-SA5A-SS-0.0-0.3	MCPP	J	250	260	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-188-SA5A-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.14	0.19	PQL	ug/Kg	J (all detects)
	MCPA	J	190	280	PQL	ug/Kg	
SL-189-SA5A-SS-0.0-0.5	2,4-DB	J	1.1	2.0	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-042-SA5A-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	22	200	PQL	ug/Kg	J (all detects)
SL-176-SA5A-SS-0.0-0.3	1-METHYLNAPHTHALENE	J	25	190	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	21	190	PQL	ug/Kg	
	ACENAPHTHENE	J	74	190	PQL	ug/Kg	
	Butylbenzylphthalate	J	21	190	PQL	ug/Kg	
	CARBAZOLE	J	98	190	PQL	ug/Kg	
	DIBENZOFURAN	J	35	190	PQL	ug/Kg	
	FLUORENE	J	62	190	PQL	ug/Kg	
SL-178-SA5A-SS-0.0-0.4	ACENAPHTHENE	J	67	180	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	99	180	PQL	ug/Kg	
	CARBAZOLE	J	58	180	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	73	180	PQL	ug/Kg	
	DIBENZOFURAN	J	21	180	PQL	ug/Kg	
	FLUORENE	J	37	180	PQL	ug/Kg	
SL-179-SA5A-SS-0.0-0.3	BENZO(G,H,I)PERYLENE	J	21	180	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-07-SA5A-QC-030211	BENZO(A)PYRENE	J	0.94	1.9	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.6	21	PQL	ug/Kg	
	CHRYSENE	J	1.6	1.9	PQL	ug/Kg	
	Di-n-butylphthalate	J	13	21	PQL	ug/Kg	
	Di-n-octylphthalate	J	12	21	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.9	PQL	ug/Kg	
SL-042-SA5A-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	1.3	2.0	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	0.72	2.0	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.7	22	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.1	2.0	PQL	ug/Kg	
	Di-n-butylphthalate	J	14	22	PQL	ug/Kg	
	Di-n-octylphthalate	J	13	22	PQL	ug/Kg	
	NAPHTHALENE	J	1.3	2.0	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE095 **Laboratory: LL**

EDD Filename: DE095_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-044-SA5A-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.3	1.9	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.7	1.9	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.2	20	PQL	ug/Kg	
	Di-n-butylphthalate	J	13	20	PQL	ug/Kg	
	Di-n-octylphthalate	J	12	20	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.6	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.3	1.9	PQL	ug/Kg	
SL-045-SA5A-SS-0.0-0.5	CHRYSENE	J	1.1	2.0	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	14	21	PQL	ug/Kg	
	Di-n-octylphthalate	J	12	21	PQL	ug/Kg	
	FLUORANTHENE	J	1.3	2.0	PQL	ug/Kg	
	PHENANTHRENE	J	0.84	2.0	PQL	ug/Kg	
	PYRENE	J	1.1	2.0	PQL	ug/Kg	
SL-048-SA5A-SS-0.0-0.5	CHRYSENE	J	0.90	1.9	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	12	21	PQL	ug/Kg	
	Di-n-octylphthalate	J	12	21	PQL	ug/Kg	
	FLUORANTHENE	J	0.94	1.9	PQL	ug/Kg	
SL-176-SA5A-SS-0.0-0.3	ACENAPHTHYLENE	J	4.9	9.3	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	68	100	PQL	ug/Kg	
SL-179-SA5A-SS-0.0-0.3	Di-n-butylphthalate	J	58	96	PQL	ug/Kg	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	4.6	8.9	PQL	ug/Kg	
SL-186-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	3.6	9.9	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	48	110	PQL	ug/Kg	
	Di-n-octylphthalate	J	72	110	PQL	ug/Kg	
	FLUORENE	J	4.7	9.9	PQL	ug/Kg	
SL-188-SA5A-SS-0.0-0.5	ACENAPHTHYLENE	J	7.4	9.3	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	61	100	PQL	ug/Kg	

Enclosure II

EPA Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 2, 2011

LDC Report Date: August 11, 2011

Matrix: Soil/Water

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE095

Sample Identification

DUP-07-SA5A-QC-030211
SL-042-SA5A-SS-0.0-0.5
SL-044-SA5A-SS-0.0-0.5
SL-045-SA5A-SS-0.0-0.5
SL-048-SA5A-SS-0.0-0.5
SL-176-SA5A-SS-0.0-0.3
SL-178-SA5A-SS-0.0-0.4
SL-179-SA5A-SS-0.0-0.3
SL-186-SA5A-SS-0.0-0.5
SL-188-SA5A-SS-0.0-0.5
SL-189-SA5A-SS-0.0-0.5
EB05-SA5A-030211
SL-048-SA5A-SS-0.0-0.5MS
SL-048-SA5A-SS-0.0-0.5MSD

Introduction

This data review covers 13 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
3/9/11	4-Chloroaniline	29	All water samples in SDG DE095	J (all detects) UJ (all non-detects)	A
3/11/11 (11:17)	Aniline	42	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5	J (all detects) UJ (all non-detects)	A
	4-Chloroaniline	32	SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-048-SA5A-SS-0.0-0.5MS SL-048-SA5A-SS-0.0-0.5MSD SBLKLA067	J (all detects) UJ (all non-detects)	

Date	Compound	%D	Associated Samples	Flag	A or P
3/11/11 (23:57)	Aniline	35	SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5	J (all detects) UJ (all non-detects)	A
	4-Chloroaniline	31	SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	J (all detects) UJ (all non-detects)	

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
3/3/11	Benzidine	26	All samples in SDG DE095	J (all detects) UJ (all non-detects)	A

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

Sample EB05-SA5A-030211 was identified as an equipment blank. No semivolatile contaminants were found with the following exceptions:

Equipment Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB05-SA5A-030211	3/2/11	Di-n-butylphthalate	0.34 ug/L	All soil samples in SDG DE095

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated field blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-048-SA5A-SS-0.0-0.5MS/MSD (SL-048-SA5A-SS-0.0-0.5)	Aniline	-	100 (35-95)	-	J (all detects)	A
SL-048-SA5A-SS-0.0-0.5MS/MSD (SL-048-SA5A-SS-0.0-0.5)	Benzidine	19 (35-141)	18 (35-141)	-	J (all detects) UJ (all non-detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
062WALCS/D (All water samples in SDG DE095)	Aniline	106 (49-101)	-	-	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE095	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples DUP-07-SA5A-QC-030211 and SL-048-SA5A-SS-0.0-0.5 were identified as field duplicates. No semivolatiles were detected in any of the samples.

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG DE095

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE095	EB05-SA5A-030211	4-Chloroaniline	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	Aniline 4-Chloroaniline	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE095	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5 EB05-SA5A-030211	Benzidine	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE095	SL-048-SA5A-SS-0.0-0.5	Aniline	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE095	SL-048-SA5A-SS-0.0-0.5	Benzidine	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE095	EB05-SA5A-030211	Aniline	J (all detects)	P	Laboratory control samples (%R) (L)
DE095	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5 EB05-SA5A-030211	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG DE095

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG DE095

No Sample Data Qualified in this SDG

LDC #: 25911J2a **VALIDATION COMPLETENESS WORKSHEET** Date: 8/10/11
SDG #: DE095 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: FT
2nd Reviewer:

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/2/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤30, r²
IV.	Continuing calibration/ICV	SW	ICV/CCV ≤ 25
V.	Blanks A	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	SW	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	D = 1,5
XVII.	Field blanks	SW	EB = 12

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil + water

1	DUP-07-SA5A-QC-030211 D	11	SL-189-SA5A-SS-0.0-0.5	21	SBLKLA067	31	
2	SL-042-SA5A-SS-0.0-0.5	12	EB05-SA5A-030211 W	22	SBLKWA062	32	
3	SL-044-SA5A-SS-0.0-0.5	13	SL-048-SA5A-SS-0.0-0.5MS	23		33	
4	SL-045-SA5A-SS-0.0-0.5	14	SL-048-SA5A-SS-0.0-0.5MSD	24		34	
5	SL-048-SA5A-SS-0.0-0.5 D	15		25		35	
6	SL-176-SA5A-SS-0.0-0.3	16		26		36	
7	SL-178-SA5A-SS-0.0-0.4	17		27		37	
8	SL-179-SA5A-SS-0.0-0.3	18		28		38	
9	SL-186-SA5A-SS-0.0-0.5	19		29		39	
10	SL-188-SA5A-SS-0.0-0.5	20		30		40	

LDC #: 25911J2a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: C

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of $\geq$ 0.990?	✓			
Were all percent relative standard deviations (%RSD) $\leq$ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) $\leq$ 25% and relative response factors (RRF) $\geq$ 0.05?		✓		
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate recoveries				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix Spike/Matrix Spike Duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 25911J2a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		
X. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
XI. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within + 30 seconds from the associated calibration standard?	✓			
XII. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XIII. Compound quantitation				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIV. Tentatively identified compounds				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XV. System performance				
System performance was found to be acceptable.	✓			
XVI. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVII. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.		✓		
XVIII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.	✓			

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 25911J2c

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours of sample analysis for each instrument?
Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?
Y N N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: <25.0%)	Finding RRF (Limit: >0.05)	Associated Samples	Qualifications
	3/3/11	ICV	SSS	26		all ~~waters~~	J/UJ/A (c)
	a.						
	3/9/11	CCV	T	29		all water	↓
	2:33						
	3/11/11	CCV	NNN	42		SBLKLA067,	
	11:17		T	32		1-7, 13, 14	↓
	3/11/11	CCV	NNN	35		8 → 11	
	23:57		T	31		↓	↓

LDC #: 25911J2A

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

(Y) N N/A Were field blanks identified in this SDG?
(Y) N N/A Were target compounds detected in the field blanks?

Blank units: ug/L **Associated sample units:** ug/kg

Sampling date: 3/21/11

Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: all soil EB 11 (ND + 710X)

Compound	Blank ID	Sample Identification								
	12									
Di-n-butylphthalate	0.34									
CRQL										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U". Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

LDC #: 25911J2a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		13+14	NNN	( )	100 (35-95)	( )	5	J/A det (a)
			SSS	19 (35-141)	18 (35-141)	( )	↓	J/W/A (a)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		

LDC #: 25911J2c

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Reviewer: FT
2nd Reviewer: C

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		062WA1cs/D	NNN	106 (49-10)	( )	( )	All water	J/Pdet (L)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		

LDC #: 25911J29

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: C

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (50 std)	Recalculated RRF (50 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/3/11	Phenol (1st internal standard)	2.934	2.934	2.976	2.976	7	7
			~~Naphthalene~~ Nitrobenzene (2nd internal standard)	0.533	0.533	0.521	0.521	7	7
			~~Fluorene~~ 2,4-~~DNT~~ Dinitrophenol (3rd internal standard)	0.116	0.116	0.108	0.108	16	16
			Pentachlorophenol (4th internal standard)	0.096	0.096	0.091	0.091	13	13
			Bis(2-ethylhexyl)phthalate (5th internal standard)	1.013	1.013	0.946	0.946	12	12
			~~Benzo(a)pyrene~~ Di-n-octylphthalate (6th internal standard)	2.014	2.014	1.870	1.870	16	16
2			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911J29

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	ccv	3/9/11	Phenol (1st internal standard)	2.976	2.612	2.612	12	12
	21:33		~~Naphthalene~~ Nitrobenzene (2nd internal standard)	0.521	0.488	0.488	6	6
			~~Fluorene~~ 2,4-Dinitrophenol (3rd internal standard)	0.108	0.132	0.132	7	7
			Pentachlorophenol (4th internal standard)	0.091	0.101	0.101	11	11
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.946	1.051	1.051	11	11
			~~Benzo(a)pyrene~~ Di-n-octylphthalate (6th internal standard)	1.870	2.002	2.002	5	5
2	ccv	3/11/11	~~Phenol~~ (1st internal standard)		2.823	2.823	5	5
	11:17		Naphthalene (2nd internal standard)		0.502	0.502	4	4
			Fluorene (3rd internal standard)		0.127	0.127	14	14
			Pentachlorophenol (4th internal standard)		0.098	0.098	8	8
			Bis(2-ethylhexyl)phthalate (5th internal standard)		0.990	0.990	5	5
			~~Benzo(a)pyrene~~ (6th internal standard)		2.038	2.038	4	4
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911129

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer:

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	100	82.589	83	83	0
2-Fluorobiphenyl	↓	91.227	91	91	
Terphenyl-d14	↓	80.583	81	81	↓
Phenol-d5	200	167.126	84	84	
2-Fluorophenol	↓	174.660	87	87	
2,4,6-Tribromophenol	↓	174.730	87	87	↓
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 25911J2a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = | MSC - MSC | * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 13 + 14

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	1666.67	1666.67	ND	1443.33	1490.93	87	87	89	89	3	3
N-Nitroso-di-n-propylamine				1380.13	1440.72	83	83	86	86	4	4
4-Chloro-3-methylphenol				1460.75	1499.28	88	88	90	90	3	3
Acenaphthene				1552.64	1548.49	93	93	93	93	0	0
Pentachlorophenol				1461.67	1461.42	88	88	88	88	0	0
Pyrene				1585.69	1607.77	95	95	100	100	5	5

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911J25

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: lcs/d water

Compound	Spike Added (ug/L)		Spike Concentration (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	50.0	50.0	16.71	15.68	33	33	31	31	6	6
N-Nitroso-di-n-propylamine	50.0	50.0	43.32	41.81	87	87	84	84	4	4
4-Chloro-3-methylphenol	↓	↓	44.36	43.58	89	89	87	87	2	2
Acenaphthene	NA									
Pentachlorophenol	50	50	42.57	44.37	85	85	89	89	4	4
Pyrene	NA									

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911J2a

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_t	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #1, EEE

Conc. = (12109)(40)(1000)( )( ) / (716180)(0.946)(30)(0.87)( )

=

27 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 2, 2011

LDC Report Date: August 11, 2011

Matrix: Soil/Water

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: Lancaster laboratories

Sample Delivery Group (SDG): DE095

Sample Identification

DUP-07-SA5A-QC-030211
SL-042-SA5A-SS-0.0-0.5
SL-044-SA5A-SS-0.0-0.5
SL-045-SA5A-SS-0.0-0.5
SL-048-SA5A-SS-0.0-0.5
SL-176-SA5A-SS-0.0-0.3
SL-178-SA5A-SS-0.0-0.4
SL-179-SA5A-SS-0.0-0.3
SL-186-SA5A-SS-0.0-0.5
SL-188-SA5A-SS-0.0-0.5
SL-189-SA5A-SS-0.0-0.5
EB05-SA5A-030211
SL-048-SA5A-SS-0.0-0.5MS
SL-048-SA5A-SS-0.0-0.5MSD

Introduction

This data review covers 13 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C using Selected Ion Monitoring (SIM) for Semivolatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
SBLKWC063	3/4/11	Diethylphthalate Di-n-butylphthalate Bis(2-ethylhexyl)phthalate	0.05 ug/L 0.07 ug/L 0.13 ug/L	All water samples in SDG DE095

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
EB05-SA5A-030211	Diethylphthalate Di-n-butylphthalate Bis(2-ethylhexyl)phthalate	0.072 ug/L 0.34 ug/L 0.12 ug/L	1.1U ug/L 1.1U ug/L 1.1U ug/L

Sample EB05-SA5A-030211 was identified as an equipment blank. No semivolatile contaminants were found with the following exceptions:

Equipment Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB05-SA5A-030211	3/2/11	Di-n-butylphthalate Diethylphthalate Bis(2-ethylhexyl)phthalate	0.34 ug/L 0.072 ug/L 0.12 ug/L	All soil samples in SDG DE095

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated field blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-048-SA5A-SS-0.0-0.5MS/MSD (SL-048-SA5A-SS-0.0-0.5)	Bis(2-ethylhexyl)phthalate	168 (39-167)	-	-	J (all detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
063WLCS/D (All water samples in SDG DE095)	Acenaphthene	110 (74-109)	-	-	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE095	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples SL-048-SA5A-SS-0.0-0.5 and DUP-07-SA5A-QC-030211 were identified as field duplicates. No semivolatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-048-SA5A-SS-0.0-0.5	DUP-07-SA5A-QC-030211			
Benzo(a)pyrene	1.9U	0.94	200 (≤50)	J (all detects) UJ (all non-detects)	A
Benzo(b)fluoranthene	2.9	5.3	59 (≤50)	J (all detects)	A
Di-n-butylphthalate	12	13	8 (≤50)	-	-
Chrysene	0.90	1.6	56 (≤50)	J (all detects)	A
Bis(2-ethylhexyl)phthalate	21U	7.6	200 (≤50)	J (all detects) UJ (all non-detects)	A
Fluoranthene	0.94	2.5	91 (≤50)	J (all detects)	A
Di-n-octylphthalate	12	12	0 (≤50)	-	-
Phenanthrene	1.9U	1.1	200 (≤50)	J (all detects) UJ (all non-detects)	A
Pyrene	1.9U	1.9	200 (≤50)	J (all detects) UJ (all non-detects)	A

Santa Susana Field Laboratory
Semivolatiles- Data Qualification Summary - SDG DE095

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE095	SL-048-SA5A-SS-0.0-0.5	Bis(2-ethylhexyl)phthalate	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE095	EB05-SA5A-030211	Acenaphthene	J (all detects)	P	Laboratory control samples (%R) (L)
DE095	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5 EB05-SA5A-030211	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
DE095	SL-048-SA5A-SS-0.0-0.5 DUP-07-SA5A-QC-030211	Benzo(a)pyrene Bis(2-ethylhexyl)phthalate Phenanthrene Pyrene	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)
DE095	SL-048-SA5A-SS-0.0-0.5 DUP-07-SA5A-QC-030211	Benzo(b)fluoranthene Chrysene Fluoranthene	J (all detects) J (all detects) J (all detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Semivolatiles- Laboratory Blank Data Qualification Summary - SDG DE095

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE095	EB05-SA5A-030211	Diethylphthalate Di-n-butylphthalate Bis(2-ethylhexyl)phthalate	1.1U ug/L 1.1U ug/L 1.1U ug/L	A	B

Santa Susana Field Laboratory
Semivolatiles- Field Blank Data Qualification Summary - SDG DE095

No Sample Data Qualified in this SDG

LDC #: 25911J2b **VALIDATION COMPLETENESS WORKSHEET** Date: 8/10/11
SDG #: DE095 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
SVOA 2nd Reviewer: [illegible]

METHOD: GC/MS ~~Polynuclear Aromatic Hydrocarbons~~ (EPA SW 846 Method 8270C-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/2/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤30, r ✓
IV.	Continuing calibration/ICV	A	ICV/CCV ≤25
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	SW	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs (RL)	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 1,5
XVII.	Field blanks	SW	EB = 12

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil + water

1	DUP-07-SA5A-QC-030211 D	11	SL-189-SA5A-SS-0.0-0.5	21	SBLKWC063	31	
2	SL-042-SA5A-SS-0.0-0.5	12	EB05-SA5A-030211 W	22	SBLKLD069	32	
3	SL-044-SA5A-SS-0.0-0.5	13	SL-048-SA5A-SS-0.0-0.5MS	23		33	
4	SL-045-SA5A-SS-0.0-0.5	14	SL-048-SA5A-SS-0.0-0.5MSD	24		34	
5	SL-048-SA5A-SS-0.0-0.5 D	15		25		35	
6	SL-176-SA5A-SS-0.0-0.3	16		26		36	
7	SL-178-SA5A-SS-0.0-0.4	17		27		37	
8	SL-179-SA5A-SS-0.0-0.3	18		28		38	
9	SL-186-SA5A-SS-0.0-0.5	19		29		39	
10	SL-188-SA5A-SS-0.0-0.5	20		30		40	

LDC #: 25911J2b

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: A

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
VI. Surrogate recoveries				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 25911J2b

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.	✓			

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 25911W26

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a method blank analyzed for each matrix?
Y N N/A Was a method blank analyzed for each concentration preparation level?
Y N N/A Was a method blank associated with every sample?
Y N N/A Was the blank contaminated? If yes, please see qualification below.

Blank extraction date: 3/4/11 **Blank analysis date:** 3/16/11

Conc. units: ug/L Associated Samples: All water

Compound	Blank ID	Sample Identification							
	SBLKW0063	12							
LL	0.05	0.072/1.1U							
XX	0.07	0.34/1.1U							
EEE	0.13	0.12/1.1U							

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 25911J26

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were field blanks identified in this SDG?

Y N N/A Were target compounds detected in the field blanks?

Blank units: ug/L **Associated sample units:** ug/kg

Sampling date: 3/2/11

Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: All soils (ND + 10X)

Compound	Blank ID	Sample Identification								
	12	10X								
XX	0.34	3.4								
LL	0.072	0.72								
EEE	0.12	1.2								
CRQL										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated field blank concentration were qualified as not detected, "U". Other contaminants within five times the field blank concentration were also qualified as not detected, "U".

LDC #: 25911J2b

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: FT
2nd Reviewer: C

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		13 + 14	EEE	168 (39-167)	( )	( )	5	J/A qt (Q)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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LDC #: 25911N26

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		~~LCS/D water~~		( )	( )	( )		
		063W LCS/D	GG	110 (74-109	( )	( )	All water	J/Pdet
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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LDC#: 25911J2b **VALIDATION FINDINGS WORKSHEET**
Field Duplicates

Page: 1 of 1
Reviewer: FZ
2nd Reviewer: C

METHOD: SVOA (EPA Method 8270C-SIM)

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Compound	Concentration (ug/kg)		(≤50) RPD	
	1	5		
III	0.94	1.9U	200	J (UJ) A
GGG	5.3	2.9	59	J det A
XX	13	12	8	
DDD	1.6	0.90	56	↓
EEE	7.6	21U	200	J (UJ) A
YY	2.5	0.94	91	J det A
FFF	12	12	0	
UU	1.1	1.9U	200	J (UJ) A
ZZ	1.9	1.9U	200	↓

(FD)

V:\FIELD DUPLICATES\templates\25911J2b.wpd

LDC #: 25911126

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = $(A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (1 std)	Recalculated RRF (1 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/15/11	~~Phenol (1st internal standard)~~						
	cc		Naphthalene (2nd internal standard)	0.932	0.932	0.942	0.942	8	8
			Fluorene (3rd internal standard)	1.313	1.313	1.282	1.282	3	3
			~~Pentachlorophenol~~ Anthracene (4th internal standard)	1.119	1.119	1.061	1.061	6	6
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)	1.207	1.207	1.214	1.214	3	3
			Benzo(a)pyrene (6th internal standard)	1.591	1.591	1.586	1.586	2	2
2	ICAL	3/8/11	~~Phenol (1st internal standard)~~						
	cc		Naphthalene (2nd internal standard)	1.013	1.013	1.036	1.036	6	6
			Fluorene (3rd internal standard)	1.221	1.221	1.232	1.232	10	10
			~~Pentachlorophenol~~ Anthracene (4th internal standard)	1.059	1.059	1.069	1.069	14	14
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)	1.143	1.143	1.166	1.166	6	6
			Benzo(a)pyrene (6th internal standard)	1.342	1.342	1.349	1.349	11	11
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911J26

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer: CN

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	ccv	3/18/11	~~Phenol (1st internal standard)~~					
	14:29		Naphthalene (2nd internal standard)	1.036	1.007	1.007	3	3
			Fluorene (3rd internal standard)	1.232	1.208	1.208	2	2
			~~Pentachlorophenol~~ Anthracene (4th internal standard)	1.069	1.044	1.044	2	2
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)	1.166	1.145	1.145	2	2
			Benzo(a)pyrene (6th internal standard)	1.349	1.356	1.356	0	0
2	ccv	3/19/11	~~Phenol (1st internal standard)~~					
	5:50		Naphthalene (2nd internal standard)		0.995	0.995	4	4
			~~Fluorene~~ Fluoren (3rd internal standard)		1.260	1.260	2	2
			~~Pentachlorophenol~~ Anthracene (4th internal standard)		1.127	1.127	5	5
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)		1.146	1.146	2	2
			Benzo(a)pyrene (6th internal standard)		1.394	1.394	3	3
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911J26

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer: A

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	1.0	0.963	96	96	0
2-Fluorobiphenyl	↓	0.875	88	88	↓
Terphenyl-d14	↓	0.923	92	92	↓
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 25719SDP

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = I MSC - MSC I * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 13 + 14

Compound	Spike Added (ug/Kg)		Sample Concentration (ug/Kg)	Spiked Sample Concentration (ug/Kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	-----	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol											
N-Nitroso-di-n-propylamine											
4-Chloro-3-methylphenol											
Acenaphthene	33.33	33.33	ND	32.41	31.5	97	97	94	94	3	3
Pentachlorophenol											
Pyrene	↓	↓	ND	33.09	31.95	99	99	96	96	4	4

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911J2b

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 069105

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol										
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene	33.33	NA	30.31	NA	91	91				
Pentachlorophenol										
Pyrene	↓	↓	31.92	↓	96	96	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911126

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #1 , YY :

Conc. = $\frac{(29304)(1.0)(1000)(\quad)(\quad)}{(38127)(1.19)(30)(0.8)(\quad)}$

=

2.47 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 2, 2011

LDC Report Date: August 11, 2011

Matrix: Soil/Water

Parameters: Chlorinated Pesticides

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE095

Sample Identification

DUP-07-SA5A-QC-030211
SL-042-SA5A-SS-0.0-0.5
SL-044-SA5A-SS-0.0-0.5
SL-045-SA5A-SS-0.0-0.5
SL-048-SA5A-SS-0.0-0.5
SL-176-SA5A-SS-0.0-0.3
SL-178-SA5A-SS-0.0-0.4
SL-179-SA5A-SS-0.0-0.3
SL-186-SA5A-SS-0.0-0.5
SL-188-SA5A-SS-0.0-0.5
SL-189-SA5A-SS-0.0-0.5
EB05-SA5A-030211
SL-048-SA5A-SS-0.0-0.5MS
SL-048-SA5A-SS-0.0-0.5MSD

Introduction

This data review covers 13 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of single compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds with the following exceptions:

Date	Column	Compound	%RSD	Associated Samples	Flag	A or P
2/24/11	RTX-CLPII	Dieldrin	23.8	All water samples in SDG DE095	J (all detects) UJ (all non-detects)	A

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
3/4/11	CCV	RTX-CLPII	Dieldrin	31.9	All water samples in SDG DE095	J (all detects) UJ (all non-detects)	A
3/23/11 (6:56)	CCV	RTX-CLP1	Mirex	35.6	SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	J (all detects) UJ (all non-detects)	P
3/23/11 (6:56)	CCV	RTX-CLP2	Mirex	29.8	SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	J (all detects) UJ (all non-detects)	P

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
3/23/11 (7:10)	CCV	RTX-CLP1	Toxaphene	42.8	SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	J (all detects) UJ (all non-detects)	P
3/23/11 (7:10)	CCV	RTX-CLP2	Toxaphene	33.7	SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	J (all detects) UJ (all non-detects)	P
3/23/11 (7:24)	CCV	RTX-CLP1	Chlordane	23.8	SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	J (all detects) UJ (all non-detects)	P
3/23/11 (6:43)	CCV	RTX-CLP1	alpha-BHC gamma-BHC beta-BHC delta-BHC Heptachlor Aldrin Heptachlor epoxide 4,4'-DDE Endosulfan I Dieldrin Endrin 4,4'-DDD Endosulfan II 4,4'-DDT Endrin aldehyde Methoxychlor Endosulfan sulfate Endrin ketone	22.7 26.9 31.9 27.1 34.8 35.8 36.2 37.0 41.6 38.9 42.9 31.6 21.9 50.9 36.9 42.5 37.1 29.4	SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	J (all detects) UJ (all non-detects)	P
3/23/11 (6:43)	CCV	RTX-CLP2	Heptachlor epoxide Endosulfan I 4,4'-DDE Dieldrin Endrin 4,4'-DDD Endosulfan II 4,4'-DDT Endrin aldehyde Endosulfan sulfate Methoxychlor Endrin ketone	24.1 31.6 28.7 31.1 36.5 24.0 31.5 47.7 40.9 32.5 44.4 31.7	SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	J (all detects) UJ (all non-detects)	P

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
2/24/11	ICV	RTX-CLPII	Dieldrin	34.3	All water samples in SDG DE095	J (all detects) UJ (all non-detects)	A

Retention times (RT) of all compounds in the calibration standards were within QC limits.

The individual 4,4'-DDT and Endrin breakdowns (%BD) were less than or equal to 15.0% .

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
SL-044-SA5A-SS-0.0-0.5	Not specified	Decachlorobiphenyl	169 (20-120)	All TCL compounds except 4,4'-DDT	J (all detects)	A
SL-188-SA5A-SS-0.0-0.5	Not specified	Decachlorobiphenyl	165 (20-120)	All TCL compounds	J (all detects)	A
SL-189-SA5A-SS-0.0-0.5	Not specified	Decachlorobiphenyl	286 (20-120)	All TCL compounds	J (all detects)	A

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limit.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

All target compound identifications were within validation criteria.

XIII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE095	All compounds reported below the RL.	J (all detects)	A

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

Samples DUP-07-SA5A-QC-030211 and SL-048-SA5A-SS-0.0-0.5 were identified as field duplicates. No chlorinated pesticides were detected in any of the samples.

Santa Susana Field Laboratory
Chlorinated Pesticides - Data Qualification Summary - SDG DE095

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE095	EB05-SA5A-030211	Dieldrin	J (all detects) UJ (all non-detects)	A	Initial calibration (%RSD) (C)
DE095	EB05-SA5A-030211	Dieldrin	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE095	SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	Mirex Toxaphene Chlordane alpha-BHC gamma-BHC beta-BHC delta-BHC Heptachlor Aldrin Heptachlor epoxide 4,4'-DDE Endosulfan I Dieldrin Endrin 4,4'-DDD Endosulfan II 4,4'-DDT Endrin aldehyde Methoxychlor Endosulfan sulfate Endrin ketone	J (all detects) UJ (all non-detects)	P	Continuing calibration (%D) (C)
DE095	EB05-SA5A-030211	Dieldrin	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE095	SL-044-SA5A-SS-0.0-0.5	All TCL compounds except 4,4'-DDT	J (all detects)	A	Surrogate spikes (%R) (S)
DE095	SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	All TCL compounds	J (all detects)	A	Surrogate spikes (%R) (S)
DE095	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5 EB05-SA5A-030211	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG DE095

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Chlorinated Pesticides - Field Blank Data Qualification Summary - SDG DE095

No Sample Data Qualified in this SDG

LDC #: 25911J3a

SDG #: DE095

Laboratory: Lancaster Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level IV

Date: 8/11/11

Page: 1 of 1

Reviewer: [illegible]

2nd Reviewer: A

METHOD: GC Chlorinated Pesticides (EPA SW846 Method 8081A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/2/11
II.	GC/ECD Instrument Performance Check	A	
III.	Initial calibration	SW	% RSD ≤ 20
IV.	Continuing calibration/ICV	SW	ICV/CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS ID
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	A	
XIII.	Compound quantitation and reported CRQLs	A	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	ND	D = 1,5
XVI.	Field blanks	ND	EB = 12

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil + water

1	DUP-07-SA5A-QC-030211	11	SL-189-SA5A-SS-0.0-0.5	21	PBLK 28069	31	787
2	SL-042-SA5A-SS-0.0-0.5	12	EB05-SA5A-030211 W	22	PBLK 22062	32	788
3	SL-044-SA5A-SS-0.0-0.5	13	SL-048-SA5A-SS-0.0-0.5MS	23		33	789
4	SL-045-SA5A-SS-0.0-0.5	14	SL-048-SA5A-SS-0.0-0.5MSD	24		34	
5	SL-048-SA5A-SS-0.0-0.5	15		25		35	
6	SL-176-SA5A-SS-0.0-0.3	16		26		36	
7	SL-178-SA5A-SS-0.0-0.4	17		27		37	
8	SL-179-SA5A-SS-0.0-0.3	18		28		38	
9	SL-186-SA5A-SS-0.0-0.5	19		29		39	
10	SL-188-SA5A-SS-0.0-0.5	20		30		40	800

Notes: _____

LDC #: 25911J3a
SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: EV
2nd Reviewer: A

Method: Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/ECD Instrument performance check				
Was the instrument performance found to be acceptable?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?	✓			
Were the required standard concentrations analyzed in the initial calibration?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? ___%D or ___%R	✓			
Were Evaluation mix standards analyzed prior to the initial calibration and sample analysis?	✓			
Were endrin and 4,4'-DDT breakdowns ≤ 15%.0 for individual breakdown in the Evaluation mix standards?	✓			
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ ~~15%.0~~ 20 or percent recoveries ~~85-115%~~ 80-120?		✓		
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Were extract cleanup blanks analyzed with every batch requiring clean-up?			✓	
Was there contamination in the method blanks or clean-up blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?		✓		
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?	✓			
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	

LDC #: 25911J3a
SDG #: All Cores

VALIDATION FINDINGS CHECKLIST

Reviewer: [illegible]
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions, dry weight factors, and clean-up activities applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.		✓		
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

VALIDATION FINDINGS WORKSHEET

METHOD: Pesticide/PCBs (EPASW 846 Method 8081/8082)

A. alpha-BHC	I. Dieldrin	Q. Endrin ketone	Y. Aroclor-1242	GG.
B. beta-BHC	J. 4,4'-DDE	R. Endrin aldehyde	Z. Aroclor-1248	HH.
C. delta-BHC	K. Endrin	S. alpha-Chlordane	AA. Aroclor-1254	II.
D. gamma-BHC	L. Endosulfan II	T. gamma-Chlordane	BB. Aroclor-1260	JJ.
E. Heptachlor	M. 4,4'-DDD	U. Toxaphene	CC. DB 608	KK.
F. Aldrin	N. Endosulfan sulfate	V. Aroclor-1016	DD. DB 1701	LL.
G. Heptachlor epoxide	O. 4,4'-DDT	W. Aroclor-1221	EE.	MM.
H. Endosulfan I	P. Methoxychlor	X. Aroclor-1232	FF.	NN.

Notes:_____

LDC #: 25911J3a
SDG #: see cover
METHOD: X GC __ HPLC

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a 5 point calibration curve performed?
Y N N/A Was a linear fit used for evaluation? If yes, the acceptance criteria for each compound is %RSD less than or equal to 20.0%.
Y N N/A Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation? _____
Y N N/A Did the initial calibration meet the acceptance criteria?
Y N N/A Was initial calibration performed at the required frequency?

Level IV Only

Y N N/A Were the retention time windows properly established for all compounds?
Y N N/A Were compounds run at the required concentrations in the initial calibrations?

#	Date	Standard ID	Column / Detector	Compound	Finding RPD Limit ≤20%	Associated Samples	Qualifications
	2/24/11	ICAL	RTXCLPII	I	23.8	All water	J/UJ/A (c)
	2/24/11	ICV	↓	I	34.3		

Comments _____

LDC #: 25911J3a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC __ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
What type of continuing calibration calculation was performed? ___%D or ___RPD
Y N N/A Were continuing calibration standards analyzed at the required frequencies?
Y N N/A Did the continuing calibration standards meet the %D / RPD validation criteria of ≤20.0%?
Level IV Only
Y N N/A Were the retention times for all calibrated compounds within their respective acceptance windows?

#	Date	Standard ID	Detector/ Column	Compound	%D (Limit ≤ 20.0)	RT (limit)	Associated Samples	Qualifications
	3/24/11	ICV	RTX CLP II	I	34.3	( )	All water	J/UJ/A (C)
						( )		
						( )		
						( )		
	3/4/11	CCV	RTX CLP II	I	31.9	( )	↓	↓
	15:05					( )		
						( )		
						( )		
						( )		
	3/23/11	CCV	RTX CLP1	Mirex	35.6	( )	8 → 11	J/UJ/P (C)
	6:56		RTX CLP2	↓	29.8	( )	↓	↓
						( )		
						( )		
	3/23/11	CCV	RTX CLP1	4,4'-DDT	42.8	( )	↓	↓ (C)
	7:10		RTX CLP2	↓	33.7	( )	↓	↓
						( )		
						( )		
	3/23/11	CCV	RTX CLP1	chlordane	23.8	( )	↓	↓ (C)
	7:24		~~RTX CLP2~~			( )		
						( )		
						( )		
						( )		
						( )		
						( )		

LDC #: 25916W3a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: FT
2nd Reviewer: CC

METHOD: __ GC __ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
What type of continuing calibration calculation was performed? __%D or __RPD
Y N N/A Were continuing calibration standards analyzed at the required frequencies?
Y N N/A Did the continuing calibration standards meet the %D / RPD validation criteria of ≤20.0%?
Level IV Only
Y N N/A Were the retention times for all calibrated compounds within their respective acceptance windows?

#	Date	Standard ID	Detector/ Column	Compound	%D (Limit ≤ 20.0)	RT (limit)	Associated Samples	Qualifications
	3/23/11 6:43	CCV	RTX CLP1	A	22.7	( )	8 – D 11	J/UJ/D (C)
				D	26.9	( )		
				B	31.9	( )		
				C	27.1	( )		
				E	34.8	( )		
				F	35.8	( )		
				G	36.2	( )		
W				J	37.0	( )		
				H	41.6	( )		
+-				I	38.9	( )		
				K	42.9	( )		
				M	31.6	( )		
				L	21.9	( )		
				O	50.9	( )		
				R	36.9	( )		
				P	42.5	( )		
				N	37.1	( )		
				Q	29.4	( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		

LDC #: 25911N3a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: FT

METHOD: ✓ GC ___ HPLC

2nd Reviewer: C

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
What type of continuing calibration calculation was performed? ___%D or ___RPD
Y N N/A Were continuing calibration standards analyzed at the required frequencies?
Y N N/A Did the continuing calibration standards meet the %D / RPD validation criteria of ≤20.0%?
Level IV Only
Y N N/A Were the retention times for all calibrated compounds within their respective acceptance windows?

#	Date	Standard ID	Detector/ Column	Compound	%D (Limit ≤ 20.0)	RT (limit)	Associated Samples	Qualifications
	3/23/11 6:43	ccv	RTXCLP2	G	24.1	( )	8 → 11	J/UJ/A (C)
				H	31.6	( )		
				J	28.7	( )		
				I	31.1	( )		
				K	36.5	( )		
				M	24.0	( )		
				L	31.5	( )		
				O	47.7	( )		
				R	40.9	( )		
				N	32.5	( )		
				P	44.4	( )		
				Q	31.7	( )	✓	✓
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		

LDC #: 25911J3a

VALIDATION FINDINDS WORKSHEET
Surrogate Recovery

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: ✓ GC __ HPLC

Are surrogates required by the method? Yes____ or No____.

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were surrogates spiked into all samples and blanks?

Y N N/A Did all surrogate recoveries (%R) meet the QC limits?

(S)

#	Sample ID	Detector/ Column	Surrogate Compound	%R (Limits)	Qualifications
	2, 6, 7, 8	NS	surrogate outside limit	( )	no quant ≥ 5x PL
				( )	
				( )	
	3	~~NS~~ NS	~~B~~ B	169 (20-120)	J/A dtt all except B
				( )	
				( )	
	10	↓	B	165 (20-120)	J/A dtt all TCL
				( )	
				( )	
	11	↓	B	286 (20-120)	J/A dtt all TCL
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

	Surrogate Compound		Surrogate Compound		Surrogate Compound		Surrogate Compound		
A	Chlorobenzene (CBZ)	G	Octacosane	M	Benzo(e)Pyrene	S	1-Chloro-3-Nitrobenzene	Y	Tetrachloro-m- xylene
B	4-Bromofluorobenzene (BFB)	H	Ortho-Terphenyl	N	Terphenyl-D14	T	3,4-Dinitrotoluene		
C	a,a,a-Trifluorotoluene	I	Fluorobenzene (FBZ)	O	Decachlorobiphenyl (DCB)	U	Tripentyltin		
D	Bromochlorobenene	J	n-Triacontane	P	1-methylnaphthalene	V	Tri-n-propyltin		
E	1,4-Dichlorobutane	K	Hexacosane	Q	Dichlorophenyl Acetic Acid (DCAA)	W	Tributyl Phosphate		
F	1,4-Difluorobenzene (DFB)	L	Bromobenzene	R	4-Nitrophenol	X	Triphenyl Phosphate		

LDC #: 259/U3a
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JMC
2nd Reviewer: CA

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

3

#	Standard ID	Calibration Date	Compound	Reported CF (10/std)	Recalculated CF (10/std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL ICSDS	2/24/11	endosulfan I RTXCLP1	2.63×10^3	2.63×10^3	2.71×10^3	2.71×10^3	8.5	8.5
			Methoxychlor	8.19×10^2	8.19×10^2	8.23×10^2	8.23×10^2	8.4	8.4
2			↓ RTXCLP2	6.33×10^3	6.33×10^3	6.07×10^3	6.07×10^3	3.3	3.3
			↓	2.18×10^3	2.18×10^3	2.07×10^3	2.07×10^3	4.7	4.7
3	ICAL IP10080	3/2/11	↓ RTXCLP1	4.35×10^3	4.35×10^3	4.48×10^3	4.48×10^3	8.0	8.0
			↓	1.47×10^3	1.47×10^3	1.51×10^3	1.51×10^3	9.7	9.7
4			↓ RTXCLP2	1.88×10^3	1.88×10^3	2.01×10^3	2.01×10^3	8.2	8.2
			↓	7.24×10^2	7.24×10^2	7.49×10^2	7.49×10^2	9.0	9.0

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911J39
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer:
2nd Reviewer:

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (10/10 std)	Recalculated CF (10/10 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL IP100X1	3/22/11	endosulfan RTX dup1	4.21×10^3	4.21×10^3	4.52×10^3	4.52×10^3	6.9	6.9
			methoxychlor	1.58×10^3	1.58×10^3	1.67×10^3	1.67×10^3	8.3	8.3
2			↓ RTX CLP2	1.94×10^3	1.94×10^3	2.13×10^3	2.13×10^3	8.5	8.5
				8.02×10^2	8.02×10^2	8.48×10^2	8.48×10^2	9.6	9.6
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911J3a
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	ccv 15:05	3/4/11	endosulfan I RTX cvp1	10.0	9.45	9.45	5.5	5.5
			methoxychlor ↓	100	83.77	83.77	16.2	16.2
			RTX cvp2		10.80	10.80	8.0	8.0
2			↓	↓	99.13	99.13	0.9	0.9
	ccv 14:00	3/21/11	RTX cvp1	10.0	10.08	10.08	0.8	0.8
			↓	100.0	98.85	95.85	4.2	4.2
3			RTX cvp2	10.0	9.93	9.93	0.7	0.7
			↓	100	95.15	95.15	4.8	4.8
	cc 6:43	3/23/11	RTX cvp1	10	5.84	5.84	41.6	41.6
4			↓ ↓	100	57.48	57.48	42.5	42.6
			RTX cvp2	10	6.84	6.84	31.6	31.6
			↓	100	55.62	55.62	44.4	44.4

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25711J39
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: P
2nd reviewer: A

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Tetrachloro-m-xylene	RTXcap2	1.04	0.80926	78	77.9	0
Decachlorobiphenyl	↓	1.04	1.157846	111	111.2	D
Decachlorobiphenyl						

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Decachlorobiphenyl						

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Decachlorobiphenyl						

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Decachlorobiphenyl						

Notes:

LDC #: 25911J3a
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The percent recoveries (%R) and Relative Percent difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA

Where: SSC = Spiked sample concentration; SA = Spike added; SC = Concentration

RPD = | MS - MSD | * 2/(MS + MSD)

MS = Matrix spike percent recovery; MSD = Matrix spike duplicate percent recovery

MS/MSD samples: 13+14

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	-	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
gamma-BHC	0.33	0.33	ND	0.35	0.35	106	106	106	106	0	0
4,4'-DDT	0.65	0.65	ND	0.93	0.94	143	143	145	145	1	1

Comments: Refer ot Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911N39
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA

Where: SSC = Spiked sample concentration; SA = Spike added; SC = Concentration

RPD = I LCS - LCSD I * 2/(LCS + LCSD)

LCS = Laboratory control sample percent recovery; LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS SOIL

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
gamma-BHC	0.33	NA	0.38	NA	115	115				
4,4'-DDT	0.65	↓	0.84	↓	129	129	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 259/W3C
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: P
2nd reviewer: A

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Example:

Sample I.D. #2 Delta BHC

$$\text{Conc.} = \frac{(8055)(10000)(0.4)}{(5.10 \times 10^{3})(60.2)(0.812)(1000)}$$

=

0.13 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 2, 2011

LDC Report Date: August 10, 2011

Matrix: Soil/Water

Parameters: Polychlorinated Biphenyls

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE095

Sample Identification

DUP-07-SA5A-QC-030211
SL-042-SA5A-SS-0.0-0.5
SL-044-SA5A-SS-0.0-0.5
SL-045-SA5A-SS-0.0-0.5
SL-048-SA5A-SS-0.0-0.5
SL-176-SA5A-SS-0.0-0.3
SL-178-SA5A-SS-0.0-0.4
SL-179-SA5A-SS-0.0-0.3
SL-186-SA5A-SS-0.0-0.5
SL-188-SA5A-SS-0.0-0.5
SL-189-SA5A-SS-0.0-0.5
EB05-SA5A-030211
SL-048-SA5A-SS-0.0-0.5MS
SL-048-SA5A-SS-0.0-0.5MSD

Introduction

This data review covers 13 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Affected Compound	Flag	A or P
3/16/11	CCV.58	RTX-CLP1	Aroclor-1260	22.9	SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260	J (all detects) UJ (all non-detects)	A
3/16/11	CCV.58	RTX-CLP2	Aroclor-1260	38.5	SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260	J (all detects) UJ (all non-detects)	A

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. Surrogate recoveries (%R) were not within QC limits for samples SL-176-SA5A-SS-0.0-0.3 and SL-178-SA5A-SS-0.0-0.4. Since the samples were diluted out, no data were qualified.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

All target compound identifications were within validation criteria.

XIII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria.

The sample results for detected compounds from the two columns were within 40% relative percent difference (RPD) with the following exceptions:

Sample	Compound	RPD	Flag	A or P
SL-042-SA5A-SS-0.0-0.5	Aroclor-1254	62	J (all detects)	A
SL-044-SA5A-SS-0.0-0.5	Aroclor-1254	66	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE095	All compounds reported below the RL.	J (all detects)	A

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

Samples DUP-07-SA5A-QC-030211 and SL-048-SA5A-SS-0.0-0.5 were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	DUP-07-SA5A-QC-030211	SL-048-SA5A-SS-0.0-0.5			
Aroclor-5460	2.1	1.3	47 (≤50)	-	-
Aroclor-1254	0.98	1.9U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Aroclor-1260	0.65	0.88	30 (≤50)	-	-

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Data Qualification Summary - SDG DE095

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE095	SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE095	SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5	Aroclor-1254	J (all detects)	A	Compound quantitation and CRQLs (RPD) (*XIII)
DE095	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5 EB05-SA5A-030211	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)
DE095	DUP-07-SA5A-QC-030211 SL-048-SA5A-SS-0.0-0.5	Aroclor-1254	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG DE095

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG DE095

No Sample Data Qualified in this SDG

LDC #: 25911J3b

SDG #: DE095

Laboratory: Lancaster Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level IV

Date: 8/10/11

Page: 1 of 1

Reviewer: FT

2nd Reviewer:

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/2/11
II.	GC/ECD Instrument Performance Check	NA	
III.	Initial calibration	A	%D ≤ 20
IV.	Continuing calibration/ICV	SW	ICV/CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS ID
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	A	
XIII.	Compound quantitation and reported CRQLs	SW	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	SW	D = 1,5
XVI.	Field blanks	ND	EB = 12

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil + water

1	DUP-07-SA5A-QC-030211 D	11	SL-189-SA5A-SS-0.0-0.5	21	PBLK07069	31	
2	SL-042-SA5A-SS-0.0-0.5	12	EB05-SA5A-030211 W	22	PBLK21062	32	
3	SL-044-SA5A-SS-0.0-0.5	13	SL-048-SA5A-SS-0.0-0.5MS	23		33	
4	SL-045-SA5A-SS-0.0-0.5	14	SL-048-SA5A-SS-0.0-0.5MSD	24		34	
5	SL-048-SA5A-SS-0.0-0.5 D	15		25		35	
6	SL-176-SA5A-SS-0.0-0.3	16		26		36	
7	SL-178-SA5A-SS-0.0-0.4	17		27		37	
8	SL-179-SA5A-SS-0.0-0.3	18		28		38	
9	SL-186-SA5A-SS-0.0-0.5	19		29		39	
10	SL-188-SA5A-SS-0.0-0.5	20		30		40	

Notes:

LDC #: 25911J3b
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FD
2nd Reviewer: [illegible]

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?		✓		
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?		✓		
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 25911J3b
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

VALIDATION FINDINGS WORKSHEET

METHOD: Pesticide/PCBs (EPASW 846 Method 8081/8082)

A. alpha-BHC	I. Dieldrin	Q. Endrin ketone	Y. Aroclor-1242	GG.
B. beta-BHC	J. 4,4'-DDE	R. Endrin aldehyde	Z. Aroclor-1248	HH.
C. delta-BHC	K. Endrin	S. alpha-Chlordane	AA. Aroclor-1254	II.
D. gamma-BHC	L. Endosulfan II	T. gamma-Chlordane	BB. Aroclor-1260	JJ.
E. Heptachlor	M. 4,4'-DDD	U. Toxaphene	CC. DB 608	KK.
F. Aldrin	N. Endosulfan sulfate	V. Aroclor-1016	DD. DB 1701	LL.
G. Heptachlor epoxide	O. 4,4'-DDT	W. Aroclor-1221	EE.	MM.
H. Endosulfan I	P. Methoxychlor	X. Aroclor-1232	FF.	NN.

Notes:_____

LDC #: 29113b

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: FT

METHOD: ✓ GC ___ HPLC

2nd Reviewer: A

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
What type of continuing calibration calculation was performed? ___%D or ___RPD
Y N N/A Were continuing calibration standards analyzed at the required frequencies?
Y N N/A Did the continuing calibration standards meet the %D / RPD validation criteria of ≤20.0%?
Level IV Only
Y N N/A Were the retention times for all calibrated compounds within their respective acceptance windows?

#	Date	Standard ID	Detector/ Column	Compound	%D (Limit ≤ 20.0)	RT (limit)	Associated Samples	Qualifications
	3/16/11	CCV. 58	RTXCLP1	BB	22.9	( )	10, 11	J/UJ/A (C)
	7:09		RTXCLP2	↓	38.5	( )	↓	↓
						( )		qual Y, Z, AA, + BB only
						( )		
						( )		
						( )		
						( )		
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LDC #: 25911J36

VALIDATION FINDINDS WORKSHEET
Surrogate Recovery

Page: 1 of 1
Reviewer: FT
2nd Reviewer: C

METHOD: / **GC** __ **HPLC**

Are surrogates required by the method? Yes____ or No____.

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y (N) N/A Were surrogates spiked into all samples and blanks?

Y (N) N/A Did all surrogate recoveries (%R) meet the QC limits?

#	Sample ID	Detector/ Column	Surrogate Compound	%R (Limits)	Qualifications
	6	NS	Y	49 (53-139)	J/UJ/P (S)
				( )	
				( )	
	7	↓	O	129 (45-120)	J/Pdet (S)
				( )	
				( )	No qual TSX PL
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

	Surrogate Compound		Surrogate Compound		Surrogate Compound		Surrogate Compound		
A	Chlorobenzene (CBZ)	G	Octacosane	M	Benzo(e)Pyrene	S	1-Chloro-3-Nitrobenzene	Y	Tetrachloro-m- xylene
B	4-Bromofluorobenzene (BFB)	H	Ortho-Terphenyl	N	Terphenyl-D14	T	3,4-Dinitrotoluene		
C	a,a,a-Trifluorotoluene	I	Fluorobenzene (FBZ)	O	Decachlorobiphenyl (DCB)	U	Tripentyltin		
D	Bromochlorobenene	J	n-Triacontane	P	1-methylnaphthalene	V	Tri-n-propyltin		
E	1,4-Dichlorobutane	K	Hexacosane	Q	Dichlorophenyl Acetic Acid (DCAA)	W	Tributyl Phosphate		
F	1,4-Difluorobenzene (DFB)	L	Bromobenzene	R	4-Nitrophenol	X	Triphenyl Phosphate		

LDC #: 25914J3b
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Reviewer: F7
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Level IV/D Only

Y N N/A Were CRQLs adjusted for sample dilutions, dry weight factors, etc.?
Y N N/A Did the reported results for detected target compounds agree within 10.0% of the recalculated results?

#	Compound Name	% RPD Bet 2 col Finding ±40	Associated Samples	Qualifications
	AA	62	2	J/A det * XIII
	↓	66	3	↓ ↓

Comments: See sample calculation verification worksheet for recalculations

LDC #: 25911U36

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT
2nd reviewer:

METHOD: ___ GC ___ HPLC
Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (ug/kg)		%RPD Limit ≤50	Qualification Parent only / All Samples
	1	5		
Aroclor 5460	2.1	1.3	47	
PCB - 1254	0.98	1.9 U	200	J/UJ/A (FD)
PCB - 1260	0.65	0.88	30	

Compound	Concentration ( )		%RPD Limit _____	Qualification Parent only / All Samples

LDC #: 25711J3b
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: A

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (2nd std)	Recalculated CF (2nd std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	3 ICAL	3/9/11	1260 - 1 ZB_R1	18	18	17	17	9.8	9.8
			↓ ZB_R2	271	271	253	253	9.7	9.7
2	ICAL	3/10/11	↓ CLP1	119	119	115	115	12.0	12.0
			↓ CLP II	212	212	206	206	9.6	9.6
3	ICAL	3/15/11	↓ CLP1						
			↓ CLP II						
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

INICIO ISE

LDC #: 25911J3b
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: A

METHOD: GC ✓ HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = Initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	ccv	3/15/11	Aroclor 1260 cvp1	200.00	199.03	199.03	0.5	0.5
		21:53	cvp2	200.00	195.55	195.55	2.2	2.2
2	ccv	3/16/11	↓ ↓	200.00	154.12	154.12	22.9	22.9
		7:09		200.00	123.05	123.05	38.5	38.5
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 43114 "9
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer:

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
TCMX	RTX cvP)	1.04	0.9289	89	89	0
DCB	↓	1.04	1.0423	100	100	↓

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 25716D
SDG #: pu covers

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FZ
2nd Reviewer: A

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration
SA = Spike added
RPD =(({SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 13 14

Compound	Spike Added ( )		Sample Conc. ( )	Spike Sample Concentration ( )		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	---	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
PCB-1260	16.67	16.67	0.77	16.67	16.03	95	95	92	92	4	4

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911B3b
SDG #: all covers

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: RD
2nd Reviewer: [signature]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS 8011

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
PCB-1260	16.67	NA	14.91	NA	89	89	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911J3b
SDG #: pu grave

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. #2 Compound Name Aroclor 1260

Concentration = 45.437 / 0.812

= 56 ug/kg

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications
	1260-5 =	56315, 105469 (2000)(5) / 278 (60)(1000)		126-5 = 33.76	
				6 = 56.77	
				7 = 45.78	
	=	33.76		45.437	

Comments: _____

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 2, 2011

LDC Report Date: August 1, 2011

Matrix: Soil/Water

Parameters: Metals

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE095

Sample Identification

DUP-07-SA5A-QC-030211
SL-042-SA5A-SS-0.0-0.5
SL-044-SA5A-SS-0.0-0.5
SL-045-SA5A-SS-0.0-0.5
SL-048-SA5A-SS-0.0-0.5
SL-176-SA5A-SS-0.0-0.3
SL-178-SA5A-SS-0.0-0.4
SL-179-SA5A-SS-0.0-0.3
SL-186-SA5A-SS-0.0-0.5
SL-188-SA5A-SS-0.0-0.5
SL-189-SA5A-SS-0.0-0.5
EB05-SA5A-030211
SL-048-SA5A-SS-0.0-0.5MS
SL-048-SA5A-SS-0.0-0.5MSD
SL-048-SA5A-SS-0.0-0.5DUP

Introduction

This data review covers 14 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B, 6020, and 7000 for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, and Zirconium.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5% .

III. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No metal contaminants were found in the initial, continuing and preparation blanks with the following exceptions:

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
PB (prep blank)	Lithium	4.9 ug/L	EB05-SA5A-030211
ICB/CCB	Calcium Lithium Magnesium	237 ug/L 8.6 ug/L 252 ug/L	EB05-SA5A-030211
PB (prep blank)	Barium Copper Molybdenum Phosphorus Tin	0.203 mg/Kg 0.073 mg/Kg 0.067 mg/Kg 1.219 mg/Kg 1.612 mg/Kg	All soil samples in SDG DE095
ICB/CCB	Titanium Zirconium	0.61 ug/L 5.0 ug/L	SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5
ICB/CCB	Titanium Zirconium	0.57 ug/L 5.1 ug/L	DUP-07-SA5A-QC-030211 SL-048-SA5A-SS-0.0-0.5

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
DUP-07-SA5A-QC-030211	Tin Zirconium	3.0 mg/Kg 1.5 mg/Kg	3.0U mg/Kg 1.5U mg/Kg
SL-042-SA5A-SS-0.0-0.5	Tin Zirconium	4.0 mg/Kg 2.4 mg/Kg	4.0U mg/Kg 2.4U mg/Kg
SL-044-SA5A-SS-0.0-0.5	Tin Zirconium	3.1 mg/Kg 1.8 mg/Kg	3.1U mg/Kg 1.8U mg/Kg
SL-045-SA5A-SS-0.0-0.5	Tin Zirconium	3.2 mg/Kg 1.8 mg/Kg	3.2U mg/Kg 1.8U mg/Kg
SL-048-SA5A-SS-0.0-0.5	Tin Zirconium	2.8 mg/Kg 1.9 mg/Kg	2.8U mg/Kg 1.9U mg/Kg
SL-176-SA5A-SS-0.0-0.3	Tin Zirconium	5.6 mg/Kg 1.6 mg/Kg	5.6U mg/Kg 1.6U mg/Kg
SL-178-SA5A-SS-0.0-0.4	Tin Zirconium	3.2 mg/Kg 0.93 mg/Kg	3.2U mg/Kg 0.93U mg/Kg
SL-179-SA5A-SS-0.0-0.3	Tin Zirconium	3.0 mg/Kg 1.5 mg/Kg	3.0U mg/Kg 1.5U mg/Kg
SL-186-SA5A-SS-0.0-0.5	Tin Zirconium	2.8 mg/Kg 1.9 mg/Kg	2.8U mg/Kg 1.9U mg/Kg
SL-188-SA5A-SS-0.0-0.5	Tin Zirconium	3.0 mg/Kg 1.6 mg/Kg	3.0U mg/Kg 1.6U mg/Kg
SL-189-SA5A-SS-0.0-0.5	Tin Zirconium	2.6 mg/Kg 4.7 mg/Kg	2.6U mg/Kg 4.7U mg/Kg
EB05-SA5A-030211	Lithium	4.5 ug/L	4.5U ug/L

Sample EB05-SA5A-030211 was identified as an equipment blank. No metal contaminants were found with the following exceptions:

Equipment Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
EB05-SA5A-030211	3/2/11	Lithium	4.5 ug/L	All soil samples in SDG DE095

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks.

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VI. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-048-SA5A-SS-0.0-0.5MS/MSD (All soil samples in SDG DE095)	Antimony	54 (75-125)	54 (75-125)	-	J (all detects) UJ (all non-detects)	A
	Arsenic	-	73 (75-125)	-	J (all detects) UJ (all non-detects)	
SL-048-SA5A-SS-0.0-0.5MS/MSD (All soil samples in SDG DE095)	Cadmium	135 (75-125)	-	-	J (all detects)	A
	Molybdenum	138 (75-125)	129 (75-125)	-	J (all detects)	
	Silver	131 (75-125)	-		J (all detects)	

VII. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the following exceptions:

DUP ID (Associated Samples)	Analyte	RPD (Limits)	Difference (Limits)	Flag	A or P
SL-048-SA5A-SS-0.0-0.5DUP (All soil samples in SDG DE095)	Arsenic	40 (≤20)	-	J (all detects) UJ (all non-detects)	A
	Barium	38 (≤20)	-		
	Beryllium	-	0.3475 (≤0.226)		
	Chromium	40 (≤20)	-		
	Cobalt	38 (≤20)	-		
	Copper	25 (≤20)	-		
	Lead	42 (≤20)	-		
	Molybdenum	51 (≤20)	-		
	Nickel	36 (≤20)	-		
	Vanadium	43 (≤20)	-		
	Zinc	31 (≤20)	-		

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Internal Standards

All internal standard percent recoveries (%R) were within QC limits.

X. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met with the following exceptions:

Diluted Sample	Analyte	%D (Limits)	Associated Samples	Flag	A or P
SL-048-SA5A-SS-0.0-0.5	Barium	21 (≤10)	All soil samples in SDG DE095	J (all detects) UJ (all non-detects)	A
	Chromium	15 (≤10)			
	Copper	16 (≤10)			
	Lead	19 (≤10)			
	Vanadium	15 (≤10)			
	Zinc	13 (≤10)			

XII. Sample Result Verification

All sample result verifications were acceptable.

All metals reported below the RL and above the MDL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG DE095	All analytes reported below the RL and above the MDL.	J (all detects)	A

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

Samples DUP-07-SA5A-QC-030211 and SL-048-SA5A-SS-0.0-0.5 were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	DUP-07-SA5A-QC-030211	SL-048-SA5A-SS-0.0-0.5			
Aluminum	17100	17600	3 (≤50)	-	-
Antimony	0.14	0.17	19 (≤50)	-	-
Arsenic	5.4	7.3	30 (≤50)	-	-
Barium	140	165	16 (≤50)	-	-
Beryllium	0.63	0.85	30 (≤50)	-	-
Boron	3.2	3.4	6 (≤50)	-	-
Cadmium	0.26	0.26	0 (≤50)	-	-
Calcium	3000	3150	5 (≤50)	-	-
Chromium	23.3	29.1	22 (≤50)	-	-
Cobalt	6.9	7.7	11 (≤50)	-	-
Copper	11.5	11.3	2 (≤50)	-	-
Iron	23500	23600	0 (≤50)	-	-
Lead	11.3	14.9	27 (≤50)	-	-
Lithium	27.1	27.6	2 (≤50)	-	-

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	DUP-07-SA5A-QC-030211	SL-048-SA5A-SS-0.0-0.5			
Magnesium	5460	5550	2 (≤50)	-	-
Manganese	367	370	1 (≤50)	-	-
Mercury	0.045	0.0040	167 (≤50)	J (all detects)	A
Molybdenum	0.72	1.0	33 (≤50)	-	-
Nickel	16.2	18.8	15 (≤50)	-	-
Phosphorus	664	696	5 (≤50)	-	-
Potassium	4420	4460	1 (≤50)	-	-
Selenium	0.16	0.55	110 (≤50)	J (all detects)	A
Silver	0.11	0.18	48 (≤50)	-	-
Sodium	81.6	81.4	0 (≤50)	-	-
Strontium	19.7	20.3	3 (≤50)	-	-
Thallium	0.30	0.38	24 (≤50)	-	-
Tin	3.0	2.8	7 (≤50)	-	-
Titanium	1270	1290	2 (≤50)	-	-
Vanadium	43.1	52.1	19 (≤50)	-	-
Zinc	80.9	92.2	13 (≤50)	-	-
Zirconium	1.5	1.9	24 (≤50)	-	-

Santa Susana Field Laboratory
Metals - Data Qualification Summary - SDG DE095

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE095	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	Antimony Arsenic	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE095	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	Cadmium Molybdenum Silver	J (all detects) J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE095	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	Arsenic Barium Chromium Cobalt Copper Lead Molybdenum Nickel Vanadium Zinc	J (all detects) UJ (all non-detects)	A	Duplicate sample analysis (RPD) (E)
DE095	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	Beryllium	J (all detects) UJ (all non-detects)	A	Duplicate sample analysis (Difference) (E)
DE095	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	Barium Chromium Copper Lead Vanadium Zinc	J (all detects) UJ (all non-detects)	A	ICP serial dilution (%D) (A)

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE095	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5 EB05-SA5A-030211	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)
DE095	DUP-07-SA5A-QC-030211 SL-048-SA5A-SS-0.0-0.5	Mercury Selenium	J (all detects) J (all detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Metals - Laboratory Blank Data Qualification Summary - SDG DE095

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE095	DUP-07-SA5A-QC-030211	Tin Zirconium	3.0U mg/Kg 1.5U mg/Kg	A	B
DE095	SL-042-SA5A-SS-0.0-0.5	Tin Zirconium	4.0U mg/Kg 2.4U mg/Kg	A	B
DE095	SL-044-SA5A-SS-0.0-0.5	Tin Zirconium	3.1U mg/Kg 1.8U mg/Kg	A	B
DE095	SL-045-SA5A-SS-0.0-0.5	Tin Zirconium	3.2U mg/Kg 1.8U mg/Kg	A	B
DE095	SL-048-SA5A-SS-0.0-0.5	Tin Zirconium	2.8U mg/Kg 1.9U mg/Kg	A	B
DE095	SL-176-SA5A-SS-0.0-0.3	Tin Zirconium	5.6U mg/Kg 1.6U mg/Kg	A	B
DE095	SL-178-SA5A-SS-0.0-0.4	Tin Zirconium	3.2U mg/Kg 0.93U mg/Kg	A	B
DE095	SL-179-SA5A-SS-0.0-0.3	Tin Zirconium	3.0U mg/Kg 1.5U mg/Kg	A	B
DE095	SL-186-SA5A-SS-0.0-0.5	Tin Zirconium	2.8U mg/Kg 1.9U mg/Kg	A	B
DE095	SL-188-SA5A-SS-0.0-0.5	Tin Zirconium	3.0U mg/Kg 1.6U mg/Kg	A	B

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE095	SL-189-SA5A-SS-0.0-0.5	Tin Zirconium	2.6U mg/Kg 4.7U mg/Kg	A	B
DE095	EB05-SA5A-030211	Lithium	4.5U ug/L	A	B

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG DE095

No Sample Data Qualified in this SDG

LDC #: 25911J4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-1-11
SDG #: DE095 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: OR
2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/2/11
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	SW	
VI.	Matrix Spike Analysis	SW	MS/D
VII.	Duplicate Sample Analysis	SW	DUP
VIII.	Laboratory Control Samples (LCS)	A	LCS/D
IX.	Internal Standard (ICP-MS)	A	
X.	Furnace Atomic Absorption QC	N	Nebutilized
XI.	ICP Serial Dilution	SW	
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	SW	(1, 5)
XV	Field Blanks	SW	EB=12

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: all soil except 12=water

1	DUP-07-SA5A-QC-030211	11	SL-189-SA5A-SS-0.0-0.5	21		31	
2	SL-042-SA5A-SS-0.0-0.5	12	EB05-SA5A-030211	22		32	
3	SL-044-SA5A-SS-0.0-0.5	13	SL-048-SA5A-SS-0.0-0.5MS	23		33	
4	SL-045-SA5A-SS-0.0-0.5	14	SL-048-SA5A-SS-0.0-0.5MSD	24		34	
5	SL-048-SA5A-SS-0.0-0.5	15	SL-048-SA5A-SS-0.0-0.5DUP	25		35	
6	SL-176-SA5A-SS-0.0-0.3	16		26		36	
7	SL-178-SA5A-SS-0.0-0.4	17		27		37	
8	SL-179-SA5A-SS-0.0-0.3	18		28		38	
9	SL-186-SA5A-SS-0.0-0.5	19		29		39	
10	SL-188-SA5A-SS-0.0-0.5	20		30		40	

Notes:

LDC #: 25911J4

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: CR
2nd Reviewer: VC

Method: Metals (EPA SW 846 Method 6010B/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. ICP/MS Tune				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution ≤5%?	✓			
III. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients > 0.995?	✓			
IV. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
V. ICP Interference Check Sample				
Were ICP interference check samples performed daily?	✓			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?		✓		
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.		✓		
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of +/- RL(+/-2X RL for soil) was used for samples that were ≤ 5X the RL, including when only one of the duplicate sample values were ≤ 5X the RL.		✓		
VII. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	✓			

Validation Area	Yes	No	NA	Findings/Comments
VIII. Furnace Atomic Absorption QC				
If MSA was performed, was the correlation coefficients > 0.995?			/	
Do all applicable analysies have duplicate injections? (Level IV only)			/	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			/	
Were analytical spike recoveries within the 85-115% QC limits?			/	
IX. ICP Serial Dilution				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?	/			
Were all percent differences (%Ds) < 10%?		/		
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.		/		
X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	/	/		
If the %Rs were outside the criteria, was a reanalysis performed?	/			
XI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		/		
Were the performance evaluation (PE) samples within the acceptance limits?			/	
XII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	/			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	/			
Target analytes were detected in the field duplicates.	/			
XV. Field blanks				
Field blanks were identified in this SDG.	/	/		
Target analytes were detected in the field blanks.	/			

LDC #: 25911J4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Reviewer: GR
2nd Reviewer: 1

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: 100 x MS: 2xdil
Sample Concentration units, unless otherwise noted: ug/L
Associated Samples: All Water

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	12									
Ca			237	1185										
Li		4.9	8.6	43	4.5									
Mg			252	1260										

Sample Concentration units, unless otherwise noted: mg/Kg
Associated Samples: All Soil

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	1	2	3	4	5	6	7	8	9	10	11
Ba	0.203			1.015											
Cu	0.073			0.365											
Mo	0.067			0.335											
P	1.219			6.095											
Sn	1.612			8.06	3.0	4.0	3.1	3.2	2.8	5.6	3.2	3.0	2.8	3.0	2.6

Sample Concentration units, unless otherwise noted: mg/Kg
Associated Samples: 2-4, 6-11

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	2	3	4	6	7	8	9	10	11	
Ti			0.61	0.305										
Zr			5.0	2.5	2.4	1.8	1.8	1.6	0.93	1.5	1.9	1.6	4.7	

Sample Concentration units, unless otherwise noted: mg/Kg
Associated Samples: 1, 5

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	1	5								
Ti			0.57	0.285										
Zr			5.1	2.55	1.5	1.9								

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".

Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 25911J4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: CR
2nd Reviewer:

METHOD: Trace Metals (EPA SW846 6010B/7000)

Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target analytes detected in the field blanks?

Blank units: ug/L **Associated sample units:** mg/Kg
Sampling date: 3/2/11 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All Soil

Analyte	Blank ID	Sample Identification										
	12	Action Level	No Qualifiers									
Li	4.5	2.25										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

LDC #: 25915J4

VALIDATION FINDINGS WORKSHEET
ICP Interference Check Sample

Page: 1 of 1
Reviewer: QR
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were ICP interference check samples performed as required?

Y (N) N/A Were the AB solution percent recoveries (%R) within the control limits of 80-120% ?

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	ICS Identification	Analyte	Finding	Associated Samples	Qualifications
	3/10/11	ICSAB (19:17)	K	121.3	All Water	No Qual (<90% ICSA)
	3/10/11	ICSAB (19:58)	K	120.4	↓	↓
				Concentration < Limits		
	3/11/11	ICSA (17:14)	Mn	5 mg/L (≤0.78)	All Soil	No Qual (<90% ICSA)
	3/4/11	ICSA (19:04)	Mn	4 ug/L ↓	↓	↓

Comments: _____

ICS.4SW

LDC #: 25915J4

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of
Reviewer: CR
2nd Reviewer:

METHOD: Trace metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y (N) N/A Were matrix spike percent recoveries (%R) within the control limits of 75-125? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

(Y) N N/A Were all duplicate sample relative percent differences (RPD) ≤ 20% for water samples and ≤35% for soil samples?

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	MS/MSD ID	Matrix	Analyte	MS %Recovery	MSD %Recovery	RPD (Limits)	Associated Samples	Qualifications
	B/14	S	Sb	54	54		All Soil	J / UJ / A (Q)
			As		73			
			Cd	135				Jdet/A
			Mo	138	129			
			Ag	131				

Comments:

LDC #: 25911D4

VALIDATION FINDINGS WORKSHEET
Duplicate Analysis

Page: 1 of 1
Reviewer: GR
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a duplicate sample analyzed for each matrix in this SDG?

Y (N) N/A Were all duplicate sample relative percent differences (RPD) ≤ 20% for water samples and ≤ 35% for soil samples? If no, see qualifications below. A control limit of ±R.L. (±2X R.L. for soil) was used for sample values that were <5X the R.L., including the case when only one of the duplicate sample values was <5X R.L.. If field blanks were used for laboratory duplicates, note in the Overall Assessment.

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Duplicate ID	Matrix	Analyte	RPD (Limits)	Difference (Limits)	Associated Samples	Qualifications
		15	S	As	40 (≤20)		All Soils	J/UJ/A (E)
				Ba	38			
				Be		0.3475 (≤0.226)		
				Cr	40			
				Co	38			
				Cu	25			
				Pb	42			
				Mo	51			
				Ni	36			
				V	43			
				Zn	31			

Comments: _____

DUP.4SW

LDC #: 25911C4

VALIDATION FINDINGS WORKSHEET
ICP Serial Dilution

Page: 1 of 1
Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A If analyte concentrations were > 50X the MDL (ICP) ,or >100X the MDL (ICP/MS), was a serial dilution analyzed?
Y (N) N/A Were ICP serial dilution percent differences (%D) ≤10%?
Y (N) N/A Is there evidence of negative interference? If yes, professional judgement will be used to qualify the data.

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Diluted Sample ID	Matrix	Analyte	%D (Limits)	Associated Samples	Qualifications
		5	S	Ba	21	All Soils	J/UJ/A (A)
				Cr	15	↓	↓
				Cu	16		
				Pb	19		
				V	15		
				Zn	13		

Comments: _____

SDILICPMS.wpd

LDC#: 25911J4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Metals (EPA Method 6010B/7000)

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (mg/Kg)		RPD (≤50)	Qualifiers: (Parents Only)
	1	5		
Aluminum	17100	17600	3	
Antimony	0.14	0.17	19	
Arsenic	5.4	7.3	30	
Barium	140	165	16	
Beryllium	0.63	0.85	30	
Boron	3.2	3.4	6	
Cadmium	0.26	0.26	0	
Calcium	3000	3150	5	
Chromium	23.3	29.1	22	
Cobalt	6.9	7.7	11	
Copper	11.5	11.3	2	
Iron	23500	23600	0	
Lead	11.3	14.9	27	
Lithium	27.1	27.6	2	
Magnesium	5460	5550	2	
Manganese	367	370	1	
Mercury	0.045	0.0040	167	Jdet/A (FD)
Molybdenum	0.72	1.0	33	
Nickel	16.2	18.8	15	

LDC#: 25911J4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer:
2nd Reviewer:

METHOD: Metals (EPA Method 6010B/7000)

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (mg/Kg)		RPD (≤50)	Qualifiers: (Parents Only)
	1	5		
Phosphorus	664	696	5	
Potassium	4420	4460	1	
Selenium	0.16	0.55	110	Jdet/A (FD)
Silver	0.11	0.18	48	
Sodium	81.6	81.4	0	
Strontium	19.7	20.3	3	
Thallium	0.30	0.38	24	
Tin	3.0	2.8	7	
Titanium	1270	1290	2	
Vanadium	43.1	52.1	19	
Zinc	80.9	92.2	13	
Zirconium	1.5	1.9	24	

LDC #: 28911J4

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: CS
2nd Reviewer: Y

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found x 100 / True

Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution
True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated %R	Reported %R	Acceptable (Y/N)
ICV	ICP (Initial calibration)	Mn	598.71	600	99.8	99.8	Y
ICV	ICP/MS (Initial calibration)	V	496.90	500	99.4	99.4	↓
ICV	CVAA (Initial calibration)	Hg	2.49	2.5	99.6	99.6	
CCV(18:09)	ICP (Continuing calibration)	Ti	495.14	500	99.0	99.0	
CCV(16:19)	ICP/MS (Continuing calibration)	Mo	23.93	25	95.7	95.7	
CCV	CVAA (Continuing calibration)	Hg	1.03	1	103.0	103.0	↓
	GFAA (Initial calibration)						
	GFAA (Continuing calibation)						

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911J4

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Page: 1 of 3
Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{Found}{True} \times 100$ Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$ Where, S = Original sample concentration
D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$\%D = \frac{|I-SDR|}{I} \times 100$ Where, I = Initial Sample Result (mg/L)
SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units) mg/kg	True / D / SDR (units) mg/kg	Recalculated %R / RPD / %D	Reported %R / RPD / %D	Acceptable (Y/N)
ICSAB	ICP interference check	Ni	26.6 ug/L	20 ug/L	103	103	Y
LCS	Laboratory control sample	P	1056.6	1000	10.6	106	
13	Matrix spike	Ni	(SSR-SR) 13.1119	11.4286	115	115	
15	Duplicate	15	4459.8691	4491.7443	1	1	
5	ICP serial dilution	Mn	3338.39 ug/L	3482.15 ug/L	4	4	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911J4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 3
Reviewer: CC
2nd reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
Y N N/A Are all detection limits below the CRDL?

Detected analyte results for Ca were recalculated and verified using the following equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)}$

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation:

$$\frac{(100\,mL)(28.37658\,mg/L)}{0.875\,(100\,mL)(1.03\,g)} = 3148.6\,mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	5	Al	17600	17600	
		Sb	0.17	0.17	
		As	7.3	7.3	
		Ba	165	165	
		Be	0.85	0.85	
		B	3.4	3.4	
		Cd	0.26	0.26	
		Ca	3150	3150	
		Cr	29.1	29.1	
		Co	7.7	7.7	
		Cu	11.3	11.3	
		Fe	23600	23600	
		Pb	14.9	14.9	
		Li	27.6	27.6	
		Mg	5550	5550	
		Mn	370	370	
		Hg	0.0040	0.0040	
		Mo	1.0	1.0	
		Ni	18.8	18.6	
		P	696	696	

Note: _____

LDC #: 25911V4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 2 of 3
Reviewer: R
2nd reviewer: W

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
Y N N/A Are all detection limits below the CRDL?

Detected analyte results for Sb were recalculated and verified using the following equation:

Concentration = (RD)(FV)(Dil) / (In. Vol.)

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation:

11: $\frac{100mL(2)(0.5987\mu g/L)}{0.814(1.01g)(1000)} = 0.14 mg/kg$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	5	Ir	4460	4460	Y
		Se	0.55	0.55	
		Ag	0.18	0.18	
		Na	81.4	81.4	
		Sr	20.3	20.3	
		Tl	0.38	0.38	
		Sn	2.8	2.8	
		Ti	1290	1290	
		V	52.1	52.1	
		Zn	92.2	92.2	
		Zr	1.9	1.9	
	11	Al	12000	12000	
		Sb	0.14	0.14	
		As	4.3	4.3	
		Ba	164	164	
		Be	0.47	0.47	
		B	3.9	3.9	
		Cd	0.18	0.18	
		Ca	5190	5190	
		Cr	19.0	19.0	
		Co	7.2	7.2	
		Cu	11.0	11.0	

LDC #: 25910 4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: CR
2nd reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
Y N N/A Are all detection limits below the CRDL?

Detected analyte results for _____ were recalculated and verified using the following equation:

Concentration = (RD)(FV)(Dil) / (In. Vol.)

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation:

see previous page

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	11	Fe	18500	18500	Y
		Pb	8.0	8.0	
		Li	16.7	16.7	
		Mg	3620	3620	
		Mn	214	214	
		Hg	0.098	0.098	
		Mo	0.74	0.74	
		Ni	11.6	11.6	
		P	427	427	
		K	2710	2710	
		Se	0.087	0.087	
		Ag	0.40	0.40	
		Na	273	273	
		Sr	53.9	53.9	
		Tl	0.26	0.26	
		Sn	2.6	2.6	
		Ti	1010	1010	
		V	48.4	48.4	
		Zn	81.0	81.0	
		Zr	4.7	4.7	

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 2, 2011

LDC Report Date: August 11, 2011

Matrix: Soil/Water

Parameters: Herbicides

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE095

Sample Identification

DUP-07-SA5A-QC-030211
SL-042-SA5A-SS-0.0-0.5
SL-044-SA5A-SS-0.0-0.5
SL-045-SA5A-SS-0.0-0.5
SL-048-SA5A-SS-0.0-0.5
SL-176-SA5A-SS-0.0-0.3
SL-178-SA5A-SS-0.0-0.4
SL-179-SA5A-SS-0.0-0.3
SL-186-SA5A-SS-0.0-0.5
SL-188-SA5A-SS-0.0-0.5
SL-189-SA5A-SS-0.0-0.5
EB05-SA5A-030211
SL-048-SA5A-SS-0.0-0.5MS
SL-048-SA5A-SS-0.0-0.5MSD

Introduction

This data review covers 13 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8151A for Herbicides.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at the required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No herbicide contaminants were found in the method blanks.

Sample EB05-SA5A-030211 was identified as an equipment blank. No herbicide contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/(Matrix Spike) Duplicate

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-048-SA5A-SS-0.0-0.5MS/MSD (SL-048-SA5A-SS-0.0-0.5)	MCPP Dinoseb	- -	- -	69 (≤50) 46 (≤35)	J (all detects) J (all detects)	A

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

The sample results for detected compounds from the two columns were within 40% relative percent difference (RPD) with the following exceptions:

Sample	Compound	RPD	Flag	A or P
SL-042-SA5A-SS-0.0-0.5	2,4-D	87	J (all detects)	A
SL-044-SA5A-SS-0.0-0.5	2,4,5-TP	68	J (all detects)	A
SL-176-SA5A-SS-0.0-0.3	MCPP MCPA	69 61	J (all detects) J (all detects)	A
SL-179-SA5A-SS-0.0-0.3	MCPP	46	J (all detects)	A
SL-186-SA5A-SS-0.0-0.5	MCPA 2,4-DB	72 98	J (all detects) J (all detects)	A
SL-188-SA5A-SS-0.0-0.5	2,4,5-TP	140	J (all detects)	A
SL-189-SA5A-SS-0.0-0.5	2,4-DB	79	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE095	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

Samples SL-048-SA5A-SS-0.0-0.5 and DUP-07-SA5A-QC-030211 were identified as field duplicates. No herbicides were detected in any of the samples.

Santa Susana Field Laboratory
Herbicides - Data Qualification Summary - SDG DE095

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE095	SL-048-SA5A-SS-0.0-0.5	MCPP Dinoseb	J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (RPD) (Q)
DE095	SL-042-SA5A-SS-0.0-0.5	2,4-D	J (all detects)	A	Compound quantitation and CRQLs (RPD) (*IX)
DE095	SL-044-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5	2,4,5-TP	J (all detects)	A	Compound quantitation and CRQLs (RPD) (*IX)
DE095	SL-176-SA5A-SS-0.0-0.3	MCPP MCPA	J (all detects) J (all detects)	A	Compound quantitation and CRQLs (RPD) (*IX)
DE095	SL-179-SA5A-SS-0.0-0.3	MCPP	J (all detects)	A	Compound quantitation and CRQLs (RPD) (*IX)
DE095	SL-186-SA5A-SS-0.0-0.5	MCPA 2,4-DB	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE095	SL-189-SA5A-SS-0.0-0.5	2,4-DB	J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE095	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5 EB05-SA5A-030211	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Herbicides - Laboratory Blank Data Qualification Summary - SDG DE095

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Herbicides - Field Blank Data Qualification Summary - SDG DE095

No Sample Data Qualified in this SDG

LDC #: 25911J5 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/10/11
SDG #: DE095 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: FD
2nd Reviewer: [illegible]

METHOD: GC Herbicides (EPA SW 846 Method 8151A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/2/11
II	Initial calibration	A	%D RSD ≤ 20, r^2
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	SW	
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs (RL)	SW	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	ND	D = 1,5
XIII.	Field blanks	ND	EB = 12

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: SOIL + water

1 1	DUP-07-SA5A-QC-030211 D	11	SL-189-SA5A-SS-0.0-0.5	21 1	PBLK20074	31	
2 1	SL-042-SA5A-SS-0.0-0.5	12 2	EB05-SA5A-030211 EB	22 2	PBLK03064	32	
3	SL-044-SA5A-SS-0.0-0.5	13	SL-048-SA5A-SS-0.0-0.5MS	23		33	
4	SL-045-SA5A-SS-0.0-0.5	14	SL-048-SA5A-SS-0.0-0.5MSD	24		34	
5	SL-048-SA5A-SS-0.0-0.5 D	15		25		35	
6	SL-176-SA5A-SS-0.0-0.3	16		26		36	
7	SL-178-SA5A-SS-0.0-0.4	17		27		37	
8	SL-179-SA5A-SS-0.0-0.3	18		28		38	
9	SL-186-SA5A-SS-0.0-0.5	19		29		39	
10	SL-188-SA5A-SS-0.0-0.5	20		30		40	

Notes: _____

LDC #: 25911J5
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FD
2nd Reviewer: [illegible]

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 25911N5
SDG #: all cancel

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification.				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.		✓		
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC #: 25911J5

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: ✓ **GC** ___ **HPLC**

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG?
Y N N/A Was an MS/MSD analyzed every 20 samples for each matrix or whenever a sample extraction was performed?
Y N N/A Were the MS/MSD percent recoveries (%R) and relative percent differences (RPD) within QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	13+14	I	( )	( )	69 (50)	5 (Q)	J/A det
		E	( )	( )	46 (35)	↓ ↓	↓
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

VALIDATION FINDINGS WORKSHEET

METHOD: ✓ GC ___ HPLC

8310	8330	8151	8141	8141 (Con't)	8021B
A. Acenaphthene	A. HMX	A. 2,4-D	A. Dichlorvos	V. Fensulfothion	V. Benzene
B. Acenaphthylene	B. RDX	B. 2,4-DB	B. Mevinphos	W. Bolstar	CC. Toluene
C. Anthracene	C. 1,3,5-Trinitrobenzene	C. 2,4,5-T	C. Demeton-O	X. EPN	EE. Ethyl Benzene
D. Benzo(a)anthracene	D. 1,3-Dinitrobenzene	D. 2,4,5-TP	D. Demeton-S	Y. Azinphos-methyl	SSS. O-Xylene
E. Benzo(a)pyrene	E. Tetryl	E. Dinoseb	E. Ethoprop	Z. Coumaphos	RRR. MP-Xylene
F. Benzo(b)fluoranthene	F. Nitrobenzene	F. Dichlorprop	F. Naled	AA. Parathion	GG. Total Xylene
G. Benzo(g,h,i)perylene	G. 2,4,6-Trinitrotoluene	G. Dicamba	G. Sulfotep	BB. Trichloronate	
H. Benzo(k)fluoranthene	H. 4-Amino-2,6-dinitrotoluene	H. Dalapon	H. Phorate	CC. Trichlorinate	
I. Chrysene	I. 2-Amino-4,6-dinitrotoluene	I. MCPP	I. Dimethoate	DD. Trifluralin	
J. Dibenz(a,h)anthracene	J. 2,4-Dinitrotolune	J. MCPA	J. Diazinon	EE. Def	
K. Fluoranthene	K. 2,6-Dinitrotoluene	K. Pentachlorophenol	K. Disulfoton	FF. Prowl	
L. Fluorene	L. 2-Nitrotoluene	L. 2,4,5-TP (silvex)	L. Parathion-methyl	GG. Ethion	
M. Indeno(1,2,3-cd)pyrene	M. 3-Nitrotoluene	M. Silvex	M. Ronnel	HH. Tetrachlorvinphos	
N. Naphthalene	N. 4-Nitrotoluene		N. Malathion	II. Sulprofos	
O. Phenanthrene	O.		O. Chlorpyrifos		
P. Pyrene	P.		P. Fenthion		
Q.	Q		Q. Parathion-ethyl		
R.			R. Trichloronate		
S.			S. Merphos		
			T. Stirofos		
			U. Tokuthion		

Notes: _____

LDC #: 25911J5
SDG #: all cover

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Page: 1 of 1
Reviewer: F7
2nd Reviewer:

METHOD: ✓ GC __ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Level IV/D Only

Y N N/A Were CRQLs adjusted for sample dilutions, dry weight factors, etc.?
Y N N/A Did the reported results for detected target compounds agree within 10.0% of the recalculated results?

#	Compound Name	% RPD Bet. 2 col. ≤40 Finding	Associated Samples	Qualifications
	J	200%	1	J/A det * X111
	A ✓	87%	2	J/A det
	D ✓	68	3	
	I	69	6	
	J	61	↓	
	I	46	8	
	J	72	9	
	B	98		
	D	140	10	✓

Comments: See sample calculation verification worksheet for recalculations

LDC #: 25911W5
SDG #: all covered

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Reviewer: F7
2nd Reviewer: C

METHOD: ✓ GC ___ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Level IV/D Only

Y N N/A Were CRQLs adjusted for sample dilutions, dry weight factors, etc.?

Y N N/A Did the reported results for detected target compounds agree within 10.0% of the recalculated results?

#	Compound Name	%RPD But 2 col Finding ≤ 40	Associated Samples	Qualifications
	B	79	11	J/A dut *XIII

Comments: See sample calculation verification worksheet for recalculations

LDC #: 25911J5
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

3

#	Standard ID	Calibration Date	Compound	Reported CF (410.4/20.0 std)	Recalculated CF (410.4/20.02 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL RTXCLP1	3/5/11	Dalapon RTXCLP1	~~1.93 X10 -1~~ ~~2.05 X10~~	1.9×10^{-1}	1.96×10^{-1}	1.96×10^{-1}	8.29	8.29
			Dicamba	~~5.25~~ X10 $^{-1}$	5.25×10^{-1}	~~5.39~~ X10 $^{-1}$	5.27×10^{-1}	13.46	13.46
			~~RTXCLP2~~						
2		3							
3	ICAL RTXCLP1	3/5/11	Dalapon RTXCLP2	1.75×10^{-1}	1.75×10^{-1}	1.721×10^{-1}	1.721×10^{-1}	12.91	12.91
			Dicamba	5.10×10^{-1}	5.10×10^{-1}	4.953×10^{-1}	4.953×10^{-1}	3.52	3.52
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

INIC[illegible]SB

LDC #: 25911J
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported 410/20.020 CF (std)	Recalculated → CF (std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/11/11	Dalapon RTX CLP1	0.193	0.193	0.1899	0.1899	12.81	12.81
			Dicamba	0.567	0.567	0.5660	0.5660	8.36	8.36
2			↓ RTX CLP2	0.173	0.173	0.1722	0.1722	11.92	11.92
				0.545	0.545	0.5387	0.5387	5.40	5.40
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911J5
SDG #: w conv

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: A

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = Initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	ccv 3:34	3/8/11	Dalapon ELP1	410.40	385.71	385.71	6.0	6.0
			Dicamba	20.02	21.15	21.15	5.6	5.6
			↓ CLP2	↓	425.68	425.68	3.7	3.7
2	ccv 9:04	3/8/11	↓	↓	20.36	20.36	1.7	1.7
			↓ CLP1	410.40	381.37	381.37	7.1	7.1
			↓	20.02	20.86	20.86	4.2	4.2
3			↓ CLPII	410.40	422.92	422.92	3.1	3.1
			↓	20.02	20.69	20.69	3.4	3.4
	ccv 16:32	3/18/11	↓ CLP1	410.40	429.55	429.55	4.7	4.7
4			↓	20.02	19.35	19.35	3.3	3.3
			↓ CLP2	410.40	438.86	438.86	6.9	6.9
			↓	20.02	19.15	19.15	4.3	4.3

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911J5
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV 22.01	3/18/11	Dalapon	410.40	437.30	437.30	6.6	6.6
			Dicamba	20.02	19.42	19.42	3.0	3.0
2	CCV 22.01	3/18/11	↓	410.40	457.14	457.14	11.4	11.4
			↓	20.02	19.93	19.93	3.5	3.5
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #:_____
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: A

METHOD: ___ GC ___ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
2,4-DCPAA	RTX CLP2	6.7	5.985713	90	90	0

Sample ID:_____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:_____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 25 2163

SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1

Reviewer: FT

2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration

SA = Spike added

RPD =(((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 13 + 14

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	—	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
Dalapon	20.88	20.88	ND	13.36	9.92	64	64	48	48	30 U	30
Dicamba	0.83	0.83	ND	0.78	0.62	94	94	75	75	23	23

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911J5
SDG #: all cases

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: F
2nd Reviewer: C

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
SC = Concentration
LCS = Laboratory control sample percent recovery
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (ug/L)		Spiked Sample Concentration (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
Dalapon	6.3	NA	4.3	NA	68	68				
Picloram	0.25	↓	0.24	↓	96	96	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911J5
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. #1 Compound Name MCPA

Concentration = $\frac{1285\ (100)\ (2)}{69603\ (0.0007)\ (60.1)\ (0.874)}$

= 100 ug/kg

2,4-D

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications
	# 2 =	$\frac{7537(100)(2000)}{149337(1.38\times10^{-1})(60)(0.812)(1000)}$			
		= 1.5 ug/kg			

Comments: [illegible]

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 2, 2011

LDC Report Date: August 1, 2011

Matrix: Soil/Water

Parameters: Wet Chemistry

Validation Level: Level IV

Laboratory, Area IV: Lancaster Laboratories

Sample Delivery Group (SDG): DE095

Sample Identification

DUP-07-SA5A-QC-030211
SL-042-SA5A-SS-0.0-0.5
SL-044-SA5A-SS-0.0-0.5
SL-045-SA5A-SS-0.0-0.5
SL-048-SA5A-SS-0.0-0.5
SL-176-SA5A-SS-0.0-0.3
SL-178-SA5A-SS-0.0-0.4
SL-179-SA5A-SS-0.0-0.3
SL-186-SA5A-SS-0.0-0.5
SL-188-SA5A-SS-0.0-0.5
SL-189-SA5A-SS-0.0-0.5
EB05-SA5A-030211
SL-048-SA5A-SS-0.0-0.5MS
SL-048-SA5A-SS-0.0-0.5DUP
SL-189-SA5A-SS-0.0-0.5MS
SL-189-SA5A-SS-0.0-0.5DUP

Introduction

This data review covers 15 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 300.0 for Fluoride, EPA SW 846 Method 7199 for Hexavalent Chromium, EPA SW 846 Method 9045C for pH, and EPA Method 314.0 for Perchlorate.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met with the following exceptions:

Sample	Analyte	Total Time From Sample Collection Until Analysis	Required Holding Time From Sample Collection Until Analysis	Flag	A or P
EB05-SA5A-030211	Hexavalent chromium	25.25 hours	24 hours	J (all detects) UJ (all non-detects)	P

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

All criteria for the initial calibration of each method were met.

III. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

Method Blank ID	Analyte	Concentration	Associated Samples
PB (prep blank)	Hexavalent chromium	0.49 mg/Kg	All soil samples in SDG DE095

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
DUP-07-SA5A-QC-030211	Hexavalent chromium	0.47 mg/Kg	0.47U mg/Kg
SL-044-SA5A-SS-0.0-0.5	Hexavalent chromium	0.85 mg/Kg	0.85U mg/Kg
SL-045-SA5A-SS-0.0-0.5	Hexavalent chromium	1.6 mg/Kg	1.6U mg/Kg

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-048-SA5A-SS-0.0-0.5	Hexavalent chromium	0.41 mg/Kg	0.41U mg/Kg
SL-176-SA5A-SS-0.0-0.3	Hexavalent chromium	1.3 mg/Kg	1.3U mg/Kg
SL-178-SA5A-SS-0.0-0.4	Hexavalent chromium	0.53 mg/Kg	0.53U mg/Kg
SL-179-SA5A-SS-0.0-0.3	Hexavalent chromium	0.65 mg/Kg	0.65U mg/Kg
SL-186-SA5A-SS-0.0-0.5	Hexavalent chromium	0.32 mg/Kg	0.32U mg/Kg
SL-188-SA5A-SS-0.0-0.5	Hexavalent chromium	0.37 mg/Kg	0.37U mg/Kg
SL-189-SA5A-SS-0.0-0.5	Hexavalent chromium	0.29 mg/Kg	0.29U mg/Kg

Sample EB05-SA5A-030211 was identified as an equipment blank. No contaminant concentrations were found.

V. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	%R (Limits)	Flag	A or P
SL-048-SA5A-SS-0.0-0.5MS (DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5)	Fluoride	49 (80-120)	J (all detects) UJ (all non-detects)	A
SL-189-SA5A-SS-0.0-0.5MS (SL-189-SA5A-SS-0.0-0.5)	Fluoride	79 (80-1200	J (all detects) UJ (all non-detects)	A

VI. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Sample Result Verification

All sample result verifications were acceptable

All analytes reported below the RL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG DE095	All analytes reported below the RL and above the MDL.	J (all detects)	A

IX. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

X. Field Duplicates

Samples DUP-07-SA5A-QC-030211 and SL-048-SA5A-SS-0.0-0.5 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration		RPD (Limits)	Flags	A or P
	DUP-07-SA5A-QC-030211	SL-048-SA5A-SS-0.0-0.5			
Fluoride	1.6 mg/Kg	1.5 mg/Kg	6 (≤50)	-	-
Hexavalent chromium	0.47 mg/Kg	0.41 mg/Kg	14 (≤50)	-	-
pH	6.20 units	6.33 units	2 (≤50)	-	-

Santa Susana Field Laboratory
Wet Chemistry - Data Qualification Summary - SDG DE095

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE029	EB05-SA5A-030211	Hexavalent chromium	J (all detects) UJ (all non-detects)	P	Technical holding times (H)
DE029	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5	Fluoride	J (all detects) UJ (all non-detects)	A	Matrix spike analysis (Q)
DE029	DUP-07-SA5A-QC-030211 SL-042-SA5A-SS-0.0-0.5 SL-044-SA5A-SS-0.0-0.5 SL-045-SA5A-SS-0.0-0.5 SL-048-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3 SL-178-SA5A-SS-0.0-0.4 SL-179-SA5A-SS-0.0-0.3 SL-186-SA5A-SS-0.0-0.5 SL-188-SA5A-SS-0.0-0.5 SL-189-SA5A-SS-0.0-0.5 EB05-SA5A-030211	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Wet Chemistry – Laboratory Blank Data Qualification Summary - SDG DE095

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE095	DUP-07-SA5A-QC-030211	Hexavalent chromium	0.47U mg/Kg	A	B
DE095	SL-044-SA5A-SS-0.0-0.5	Hexavalent chromium	0.85U mg/Kg	A	B
DE095	SL-045-SA5A-SS-0.0-0.5	Hexavalent chromium	1.6U mg/Kg	A	B
DE095	SL-048-SA5A-SS-0.0-0.5	Hexavalent chromium	0.41U mg/Kg	A	B
DE095	SL-176-SA5A-SS-0.0-0.3	Hexavalent chromium	1.3U mg/Kg	A	B
DE095	SL-178-SA5A-SS-0.0-0.4	Hexavalent chromium	0.53U mg/Kg	A	B
DE095	SL-179-SA5A-SS-0.0-0.3	Hexavalent chromium	0.65U mg/Kg	A	B
DE095	SL-186-SA5A-SS-0.0-0.5	Hexavalent chromium	0.32U mg/Kg	A	B

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE095	SL-188-SA5A-SS-0.0-0.5	Hexavalent chromium	0.37U mg/Kg	A	B
DE095	SL-189-SA5A-SS-0.0-0.5	Hexavalent chromium	0.29U mg/Kg	A	B

Santa Susana Field Laboratory
Wet Chemistry - Field Blank Data Qualification Summary - SDG DE095

No Sample Data Qualified in this SDG

LDC #: 25911J6 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-1-11
SDG #: DE095 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: CL
2nd Reviewer: W

METHOD: (Analyte) Fluoride (EPA Method 300.0), Hexavalent Chromium (EPA SW846 Method 7199), pH (~~EPA Method 150.1~~/EPA SW846 Method 9045C), Perchlorate (EPA Method 314.0)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	SW	Sampling dates: 3/2/11
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	SW	
IV	Matrix Spike/Matrix Spike Duplicates	SW	MS
V	Duplicates	A	DUP
VI.	Laboratory control samples	A	LCS/D
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	(1,5)
X	Field blanks	ND	EB= 12

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: all soil except 12=water

1	DUP-07-SA5A-QC-030211	11	SL-189-SA5A-SS-0.0-0.5	21		31	
2	SL-042-SA5A-SS-0.0-0.5	12	EB05-SA5A-030211	22		32	
3	SL-044-SA5A-SS-0.0-0.5	13	SL-048-SA5A-SS-0.0-0.5MS	23		33	
4	SL-045-SA5A-SS-0.0-0.5	14	SL-048-SA5A-SS-0.0-0.5DUP	24		34	
5	SL-048-SA5A-SS-0.0-0.5	15	(X1J) MS	25		35	
6	SL-176-SA5A-SS-0.0-0.3	16	↓ DUP	26		36	
7	SL-178-SA5A-SS-0.0-0.4	17		27		37	
8	SL-179-SA5A-SS-0.0-0.3	18		28		38	
9	SL-186-SA5A-SS-0.0-0.5	19		29		39	
10	SL-188-SA5A-SS-0.0-0.5	20		30		40	

Notes:

LDC #: 25917J6

VALIDATION FINDINGS CHECKLIST

Reviewer: CR
2nd Reviewer: [illegible]

Method: Inorganics (EPA Method See Cover)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.		✓		
Cooler temperature criteria was met.	✓			
II. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients > 0.995?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)			✓	
III. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
IV. Matrix spike/Matrix spike duplicates and Duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.		✓		
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of ≤ CRDL(≤ 2X CRDL for soil) was used for samples that were ≤ 5X the CRDL, including when only one of the duplicate sample values were < 5X the CRDL.	✓			
V. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
VI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

Validation Area	Yes	No	NA	Findings/Comments
VII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
VIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
IX. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
X. Field blanks				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.		✓		

LDC #: 25911J6

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Reviewer: AE
2nd reviewer: VC

All circled methods are applicable to each sample.

Sample ID	Matrix	Parameter
1-11		(pH) TDS Cl (F) NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC (CR^{6+}) (ClO_4)
12		pH TDS Cl (F) NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC (CR^{6+}) (ClO_4)
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
QC 13		pH TDS Cl (F) NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC (CR^{6+}) (ClO_4)
14		pH TDS Cl (F) NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC (CR^{6+}) ClO_4
15		pH TDS Cl (F) NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} (ClO_4)
16		pH TDS Cl (F) NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} (ClO_4)
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4

Comments:

LDC #: 25916

VALIDATION FINDINGS WORKSHEET
Technical Holding Times

Reviewer: CR
2nd reviewer:

All circled dates have exceeded the technical holding time.
(Y) N N/A Were all samples preserved as applicable to each method ?
(Y) N N/A Were all cooler temperatures within validation criteria?

Method:	7199					
Parameters:	Cr6+					
Technical holding time:	24hrs					

Sample ID	Sampling date	Analysis date	Analysis date	Analysis date	Analysis date	Analysis date	Qualifier
12	3/2/11 12:15	3/3/11 13:30	(25.25hrs)				J/UJ/R (H)

LDC #: 25911J6

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: CE
2nd Reviewer: LC

METHOD: Inorganics, Method See Cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y N N/A Were blank analyses performed as required? If no, please see qualifications below.
Y N N/A Were any activities in the blanks greater than the minimum detectable activity? If yes, please see qualifications below.

Conc. units: mg/Kg **Associated Samples:** All Soil

Analyte	Blank ID	Blank ID	Blank Action Limit											
	PB	ICB/CCB (mg/L)		1	2	3	4	5	6	7	8	9	10	11
Cr6+	0.49		2.45	0.47		0.85	1.6	0.41	1.3	0.53	0.65	0.32	0.37	0.29

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 25911J6

VALIDATION FINDINGS WORKSHEET
Matrix Spike Analysis

Reviewer: 02
2nd Reviewer: [illegible]

METHOD: Inorganics, Method see cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y (N) N/A Were matrix spike percent recoveries (%R) within the control limits of ~~75-125~~ 80-120 (85-115% for Method 300.0)? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Matrix Spike ID	Matrix	Analyte	%R	Associated Samples	Qualifications
		13	S	F	49	1-10	J/UJ/A (Q)
		15	S	F	79	11	J

Comments: _____

LDC# 25911J6

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer:
2nd Reviewer:

Inorganics, Method See Cover

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (mg/Kg)		RPD (≤50)	
	1	5		
Fluoride	1.6	1.5	6	
Hexavalent Chromium	0.47	0.41	14	
pH (units)	6.20	6.33	2	

V:\FIELD DUPLICATES\FD_inorganic\25911J6.wpd

LDC #: 25911J6

Validation Findings Worksheet
Initial and Continuing Calibration Calculation Verification

Reviewer: AR
2nd Reviewer: [illegible]

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of dDq was recalculated. Calibration date: 3/9/11

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found X 100 / True

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution

True = concentration of each analyte in the ICV or CCV source

Type of analysis	Analyte	Standard	Conc. (ug/L)	Response	Recalculated r or r^2	Reported r or r^2	Acceptable (Y/N)
Initial calibration	dDq	s1	2	0.005	*1.000*	1.000	Y
		s2	4.00	0.01			
		s3	10.00	0.026			
		s4	25.00	0.067			
		s5	100.00	0.272			
Calibration verification	F	CCV	1.5	1.3884	93	93	
Calibration verification	C6+	↓	200	206.5510	103	103	
Calibration verification	dDq	↓	100	113.4187	113	113	↓

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25415J6

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: QR
2nd Reviewer: L

METHOD: Inorganics, Method See Cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{Found}{True} \times 100$ Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$ Where, S = Original sample concentration
D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units) mg/kg	True / D (units) mg/kg	Recalculated %R / RPD	Reported %R / RPD	Acceptable (Y/N)
LCS	Laboratory control sample	Cr	99.7	100	99.7	-	Y
13	Matrix spike sample	Cr	(SSR-SR) 554 mg/kg	500 mg/kg	111	111	
14	Duplicate sample	F	1.3	1.4	4	4	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25915B6

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd reviewer: [signature]

METHOD: Inorganics, Method See cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments?
Y N N/A Are all detection limits below the CRQL?

Compound (analyte) results for F / Cr^{6+} reported with a positive detect were recalculated and verified using the following equation:

Concentration =

F: $y = 0.1827x - 0.0131$

Cr^{6+}: $y = 0.0124x - 0.0052$

Recalculation:

5: F: $\frac{6.010 + 0.0131}{0.1827} \times \frac{50mL}{4.913g(.875)} = 1.47 mg/kg$

9: $Cr^{6+} = (0.0903(80.64) - 0.418)/24.9g(0.84) = 0.328 mg/kg$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
.875	5	F	1.5	1.5	Y
		Cr^{6+}	0.41	0.42	
		pH	6.33	6.33	
.84	9	F	1.9	1.9	
		Cr^{6+}	0.32	0.33	
		pH	8.40	8.40	

Note: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 2, 2011

LDC Report Date: August 11, 2011

Matrix: Soil

Parameters: Perchlorate

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE095

Sample Identification

SL-045-SA5A-SS-0.0-0.5
SL-176-SA5A-SS-0.0-0.3

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6850 for Perchlorate.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990 .

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 15.0% for unlabeled compounds and less than or equal to 50.0% for labeled compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 15.0% for unlabeled compounds and less than or equal to 50.0% for labeled compounds.

The percent differences (%D) of the limit of detection verification (LODV) calibration standard were less than or equal to 50.0% for perchlorate.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No perchlorate was found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogate spikes were not required by the method.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE095	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Perchlorate - Data Qualification Summary - SDG DE095

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE095	SL-045-SA5A-SS-0.0-0.5 SL-176-SA5A-SS-0.0-0.3	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Perchlorate - Laboratory Blank Data Qualification Summary - SDG DE095

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Perchlorate - Field Blank Data Qualification Summary - SDG DE095

No Sample Data Qualified in this SDG

LDC #: 25911J87 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/10/11
SDG #: DE095 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer:
2nd Reviewer:

METHOD: LC/MS Perchlorate (EPA SW846 Method 6850)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/2/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	r²
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 15/50 LODV ≤ 50
V.	Blanks	A	
VI.	Surrogate spikes	N	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	yes
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs (RL)	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: SOIL

1	SL-045-SA5A-SS-0.0-0.5	11	PBLK120711	21		31	
2	SL-176-SA5A-SS-0.0-0.3	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 25911J87

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer:

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?			✓	
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?			✓	
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓		✓	
Were all percent differences (%D) ~~≤ 25%~~ 15/50 and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.				
VI. Surrogates				
Were all surrogate %R within QC limits?			✓	
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 25911387

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal Standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target Compound Identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?			✓	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?			✓	
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound Quantitation				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?			✓	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively Identified Compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System Performance				
System performance was found to be acceptable.	✓			
XV. Overall Assessment				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field Duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field Blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC # 25911387
SDG# see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: Method 6850

Parameter: perchlorate

Date	Column	Compound	y	x	
03/22/2011	LCMS	perchlorate	0.0222	0.020	
			0.0409	0.040	
			0.1014	0.100	
			0.2052	0.200	
			0.4124	0.400	
			1.0325	1.000	
			2.5899	2.500	

Regression Output:		Regression Output:	Reported	
Constant		-0.00130		-1.3000E-003
Std Err of Y Est		0.00182		
R Squared		1.00000		0.99999
No. of Observations		7.00000		
Degrees of Freedom		5.00000		
X Coefficient(s)	1.036E+000		0.10360	
Std Err of Coef.	0.000827	0.04		

LDC #: 25911J87

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer: C

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV_11032	3/15/11	Phenol (1st internal standard)	4	4.08	4.08	2	2
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
2	CCV_11043	3/15/11	Phenol (1st internal standard)	0.4	0.429	0.429	7	7
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911387

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol										
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene										
Pentachlorophenol										
Pyrene										
Perchlorate	100	NA	103	NA	103	103	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911B7

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer: C

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

V_i = Volume of extract injected in microliters (ul)

V_t = Volume of the concentrated extract in microliters (ul)

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

2.0 = Factor of 2 to account for GPC cleanup

Example:

Sample I.D. _____, _____:

Conc. = $\frac{(\quad)(\quad)(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)(\quad)}$

= ND

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

SAMPLE DELIVERY GROUP

DE096

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0	6220827	N	3050B	6010B	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0	6220827	N	3050B	6020	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0	6220827	N	3060A	7199	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0	6220827	N	3550B	8082	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0	6220827	N	3550B	8270C	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0	6220827	N	3550B	8270C SIM	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0	6220827	N	5035	8260B	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0	6220827	N	5035	8260B SIM	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0	6220827	N	Gen Prep	9045M	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0	6220827	N	METHOD	300.0	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0	6220827	N	METHOD	314.0	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0	6220827	N	METHOD	7471A	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MS	6220828	MS	3050B	6010B	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MS	6220828	MS	3050B	6020	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MS	6220828	MS	3060A	7199	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MS	6220828	MS	3550B	8082	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MS	6220828	MS	3550B	8270C	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MS	6220828	MS	3550B	8270C SIM	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MS	6220828	MS	5035	8260B	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MS	6220828	MS	5035	8260B SIM	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MS	6220828	MS	METHOD	300.0	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MS	6220828	MS	METHOD	314.0	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MS	6220828	MS	METHOD	7471A	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MSD	6220829	MSD	3050B	6010B	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MSD	6220829	MSD	3050B	6020	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MSD	6220829	MSD	3550B	8082	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MSD	6220829	MSD	3550B	8270C	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MSD	6220829	MSD	3550B	8270C SIM	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MSD	6220829	MSD	5035	8260B	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MSD	6220829	MSD	5035	8260B SIM	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0MSD	6220829	MSD	METHOD	7471A	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0DUP	6220830	DUP	3050B	6010B	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0DUP	6220830	DUP	3050B	6020	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0DUP	6220830	DUP	3060A	7199	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0DUP	6220830	DUP	Gen Prep	9045M	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0DUP	6220830	DUP	METHOD	300.0	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0DUP	6220830	DUP	METHOD	314.0	III
02-Mar-2011	SL-245-SA5A-SB-4.0-5.0DUP	6220830	DUP	METHOD	7471A	III
02-Mar-2011	DUP08-SA5A-QC-030211	6220826	FD	3050B	6010B	III
02-Mar-2011	DUP08-SA5A-QC-030211	6220826	FD	3050B	6020	III
02-Mar-2011	DUP08-SA5A-QC-030211	6220826	FD	3060A	7199	III
02-Mar-2011	DUP08-SA5A-QC-030211	6220826	FD	3550B	8082	III
02-Mar-2011	DUP08-SA5A-QC-030211	6220826	FD	3550B	8270C	III
02-Mar-2011	DUP08-SA5A-QC-030211	6220826	FD	3550B	8270C SIM	III
02-Mar-2011	DUP08-SA5A-QC-030211	6220826	FD	5035	8260B	III
02-Mar-2011	DUP08-SA5A-QC-030211	6220826	FD	5035	8260B SIM	III
02-Mar-2011	DUP08-SA5A-QC-030211	6220826	FD	Gen Prep	9045M	III
02-Mar-2011	DUP08-SA5A-QC-030211	6220826	FD	METHOD	300.0	III
02-Mar-2011	DUP08-SA5A-QC-030211	6220826	FD	METHOD	314.0	III
02-Mar-2011	DUP08-SA5A-QC-030211	6220826	FD	METHOD	7471A	III
02-Mar-2011	SL-245-SA5A-SB-9.0-10.0	6220831	N	3050B	6010B	III
02-Mar-2011	SL-245-SA5A-SB-9.0-10.0	6220831	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Mar-2011	SL-245-SA5A-SB-9.0-10.0	6220831	N	3060A	7199	III
02-Mar-2011	SL-245-SA5A-SB-9.0-10.0	6220831	N	3550B	8082	III
02-Mar-2011	SL-245-SA5A-SB-9.0-10.0	6220831	N	3550B	8270C	III
02-Mar-2011	SL-245-SA5A-SB-9.0-10.0	6220831	N	3550B	8270C SIM	III
02-Mar-2011	SL-245-SA5A-SB-9.0-10.0	6220831	N	Gen Prep	9045M	III
02-Mar-2011	SL-245-SA5A-SB-9.0-10.0	6220831	N	METHOD	300.0	III
02-Mar-2011	SL-245-SA5A-SB-9.0-10.0	6220831	N	METHOD	314.0	III
02-Mar-2011	SL-245-SA5A-SB-9.0-10.0	6220831	N	METHOD	7471A	III
02-Mar-2011	SL-245-SA5A-SB-29.0-30.0	6220832	N	3050B	6010B	III
02-Mar-2011	SL-245-SA5A-SB-29.0-30.0	6220832	N	3050B	6020	III
02-Mar-2011	SL-245-SA5A-SB-29.0-30.0	6220832	N	3060A	7199	III
02-Mar-2011	SL-245-SA5A-SB-29.0-30.0	6220832	N	3550B	8082	III
02-Mar-2011	SL-245-SA5A-SB-29.0-30.0	6220832	N	3550B	8270C	III
02-Mar-2011	SL-245-SA5A-SB-29.0-30.0	6220832	N	3550B	8270C SIM	III
02-Mar-2011	SL-245-SA5A-SB-29.0-30.0	6220832	N	Gen Prep	9045M	III
02-Mar-2011	SL-245-SA5A-SB-29.0-30.0	6220832	N	METHOD	300.0	III
02-Mar-2011	SL-245-SA5A-SB-29.0-30.0	6220832	N	METHOD	314.0	III
02-Mar-2011	SL-245-SA5A-SB-29.0-30.0	6220832	N	METHOD	6850	III
02-Mar-2011	SL-245-SA5A-SB-29.0-30.0	6220832	N	METHOD	7471A	III
02-Mar-2011	SL-246-SA5A-SB-4.0-5.0	6220833	N	3050B	6010B	III
02-Mar-2011	SL-246-SA5A-SB-4.0-5.0	6220833	N	3050B	6020	III
02-Mar-2011	SL-246-SA5A-SB-4.0-5.0	6220833	N	3060A	7199	III
02-Mar-2011	SL-246-SA5A-SB-4.0-5.0	6220833	N	3550B	8082	III
02-Mar-2011	SL-246-SA5A-SB-4.0-5.0	6220833	N	3550B	8270C	III
02-Mar-2011	SL-246-SA5A-SB-4.0-5.0	6220833	N	3550B	8270C SIM	III
02-Mar-2011	SL-246-SA5A-SB-4.0-5.0	6220833	N	5035	8260B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Mar-2011	SL-246-SA5A-SB-4.0-5.0	6220833	N	5035	8260B SIM	III
02-Mar-2011	SL-246-SA5A-SB-4.0-5.0	6220833	N	Gen Prep	9045M	III
02-Mar-2011	SL-246-SA5A-SB-4.0-5.0	6220833	N	METHOD	300.0	III
02-Mar-2011	SL-246-SA5A-SB-4.0-5.0	6220833	N	METHOD	314.0	III
02-Mar-2011	SL-246-SA5A-SB-4.0-5.0	6220833	N	METHOD	7471A	III
02-Mar-2011	SL-246-SA5A-SB-9.0-10.0	6220834	N	3050B	6010B	III
02-Mar-2011	SL-246-SA5A-SB-9.0-10.0	6220834	N	3050B	6020	III
02-Mar-2011	SL-246-SA5A-SB-9.0-10.0	6220834	N	3060A	7199	III
02-Mar-2011	SL-246-SA5A-SB-9.0-10.0	6220834	N	3550B	8082	III
02-Mar-2011	SL-246-SA5A-SB-9.0-10.0	6220834	N	3550B	8270C	III
02-Mar-2011	SL-246-SA5A-SB-9.0-10.0	6220834	N	3550B	8270C SIM	III
02-Mar-2011	SL-246-SA5A-SB-9.0-10.0	6220834	N	Gen Prep	9045M	III
02-Mar-2011	SL-246-SA5A-SB-9.0-10.0	6220834	N	METHOD	300.0	III
02-Mar-2011	SL-246-SA5A-SB-9.0-10.0	6220834	N	METHOD	314.0	III
02-Mar-2011	SL-246-SA5A-SB-9.0-10.0	6220834	N	METHOD	7471A	III
02-Mar-2011	SL-247-SA5A-SB-4.0-5.0	6220835	N	3050B	6010B	III
02-Mar-2011	SL-247-SA5A-SB-4.0-5.0	6220835	N	3050B	6020	III
02-Mar-2011	SL-247-SA5A-SB-4.0-5.0	6220835	N	3060A	7199	III
02-Mar-2011	SL-247-SA5A-SB-4.0-5.0	6220835	N	3550B	8082	III
02-Mar-2011	SL-247-SA5A-SB-4.0-5.0	6220835	N	3550B	8270C	III
02-Mar-2011	SL-247-SA5A-SB-4.0-5.0	6220835	N	3550B	8270C SIM	III
02-Mar-2011	SL-247-SA5A-SB-4.0-5.0	6220835	N	5035	8260B	III
02-Mar-2011	SL-247-SA5A-SB-4.0-5.0	6220835	N	5035	8260B SIM	III
02-Mar-2011	SL-247-SA5A-SB-4.0-5.0	6220835	N	Gen Prep	9045M	III
02-Mar-2011	SL-247-SA5A-SB-4.0-5.0	6220835	N	METHOD	300.0	III
02-Mar-2011	SL-247-SA5A-SB-4.0-5.0	6220835	N	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Mar-2011	SL-247-SA5A-SB-4.0-5.0	6220835	N	METHOD	7471A	III
02-Mar-2011	SL-247-SA5A-SB-9.0-10.0	6220836	N	3050B	6010B	III
02-Mar-2011	SL-247-SA5A-SB-9.0-10.0	6220836	N	3050B	6020	III
02-Mar-2011	SL-247-SA5A-SB-9.0-10.0	6220836	N	3060A	7199	III
02-Mar-2011	SL-247-SA5A-SB-9.0-10.0	6220836	N	3550B	8082	III
02-Mar-2011	SL-247-SA5A-SB-9.0-10.0	6220836	N	3550B	8270C	III
02-Mar-2011	SL-247-SA5A-SB-9.0-10.0	6220836	N	3550B	8270C SIM	III
02-Mar-2011	SL-247-SA5A-SB-9.0-10.0	6220836	N	Gen Prep	9045M	III
02-Mar-2011	SL-247-SA5A-SB-9.0-10.0	6220836	N	METHOD	300.0	III
02-Mar-2011	SL-247-SA5A-SB-9.0-10.0	6220836	N	METHOD	314.0	III
02-Mar-2011	SL-247-SA5A-SB-9.0-10.0	6220836	N	METHOD	7471A	III
02-Mar-2011	TB-030211	6220837	TB	5030B	8260B	III
02-Mar-2011	TB-030211	6220837	TB	5030B	8260B SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE096 **Laboratory:** LL

EDD Filename: DE096_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: DUP08-SA5A-QC-030211 *Collected:* 3/2/2011 9:08:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.24	J	0.944	MDL	5.30	PQL	mg/Kg	J	Z
CALCIUM	1900		6.50	MDL	21.2	PQL	mg/Kg	J	E
PHOSPHORUS	221		0.594	MDL	10.6	PQL	mg/Kg	J	Q
POTASSIUM	2490		19.1	MDL	53.0	PQL	mg/Kg	J	Q
SODIUM	99.5	J	39.5	MDL	106	PQL	mg/Kg	J	Z
TIN	2.49	J	1.06	MDL	10.6	PQL	mg/Kg	U	B

Sample ID: SL-245-SA5A-SB-29.0-30.0 *Collected:* 3/2/2011 9:22:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.77	J	1.00	MDL	5.62	PQL	mg/Kg	J	Z
CALCIUM	2810		6.89	MDL	22.5	PQL	mg/Kg	J	E
PHOSPHORUS	335		0.629	MDL	11.2	PQL	mg/Kg	J	Q
POTASSIUM	2870		20.2	MDL	56.2	PQL	mg/Kg	J	Q
TIN	2.77	J	1.12	MDL	11.2	PQL	mg/Kg	U	B

Sample ID: SL-245-SA5A-SB-4.0-5.0 *Collected:* 3/2/2011 8:52:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.21	J	0.950	MDL	5.34	PQL	mg/Kg	J	Z
CALCIUM	2160		6.55	MDL	21.4	PQL	mg/Kg	J	E
PHOSPHORUS	315		0.598	MDL	10.7	PQL	mg/Kg	J	Q
POTASSIUM	2550		19.2	MDL	53.4	PQL	mg/Kg	J	Q
SODIUM	99.8	J	39.8	MDL	107	PQL	mg/Kg	J	Z
TIN	2.74	J	1.07	MDL	10.7	PQL	mg/Kg	U	B

Sample ID: SL-245-SA5A-SB-9.0-10.0 *Collected:* 3/2/2011 9:12:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.42	J	0.983	MDL	5.52	PQL	mg/Kg	J	Z
CALCIUM	4620		6.77	MDL	22.1	PQL	mg/Kg	J	E
PHOSPHORUS	411		0.619	MDL	11.0	PQL	mg/Kg	J	Q
POTASSIUM	3100		19.9	MDL	55.2	PQL	mg/Kg	J	Q
TIN	2.80	J	1.10	MDL	11.0	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE096 **Laboratory:** LL

EDD Filename: DE096_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-246-SA5A-SB-4.0-5.0 **Collected:** 3/2/2011 11:45:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.84	J	0.965	MDL	5.42	PQL	mg/Kg	J	Z
CALCIUM	4460		6.65	MDL	21.7	PQL	mg/Kg	J	E
PHOSPHORUS	309		0.607	MDL	10.8	PQL	mg/Kg	J	Q
POTASSIUM	2990		19.5	MDL	54.2	PQL	mg/Kg	J	Q
SODIUM	92.4	J	40.5	MDL	108	PQL	mg/Kg	J	Z
TIN	2.80	J	1.08	MDL	10.8	PQL	mg/Kg	U	B

Sample ID: SL-246-SA5A-SB-9.0-10.0 **Collected:** 3/2/2011 12:20:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.79	J	0.958	MDL	5.38	PQL	mg/Kg	J	Z
CALCIUM	2340		6.60	MDL	21.5	PQL	mg/Kg	J	E
PHOSPHORUS	364		0.603	MDL	10.8	PQL	mg/Kg	J	Q
POTASSIUM	3010		19.4	MDL	53.8	PQL	mg/Kg	J	Q
TIN	2.44	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	1.86	J	0.904	MDL	5.38	PQL	mg/Kg	J	Z

Sample ID: SL-247-SA5A-SB-4.0-5.0 **Collected:** 3/2/2011 3:45:00 PM **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.10	J	1.00	MDL	5.64	PQL	mg/Kg	J	Z
CALCIUM	2440		6.91	MDL	22.5	PQL	mg/Kg	J	E
PHOSPHORUS	347		0.631	MDL	11.3	PQL	mg/Kg	J	Q
POTASSIUM	2570		20.3	MDL	56.4	PQL	mg/Kg	J	Q
SODIUM	99.8	J	42.1	MDL	113	PQL	mg/Kg	J	Z
TIN	2.65	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	1.81	J	0.947	MDL	5.64	PQL	mg/Kg	J	Z

Sample ID: SL-247-SA5A-SB-9.0-10.0 **Collected:** 3/2/2011 3:50:00 PM **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.85	J	0.954	MDL	5.36	PQL	mg/Kg	J	Z
CALCIUM	2180		6.57	MDL	21.4	PQL	mg/Kg	J	E
PHOSPHORUS	396		0.600	MDL	10.7	PQL	mg/Kg	J	Q
POTASSIUM	3310		19.3	MDL	53.6	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE096 Laboratory: LL

EDD Filename: DE096_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6010B **Matrix:** SO

Sample ID: SL-247-SA5A-SB-9.0-10.0 *Collected:* 3/2/2011 3:50:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.38	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	1.95	J	0.900	MDL	5.36	PQL	mg/Kg	J	Z

Method Category: METALS **Method:** 6020 **Matrix:** SO

Sample ID: DUP08-SA5A-QC-030211 *Collected:* 3/2/2011 9:08:00 AM *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0972	J	0.0428	MDL	0.428	PQL	mg/Kg	J	Z

Sample ID: DUP08-SA5A-QC-030211 *Collected:* 3/2/2011 9:08:00 AM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0642	U	0.0642	MDL	0.214	PQL	mg/Kg	UJ	Q, FD
CADMIUM	0.0700	J	0.0428	MDL	0.107	PQL	mg/Kg	J	Z
COBALT	3.65		0.0214	MDL	0.107	PQL	mg/Kg	J	A
SILVER	0.0183	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z
VANADIUM	23.0		0.0235	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-245-SA5A-SB-29.0-30.0 *Collected:* 3/2/2011 9:22:00 AM *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.106	J	0.0437	MDL	0.437	PQL	mg/Kg	J	Z

Sample ID: SL-245-SA5A-SB-29.0-30.0 *Collected:* 3/2/2011 9:22:00 AM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0655	U	0.0655	MDL	0.218	PQL	mg/Kg	UJ	Q
CADMIUM	0.0839	J	0.0437	MDL	0.109	PQL	mg/Kg	J	Z
COBALT	4.12		0.0218	MDL	0.109	PQL	mg/Kg	J	A
VANADIUM	28.6		0.0240	MDL	0.109	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE096 **Laboratory: LL**

EDD Filename: DE096_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-245-SA5A-SB-4.0-5.0 ***Collected:*** 3/2/2011 8:52:00 AM ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.114	J	0.0423	MDL	0.423	PQL	mg/Kg	J	Z

Sample ID: SL-245-SA5A-SB-4.0-5.0 ***Collected:*** 3/2/2011 8:52:00 AM ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0800	J	0.0635	MDL	0.212	PQL	mg/Kg	J	Z, Q, FD
CADMIUM	0.0508	J	0.0423	MDL	0.106	PQL	mg/Kg	J	Z
COBALT	3.96		0.0212	MDL	0.106	PQL	mg/Kg	J	A
SILVER	0.0143	J	0.0127	MDL	0.106	PQL	mg/Kg	J	Z
VANADIUM	25.0		0.0233	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-245-SA5A-SB-9.0-10.0 ***Collected:*** 3/2/2011 9:12:00 AM ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.140	J	0.0438	MDL	0.438	PQL	mg/Kg	J	Z

Sample ID: SL-245-SA5A-SB-9.0-10.0 ***Collected:*** 3/2/2011 9:12:00 AM ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0656	U	0.0656	MDL	0.219	PQL	mg/Kg	UJ	Q
CADMIUM	0.0879	J	0.0438	MDL	0.109	PQL	mg/Kg	J	Z
COBALT	4.88		0.0219	MDL	0.109	PQL	mg/Kg	J	A
SILVER	0.0303	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z
VANADIUM	31.7		0.0241	MDL	0.109	PQL	mg/Kg	J	Q

Sample ID: SL-246-SA5A-SB-4.0-5.0 ***Collected:*** 3/2/2011 11:45:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0448	J	0.0421	MDL	0.421	PQL	mg/Kg	J	Z

Sample ID: SL-246-SA5A-SB-4.0-5.0 ***Collected:*** 3/2/2011 11:45:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0632	U	0.0632	MDL	0.211	PQL	mg/Kg	UJ	Q
CADMIUM	0.0885	J	0.0421	MDL	0.105	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE096 **Laboratory: LL**

EDD Filename: DE096_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-246-SA5A-SB-4.0-5.0 **Collected:** 3/2/2011 11:45:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	4.22		0.0211	MDL	0.105	PQL	mg/Kg	J	A
VANADIUM	26.0		0.0232	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-246-SA5A-SB-9.0-10.0 **Collected:** 3/2/2011 12:20:00 **Analysis Type:** REA2 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.132	J	0.0431	MDL	0.431	PQL	mg/Kg	J	Z

Sample ID: SL-246-SA5A-SB-9.0-10.0 **Collected:** 3/2/2011 12:20:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.105	J	0.0646	MDL	0.215	PQL	mg/Kg	J	Z, Q
COBALT	6.48		0.0215	MDL	0.108	PQL	mg/Kg	J	A
SILVER	0.0400	J	0.0129	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	36.4		0.0237	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-247-SA5A-SB-4.0-5.0 **Collected:** 3/2/2011 3:45:00 PM **Analysis Type:** REA2 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0749	J	0.0446	MDL	0.446	PQL	mg/Kg	J	Z

Sample ID: SL-247-SA5A-SB-4.0-5.0 **Collected:** 3/2/2011 3:45:00 PM **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0670	U	0.0670	MDL	0.223	PQL	mg/Kg	UJ	Q
COBALT	6.25		0.0223	MDL	0.112	PQL	mg/Kg	J	A
SILVER	0.0515	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z
VANADIUM	35.7		0.0246	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: SL-247-SA5A-SB-9.0-10.0 **Collected:** 3/2/2011 3:50:00 PM **Analysis Type:** REA2 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.120	J	0.0446	MDL	0.446	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE096 **Laboratory: LL**

EDD Filename: DE096_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-247-SA5A-SB-9.0-10.0 *Collected:* 3/2/2011 3:50:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0669	U	0.0669	MDL	0.223	PQL	mg/Kg	UJ	Q
COBALT	6.53		0.0223	MDL	0.111	PQL	mg/Kg	J	A
SILVER	0.0445	J	0.0134	MDL	0.111	PQL	mg/Kg	J	Z
VANADIUM	38.6		0.0245	MDL	0.111	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: DUP08-SA5A-QC-030211 *Collected:* 3/2/2011 9:08:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.44	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z, FD

Sample ID: SL-245-SA5A-SB-4.0-5.0 *Collected:* 3/2/2011 8:52:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.22	U	0.22	MDL	1.1	PQL	mg/Kg	UJ	FD

Sample ID: SL-245-SA5A-SB-9.0-10.0 *Collected:* 3/2/2011 9:12:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.36	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-246-SA5A-SB-9.0-10.0 *Collected:* 3/2/2011 12:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.51	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-247-SA5A-SB-9.0-10.0 *Collected:* 3/2/2011 3:50:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.45	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE096 **Laboratory:** LL

EDD Filename: DE096_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: DUP08-SA5A-QC-030211 *Collected:* 3/2/2011 9:08:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1221	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1232	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1242	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1248	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1254	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1260	0.43	U	0.43	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 1262	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 1268	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E

Sample ID: SL-245-SA5A-SB-29.0-30.0 *Collected:* 3/2/2011 9:22:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1221	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1232	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1242	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1248	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1254	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1260	0.44	U	0.44	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 1262	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 1268	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E

Sample ID: SL-245-SA5A-SB-4.0-5.0 *Collected:* 3/2/2011 8:52:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	L
AROCLOR 1221	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	L
AROCLOR 1232	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE096 **Laboratory:** LL

EDD Filename: DE096_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-245-SA5A-SB-4.0-5.0 *Collected:* 3/2/2011 8:52:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1242	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	L
AROCLOR 1248	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	L
AROCLOR 1254	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	L
AROCLOR 1260	0.42	U	0.42	MDL	1.8	PQL	ug/Kg	UJ	L
Aroclor 1262	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	L
Aroclor 1268	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	L
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E

Sample ID: SL-245-SA5A-SB-9.0-10.0 *Collected:* 3/2/2011 9:12:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1221	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1232	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1242	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1248	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1254	0.68	J	0.36	MDL	1.9	PQL	ug/Kg	J	Z, L
AROCLOR 1260	0.43	U	0.43	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 1262	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 1268	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E

Sample ID: SL-246-SA5A-SB-4.0-5.0 *Collected:* 3/2/2011 11:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	L
AROCLOR 1221	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	L
AROCLOR 1232	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	L
AROCLOR 1242	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	L
AROCLOR 1248	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	L
AROCLOR 1254	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE096 **Laboratory:** LL

EDD Filename: DE096_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-246-SA5A-SB-4.0-5.0 *Collected:* 3/2/2011 11:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.42	U	0.42	MDL	1.8	PQL	ug/Kg	UJ	L
Aroclor 1262	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	L
Aroclor 1268	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	L
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	E

Sample ID: SL-246-SA5A-SB-9.0-10.0 *Collected:* 3/2/2011 12:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1221	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1232	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1242	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1248	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1254	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1260	0.43	U	0.43	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 1262	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 1268	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E

Sample ID: SL-247-SA5A-SB-4.0-5.0 *Collected:* 3/2/2011 3:45:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1221	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1232	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1242	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1248	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1254	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1260	0.44	U	0.44	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 1262	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 1268	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE096 **Laboratory:** LL

EDD Filename: DE096_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-247-SA5A-SB-4.0-5.0 *Collected:* 3/2/2011 3:45:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E

Sample ID: SL-247-SA5A-SB-9.0-10.0 *Collected:* 3/2/2011 3:50:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1221	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1232	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1242	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1248	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1254	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
AROCLOR 1260	0.43	U	0.43	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 1262	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 1268	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	L
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	E

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-245-SA5A-SB-4.0-5.0 *Collected:* 3/2/2011 8:52:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	Q
1,4-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	Q
2,4,5-TRICHLOROPHENOL	36	U	36	MDL	180	PQL	ug/Kg	UJ	Q
2,4,6-TRICHLOROPHENOL	36	U	36	MDL	180	PQL	ug/Kg	UJ	Q
2,4-DICHLOROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	Q
2,4-DIMETHYLPHENOL	36	U	36	MDL	180	PQL	ug/Kg	UJ	Q
2,4-DINITROTOLUENE	36	U	36	MDL	180	PQL	ug/Kg	UJ	Q
2-CHLOROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE096 Laboratory: LL

EDD Filename: DE096_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-245-SA5A-SB-4.0-5.0 *Collected:* 3/2/2011 8:52:00 AM *Analysis Type:* RES-ACID *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLPHENOL	36	U	36	MDL	180	PQL	ug/Kg	UJ	Q
2-NITROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	Q
4-CHLORO-3-METHYLPHENOL	36	U	36	MDL	180	PQL	ug/Kg	UJ	Q
4-CHLOROPHENYL-PHENYLETHER	36	U	36	MDL	180	PQL	ug/Kg	UJ	Q
BENZIDINE	1300	U	1300	MDL	3600	PQL	ug/Kg	UJ	Q
BIS(2-CHLOROETHOXY)METHANE	18	U	18	MDL	180	PQL	ug/Kg	UJ	Q
BIS(2-ETHYLHEXYL)PHTHALATE	20	J	18	MDL	360	PQL	ug/Kg	J	Z
HEXACHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	Q
ISOPHORONE	18	U	18	MDL	180	PQL	ug/Kg	UJ	Q
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	Q
N-NITROSODIPHENYLAMINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	Q

Sample ID: SL-247-SA5A-SB-9.0-10.0 *Collected:* 3/2/2011 3:50:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	18	J	18	MDL	370	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: DUP08-SA5A-QC-030211 *Collected:* 3/2/2011 9:08:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	6.6	U	6.6	MDL	20	PQL	ug/Kg	UJ	FD

Sample ID: SL-245-SA5A-SB-29.0-30.0 *Collected:* 3/2/2011 9:22:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	11	J	6.8	MDL	20	PQL	ug/Kg	J	Z
NAPHTHALENE	1.0	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-245-SA5A-SB-4.0-5.0 *Collected:* 3/2/2011 8:52:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	10	J	6.5	MDL	20	PQL	ug/Kg	J	Z, FD

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE096 Laboratory: LL

EDD Filename: DE096_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-245-SA5A-SB-9.0-10.0 *Collected:* 3/2/2011 9:12:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	1.0	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	1.0	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	0.98	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	0.75	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	0.99	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-247-SA5A-SB-9.0-10.0 *Collected:* 3/2/2011 3:50:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	1.1	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix:** AQ

Sample ID: TB-030211 *Collected:* 3/2/2011 4:30:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZENE	0.6	J	0.5	MDL	5	PQL	ug/L	J	Z

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: DUP08-SA5A-QC-030211 *Collected:* 3/2/2011 9:08:00 AM *Analysis Type:* RES *Dilution:* 0.96

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.15	J	0.06	MDL	4.2	PQL	ug/Kg	J	Z, FD
m,p-Xylene	0.51	J	0.18	MDL	4.2	PQL	ug/Kg	J	Z, FD
METHYLENE CHLORIDE	0.78	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: SL-245-SA5A-SB-4.0-5.0 *Collected:* 3/2/2011 8:52:00 AM *Analysis Type:* RES *Dilution:* 0.84

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlorotrifluoroethylene	0.46	U	0.46	MDL	4.6	PQL	ug/Kg	UJ	Q
ETHYLBENZENE	0.06	U	0.06	MDL	3.7	PQL	ug/Kg	UJ	FD
m,p-Xylene	0.16	U	0.16	MDL	3.7	PQL	ug/Kg	UJ	FD

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE096 **Laboratory: LL**

EDD Filename: DE096_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **VOA**

Method: **8260B** ***Matrix:*** **SO**

Sample ID: **SL-245-SA5A-SB-4.0-5.0** ***Collected:*** **3/2/2011 8:52:00 AM** ***Analysis Type:*** **RES** ***Dilution:*** **0.84**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.62	J	0.22	MDL	3.7	PQL	ug/Kg	U	B

Sample ID: **SL-246-SA5A-SB-4.0-5.0** ***Collected:*** **3/2/2011 11:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.92**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.13	J	0.06	MDL	4.0	PQL	ug/Kg	J	Z
m,p-Xylene	0.42	J	0.17	MDL	4.0	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.95	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: **SL-247-SA5A-SB-4.0-5.0** ***Collected:*** **3/2/2011 3:45:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.18	J	0.07	MDL	4.5	PQL	ug/Kg	J	Z
m,p-Xylene	0.53	J	0.19	MDL	4.5	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.40	J	0.27	MDL	4.5	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE096 **Laboratory: LL**

EDD Filename: DE096_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE096 **Laboratory: LL**

EDD Filename: DE096_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE096 **Laboratory: LL**

EDD Filename: DE096_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE096

Method Blank Outlier Report

Lab Reporting Batch ID: DE096 Laboratory: LL

EDD Filename: DE096_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06908BB222001	3/11/2011 8:01:00 PM	ALUMINUM	6.34 mg/Kg	DUP08-SA5A-QC-030211
		CALCIUM	10.2 mg/Kg	SL-245-SA5A-SB-29.0-30.0
		IRON	5.30 mg/Kg	SL-245-SA5A-SB-4.0-5.0
		MAGNESIUM	2.85 mg/Kg	SL-245-SA5A-SB-9.0-10.0
		PHOSPHORUS	1.24 mg/Kg	SL-246-SA5A-SB-4.0-5.0
		TIN	1.30 mg/Kg	SL-246-SA5A-SB-9.0-10.0
				SL-247-SA5A-SB-4.0-5.0
				SL-247-SA5A-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP08-SA5A-QC-030211(RES)	TIN	2.49 mg/Kg	2.49U mg/Kg
SL-245-SA5A-SB-29.0-30.0(RES)	TIN	2.77 mg/Kg	2.77U mg/Kg
SL-245-SA5A-SB-4.0-5.0(RES)	TIN	2.74 mg/Kg	2.74U mg/Kg
SL-245-SA5A-SB-9.0-10.0(RES)	TIN	2.80 mg/Kg	2.80U mg/Kg
SL-246-SA5A-SB-4.0-5.0(RES)	TIN	2.80 mg/Kg	2.80U mg/Kg
SL-246-SA5A-SB-9.0-10.0(RES)	TIN	2.44 mg/Kg	2.44U mg/Kg
SL-247-SA5A-SB-4.0-5.0(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-247-SA5A-SB-9.0-10.0(RES)	TIN	2.38 mg/Kg	2.38U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06926AB221434A	3/16/2011 2:34:00 PM	COPPER	0.169 mg/Kg	DUP08-SA5A-QC-030211
				SL-245-SA5A-SB-29.0-30.0
				SL-245-SA5A-SB-4.0-5.0
				SL-245-SA5A-SB-9.0-10.0
				SL-246-SA5A-SB-4.0-5.0
				SL-246-SA5A-SB-9.0-10.0
				SL-247-SA5A-SB-4.0-5.0
				SL-247-SA5A-SB-9.0-10.0

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB84B211702A	3/3/2011 5:02:00 PM	METHYLENE CHLORIDE	1.1 ug/Kg	DUP08-SA5A-QC-030211
		TOLUENE	0.12 ug/Kg	SL-245-SA5A-SB-4.0-5.0
				SL-246-SA5A-SB-4.0-5.0
				SL-247-SA5A-SB-4.0-5.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE096 **Laboratory: LL**

EDD Filename: DE096_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP08-SA5A-QC-030211(RES)	METHYLENE CHLORIDE	0.78 ug/Kg	4.2U ug/Kg
SL-245-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.62 ug/Kg	3.7U ug/Kg
SL-246-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.95 ug/Kg	4.0U ug/Kg
SL-247-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.40 ug/Kg	4.5U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE096 **Laboratory: LL**

EDD Filename: DE096_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-245-SA5A-SB-4.0-5.0MS SL-245-SA5A-SB-4.0-5.0MSD (DUP08-SA5A-QC-030211 SL-245-SA5A-SB-29.0-30.0 SL-245-SA5A-SB-4.0-5.0 SL-245-SA5A-SB-9.0-10.0 SL-246-SA5A-SB-4.0-5.0 SL-246-SA5A-SB-9.0-10.0 SL-247-SA5A-SB-4.0-5.0 SL-247-SA5A-SB-9.0-10.0)	ZINC	44	18	75.00-125.00	-	ZINC	No Qual, >4x
SL-245-SA5A-SB-4.0-5.0MS SL-245-SA5A-SB-4.0-5.0MSD (DUP08-SA5A-QC-030211 SL-245-SA5A-SB-29.0-30.0 SL-245-SA5A-SB-4.0-5.0 SL-245-SA5A-SB-9.0-10.0 SL-246-SA5A-SB-4.0-5.0 SL-246-SA5A-SB-9.0-10.0 SL-247-SA5A-SB-4.0-5.0 SL-247-SA5A-SB-9.0-10.0)	ANTIMONY VANADIUM	44 72	42 -	75.00-125.00 75.00-125.00	- -	ANTIMONY VANADIUM	J(all detects) UJ(all non-detects)
SL-245-SA5A-SB-4.0-5.0MS (DUP08-SA5A-QC-030211 SL-245-SA5A-SB-29.0-30.0 SL-245-SA5A-SB-4.0-5.0 SL-245-SA5A-SB-9.0-10.0 SL-246-SA5A-SB-4.0-5.0 SL-246-SA5A-SB-9.0-10.0 SL-247-SA5A-SB-4.0-5.0 SL-247-SA5A-SB-9.0-10.0)	BARIUM	70	-	75.00-125.00	-	BARIUM	No Qual, >4x

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-245-SA5A-SB-4.0-5.0MS SL-245-SA5A-SB-4.0-5.0MSD (DUP08-SA5A-QC-030211 SL-245-SA5A-SB-29.0-30.0 SL-245-SA5A-SB-4.0-5.0 SL-245-SA5A-SB-9.0-10.0 SL-246-SA5A-SB-4.0-5.0 SL-246-SA5A-SB-9.0-10.0 SL-247-SA5A-SB-4.0-5.0 SL-247-SA5A-SB-9.0-10.0)	ALUMINUM MAGNESIUM POTASSIUM TITANIUM	1083 207 130 228	1307 - - 162	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINUM MAGNESIUM POTASSIUM TITANIUM	J(all detects) Al, Mg, Ti No Qual, >4x
SL-245-SA5A-SB-4.0-5.0MS SL-245-SA5A-SB-4.0-5.0MSD (DUP08-SA5A-QC-030211 SL-245-SA5A-SB-29.0-30.0 SL-245-SA5A-SB-4.0-5.0 SL-245-SA5A-SB-9.0-10.0 SL-246-SA5A-SB-4.0-5.0 SL-246-SA5A-SB-9.0-10.0 SL-247-SA5A-SB-4.0-5.0 SL-247-SA5A-SB-9.0-10.0)	IRON	-300	-82	75.00-125.00	-	IRON	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE096 **Laboratory: LL**

EDD Filename: DE096_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-245-SA5A-SB-4.0-5.0MS SL-245-SA5A-SB-4.0-5.0MSD (DUP08-SA5A-QC-030211 SL-245-SA5A-SB-29.0-30.0 SL-245-SA5A-SB-4.0-5.0 SL-245-SA5A-SB-9.0-10.0 SL-246-SA5A-SB-4.0-5.0 SL-246-SA5A-SB-9.0-10.0 SL-247-SA5A-SB-4.0-5.0 SL-247-SA5A-SB-9.0-10.0)	CALCIUM MANGANESE PHOSPHORUS	752 45 -	74 41 41	75.00-125.00 75.00-125.00 75.00-125.00	72 (20.00) - -	CALCIUM MANGANESE PHOSPHORUS	J(all detects) UJ(all non-detects) Ca No Qual %R, >4x Mn No Qual, >4x

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-245-SA5A-SB-4.0-5.0MSD (SL-245-SA5A-SB-4.0-5.0)	3,3'-DICHLOROBENZIDINE ANILINE Di-n-octylphthalate	- - -	- - 127	16.00-119.00 35.00-95.00 56.00-126.00	42 (30.00) 31 (30.00) -	3,3'-DICHLOROBENZIDINE ANILINE Di-n-octylphthalate	J(all detects)
SL-245-SA5A-SB-4.0-5.0MS SL-245-SA5A-SB-4.0-5.0MSD (SL-245-SA5A-SB-4.0-5.0)	1,2,4-TRICHLOROBENZENE 1,4-DICHLOROBENZENE 1-METHYLNAPHTHALENE 2,4,5-TRICHLOROPHENOL 2,4,6-TRICHLOROPHENOL 2,4-DICHLOROPHENOL 2,4-DIMETHYLPHENOL 2,4-DINITROTOLUENE 2-CHLOROPHENOL 2-METHYLNAPHTHALENE 2-METHYLPHENOL 2-NITROPHENOL 4-CHLORO-3-METHYLPHENOL 4-CHLOROPHENYL-PHENYLET ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BENZIDINE BIS(2-CHLOROETHOXY)METHA FLUORENE HEXACHLOROBENZENE ISOPHORONE NAPHTHALENE NITROBENZENE N-NITROSODIPHENYLAMINE	69 65 72 74 70 73 70 72 72 66 72 66 72 74 71 74 73 18 74 72 74 69 69 68 73	- - - - - - - - - - - - - - - - - 24 - - - - - - -	72.00-115.00 70.00-100.00 73.00-112.00 78.00-109.00 77.00-115.00 78.00-117.00 78.00-110.00 73.00-113.00 73.00-121.00 76.00-114.00 75.00-111.00 74.00-115.00 76.00-110.00 80.00-109.00 75.00-115.00 81.00-110.00 75.00-115.00 35.00-141.00 75.00-104.00 77.00-111.00 77.00-114.00 73.00-102.00 72.00-116.00 72.00-106.00 86.00-145.00	- -	1,2,4-TRICHLOROBENZENE 1,4-DICHLOROBENZENE 1-METHYLNAPHTHALENE 2,4,5-TRICHLOROPHENOL 2,4,6-TRICHLOROPHENOL 2,4-DICHLOROPHENOL 2,4-DIMETHYLPHENOL 2,4-DINITROTOLUENE 2-CHLOROPHENOL 2-METHYLNAPHTHALENE 2-METHYLPHENOL 2-NITROPHENOL 4-CHLORO-3-METHYLPHENOL 4-CHLOROPHENYL-PHENYLE ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BENZIDINE BIS(2-CHLOROETHOXY)METH FLUORENE HEXACHLOROBENZENE ISOPHORONE NAPHTHALENE NITROBENZENE N-NITROSODIPHENYLAMINE	J(all detects) UJ(all non-detects)

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-245-SA5A-SB-4.0-5.0MS SL-245-SA5A-SB-4.0-5.0MSD (SL-245-SA5A-SB-4.0-5.0)	Chlorotrifluoroethylene	56	58	70.00-130.00	-	Chlorotrifluoroethylene	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE096 **Laboratory: LL**

EDD Filename: DE096_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-245-SA5A-SB-4.0-5.0DUP (DUP08-SA5A-QC-030211 SL-245-SA5A-SB-29.0-30.0 SL-245-SA5A-SB-4.0-5.0 SL-245-SA5A-SB-9.0-10.0 SL-246-SA5A-SB-4.0-5.0 SL-246-SA5A-SB-9.0-10.0 SL-247-SA5A-SB-4.0-5.0 SL-247-SA5A-SB-9.0-10.0)	Zirconium	200	20.00	No Qual OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-245-SA5A-SB-4.0-5.0DUP (DUP08-SA5A-QC-030211 SL-245-SA5A-SB-29.0-30.0 SL-245-SA5A-SB-4.0-5.0 SL-245-SA5A-SB-9.0-10.0 SL-246-SA5A-SB-4.0-5.0 SL-246-SA5A-SB-9.0-10.0 SL-247-SA5A-SB-4.0-5.0 SL-247-SA5A-SB-9.0-10.0)	ANTIMONY	200	20.00	No Qual OK by difference
	CADMIUM	200	20.00	
	SILVER	43	20.00	

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-245-SA5A-SB-4.0-5.0DUP (DUP08-SA5A-QC-030211 SL-245-SA5A-SB-29.0-30.0 SL-245-SA5A-SB-4.0-5.0 SL-245-SA5A-SB-9.0-10.0 SL-246-SA5A-SB-4.0-5.0 SL-246-SA5A-SB-9.0-10.0 SL-247-SA5A-SB-4.0-5.0 SL-247-SA5A-SB-9.0-10.0)	HEXAVALENT CHROMIUM	200	20.00	No Qual OK by difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE096 Laboratory: LL

EDD Filename: DE096_v1 eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P06926AQ221437A (DUP08 -SA5A -QC -030211 SL -245-SA5A -SB -29.0-30.0 SL -245-SA5A -SB -4.0-5.0 SL -245-SA5A -SB -9.0-10.0 SL -246-SA5A -SB -4.0-5.0 SL -246-SA5A -SB -9.0-10.0 SL -247-SA5A -SB -4.0-5.0 SL -247-SA5A -SB -9.0-10.0)	ANTIMONY	65	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10717AQ241456A	AROCLOR 1016	51	-	72.00-120.00	-	All TCL Compounds	J(all detects) UJ(all non-detects)
P10717AQ241543A	AROCLOR 1260	60	-	65.00-137.00	-		
P10717AY241520A (DUP08 -SA5A -QC -030211 SL -245-SA5A -SB -29.0-30.0 SL -245-SA5A -SB -4.0-5.0 SL -245-SA5A -SB -9.0-10.0 SL -246-SA5A -SB -4.0-5.0 SL -246-SA5A -SB -9.0-10.0 SL -247-SA5A -SB -4.0-5.0 SL -247-SA5A -SB -9.0-10.0)	Aroclor 5442	134	-	36.00-106.00	37 (30.00)		

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSB84Q211517A (DUP08 -SA5A -QC -030211 SL -245-SA5A -SB -4.0-5.0 SL -246-SA5A -SB -4.0-5.0 SL -247-SA5A -SB -4.0-5.0)	BROMOCHLOROMETHANE	126	-	79.00-124.00	-	BROMOCHLOROMETHANE	J(all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE096 Laboratory: LL

EDD Filename: DE096_v1 eQAPP Name: CDM_SSFL_110509

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-245-SA5A-SB-4.0-5.0	DUP08-SA5A-QC-030211			
MOISTURE	8.2	9.3	13		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-245-SA5A-SB-4.0-5.0	DUP08-SA5A-QC-030211			
FLUORIDE	2.1	3.2	42	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-245-SA5A-SB-4.0-5.0	DUP08-SA5A-QC-030211			
ALUMINUM	11100	11300	2	50.00	
BORON	2.21	2.24	1	50.00	
CALCIUM	2160	1900	13	50.00	
IRON	16800	15700	7	50.00	
LITHIUM	23.2	20.5	12	50.00	
MAGNESIUM	3410	2980	13	50.00	
MANGANESE	226	204	10	50.00	No Qualifiers Applied
PHOSPHORUS	315	221	35	50.00	
POTASSIUM	2550	2490	2	50.00	
SODIUM	99.8	99.5	0	50.00	
STRONTIUM	11.4	9.97	13	50.00	
TIN	2.74	2.49	10	50.00	
TITANIUM	967	930	4	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-245-SA5A-SB-4.0-5.0	DUP08-SA5A-QC-030211			
ARSENIC	3.79	3.43	10	50.00	
BARIUM	70.9	63.0	12	50.00	
BERYLLIUM	0.458	0.461	1	50.00	
CADMIUM	0.0508	0.0700	32	50.00	
CHROMIUM	11.0	10.1	9	50.00	
COBALT	3.96	3.65	8	50.00	
COPPER	4.24	3.83	10	50.00	
LEAD	3.95	4.04	2	50.00	No Qualifiers Applied
MOLYBDENUM	0.344	0.339	1	50.00	
NICKEL	6.15	5.72	7	50.00	
SELENIUM	0.114	0.0972	16	50.00	
SILVER	0.0143	0.0183	25	50.00	
THALLIUM	0.278	0.252	10	50.00	
VANADIUM	25.0	23.0	8	50.00	
ZINC	59.7	52.2	13	50.00	
ANTIMONY	0.0800	0.214 U	200	50.00	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE096 **Laboratory: LL**

EDD Filename: DE096_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-245-SA5A-SB-4.0-5.0	DUP08-SA5A-QC-030211			
HEXAVALENT CHROMIUM	1.1 U	0.44	200	50.00	J(all detects) UJ(all non-detects)

Method: 8260B
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-245-SA5A-SB-4.0-5.0	DUP08-SA5A-QC-030211			
METHYLENE CHLORIDE	0.62	0.78	23	50.00	No Qualifiers Applied
ETHYLBENZENE	3.7 U	0.15	200	50.00	J(all detects)
m,p-Xylene	3.7 U	0.51	200	50.00	UJ(all non-detects)

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-245-SA5A-SB-4.0-5.0	DUP08-SA5A-QC-030211			
Di-n-octylphthalate	10	20 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-245-SA5A-SB-4.0-5.0	DUP08-SA5A-QC-030211			
PH	7.99	8.22	3	50.00	No Qualifiers Applied

Method: ASTM D1498
Matrix: SO

Analyte	Concentration (mV)		Sample RPD	eQAPP RPD	Flag
	SL-245-SA5A-SB-4.0-5.0	DUP08-SA5A-QC-030211			
Oxidation Reduction Potential	429	352	20		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE096 **Laboratory: LL**

EDD Filename: DE096_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TB-030211	BENZENE	J	0.6	5	PQL	ug/L	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP08-SA5A-QC-030211	BORON	J	2.24	5.30	PQL	mg/Kg	J (all detects)
	SODIUM	J	99.5	106	PQL	mg/Kg	
	TIN	J	2.49	10.6	PQL	mg/Kg	
SL-245-SA5A-SB-29.0-30.0	BORON	J	1.77	5.62	PQL	mg/Kg	J (all detects)
	TIN	J	2.77	11.2	PQL	mg/Kg	
SL-245-SA5A-SB-4.0-5.0	BORON	J	2.21	5.34	PQL	mg/Kg	J (all detects)
	SODIUM	J	99.8	107	PQL	mg/Kg	
	TIN	J	2.74	10.7	PQL	mg/Kg	
SL-245-SA5A-SB-9.0-10.0	BORON	J	2.42	5.52	PQL	mg/Kg	J (all detects)
	TIN	J	2.80	11.0	PQL	mg/Kg	
SL-246-SA5A-SB-4.0-5.0	BORON	J	1.84	5.42	PQL	mg/Kg	J (all detects)
	SODIUM	J	92.4	108	PQL	mg/Kg	
	TIN	J	2.80	10.8	PQL	mg/Kg	
SL-246-SA5A-SB-9.0-10.0	BORON	J	3.79	5.38	PQL	mg/Kg	J (all detects)
	TIN	J	2.44	10.8	PQL	mg/Kg	
	Zirconium	J	1.86	5.38	PQL	mg/Kg	
SL-247-SA5A-SB-4.0-5.0	BORON	J	4.10	5.64	PQL	mg/Kg	J (all detects)
	SODIUM	J	99.8	113	PQL	mg/Kg	
	TIN	J	2.65	11.3	PQL	mg/Kg	
	Zirconium	J	1.81	5.64	PQL	mg/Kg	
SL-247-SA5A-SB-9.0-10.0	BORON	J	3.85	5.36	PQL	mg/Kg	J (all detects)
	TIN	J	2.38	10.7	PQL	mg/Kg	
	Zirconium	J	1.95	5.36	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP08-SA5A-QC-030211	CADMIUM	J	0.0700	0.107	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0972	0.428	PQL	mg/Kg	
	SILVER	J	0.0183	0.107	PQL	mg/Kg	
SL-245-SA5A-SB-29.0-30.0	CADMIUM	J	0.0839	0.109	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.106	0.437	PQL	mg/Kg	
SL-245-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0800	0.212	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0508	0.106	PQL	mg/Kg	
	SELENIUM	J	0.114	0.423	PQL	mg/Kg	
	SILVER	J	0.0143	0.106	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE096 **Laboratory: LL**

EDD Filename: DE096_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-245-SA5A-SB-9.0-10.0	CADMIUM	J	0.0879	0.109	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.140	0.438	PQL	mg/Kg	
	SILVER	J	0.0303	0.109	PQL	mg/Kg	
SL-246-SA5A-SB-4.0-5.0	CADMIUM	J	0.0885	0.105	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0448	0.421	PQL	mg/Kg	
SL-246-SA5A-SB-9.0-10.0	ANTIMONY	J	0.105	0.215	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.132	0.431	PQL	mg/Kg	
	SILVER	J	0.0400	0.108	PQL	mg/Kg	
SL-247-SA5A-SB-4.0-5.0	SELENIUM	J	0.0749	0.446	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0515	0.112	PQL	mg/Kg	
SL-247-SA5A-SB-9.0-10.0	SELENIUM	J	0.120	0.446	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0445	0.111	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP08-SA5A-QC-030211	HEXAVALENT CHROMIUM	J	0.44	1.1	PQL	mg/Kg	J (all detects)
SL-245-SA5A-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.36	1.1	PQL	mg/Kg	J (all detects)
SL-246-SA5A-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.51	1.1	PQL	mg/Kg	J (all detects)
SL-247-SA5A-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.45	1.1	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-245-SA5A-SB-9.0-10.0	AROCLOR 1254	J	0.68	1.9	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP08-SA5A-QC-030211	ETHYLBENZENE	J	0.15	4.2	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.51	4.2	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	0.78	4.2	PQL	ug/Kg	
SL-245-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.62	3.7	PQL	ug/Kg	J (all detects)
SL-246-SA5A-SB-4.0-5.0	ETHYLBENZENE	J	0.13	4.0	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.42	4.0	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	0.95	4.0	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE096 **Laboratory: LL**

EDD Filename: DE096_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-247-SA5A-SB-4.0-5.0	ETHYLBENZENE	J	0.18	4.5	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.53	4.5	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	0.40	4.5	PQL	ug/Kg	

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-245-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	360	PQL	ug/Kg	J (all detects)
SL-247-SA5A-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	18	370	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-245-SA5A-SB-29.0-30.0	Di-n-octylphthalate	J	11	20	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	1.0	1.9	PQL	ug/Kg	
SL-245-SA5A-SB-4.0-5.0	Di-n-octylphthalate	J	10	20	PQL	ug/Kg	J (all detects)
SL-245-SA5A-SB-9.0-10.0	CHRYSENE	J	1.0	1.8	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	1.0	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	0.98	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	0.75	1.8	PQL	ug/Kg	
	PYRENE	J	0.99	1.8	PQL	ug/Kg	
SL-247-SA5A-SB-9.0-10.0	CHRYSENE	J	1.1	1.8	PQL	ug/Kg	J (all detects)

LDC #: 25911F4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-11
SDG #: DE096 ADR
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ba, Ca, Fe, Mg, Mn, Ti, Zn >4x)
VII.	Duplicate Sample Analysis	N	D (Sb, Cd, Ag, Zr <5x)
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Co: 13% J/UJ
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	DUP08-SA5A-QC-030211	11	SL-245-SA5A-SB-4.0-5.0DUP	21		31	
2	SL-245-SA5A-SB-4.0-5.0	12		22		32	
3	SL-245-SA5A-SB-9.0-10.0	13		23		33	
4	SL-245-SA5A-SB-29.0-30.0	14		24		34	
5	SL-246-SA5A-SB-4.0-5.0	15		25		35	
6	SL-246-SA5A-SB-9.0-10.0	16		26		36	
7	SL-247-SA5A-SB-4.0-5.0	17		27		37	
8	SL-247-SA5A-SB-9.0-10.0	18		28		38	
9	SL-245-SA5A-SB-4.0-5.0MS	19		29		39	
10	SL-245-SA5A-SB-4.0-5.0MSD	20		30		40	

Notes:

SAMPLE DELIVERY GROUP

DE097

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Mar-2011	SL-236-SA5A-SB-4.0-5.0	6222142	N	3050B	6010B	III
03-Mar-2011	SL-236-SA5A-SB-4.0-5.0	6222142	N	3050B	6020	III
03-Mar-2011	SL-236-SA5A-SB-4.0-5.0	6222142	N	3060A	7199	III
03-Mar-2011	SL-236-SA5A-SB-4.0-5.0	6222142	N	3550B	8082	III
03-Mar-2011	SL-236-SA5A-SB-4.0-5.0	6222142	N	3550B	8270C	III
03-Mar-2011	SL-236-SA5A-SB-4.0-5.0	6222142	N	3550B	8270C SIM	III
03-Mar-2011	SL-236-SA5A-SB-4.0-5.0	6222142	N	5035	8260B	III
03-Mar-2011	SL-236-SA5A-SB-4.0-5.0	6222142	N	5035	8260B SIM	III
03-Mar-2011	SL-236-SA5A-SB-4.0-5.0	6222142	N	Gen Prep	9045M	III
03-Mar-2011	SL-236-SA5A-SB-4.0-5.0	6222142	N	METHOD	300.0	III
03-Mar-2011	SL-236-SA5A-SB-4.0-5.0	6222142	N	METHOD	314.0	III
03-Mar-2011	SL-236-SA5A-SB-4.0-5.0	6222142	N	METHOD	7471A	III
03-Mar-2011	SL-236-SA5A-SB-9.0-10.0	6222143	N	3050B	6010B	III
03-Mar-2011	SL-236-SA5A-SB-9.0-10.0	6222143	N	3050B	6020	III
03-Mar-2011	SL-236-SA5A-SB-9.0-10.0	6222143	N	3060A	7199	III
03-Mar-2011	SL-236-SA5A-SB-9.0-10.0	6222143	N	3550B	8082	III
03-Mar-2011	SL-236-SA5A-SB-9.0-10.0	6222143	N	3550B	8270C	III
03-Mar-2011	SL-236-SA5A-SB-9.0-10.0	6222143	N	3550B	8270C SIM	III
03-Mar-2011	SL-236-SA5A-SB-9.0-10.0	6222143	N	Gen Prep	9045M	III
03-Mar-2011	SL-236-SA5A-SB-9.0-10.0	6222143	N	METHOD	300.0	III
03-Mar-2011	SL-236-SA5A-SB-9.0-10.0	6222143	N	METHOD	314.0	III
03-Mar-2011	SL-236-SA5A-SB-9.0-10.0	6222143	N	METHOD	7471A	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	3050B	6010B	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	3050B	6020	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	3060A	7199	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	3546	1625C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	3550B	8015B	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	3550B	8015M	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	3550B	8082	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	3550B	8270C	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	3550B	8270C SIM	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	5035	8015M	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	5035	8260B	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	5035	8260B SIM	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	8330	8330A	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	Gen Prep	9045M	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	METHOD	300.0	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	METHOD	314.0	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	METHOD	7471A	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	METHOD	8015B	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	METHOD	8015M	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	METHOD	8315A	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5	6222144	N	METHOD	9012B	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5DUP	P222144D271534A	DUP	METHOD	9012B	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5MSD	P222144M240518A	MSD	8330	8330A	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5MSD	P222144M261511	MSD	3546	1625C	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5MSD	P222144M320942A	MSD	3550B	8015B	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5MSD	P222144M321828A	MSD	METHOD	8015M	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5MS	P222144R240436A	MS	8330	8330A	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5MS	P222144R261455	MS	3546	1625C	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5MS	P222144R271536A	MS	METHOD	9012B	III
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5MS	P222144R320858A	MS	3550B	8015B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Mar-2011	SL-249-SA5A-SB-2.5-3.5MS	P222144R321810A	MS	METHOD	8015M	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	3050B	6010B	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	3050B	6020	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	3060A	7199	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	3546	1625C	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	3550B	8015B	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	3550B	8015M	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	3550B	8082	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	3550B	8270C	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	3550B	8270C SIM	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	5035	8015M	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	5035	8260B	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	5035	8260B SIM	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	8330	8330A	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	Gen Prep	9045M	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	METHOD	300.0	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	METHOD	314.0	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	METHOD	6850	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	METHOD	7471A	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	METHOD	8015B	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	METHOD	8015M	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	METHOD	8315A	III
03-Mar-2011	SL-249-SA5A-SB-9.0-10.0	6222145	N	METHOD	9012B	III
03-Mar-2011	SL-235-SA5A-SB-4.0-5.0	6222140	N	3050B	6010B	III
03-Mar-2011	SL-235-SA5A-SB-4.0-5.0	6222140	N	3050B	6020	III
03-Mar-2011	SL-235-SA5A-SB-4.0-5.0	6222140	N	3060A	7199	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Mar-2011	SL-235-SA5A-SB-4.0-5.0	6222140	N	3550B	8082	III
03-Mar-2011	SL-235-SA5A-SB-4.0-5.0	6222140	N	3550B	8270C	III
03-Mar-2011	SL-235-SA5A-SB-4.0-5.0	6222140	N	3550B	8270C SIM	III
03-Mar-2011	SL-235-SA5A-SB-4.0-5.0	6222140	N	5035	8260B	III
03-Mar-2011	SL-235-SA5A-SB-4.0-5.0	6222140	N	5035	8260B SIM	III
03-Mar-2011	SL-235-SA5A-SB-4.0-5.0	6222140	N	Gen Prep	9045M	III
03-Mar-2011	SL-235-SA5A-SB-4.0-5.0	6222140	N	METHOD	300.0	III
03-Mar-2011	SL-235-SA5A-SB-4.0-5.0	6222140	N	METHOD	314.0	III
03-Mar-2011	SL-235-SA5A-SB-4.0-5.0	6222140	N	METHOD	7471A	III
03-Mar-2011	SL-235-SA5A-SB-8.5-9.5	6222141	N	3050B	6010B	III
03-Mar-2011	SL-235-SA5A-SB-8.5-9.5	6222141	N	3050B	6020	III
03-Mar-2011	SL-235-SA5A-SB-8.5-9.5	6222141	N	3060A	7199	III
03-Mar-2011	SL-235-SA5A-SB-8.5-9.5	6222141	N	3550B	8082	III
03-Mar-2011	SL-235-SA5A-SB-8.5-9.5	6222141	N	3550B	8270C	III
03-Mar-2011	SL-235-SA5A-SB-8.5-9.5	6222141	N	3550B	8270C SIM	III
03-Mar-2011	SL-235-SA5A-SB-8.5-9.5	6222141	N	Gen Prep	9045M	III
03-Mar-2011	SL-235-SA5A-SB-8.5-9.5	6222141	N	METHOD	300.0	III
03-Mar-2011	SL-235-SA5A-SB-8.5-9.5	6222141	N	METHOD	314.0	III
03-Mar-2011	SL-235-SA5A-SB-8.5-9.5	6222141	N	METHOD	7471A	III
03-Mar-2011	SL-234-SA5A-SB-4.0-5.0	6222138	N	3050B	6010B	III
03-Mar-2011	SL-234-SA5A-SB-4.0-5.0	6222138	N	3050B	6020	III
03-Mar-2011	SL-234-SA5A-SB-4.0-5.0	6222138	N	3060A	7199	III
03-Mar-2011	SL-234-SA5A-SB-4.0-5.0	6222138	N	3550B	8082	III
03-Mar-2011	SL-234-SA5A-SB-4.0-5.0	6222138	N	3550B	8270C	III
03-Mar-2011	SL-234-SA5A-SB-4.0-5.0	6222138	N	3550B	8270C SIM	III
03-Mar-2011	SL-234-SA5A-SB-4.0-5.0	6222138	N	5035	8260B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Mar-2011	SL-234-SA5A-SB-4.0-5.0	6222138	N	5035	8260B SIM	III
03-Mar-2011	SL-234-SA5A-SB-4.0-5.0	6222138	N	Gen Prep	9045M	III
03-Mar-2011	SL-234-SA5A-SB-4.0-5.0	6222138	N	METHOD	300.0	III
03-Mar-2011	SL-234-SA5A-SB-4.0-5.0	6222138	N	METHOD	314.0	III
03-Mar-2011	SL-234-SA5A-SB-4.0-5.0	6222138	N	METHOD	7471A	III
03-Mar-2011	SL-234-SA5A-SB-4.0-5.0DUP	P222138D272354B	DUP	METHOD	300.0	III
03-Mar-2011	SL-234-SA5A-SB-4.0-5.0MSD	P222138M261056	MSD	3550B	8270C SIM	III
03-Mar-2011	SL-234-SA5A-SB-4.0-5.0MS	P222138R261025	MS	3550B	8270C SIM	III
03-Mar-2011	SL-234-SA5A-SB-4.0-5.0MS	P222138R270009B	MS	METHOD	300.0	III
03-Mar-2011	SL-234-SA5A-SB-9.0-10	6222139	N	3050B	6010B	III
03-Mar-2011	SL-234-SA5A-SB-9.0-10	6222139	N	3050B	6020	III
03-Mar-2011	SL-234-SA5A-SB-9.0-10	6222139	N	3060A	7199	III
03-Mar-2011	SL-234-SA5A-SB-9.0-10	6222139	N	3550B	8082	III
03-Mar-2011	SL-234-SA5A-SB-9.0-10	6222139	N	3550B	8270C	III
03-Mar-2011	SL-234-SA5A-SB-9.0-10	6222139	N	3550B	8270C SIM	III
03-Mar-2011	SL-234-SA5A-SB-9.0-10	6222139	N	Gen Prep	9045M	III
03-Mar-2011	SL-234-SA5A-SB-9.0-10	6222139	N	METHOD	300.0	III
03-Mar-2011	SL-234-SA5A-SB-9.0-10	6222139	N	METHOD	314.0	III
03-Mar-2011	SL-234-SA5A-SB-9.0-10	6222139	N	METHOD	7471A	III
03-Mar-2011	SL-234-SA5A-SB-9.0-10DUP	P222139D272235B	DUP	METHOD	314.0	III
03-Mar-2011	SL-234-SA5A-SB-9.0-10DUP	P222139D291030A	DUP	Gen Prep	9045M	III
03-Mar-2011	SL-234-SA5A-SB-9.0-10MS	P222139R272259B	MS	METHOD	314.0	III
03-Mar-2011	EB06-SA5A-030311	6222146	EB	3005A	6010B	III
03-Mar-2011	EB06-SA5A-030311	6222146	EB	3020A	6020	III
03-Mar-2011	EB06-SA5A-030311	6222146	EB	3510C	8082	III
03-Mar-2011	EB06-SA5A-030311	6222146	EB	3510C	8270C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Mar-2011	EB06-SA5A-030311	6222146	EB	3510C	8270C SIM	III
03-Mar-2011	EB06-SA5A-030311	6222146	EB	5030B	8260B	III
03-Mar-2011	EB06-SA5A-030311	6222146	EB	5030B	8260B SIM	III
03-Mar-2011	EB06-SA5A-030311	6222146	EB	Gen Prep	300.0	III
03-Mar-2011	EB06-SA5A-030311	6222146	EB	Gen Prep	314.0	III
03-Mar-2011	EB06-SA5A-030311	6222146	EB	Gen Prep	7199	III
03-Mar-2011	EB06-SA5A-030311	6222146	EB	METHOD	7470A	III
03-Mar-2011	TB-030311	6222147	TB	5030B	8015M	III
03-Mar-2011	TB-030311	6222147	TB	5030B	8260B	III
03-Mar-2011	TB-030311	6222147	TB	5030B	8260B SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE097 Laboratory: LL

EDD Filename: PrepDE097_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-234-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 3:53:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-234-SA5A-SB-9.0-10 *Collected:* 3/3/2011 3:55:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.0		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-235-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 2:33:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.9		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-235-SA5A-SB-8.5-9.5 *Collected:* 3/3/2011 2:38:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.7		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-236-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 9:53:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.3		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-236-SA5A-SB-9.0-10.0 *Collected:* 3/3/2011 9:58:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.3		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-249-SA5A-SB-2.5-3.5 *Collected:* 3/3/2011 12:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.5		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-249-SA5A-SB-9.0-10.0 *Collected:* 3/3/2011 12:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.2		0.88	MDL	1.1	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE097 **Laboratory:** LL

EDD Filename: PrepDE097_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-234-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 3:53:00 PM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.89	J	0.925	MDL	5.20	PQL	mg/Kg	J	Z
CALCIUM	2080		6.37	MDL	20.8	PQL	mg/Kg	J	E
PHOSPHORUS	355		0.582	MDL	10.4	PQL	mg/Kg	J	Q
POTASSIUM	3390		18.7	MDL	52.0	PQL	mg/Kg	J	Q
SODIUM	82.9	J	38.8	MDL	104	PQL	mg/Kg	J	Z
TIN	2.48	J	1.04	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	1.53	J	0.873	MDL	5.20	PQL	mg/Kg	J	Z

Sample ID: SL-234-SA5A-SB-9.0-10 *Collected:* 3/3/2011 3:55:00 PM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.92	J	0.988	MDL	5.55	PQL	mg/Kg	J	Z
CALCIUM	1920		6.80	MDL	22.2	PQL	mg/Kg	J	E
PHOSPHORUS	127		0.622	MDL	11.1	PQL	mg/Kg	J	Q
POTASSIUM	2150		20.0	MDL	55.5	PQL	mg/Kg	J	Q
TIN	2.57	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.77	J	0.932	MDL	5.55	PQL	mg/Kg	J	Z

Sample ID: SL-235-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 2:33:00 PM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.92	J	0.976	MDL	5.49	PQL	mg/Kg	J	Z
CALCIUM	4930		6.72	MDL	21.9	PQL	mg/Kg	J	E
PHOSPHORUS	413		0.614	MDL	11.0	PQL	mg/Kg	J	Q
POTASSIUM	3070		19.7	MDL	54.9	PQL	mg/Kg	J	Q
SODIUM	82.7	J	40.9	MDL	110	PQL	mg/Kg	J	Z
TIN	2.61	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.70	J	0.922	MDL	5.49	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE097 **Laboratory: LL**

EDD Filename: PrepDE097_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-235-SA5A-SB-8.5-9.5 *Collected:* 3/3/2011 2:38:00 PM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.97	J	1.00	MDL	5.62	PQL	mg/Kg	J	Z
CALCIUM	2730		6.89	MDL	22.5	PQL	mg/Kg	J	E
PHOSPHORUS	327		0.629	MDL	11.2	PQL	mg/Kg	J	Q
POTASSIUM	1590		20.2	MDL	56.2	PQL	mg/Kg	J	Q
TIN	2.69	J	1.12	MDL	11.2	PQL	mg/Kg	U	B

Sample ID: SL-236-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 9:53:00 AM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.77	J	0.966	MDL	5.43	PQL	mg/Kg	J	Z
CALCIUM	2130		6.66	MDL	21.7	PQL	mg/Kg	J	E
PHOSPHORUS	290		0.608	MDL	10.9	PQL	mg/Kg	J	Q
POTASSIUM	2930		19.5	MDL	54.3	PQL	mg/Kg	J	Q
SODIUM	90.8	J	40.5	MDL	109	PQL	mg/Kg	J	Z
TIN	2.63	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.63	J	0.912	MDL	5.43	PQL	mg/Kg	J	Z

Sample ID: SL-236-SA5A-SB-9.0-10.0 *Collected:* 3/3/2011 9:58:00 AM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.65	J	0.969	MDL	5.44	PQL	mg/Kg	J	Z
CALCIUM	2630		6.67	MDL	21.8	PQL	mg/Kg	J	E
PHOSPHORUS	331		0.610	MDL	10.9	PQL	mg/Kg	J	Q
POTASSIUM	1930		19.6	MDL	54.4	PQL	mg/Kg	J	Q
TIN	2.61	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.56	J	0.914	MDL	5.44	PQL	mg/Kg	J	Z

Sample ID: SL-249-SA5A-SB-2.5-3.5 *Collected:* 3/3/2011 12:00:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	7850		6.44	MDL	21.0	PQL	mg/Kg	J	E
PHOSPHORUS	386		0.588	MDL	10.5	PQL	mg/Kg	J	Q
POTASSIUM	3160		18.9	MDL	52.5	PQL	mg/Kg	J	Q
TIN	2.53	J	1.05	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	1.14	J	0.882	MDL	5.25	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE097 **Laboratory:** LL

EDD Filename: PrepDE097_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-249-SA5A-SB-9.0-10.0 *Collected:* 3/3/2011 12:10:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	2150		6.63	MDL	21.6	PQL	mg/Kg	J	E
PHOSPHORUS	202		0.605	MDL	10.8	PQL	mg/Kg	J	Q
POTASSIUM	1970		19.5	MDL	54.0	PQL	mg/Kg	J	Q
TIN	2.83	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	1.16	J	0.908	MDL	5.40	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-234-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 3:53:00 PM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0687	J	0.0636	MDL	0.212	PQL	mg/Kg	J	Z, Q
COBALT	5.59		0.0212	MDL	0.106	PQL	mg/Kg	J	A
SILVER	0.0259	J	0.0127	MDL	0.106	PQL	mg/Kg	J	Z
VANADIUM	34.4		0.0233	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-234-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 3:53:00 PM *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0831	J	0.0424	MDL	0.424	PQL	mg/Kg	J	Z

Sample ID: SL-234-SA5A-SB-9.0-10 *Collected:* 3/3/2011 3:55:00 PM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0842	J	0.0659	MDL	0.220	PQL	mg/Kg	J	Z, Q
CADMIUM	0.0874	J	0.0440	MDL	0.110	PQL	mg/Kg	J	Z
COBALT	26.1		0.0220	MDL	0.110	PQL	mg/Kg	J	A
SILVER	0.0252	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z
VANADIUM	43.1		0.0242	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: SL-234-SA5A-SB-9.0-10 *Collected:* 3/3/2011 3:55:00 PM *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0441	J	0.0440	MDL	0.440	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE097 **Laboratory: LL**

EDD Filename: PrepDE097_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-235-SA5A-SB-4.0-5.0 ***Collected:*** 3/3/2011 2:33:00 PM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0828	J	0.0646	MDL	0.215	PQL	mg/Kg	J	Z, Q
COBALT	5.65		0.0215	MDL	0.108	PQL	mg/Kg	J	A
SILVER	0.0331	J	0.0129	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	34.0		0.0237	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-235-SA5A-SB-4.0-5.0 ***Collected:*** 3/3/2011 2:33:00 PM ***Analysis Type:*** REA6 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0965	J	0.0430	MDL	0.430	PQL	mg/Kg	J	Z

Sample ID: SL-235-SA5A-SB-8.5-9.5 ***Collected:*** 3/3/2011 2:38:00 PM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0661	U	0.0661	MDL	0.220	PQL	mg/Kg	UJ	Q
CADMIUM	0.0767	J	0.0441	MDL	0.110	PQL	mg/Kg	J	Z
COBALT	5.62		0.0220	MDL	0.110	PQL	mg/Kg	J	A
SILVER	0.0335	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z
VANADIUM	50.8		0.0242	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: SL-235-SA5A-SB-8.5-9.5 ***Collected:*** 3/3/2011 2:38:00 PM ***Analysis Type:*** REA6 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0655	J	0.0441	MDL	0.441	PQL	mg/Kg	J	Z

Sample ID: SL-236-SA5A-SB-4.0-5.0 ***Collected:*** 3/3/2011 9:53:00 AM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0651	U	0.0651	MDL	0.217	PQL	mg/Kg	UJ	Q
COBALT	5.45		0.0217	MDL	0.109	PQL	mg/Kg	J	A
SILVER	0.0397	J	0.0130	MDL	0.109	PQL	mg/Kg	J	Z
VANADIUM	32.2		0.0239	MDL	0.109	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE097 **Laboratory:** LL

EDD Filename: PrepDE097_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-236-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 9:53:00 AM *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0816	J	0.0434	MDL	0.434	PQL	mg/Kg	J	Z

Sample ID: SL-236-SA5A-SB-9.0-10.0 *Collected:* 3/3/2011 9:58:00 AM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0647	U	0.0647	MDL	0.216	PQL	mg/Kg	UJ	Q
CADMIUM	0.0842	J	0.0431	MDL	0.108	PQL	mg/Kg	J	Z
COBALT	6.87		0.0216	MDL	0.108	PQL	mg/Kg	J	A
SILVER	0.0657	J	0.0129	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	52.7		0.0237	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-236-SA5A-SB-9.0-10.0 *Collected:* 3/3/2011 9:58:00 AM *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0695	J	0.0431	MDL	0.431	PQL	mg/Kg	J	Z

Sample ID: SL-249-SA5A-SB-2.5-3.5 *Collected:* 3/3/2011 12:00:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0976	J	0.0642	MDL	0.214	PQL	mg/Kg	J	Z, Q
COBALT	9.50		0.0214	MDL	0.107	PQL	mg/Kg	J	A
SILVER	0.0413	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z
VANADIUM	59.0		0.0235	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-249-SA5A-SB-2.5-3.5 *Collected:* 3/3/2011 12:00:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.190	J	0.0428	MDL	0.428	PQL	mg/Kg	J	Z

Sample ID: SL-249-SA5A-SB-9.0-10.0 *Collected:* 3/3/2011 12:10:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0899	J	0.0649	MDL	0.216	PQL	mg/Kg	J	Z, Q
COBALT	7.58		0.0216	MDL	0.108	PQL	mg/Kg	J	A
SILVER	0.0629	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE097 **Laboratory: LL**

EDD Filename: PrepDE097_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-249-SA5A-SB-9.0-10.0 *Collected:* 3/3/2011 12:10:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	42.9		0.0238	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-249-SA5A-SB-9.0-10.0 *Collected:* 3/3/2011 12:10:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0505	J	0.0432	MDL	0.432	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-234-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 3:53:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.45	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-235-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 2:33:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.45	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-235-SA5A-SB-8.5-9.5 *Collected:* 3/3/2011 2:38:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.45	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-236-SA5A-SB-9.0-10.0 *Collected:* 3/3/2011 9:58:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.55	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-249-SA5A-SB-2.5-3.5 *Collected:* 3/3/2011 12:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.47	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE097 **Laboratory: LL**

EDD Filename: PrepDE097_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-249-SA5A-SB-9.0-10.0 *Collected:* 3/3/2011 12:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.38	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-249-SA5A-SB-2.5-3.5 *Collected:* 3/3/2011 12:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	23.6	J	18.4	MDL	36.8	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-249-SA5A-SB-2.5-3.5 *Collected:* 3/3/2011 12:00:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	3.1		0.44	MDL	1.3	PQL	mg/Kg	J	L
EFH (C21-C30)	19		0.44	MDL	1.3	PQL	mg/Kg	J	L
EFH (C30-C40)	27		0.44	MDL	1.3	PQL	mg/Kg	J	L

Sample ID: SL-249-SA5A-SB-9.0-10.0 *Collected:* 3/3/2011 12:10:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	0.62	J	0.44	MDL	1.3	PQL	mg/Kg	UJ	L, B
EFH (C30-C40)	3.0		0.44	MDL	1.3	PQL	mg/Kg	UJ	L, B

Method Category: SVOA

Method: 8270C **Matrix: AQ**

Sample ID: EB06-SA5A-030311 *Collected:* 3/3/2011 4:20:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
3,3'-DICHLOROBENZIDINE	2	U	2	MDL	5	PQL	ug/L	UJ	L
BENZOIC ACID	6	U	6	MDL	15	PQL	ug/L	UJ	E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE097 **Laboratory: LL**

EDD Filename: PrepDE097_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-236-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 9:53:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	21	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-236-SA5A-SB-9.0-10.0 *Collected:* 3/3/2011 9:58:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	20	J	18	MDL	370	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: AQ**

Sample ID: EB06-SA5A-030311 *Collected:* 3/3/2011 4:20:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	0.082	J	0.050	MDL	0.99	PQL	ug/L	U	B
Di-n-butylphthalate	0.43	J	0.050	MDL	0.99	PQL	ug/L	J	Z
NAPHTHALENE	0.031	J	0.030	MDL	0.050	PQL	ug/L	J	Z
PHENANTHRENE	0.041	J	0.0099	MDL	0.050	PQL	ug/L	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-234-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 3:53:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	0.79	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-235-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 2:33:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	0.84	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-236-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 9:53:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	1.2	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE097 **Laboratory: LL**

EDD Filename: PrepDE097_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-236-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 9:53:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	1.2	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	0.74	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-249-SA5A-SB-2.5-3.5 *Collected:* 3/3/2011 12:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.0	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	1.3	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8330A **Matrix: SO**

Sample ID: SL-249-SA5A-SB-2.5-3.5 *Collected:* 3/3/2011 12:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
RDX	55	U	55	MDL	130	PQL	ug/Kg	UJ	Q

Method Category: VOA

Method: 8015B **Matrix: SO**

Sample ID: SL-249-SA5A-SB-2.5-3.5 *Collected:* 3/3/2011 12:00:00 *Analysis Type:* REA4 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	450	J	110	MDL	550	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-234-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 3:53:00 PM *Analysis Type:* RES *Dilution:* 0.85

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.41	J	0.22	MDL	3.7	PQL	ug/Kg	U	B
TOLUENE	0.09	J	0.07	MDL	3.7	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE097 **Laboratory: LL**

EDD Filename: PrepDE097_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-235-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 2:33:00 PM *Analysis Type:* RES *Dilution:* 0.85

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.34	J	0.23	MDL	3.8	PQL	ug/Kg	U	B

Sample ID: SL-236-SA5A-SB-4.0-5.0 *Collected:* 3/3/2011 9:53:00 AM *Analysis Type:* RES *Dilution:* 0.79

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.14	J	0.05	MDL	3.5	PQL	ug/Kg	J	Z
m,p-Xylene	0.43	J	0.15	MDL	3.5	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.43	J	0.21	MDL	3.5	PQL	ug/Kg	U	B
TOLUENE	0.08	J	0.07	MDL	3.5	PQL	ug/Kg	U	B

Sample ID: SL-249-SA5A-SB-2.5-3.5 *Collected:* 3/3/2011 12:00:00 *Analysis Type:* RES *Dilution:* 0.84

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.40	J	0.22	MDL	3.7	PQL	ug/Kg	U	B
TOLUENE	0.09	J	0.07	MDL	3.7	PQL	ug/Kg	U	B

Sample ID: SL-249-SA5A-SB-9.0-10.0 *Collected:* 3/3/2011 12:10:00 *Analysis Type:* RES *Dilution:* 1.03

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.10	J	0.07	MDL	4.6	PQL	ug/Kg	J	Z
m,p-Xylene	0.33	J	0.19	MDL	4.6	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.47	J	0.27	MDL	4.6	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE097 **Laboratory: LL**

EDD Filename: PrepDE097_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE097 **Laboratory: LL**

EDD Filename: PrepDE097_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE097 **Laboratory: LL**

EDD Filename: PrepDE097_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE097

Method Blank Outlier Report

Lab Reporting Batch ID: DE097 Laboratory: LL

EDD Filename: DE097_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06848CB221929	3/10/2011 7:29:00 PM	LITHIUM	0.0049 mg/L	EB06-SA5A-030311

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06908BB222001	3/11/2011 8:01:00 PM	ALUMINUM	6.34 mg/Kg	SL-234-SA5A-SB-4.0-5.0
		CALCIUM	10.2 mg/Kg	SL-234-SA5A-SB-9.0-10
		IRON	5.30 mg/Kg	SL-235-SA5A-SB-4.0-5.0
		MAGNESIUM	2.85 mg/Kg	SL-235-SA5A-SB-8.5-9.5
		PHOSPHORUS	1.24 mg/Kg	SL-236-SA5A-SB-4.0-5.0
		TIN	1.30 mg/Kg	SL-236-SA5A-SB-9.0-10.0
				SL-249-SA5A-SB-2.5-3.5
				SL-249-SA5A-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-234-SA5A-SB-4.0-5.0(REA)	TIN	2.48 mg/Kg	2.48U mg/Kg
SL-234-SA5A-SB-9.0-10(REA)	TIN	2.57 mg/Kg	2.57U mg/Kg
SL-235-SA5A-SB-4.0-5.0(REA)	TIN	2.61 mg/Kg	2.61U mg/Kg
SL-235-SA5A-SB-8.5-9.5(REA)	TIN	2.69 mg/Kg	2.69U mg/Kg
SL-236-SA5A-SB-4.0-5.0(REA)	TIN	2.63 mg/Kg	2.63U mg/Kg
SL-236-SA5A-SB-9.0-10.0(REA)	TIN	2.61 mg/Kg	2.61U mg/Kg
SL-249-SA5A-SB-2.5-3.5(REA)	TIN	2.53 mg/Kg	2.53U mg/Kg
SL-249-SA5A-SB-9.0-10.0(REA)	TIN	2.83 mg/Kg	2.83U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06926AB221434A	3/16/2011 2:34:00 PM	COPPER	0.169 mg/Kg	SL-234-SA5A-SB-4.0-5.0
				SL-234-SA5A-SB-9.0-10
				SL-235-SA5A-SB-4.0-5.0
				SL-235-SA5A-SB-8.5-9.5
				SL-236-SA5A-SB-4.0-5.0
				SL-236-SA5A-SB-9.0-10.0
				SL-249-SA5A-SB-2.5-3.5
				SL-249-SA5A-SB-9.0-10.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE097 Laboratory: LL

EDD Filename: DE097_v1 eQAPP Name: CDM_SSFL_110509

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P73731AB320119A	3/16/2011 1:19:00 AM	EFH (C21-C30) EFH (C30-C40)	0.45 mg/Kg 1.3 mg/Kg	SL-249-SA5A-SB-2.5-3.5 SL-249-SA5A-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-249-SA5A-SB-9.0-10.0(REA2)	EFH (C21-C30)	0.62 mg/Kg	1.3U mg/Kg
SL-249-SA5A-SB-9.0-10.0(REA2)	EFH (C30-C40)	3.0 mg/Kg	3.0U mg/Kg

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB88B211159A	3/8/2011 11:59:00 AM	METHYLENE CHLORIDE TOLUENE	0.29 ug/Kg 0.19 ug/Kg	SL-234-SA5A-SB-4.0-5.0 SL-235-SA5A-SB-4.0-5.0 SL-236-SA5A-SB-4.0-5.0 SL-249-SA5A-SB-2.5-3.5 SL-249-SA5A-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-234-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.41 ug/Kg	3.7U ug/Kg
SL-234-SA5A-SB-4.0-5.0(RES)	TOLUENE	0.09 ug/Kg	3.7U ug/Kg
SL-235-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.34 ug/Kg	3.8U ug/Kg
SL-236-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.43 ug/Kg	3.5U ug/Kg
SL-236-SA5A-SB-4.0-5.0(RES)	TOLUENE	0.08 ug/Kg	3.5U ug/Kg
SL-249-SA5A-SB-2.5-3.5(RES)	METHYLENE CHLORIDE	0.40 ug/Kg	3.7U ug/Kg
SL-249-SA5A-SB-2.5-3.5(RES)	TOLUENE	0.09 ug/Kg	3.7U ug/Kg
SL-249-SA5A-SB-9.0-10.0(RES)	METHYLENE CHLORIDE	0.47 ug/Kg	4.6U ug/Kg

Method: 8270C SIM
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWD06B262354	3/15/2011 11:54:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	0.054 ug/L	EB06-SA5A-030311

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB06-SA5A-030311(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.082 ug/L	0.99U ug/L

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE097 **Laboratory: LL**

EDD Filename: DE097_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-234-SA5A-SB-4.0-5.0MS (SL-234-SA5A-SB-4.0-5.0 SL-234-SA5A-SB-9.0-10 SL-235-SA5A-SB-4.0-5.0 SL-235-SA5A-SB-8.5-9.5 SL-236-SA5A-SB-4.0-5.0 SL-236-SA5A-SB-9.0-10.0 SL-249-SA5A-SB-2.5-3.5 SL-249-SA5A-SB-9.0-10.0)	FLUORIDE	76	-	80.00-120.00	-	FLUORIDE	J (all detects) UJ (all non-detects)

Method: 8330A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-249-SA5A-SB-2.5-3.5MS (SL-249-SA5A-SB-2.5-3.5)	RDX	74	-	75.00-129.00	-	RDX	J(all detects) UJ(all non-detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE097 **Laboratory: LL**

EDD Filename: DE097_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P7WBLCSQ260416 P7WBLCSY260441 (EB06-SA5A-030311)	3,3'-DICHLOROBENZIDINE BENZOIC ACID	47 -	- -	49.00-111.00 10.00-69.00	- 78 (30.00)	3,3'-DICHLOROBENZIDINE BENZOIC ACID	J (all detects) UJ (all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P06926AQ221437A (SL-234-SA5A-SB-4.0-5.0 SL-234-SA5A-SB-9.0-10 SL-235-SA5A-SB-4.0-5.0 SL-235-SA5A-SB-8.5-9.5 SL-236-SA5A-SB-4.0-5.0 SL-236-SA5A-SB-9.0-10.0 SL-249-SA5A-SB-2.5-3.5 SL-249-SA5A-SB-9.0-10.0)	ANTIMONY	65	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10731AQ320152A (SL-249-SA5A-SB-2.5-3.5 SL-249-SA5A-SB-9.0-10.0)	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	115 119 126 116	- - - -	66.00-113.00 66.00-113.00 66.00-113.00 66.00-113.00	- - - -	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE097 Laboratory: LL

EDD Filename: DE097_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB06-SA5A-030311	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.082	0.99	PQL	ug/L	J (all detects)
	Di-n-butylphthalate	J	0.43	0.99	PQL	ug/L	
	NAPHTHALENE	J	0.031	0.050	PQL	ug/L	
	PHENANTHRENE	J	0.041	0.050	PQL	ug/L	

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-249-SA5A-SB-2.5-3.5	N-NITROSODIMETHYLAMINE	J	23.6	36.8	PQL	ng/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-234-SA5A-SB-4.0-5.0	BORON	J	3.89	5.20	PQL	mg/Kg	J (all detects)
	SODIUM	J	82.9	104	PQL	mg/Kg	
	TIN	J	2.48	10.4	PQL	mg/Kg	
	Zirconium	J	1.53	5.20	PQL	mg/Kg	
SL-234-SA5A-SB-9.0-10	BORON	J	2.92	5.55	PQL	mg/Kg	J (all detects)
	TIN	J	2.57	11.1	PQL	mg/Kg	
	Zirconium	J	1.77	5.55	PQL	mg/Kg	
SL-235-SA5A-SB-4.0-5.0	BORON	J	3.92	5.49	PQL	mg/Kg	J (all detects)
	SODIUM	J	82.7	110	PQL	mg/Kg	
	TIN	J	2.61	11.0	PQL	mg/Kg	
	Zirconium	J	1.70	5.49	PQL	mg/Kg	
SL-235-SA5A-SB-8.5-9.5	BORON	J	3.97	5.62	PQL	mg/Kg	J (all detects)
	TIN	J	2.69	11.2	PQL	mg/Kg	
SL-236-SA5A-SB-4.0-5.0	BORON	J	3.77	5.43	PQL	mg/Kg	J (all detects)
	SODIUM	J	90.8	109	PQL	mg/Kg	
	TIN	J	2.63	10.9	PQL	mg/Kg	
	Zirconium	J	1.63	5.43	PQL	mg/Kg	
SL-236-SA5A-SB-9.0-10.0	BORON	J	3.65	5.44	PQL	mg/Kg	J (all detects)
	TIN	J	2.61	10.9	PQL	mg/Kg	
	Zirconium	J	1.56	5.44	PQL	mg/Kg	
SL-249-SA5A-SB-2.5-3.5	TIN	J	2.53	10.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.14	5.25	PQL	mg/Kg	
SL-249-SA5A-SB-9.0-10.0	TIN	J	2.83	10.8	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.16	5.40	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE097 **Laboratory: LL**

EDD Filename: DE097_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-234-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0687	0.212	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0831	0.424	PQL	mg/Kg	
	SILVER	J	0.0259	0.106	PQL	mg/Kg	
SL-234-SA5A-SB-9.0-10	ANTIMONY	J	0.0842	0.220	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0874	0.110	PQL	mg/Kg	
	SELENIUM	J	0.0441	0.440	PQL	mg/Kg	
	SILVER	J	0.0252	0.110	PQL	mg/Kg	
SL-235-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0828	0.215	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0965	0.430	PQL	mg/Kg	
	SILVER	J	0.0331	0.108	PQL	mg/Kg	
SL-235-SA5A-SB-8.5-9.5	CADMIUM	J	0.0767	0.110	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0655	0.441	PQL	mg/Kg	
	SILVER	J	0.0335	0.110	PQL	mg/Kg	
SL-236-SA5A-SB-4.0-5.0	SELENIUM	J	0.0816	0.434	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0397	0.109	PQL	mg/Kg	
SL-236-SA5A-SB-9.0-10.0	CADMIUM	J	0.0842	0.108	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0695	0.431	PQL	mg/Kg	
	SILVER	J	0.0657	0.108	PQL	mg/Kg	
SL-249-SA5A-SB-2.5-3.5	ANTIMONY	J	0.0976	0.214	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.190	0.428	PQL	mg/Kg	
	SILVER	J	0.0413	0.107	PQL	mg/Kg	
SL-249-SA5A-SB-9.0-10.0	ANTIMONY	J	0.0899	0.216	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0505	0.432	PQL	mg/Kg	
	SILVER	J	0.0629	0.108	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-234-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.45	1.1	PQL	mg/Kg	J (all detects)
SL-235-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.45	1.1	PQL	mg/Kg	J (all detects)
SL-235-SA5A-SB-8.5-9.5	HEXAVALENT CHROMIUM	J	0.45	1.1	PQL	mg/Kg	J (all detects)
SL-236-SA5A-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.55	1.1	PQL	mg/Kg	J (all detects)
SL-249-SA5A-SB-2.5-3.5	HEXAVALENT CHROMIUM	J	0.47	1.1	PQL	mg/Kg	J (all detects)
SL-249-SA5A-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.38	1.1	PQL	mg/Kg	J (all detects)

Method: 8015B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-249-SA5A-SB-2.5-3.5	METHANOL	J	450	550	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE097 | Laboratory: LL

EDD Filename: DE097_v1 | eQAPP Name: CDM_SSFL_110509

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-249-SA5A-SB-9.0-10.0	EFH (C21-C30)	J	0.62	1.3	PQL	mg/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-234-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.41	3.7	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.09	3.7	PQL	ug/Kg	
SL-235-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.34	3.8	PQL	ug/Kg	J (all detects)
SL-236-SA5A-SB-4.0-5.0	ETHYLBENZENE	J	0.14	3.5	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.43	3.5	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	0.43	3.5	PQL	ug/Kg	
	TOLUENE	J	0.08	3.5	PQL	ug/Kg	
SL-249-SA5A-SB-2.5-3.5	METHYLENE CHLORIDE	J	0.40	3.7	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.09	3.7	PQL	ug/Kg	
SL-249-SA5A-SB-9.0-10.0	ETHYLBENZENE	J	0.10	4.6	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.33	4.6	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	0.47	4.6	PQL	ug/Kg	

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-236-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	21	370	PQL	ug/Kg	J (all detects)
SL-236-SA5A-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	370	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-234-SA5A-SB-4.0-5.0	NAPHTHALENE	J	0.79	1.8	PQL	ug/Kg	J (all detects)
SL-235-SA5A-SB-4.0-5.0	NAPHTHALENE	J	0.84	1.9	PQL	ug/Kg	J (all detects)
SL-236-SA5A-SB-4.0-5.0	CHRYSENE	J	1.2	1.8	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	1.2	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	0.74	1.8	PQL	ug/Kg	
SL-249-SA5A-SB-2.5-3.5	BENZO(B)FLUORANTHENE	J	1.0	1.8	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	1.3	1.8	PQL	ug/Kg	

LDC #: 25911G4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-11
SDG #: DE097 ADR
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (SDG: DE096)
VII.	Duplicate Sample Analysis	N	DUP ↓
VIII.	Laboratory Control Samples (LCS)	A	LCS/D
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	—	SDG: DE096
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	ND	Em=9

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-234-SA5A-SB-4.0-5.0	11		21		31	
2	SL-234-SA5A-SB-9.0-10.0	12		22		32	
3	SL-235-SA5A-SB-4.0-5.0	13		23		33	
4	SL-235-SA5A-SB-8.5-9.5	14		24		34	
5	SL-236-SA5A-SB-4.0-5.0	15		25		35	
6	SL-236-SA5A-SB-9.0-10.0	16		26		36	
7	SL-249-SA5A-SB-2.5-3.5	17		27		37	
8	SL-249-SA5A-SB-9.0-10.0	18		28		38	
9	EB06-SA5A-030311	19		29		39	
10		20		30		40	

Notes: _____

SAMPLE DELIVERY GROUP

DE098

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0	6223281	N	3050B	6010B	III
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0	6223281	N	3050B	6020	III
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0	6223281	N	3060A	7199	III
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0	6223281	N	3550B	8082	III
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0	6223281	N	3550B	8270C	III
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0	6223281	N	3550B	8270C SIM	III
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0	6223281	N	5035	8260B	III
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0	6223281	N	5035	8260B SIM	III
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0	6223281	N	Gen Prep	9045M	III
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0	6223281	N	METHOD	300.0	III
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0	6223281	N	METHOD	314.0	III
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0	6223281	N	METHOD	6850	III
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0	6223281	N	METHOD	7471A	III
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0DUP	P223281D270745A	DUP	METHOD	300.0	III
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0MSD	P223281M261338	MSD	3550B	8270C	III
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0MS	P223281R261313	MS	3550B	8270C	III
04-Mar-2011	SL-015-SA5A-SB-3.0-4.0MS	P223281R270831A	MS	METHOD	300.0	III
04-Mar-2011	SL-233-SA5A-SB-4.0-5.0	6223282	N	3050B	6010B	III
04-Mar-2011	SL-233-SA5A-SB-4.0-5.0	6223282	N	3050B	6020	III
04-Mar-2011	SL-233-SA5A-SB-4.0-5.0	6223282	N	3060A	7199	III
04-Mar-2011	SL-233-SA5A-SB-4.0-5.0	6223282	N	3550B	8082	III
04-Mar-2011	SL-233-SA5A-SB-4.0-5.0	6223282	N	3550B	8270C	III
04-Mar-2011	SL-233-SA5A-SB-4.0-5.0	6223282	N	3550B	8270C SIM	III
04-Mar-2011	SL-233-SA5A-SB-4.0-5.0	6223282	N	5035	8260B	III
04-Mar-2011	SL-233-SA5A-SB-4.0-5.0	6223282	N	5035	8260B SIM	III
04-Mar-2011	SL-233-SA5A-SB-4.0-5.0	6223282	N	Gen Prep	9045M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
04-Mar-2011	SL-233-SA5A-SB-4.0-5.0	6223282	N	METHOD	300.0	III
04-Mar-2011	SL-233-SA5A-SB-4.0-5.0	6223282	N	METHOD	314.0	III
04-Mar-2011	SL-233-SA5A-SB-4.0-5.0	6223282	N	METHOD	7471A	III
04-Mar-2011	SL-233-SA5A-SB-9.0-10	6223283	N	3050B	6010B	III
04-Mar-2011	SL-233-SA5A-SB-9.0-10	6223283	N	3050B	6020	III
04-Mar-2011	SL-233-SA5A-SB-9.0-10	6223283	N	3060A	7199	III
04-Mar-2011	SL-233-SA5A-SB-9.0-10	6223283	N	3550B	8082	III
04-Mar-2011	SL-233-SA5A-SB-9.0-10	6223283	N	3550B	8270C	III
04-Mar-2011	SL-233-SA5A-SB-9.0-10	6223283	N	3550B	8270C SIM	III
04-Mar-2011	SL-233-SA5A-SB-9.0-10	6223283	N	Gen Prep	9045M	III
04-Mar-2011	SL-233-SA5A-SB-9.0-10	6223283	N	METHOD	300.0	III
04-Mar-2011	SL-233-SA5A-SB-9.0-10	6223283	N	METHOD	314.0	III
04-Mar-2011	SL-233-SA5A-SB-9.0-10	6223283	N	METHOD	6850	III
04-Mar-2011	SL-233-SA5A-SB-9.0-10	6223283	N	METHOD	7471A	III
04-Mar-2011	SL-233-SA5A-SB-9.0-10DUP	P223283D291030B	DUP	Gen Prep	9045M	III
04-Mar-2011	TB-030411	6223284	TB	5030B	8260B	III
04-Mar-2011	TB-030411	6223284	TB	5030B	8260B SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE098 **Laboratory:** LL

EDD Filename: DE098_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-015-SA5A-SB-3.0-4.0 *Collected:* 3/4/2011 9:16:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.4		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-233-SA5A-SB-4.0-5.0 *Collected:* 3/4/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.2		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-233-SA5A-SB-9.0-10 *Collected:* 3/4/2011 11:08:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-015-SA5A-SB-3.0-4.0 *Collected:* 3/4/2011 9:16:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.56	J	1.04	MDL	5.86	PQL	mg/Kg	J	Z
CALCIUM	2540		7.18	MDL	23.4	PQL	mg/Kg	J	E
PHOSPHORUS	227		0.656	MDL	11.7	PQL	mg/Kg	J	Q
POTASSIUM	1460		21.1	MDL	58.6	PQL	mg/Kg	J	Q
TIN	2.83	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	1.30	J	0.984	MDL	5.86	PQL	mg/Kg	J	Z

Sample ID: SL-233-SA5A-SB-4.0-5.0 *Collected:* 3/4/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.28	J	0.968	MDL	5.44	PQL	mg/Kg	J	Z
CALCIUM	2240		6.67	MDL	21.8	PQL	mg/Kg	J	E
PHOSPHORUS	161		0.609	MDL	10.9	PQL	mg/Kg	J	Q
POTASSIUM	1700		19.6	MDL	54.4	PQL	mg/Kg	J	Q
SODIUM	104	J	40.6	MDL	109	PQL	mg/Kg	J	Z
TIN	2.53	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.08	J	0.914	MDL	5.44	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE098 **Laboratory:** LL

EDD Filename: DE098_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-233-SA5A-SB-9.0-10 *Collected:* 3/4/2011 11:08:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.28	J	1.02	MDL	5.71	PQL	mg/Kg	J	Z
CALCIUM	1980		7.00	MDL	22.9	PQL	mg/Kg	J	E
PHOSPHORUS	117		0.640	MDL	11.4	PQL	mg/Kg	J	Q
POTASSIUM	1820		20.6	MDL	57.1	PQL	mg/Kg	J	Q
TIN	2.67	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	1.07	J	0.960	MDL	5.71	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-015-SA5A-SB-3.0-4.0 *Collected:* 3/4/2011 9:16:00 AM *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0544	J	0.0464	MDL	0.464	PQL	mg/Kg	J	Z

Sample ID: SL-015-SA5A-SB-3.0-4.0 *Collected:* 3/4/2011 9:16:00 AM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0815	J	0.0696	MDL	0.232	PQL	mg/Kg	J	Z, Q
COBALT	5.56		0.0232	MDL	0.116	PQL	mg/Kg	J	A
SILVER	0.0730	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z
VANADIUM	44.1		0.0255	MDL	0.116	PQL	mg/Kg	J	Q

Sample ID: SL-233-SA5A-SB-4.0-5.0 *Collected:* 3/4/2011 11:05:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.126	J	0.0431	MDL	0.431	PQL	mg/Kg	J	Z

Sample ID: SL-233-SA5A-SB-4.0-5.0 *Collected:* 3/4/2011 11:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0646	U	0.0646	MDL	0.215	PQL	mg/Kg	UJ	Q
COBALT	5.80		0.0215	MDL	0.108	PQL	mg/Kg	J	A
SILVER	0.0462	J	0.0129	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	46.5		0.0237	MDL	0.108	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE098 Laboratory: LL

EDD Filename: DE098_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6020 **Matrix:** SO

Sample ID: SL-233-SA5A-SB-9.0-10 *Collected:* 3/4/2011 11:08:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0679	U	0.0679	MDL	0.226	PQL	mg/Kg	UJ	Q
CADMIUM	0.0901	J	0.0453	MDL	0.113	PQL	mg/Kg	J	Z
COBALT	6.44		0.0226	MDL	0.113	PQL	mg/Kg	J	A
SILVER	0.0495	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	43.7		0.0249	MDL	0.113	PQL	mg/Kg	J	Q

Method Category: METALS **Method:** 7199 **Matrix:** SO

Sample ID: SL-015-SA5A-SB-3.0-4.0 *Collected:* 3/4/2011 9:16:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.48	J	0.24	MDL	1.2	PQL	mg/Kg	U	B

Sample ID: SL-233-SA5A-SB-9.0-10 *Collected:* 3/4/2011 11:08:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.33	J	0.23	MDL	1.2	PQL	mg/Kg	U	B

Method Category: SVOA **Method:** 8270C **Matrix:** SO

Sample ID: SL-015-SA5A-SB-3.0-4.0 *Collected:* 3/4/2011 9:16:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	1400	U	1400	MDL	3900	PQL	ug/Kg	UJ	Q

Method Category: SVOA **Method:** 8270C SIM **Matrix:** SO

Sample ID: SL-233-SA5A-SB-9.0-10 *Collected:* 3/4/2011 11:08:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	13	J	7.0	MDL	21	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE098 **Laboratory:** LL

EDD Filename: DE098_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-015-SA5A-SB-3.0-4.0 *Collected:* 3/4/2011 9:16:00 AM *Analysis Type:* RES *Dilution:* 0.89

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.21	J	0.06	MDL	4.2	PQL	ug/Kg	J	Z
m,p-Xylene	0.66	J	0.18	MDL	4.2	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.43	J	0.25	MDL	4.2	PQL	ug/Kg	U	B
TOLUENE	0.10	J	0.08	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: SL-233-SA5A-SB-4.0-5.0 *Collected:* 3/4/2011 11:05:00 *Analysis Type:* RES *Dilution:* 0.82

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.65	J	0.22	MDL	3.7	PQL	ug/Kg	U	B
TOLUENE	0.09	J	0.07	MDL	3.7	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE098 **Laboratory: LL**

EDD Filename: DE098_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE098 **Laboratory: LL**

EDD Filename: DE098_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE098 **Laboratory: LL**

EDD Filename: DE098_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE098

Method Blank Outlier Report

Lab Reporting Batch ID: DE098 Laboratory: LL

EDD Filename: DE098_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06908BB222001	3/11/2011 8:01:00 PM	ALUMINUM CALCIUM IRON MAGNESIUM PHOSPHORUS TIN	6.34 mg/Kg 10.2 mg/Kg 5.30 mg/Kg 2.85 mg/Kg 1.24 mg/Kg 1.30 mg/Kg	SL-015-SA5A-SB-3.0-4.0 SL-233-SA5A-SB-4.0-5.0 SL-233-SA5A-SB-9.0-10

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-015-SA5A-SB-3.0-4.0(RES)	TIN	2.83 mg/Kg	2.83U mg/Kg
SL-233-SA5A-SB-4.0-5.0(RES)	TIN	2.53 mg/Kg	2.53U mg/Kg
SL-233-SA5A-SB-9.0-10(RES)	TIN	2.87 mg/Kg	2.67U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06926AB221434A	3/16/2011 2:34:00 PM	COPPER	0.169 mg/Kg	SL-015-SA5A-SB-3.0-4.0 SL-233-SA5A-SB-4.0-5.0 SL-233-SA5A-SB-9.0-10

Method: 7199
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
11066BB271726A	3/8/2011 5:26:00 PM	HEXAVALENT CHROMIUM	0.49 mg/Kg	SL-015-SA5A-SB-3.0-4.0 SL-233-SA5A-SB-4.0-5.0 SL-233-SA5A-SB-9.0-10

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-015-SA5A-SB-3.0-4.0(RES)	HEXAVALENT CHROMIUM	0.48 mg/Kg	0.48U mg/Kg
SL-233-SA5A-SB-9.0-10(RES)	HEXAVALENT CHROMIUM	0.33 mg/Kg	0.33U mg/Kg

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB88B211159A	3/8/2011 11:59:00 AM	METHYLENE CHLORIDE TOLUENE	0.29 ug/Kg 0.19 ug/Kg	SL-015-SA5A-SB-3.0-4.0 SL-233-SA5A-SB-4.0-5.0

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DE098 Laboratory: LL

EDD Filename: DE098_v1 eQAPP Name: CDM_SSFL_110509

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-015-SA5A-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	0.43 ug/Kg	4.2U ug/Kg
SL-015-SA5A-SB-3.0-4.0(RES)	TOLUENE	0.10 ug/Kg	4.2U ug/Kg
SL-233-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.65 ug/Kg	3.7U ug/Kg
SL-233-SA5A-SB-4.0-5.0(RES)	TOLUENE	0.09 ug/Kg	3.7U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE098 **Laboratory: LL**

EDD Filename: DE098_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-015-SA5A-SB-3.0-4.0MS SL-015-SA5A-SB-3.0-4.0MSD (SL-015-SA5A-SB-3.0-4.0)	BENZIDINE	29	32	35.00-141.00	-	BENZIDINE	J (all detects) UJ (all non-detects)

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-015-SA5A-SB-3.0-4.0MS (SL-015-SA5A-SB-3.0-4.0 SL-233-SA5A-SB-4.0-5.0 SL-233-SA5A-SB-9.0-10)	FLUORIDE	49	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE098 Laboratory: LL

EDD Filename: DE098_v1 eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P06926AQ221437A (SL-015-SA5A-SB-3.0-4.0 SL -233-SA5A-SB-4.0-5.0 SL -233-SA5A-SB-9.0-10)	ANTIMONY	65	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Reporting Limit Outliers

Lab Reporting Batch ID: DE098 **Laboratory:** LL

EDD Filename: DE098_v1 **eQAPP Name:** CDM_SSFL_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-015-SA5A-SB-3.0-4.0	BORON	J	3.56	5.86	PQL	mg/Kg	J (all detects)
	TIN	J	2.83	11.7	PQL	mg/Kg	
	Zirconium	J	1.30	5.86	PQL	mg/Kg	
SL-233-SA5A-SB-4.0-5.0	BORON	J	3.28	5.44	PQL	mg/Kg	J (all detects)
	SODIUM	J	104	109	PQL	mg/Kg	
	TIN	J	2.53	10.9	PQL	mg/Kg	
	Zirconium	J	1.08	5.44	PQL	mg/Kg	
SL-233-SA5A-SB-9.0-10	BORON	J	2.28	5.71	PQL	mg/Kg	J (all detects)
	TIN	J	2.67	11.4	PQL	mg/Kg	
	Zirconium	J	1.07	5.71	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-015-SA5A-SB-3.0-4.0	ANTIMONY	J	0.0815	0.232	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0544	0.464	PQL	mg/Kg	
	SILVER	J	0.0730	0.116	PQL	mg/Kg	
SL-233-SA5A-SB-4.0-5.0	SELENIUM	J	0.126	0.431	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0462	0.108	PQL	mg/Kg	
SL-233-SA5A-SB-9.0-10	CADMIUM	J	0.0901	0.113	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0495	0.113	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-015-SA5A-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.48	1.2	PQL	mg/Kg	J (all detects)
SL-233-SA5A-SB-9.0-10	HEXAVALENT CHROMIUM	J	0.33	1.2	PQL	mg/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-015-SA5A-SB-3.0-4.0	ETHYLBENZENE	J	0.21	4.2	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.66	4.2	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	0.43	4.2	PQL	ug/Kg	
	TOLUENE	J	0.10	4.2	PQL	ug/Kg	
SL-233-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.65	3.7	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.09	3.7	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE098 Laboratory: LL

EDD Filename: DE098_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-233-SA5A-SB-9.0-10	Di-n-octylphthalate	J	13	21	PQL	ug/Kg	J (all detects)

LDC #: 25911H4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-31
SDG #: DE098 ADR
Laboratory: Lancaster Laboratories Reviewer: QR
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	+	
III.	Calibration	—	
IV.	Blanks	A	NoQuals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (SDG: DE096)
VII.	Duplicate Sample Analysis	N	Dup J
VIII.	Laboratory Control Samples (LCS)	~~N~~ A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	—	SDG: DE096
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-015-SA5A-SB-3.0-4.0	11		21		31	
2	SL-233-SA5A-SB-4.0-5.0	12		22		32	
3	SL-233-SA5A-SB-9.0-10.0	13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

SAMPLE DELIVERY GROUP

DE099

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-Mar-2011	TB-030711	6224310	TB	5030B	8015M	III
07-Mar-2011	TB-030711	6224310	TB	5030B	8260B	III
07-Mar-2011	TB-030711	6224310	TB	5030B	8260B SIM	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	3050B	6010B	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	3050B	6020	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	3060A	7199	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	3546	1625C	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	3550B	8015B	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	3550B	8015M	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	3550B	8082	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	3550B	8270C	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	3550B	8270C SIM	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	5035	8015M	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	5035	8260B	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	5035	8260B SIM	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	8330	8330A	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	Gen Prep	9045M	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	METHOD	300.0	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	METHOD	314.0	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	METHOD	7471A	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	METHOD	8015B	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	METHOD	8015M	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	METHOD	8315A	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0	6224306	N	METHOD	9012B	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0DUP	P224306D271757A	DUP	METHOD	314.0	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0MSD	P224306M321925A	MSD	METHOD	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0MSD	P224306M322152A	MSD	METHOD	8015B	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0MS	P224306R271821A	MS	METHOD	314.0	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0MS	P224306R321908A	MS	METHOD	8015M	III
07-Mar-2011	SL-007-SA5A-SB-4.0-5.0MS	P224306R322138A	MS	METHOD	8015B	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	3050B	6010B	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	3050B	6020	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	3060A	7199	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	3546	1625C	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	3550B	8015B	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	3550B	8015M	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	3550B	8082	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	3550B	8270C	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	3550B	8270C SIM	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	5035	8015M	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	5035	8260B	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	5035	8260B SIM	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	8330	8330A	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	Gen Prep	9045M	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	METHOD	300.0	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	METHOD	314.0	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	METHOD	7471A	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	METHOD	8015B	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	METHOD	8015M	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	METHOD	8315A	III
07-Mar-2011	SL-007-SA5A-SB-9.0-10.0	6224307	N	METHOD	9012B	III
07-Mar-2011	SL-013-SA5A-SB-2.5-3.5	6224308	N	3050B	6010B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-Mar-2011	SL-013-SA5A-SB-2.5-3.5	6224308	N	3050B	6020	III
07-Mar-2011	SL-013-SA5A-SB-2.5-3.5	6224308	N	3060A	7199	III
07-Mar-2011	SL-013-SA5A-SB-2.5-3.5	6224308	N	3550B	8082	III
07-Mar-2011	SL-013-SA5A-SB-2.5-3.5	6224308	N	3550B	8270C	III
07-Mar-2011	SL-013-SA5A-SB-2.5-3.5	6224308	N	3550B	8270C SIM	III
07-Mar-2011	SL-013-SA5A-SB-2.5-3.5	6224308	N	5035	8260B	III
07-Mar-2011	SL-013-SA5A-SB-2.5-3.5	6224308	N	5035	8260B SIM	III
07-Mar-2011	SL-013-SA5A-SB-2.5-3.5	6224308	N	Gen Prep	9045M	III
07-Mar-2011	SL-013-SA5A-SB-2.5-3.5	6224308	N	METHOD	300.0	III
07-Mar-2011	SL-013-SA5A-SB-2.5-3.5	6224308	N	METHOD	314.0	III
07-Mar-2011	SL-013-SA5A-SB-2.5-3.5	6224308	N	METHOD	7471A	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	3050B	6010B	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	3050B	6020	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	3060A	7199	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	3546	1625C	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	3550B	8015B	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	3550B	8015M	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	3550B	8082	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	3550B	8270C	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	3550B	8270C SIM	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	5035	8015M	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	5035	8260B	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	5035	8260B SIM	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	8330	8330A	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	Gen Prep	9045M	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	METHOD	300.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	METHOD	314.0	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	METHOD	7471A	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	METHOD	8015B	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	METHOD	8015M	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	METHOD	8315A	III
07-Mar-2011	SL-012-SA5A-SB-2.0-3.0	6224309	N	METHOD	9012B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE099 **Laboratory:** LL

EDD Filename: DE099_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-007-SA5A-SB-4.0-5.0 *Collected:* 3/7/2011 10:56:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.04	J	0.974	MDL	5.47	PQL	mg/Kg	J	Z
SODIUM	91.4	J	40.8	MDL	109	PQL	mg/Kg	J	Z
TIN	2.70	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.60	J	0.919	MDL	5.47	PQL	mg/Kg	J	Z

Sample ID: SL-007-SA5A-SB-9.0-10.0 *Collected:* 3/7/2011 11:04:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.87	J	1.06	MDL	5.94	PQL	mg/Kg	J	Z
SODIUM	118	J	44.3	MDL	119	PQL	mg/Kg	J	Z
TIN	3.00	J	1.19	MDL	11.9	PQL	mg/Kg	U	B
Zirconium	1.62	J	0.998	MDL	5.94	PQL	mg/Kg	J	Z

Sample ID: SL-012-SA5A-SB-2.0-3.0 *Collected:* 3/7/2011 4:09:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.21	J	1.02	MDL	5.76	PQL	mg/Kg	J	Z
TIN	2.85	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	1.22	J	0.967	MDL	5.76	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA5A-SB-2.5-3.5 *Collected:* 3/7/2011 3:24:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.23	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.79	J	0.934	MDL	5.56	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-007-SA5A-SB-4.0-5.0 *Collected:* 3/7/2011 10:56:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0832	J	0.0446	MDL	0.446	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE099 **Laboratory:** LL

EDD Filename: DE099_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-007-SA5A-SB-4.0-5.0 *Collected:* 3/7/2011 10:56:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.150	J	0.0669	MDL	0.223	PQL	mg/Kg	J	Z
CADMIUM	0.0932	J	0.0446	MDL	0.112	PQL	mg/Kg	J	Z
SILVER	0.0449	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-007-SA5A-SB-9.0-10.0 *Collected:* 3/7/2011 11:04:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0884	J	0.0471	MDL	0.471	PQL	mg/Kg	J	Z

Sample ID: SL-007-SA5A-SB-9.0-10.0 *Collected:* 3/7/2011 11:04:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.190	J	0.0706	MDL	0.235	PQL	mg/Kg	J	Z
CADMIUM	0.0886	J	0.0471	MDL	0.118	PQL	mg/Kg	J	Z
SILVER	0.0984	J	0.0141	MDL	0.118	PQL	mg/Kg	J	Z

Sample ID: SL-012-SA5A-SB-2.0-3.0 *Collected:* 3/7/2011 4:09:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.101	J	0.0691	MDL	0.230	PQL	mg/Kg	J	Z
CADMIUM	0.0463	J	0.0461	MDL	0.115	PQL	mg/Kg	J	Z
SILVER	0.0331	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA5A-SB-2.5-3.5 *Collected:* 3/7/2011 3:24:00 PM *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0682	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA5A-SB-2.5-3.5 *Collected:* 3/7/2011 3:24:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.0914	J	0.0453	MDL	0.113	PQL	mg/Kg	J	Z
SILVER	0.102	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE099 Laboratory: LL

EDD Filename: DE099_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 7199 Matrix: SO

Sample ID: SL-007-SA5A-SB-4.0-5.0 *Collected:* 3/7/2011 10:56:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.40	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-007-SA5A-SB-9.0-10.0 *Collected:* 3/7/2011 11:04:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.43	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-012-SA5A-SB-2.0-3.0 *Collected:* 3/7/2011 4:09:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.33	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C Matrix: SO

Sample ID: SL-007-SA5A-SB-4.0-5.0 *Collected:* 3/7/2011 10:56:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	37.2	J	19.0	MDL	37.9	PQL	ng/Kg	J	Z

Sample ID: SL-007-SA5A-SB-9.0-10.0 *Collected:* 3/7/2011 11:04:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	21.4	J	20.2	MDL	40.4	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8015M Matrix: SO

Sample ID: SL-012-SA5A-SB-2.0-3.0 *Collected:* 3/7/2011 4:09:00 PM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.8	U	5.8	MDL	15	PQL	mg/Kg	UJ	S
ETHYLENE GLYCOL	5.8	U	5.8	MDL	15	PQL	mg/Kg	UJ	S
Propylene glycol	5.8	U	5.8	MDL	15	PQL	mg/Kg	UJ	S

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE099 **Laboratory: LL**

EDD Filename: DE099_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-012-SA5A-SB-2.0-3.0 *Collected:* 3/7/2011 4:09:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 1268	0.87	J	0.38	MDL	2.0	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-012-SA5A-SB-2.0-3.0 *Collected:* 3/7/2011 4:09:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.3	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.82	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	12	J	7.0	MDL	21	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.3	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.5	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-007-SA5A-SB-4.0-5.0 *Collected:* 3/7/2011 10:56:00 *Analysis Type:* RES *Dilution:* 0.83

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.7	J	0.23	MDL	3.8	PQL	ug/Kg	U	B

Sample ID: SL-007-SA5A-SB-9.0-10.0 *Collected:* 3/7/2011 11:04:00 *Analysis Type:* RES *Dilution:* 0.85

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.80	J	0.25	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: SL-012-SA5A-SB-2.0-3.0 *Collected:* 3/7/2011 4:09:00 PM *Analysis Type:* RES *Dilution:* 0.84

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.86	J	0.23	MDL	3.9	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE099 **Laboratory: LL**

EDD Filename: DE099_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **VOA**

Method: **8260B** ***Matrix:*** **SO**

Sample ID: **SL-013-SA5A-SB-2.5-3.5** ***Collected:*** **3/7/2011 3:24:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **0.94**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
METHYLENE CHLORIDE	1.0	J	0.26	MDL	4.4	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE099 **Laboratory: LL**

EDD Filename: DE099_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE099 **Laboratory: LL**

EDD Filename: DE099_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE099 **Laboratory: LL**

EDD Filename: DE099_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE099

Method Blank Outlier Report

Lab Reporting Batch ID: DE099 | Laboratory: LL

EDD Filename: DE099_v1 | eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06908DB220545	3/11/2011 5:45:00 AM	CALCIUM PHOSPHORUS TIN	7.51 mg/Kg 1.37 mg/Kg 1.47 mg/Kg	SL-007-SA5A-SB-4.0-5.0 SL-007-SA5A-SB-9.0-10.0 SL-012-SA5A-SB-2.0-3.0 SL-013-SA5A-SB-2.5-3.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-007-SA5A-SB-4.0-5.0(RES)	TIN	2.70 mg/Kg	2.70U mg/Kg
SL-007-SA5A-SB-9.0-10.0(RES)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-012-SA5A-SB-2.0-3.0(RES)	TIN	2.85 mg/Kg	2.85U mg/Kg
SL-013-SA5A-SB-2.5-3.5(RES)	TIN	3.23 mg/Kg	3.23U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P06926BB221308A	3/12/2011 1:08:00 PM	COPPER	0.241 mg/Kg	SL-007-SA5A-SB-4.0-5.0 SL-007-SA5A-SB-9.0-10.0 SL-012-SA5A-SB-2.0-3.0 SL-013-SA5A-SB-2.5-3.5

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P76760AB322112A	3/19/2011 9:12:00 PM	EFH (C21-C30) EFH (C30-C40) EFH (C8-C11)	0.48 mg/Kg 2.6 mg/Kg 0.47 mg/Kg	SL-007-SA5A-SB-4.0-5.0 SL-007-SA5A-SB-9.0-10.0 SL-012-SA5A-SB-2.0-3.0

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB91B211222A	3/10/2011 12:22:00 PM	METHYLENE CHLORIDE	0.68 ug/Kg	SL-007-SA5A-SB-4.0-5.0 SL-007-SA5A-SB-9.0-10.0 SL-012-SA5A-SB-2.0-3.0 SL-013-SA5A-SB-2.5-3.5

Method Blank Outlier Report

Lab Reporting Batch ID: DE099 **Laboratory: LL**

EDD Filename: DE099_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-007-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.7 ug/Kg	3.8U ug/Kg
SL-007-SA5A-SB-9.0-10.0(RES)	METHYLENE CHLORIDE	0.80 ug/Kg	4.1U ug/Kg
SL-012-SA5A-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	0.86 ug/Kg	3.9U ug/Kg
SL-013-SA5A-SB-2.5-3.5(RES)	METHYLENE CHLORIDE	1.0 ug/Kg	4.4U ug/Kg

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE099 Laboratory: LL

EDD Filename: DE099_v1 eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P06926BQ221311A (SL-007-SA5A-SB-4.0-5.0 SL -007-SA5A-SB-9.0-10.0 SL -012-SA5A-SB-2.0-3.0 SL -013-SA5A-SB-2.5-3.5)	ANTIMONY	124	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Surrogate Outlier Report

Lab Reporting Batch ID: DE099 **Laboratory: LL**

EDD Filename: DE099_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8015M**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-012-SA5A-SB-2.0-3.0	TETRAMETHYLENE GLYCOL	25	29.00-137.00	All Target Analytes	J (all detects) UJ (all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE099 Laboratory: LL

EDD Filename: DE099_v1 eQAPP Name: CDM_SSFL_110509

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-007-SA5A-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	37.2	37.9	PQL	ng/Kg	J (all detects)
SL-007-SA5A-SB-9.0-10.0	N-NITROSODIMETHYLAMINE	J	21.4	40.4	PQL	ng/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-007-SA5A-SB-4.0-5.0	BORON	J	5.04	5.47	PQL	mg/Kg	J (all detects)
	SODIUM	J	91.4	109	PQL	mg/Kg	
	TIN	J	2.70	10.9	PQL	mg/Kg	
	Zirconium	J	1.60	5.47	PQL	mg/Kg	
SL-007-SA5A-SB-9.0-10.0	BORON	J	4.87	5.94	PQL	mg/Kg	J (all detects)
	SODIUM	J	118	119	PQL	mg/Kg	
	TIN	J	3.00	11.9	PQL	mg/Kg	
	Zirconium	J	1.62	5.94	PQL	mg/Kg	
SL-012-SA5A-SB-2.0-3.0	BORON	J	4.21	5.76	PQL	mg/Kg	J (all detects)
	TIN	J	2.85	11.5	PQL	mg/Kg	
	Zirconium	J	1.22	5.76	PQL	mg/Kg	
SL-013-SA5A-SB-2.5-3.5	TIN	J	3.23	11.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.79	5.56	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-007-SA5A-SB-4.0-5.0	ANTIMONY	J	0.150	0.223	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0932	0.112	PQL	mg/Kg	
	SELENIUM	J	0.0832	0.446	PQL	mg/Kg	
	SILVER	J	0.0449	0.112	PQL	mg/Kg	
SL-007-SA5A-SB-9.0-10.0	ANTIMONY	J	0.190	0.235	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0886	0.118	PQL	mg/Kg	
	SELENIUM	J	0.0884	0.471	PQL	mg/Kg	
	SILVER	J	0.0984	0.118	PQL	mg/Kg	
SL-012-SA5A-SB-2.0-3.0	ANTIMONY	J	0.101	0.230	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0463	0.115	PQL	mg/Kg	
	SILVER	J	0.0331	0.115	PQL	mg/Kg	
SL-013-SA5A-SB-2.5-3.5	CADMIUM	J	0.0914	0.113	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0682	0.453	PQL	mg/Kg	
	SILVER	J	0.102	0.113	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE099 **Laboratory: LL**

EDD Filename: DE099_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-007-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.40	1.1	PQL	mg/Kg	J (all detects)
SL-007-SA5A-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.43	1.2	PQL	mg/Kg	J (all detects)
SL-012-SA5A-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.33	1.2	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA5A-SB-2.0-3.0	Aroclor 1268	J	0.87	2.0	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-007-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.7	3.8	PQL	ug/Kg	J (all detects)
SL-007-SA5A-SB-9.0-10.0	METHYLENE CHLORIDE	J	0.80	4.1	PQL	ug/Kg	J (all detects)
SL-012-SA5A-SB-2.0-3.0	METHYLENE CHLORIDE	J	0.86	3.9	PQL	ug/Kg	J (all detects)
SL-013-SA5A-SB-2.5-3.5	METHYLENE CHLORIDE	J	1.0	4.4	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA5A-SB-2.0-3.0	BENZO(A)ANTHRACENE	J	1.3	1.9	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.82	1.9	PQL	ug/Kg	
	Di-n-octylphthalate	J	12	21	PQL	ug/Kg	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	1.3	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.5	1.9	PQL	ug/Kg	

LDC #: 25911K4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/3/11
SDG #: DE099 ADR
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No Qual'd
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	CS
VII.	Duplicate Sample Analysis	N	↓
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	N	Not performed
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: Soil

1	SL-007-SA5A-SB-4.0-5.0	11		21		31	
2	SL-007-SA5A-SB-9.0-10.0	12		22		32	
3	SL-013-SA5A-SB-2.5-3.5	13		23		33	
4	SL-012-SA5A-SB-2.0-3.0	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
08-Mar-2011	TB-030811	6225086	TB	5030B	8015M	III
08-Mar-2011	TB-030811	6225086	TB	5030B	8260B	III
08-Mar-2011	TB-030811	6225086	TB	5030B	8260B SIM	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	3050B	6010B	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	3050B	6020	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	3060A	7199	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	3546	1625C	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	3550B	8015B	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	3550B	8015M	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	3550B	8082	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	3550B	8270C	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	3550B	8270C SIM	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	5035	8015M	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	5035	8260B	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	5035	8260B SIM	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	8330	8330A	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	Gen Prep	9045M	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	METHOD	300.0	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	METHOD	314.0	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	METHOD	7471A	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	METHOD	8015B	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	METHOD	8015M	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	METHOD	8315A	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0	6225085	N	METHOD	9012B	III
08-Mar-2011	SL-006-SA5A-SB-2.0-3.0DUP	P225085D290945A	DUP	Gen Prep	9045M	III

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation
N = Normal Sample
FD = Field Duplicate
TB = Trip Blank
FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE100 **Laboratory: LL**

EDD Filename: DE100_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-006-SA5A-SB-2.0-3.0** ***Collected:*** **3/8/2011 9:56:00 AM** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.91	J	0.965	MDL	5.42	PQL	mg/Kg	J	Z
TIN	3.01	J	1.08	MDL	10.8	PQL	mg/Kg	U	B

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-006-SA5A-SB-2.0-3.0** ***Collected:*** **3/8/2011 9:56:00 AM** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.290	J	0.0430	MDL	0.430	PQL	mg/Kg	J	Z

Sample ID: **SL-006-SA5A-SB-2.0-3.0** ***Collected:*** **3/8/2011 9:56:00 AM** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	126		0.116	MDL	0.430	PQL	mg/Kg	J	E, A

Sample ID: **SL-006-SA5A-SB-2.0-3.0** ***Collected:*** **3/8/2011 9:56:00 AM** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.109	J	0.0644	MDL	0.215	PQL	mg/Kg	J	Z, Q
ARSENIC	11.5		0.0859	MDL	0.430	PQL	mg/Kg	J	E
CADMIUM	0.0983	J	0.0430	MDL	0.107	PQL	mg/Kg	J	Z, Q
COPPER	16.5		0.0709	MDL	0.430	PQL	mg/Kg	J	A
LEAD	12.7		0.0112	MDL	0.215	PQL	mg/Kg	J	Q, A
NICKEL	25.7		0.107	MDL	0.430	PQL	mg/Kg	J	Q, A
SILVER	0.0161	J	0.0129	MDL	0.107	PQL	mg/Kg	J	Z
THALLIUM	0.436		0.0322	MDL	0.107	PQL	mg/Kg	J	Q
ZINC	90.8		0.601	MDL	3.22	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE100 **Laboratory: LL**

EDD Filename: DE100_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-006-SA5A-SB-2.0-3.0 ***Collected:*** 3/8/2011 9:56:00 AM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.24	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-006-SA5A-SB-2.0-3.0 ***Collected:*** 3/8/2011 9:56:00 AM ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	28.3	J	18.3	MDL	36.5	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-006-SA5A-SB-2.0-3.0 ***Collected:*** 3/8/2011 9:56:00 AM ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.64	J	0.44	MDL	1.3	PQL	mg/Kg	UJ	L, B

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-006-SA5A-SB-2.0-3.0 ***Collected:*** 3/8/2011 9:56:00 AM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5442	2.0	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z, L
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE100 **Laboratory: LL**

EDD Filename: DE100_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **SL-006-SA5A-SB-2.0-3.0** ***Collected:*** **3/8/2011 9:56:00 AM** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
Di-n-octylphthalate	11	J	6.6	MDL	20	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: **SL-006-SA5A-SB-2.0-3.0** ***Collected:*** **3/8/2011 9:56:00 AM** ***Analysis Type:*** **RES** ***Dilution:*** **0.98**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
METHYLENE CHLORIDE	0.55	J	0.26	MDL	4.3	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE100 **Laboratory: LL**

EDD Filename: DE100_v1. **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE100 **Laboratory: LL**

EDD Filename: DE100_v1. **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE100 **Laboratory: LL**

EDD Filename: DE100_v1. **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE100

Method Blank Outlier Report

Lab Reporting Batch ID: DE100 **Laboratory: LL**

EDD Filename: DE100_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P07508AB221918	3/17/2011 7:18:00 PM	CALCIUM PHOSPHORUS TIN	8.02 mg/Kg 1.34 mg/Kg 1.44 mg/Kg	SL-006-SA5A-SB-2.0-3.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-006-SA5A-SB-2.0-3.0(RES)	TIN	3.01 mg/Kg	3.01U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P07526AB222150A	3/18/2011 9:50:00 PM	LEAD ZINC	0.0105 mg/Kg 0.644 mg/Kg	SL-006-SA5A-SB-2.0-3.0

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P73731AB320119A	3/16/2011 1:19:00 AM	EFH (C21-C30) EFH (C30-C40)	0.45 mg/Kg 1.3 mg/Kg	SL-006-SA5A-SB-2.0-3.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-006-SA5A-SB-2.0-3.0(REA2)	EFH (C30-C40)	0.64 mg/Kg	1.3U mg/Kg

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB91B211222A	3/10/2011 12:22:00 PM	METHYLENE CHLORIDE	0.68 ug/Kg	SL-006-SA5A-SB-2.0-3.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-006-SA5A-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	0.55 ug/Kg	4.3U ug/Kg

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE100 Laboratory: LL

EDD Filename: DE100_v1. eQAPP Name: CDM_SSFL_110509

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10731AQ320152A (SL-006-SA5A-SB-2.0-3.0)	EFH (C12-C14)	115	-	66.00-113.00	-	EFH (C12-C14)	J (all detects)
	EFH (C15-C20)	119	-	66.00-113.00	-	EFH (C15-C20)	
	EFH (C21-C30)	126	-	66.00-113.00	-	EFH (C21-C30)	
	EFH (C30-C40)	116	-	66.00-113.00	-	EFH (C30-C40)	

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10754AY240521A (SL-006-SA5A-SB-2.0-3.0)	Aroclor 5442	-	74	75.00-125.00	-	Aroclor 5432, 5442, 5460	J(all detects) UJ(all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE100 **Laboratory: LL**

EDD Filename: DE100_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 1625C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA5A-SB-2.0-3.0	N-NITROSODIMETHYLAMINE	J	28.3	36.5	PQL	ng/Kg	J (all detects)

Method: 6010B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA5A-SB-2.0-3.0	BORON	J	3.91	5.42	PQL	mg/Kg	J (all detects)
	TIN	J	3.01	10.8	PQL	mg/Kg	

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA5A-SB-2.0-3.0	ANTIMONY	J	0.109	0.215	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0983	0.107	PQL	mg/Kg	
	SELENIUM	J	0.290	0.430	PQL	mg/Kg	
	SILVER	J	0.0161	0.107	PQL	mg/Kg	

Method: 7199
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA5A-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.24	1.1	PQL	mg/Kg	J (all detects)

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA5A-SB-2.0-3.0	EFH (C30-C40)	J	0.64	1.3	PQL	mg/Kg	J (all detects)

Method: 8082
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA5A-SB-2.0-3.0	Aroclor 5442	J	2.0	3.6	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE100 **Laboratory: LL**

EDD Filename: DE100_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA5A-SB-2.0-3.0	METHYLENE CHLORIDE	J	0.55	4.3	PQL	ug/Kg	J (all detects)

Method: 8270C-SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA5A-SB-2.0-3.0	Di-n-octylphthalate	J	11	20	PQL	ug/Kg	J (all detects)

LDC #: 25786B4 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/8/11
SDG #: DE100 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: AC
2nd Reviewer: V

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	ICB/CCB hits → No Qual
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (See DE102)
VII.	Duplicate Sample Analysis	N	DUP
VIII.	Laboratory Control Samples (LCS)	N	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	J/UJ/A (SDG: DE102) (Ba, Cu, Pb, Ni, Zn)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: Soil

1	SL-009-SA5A-SB-2.0-3.0	11		21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
09-Mar-2011	TB-030911	6226877	TB	5030B	8015M	IV
09-Mar-2011	TB-030911	6226877	TB	5030B	8260B	IV
09-Mar-2011	TB-030911	6226877	TB	5030B	8260B SIM	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	3050B	6010B	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	3050B	6020	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	3060A	7199	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	3546	1625C	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	3550B	8015B	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	3550B	8015M	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	3550B	8082	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	3550B	8270C	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	3550B	8270C SIM	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	5035	8015M	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	5035	8260B	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	5035	8260B SIM	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	8330	8330A	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	Gen Prep	9045M	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	METHOD	300.0	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	METHOD	314.0	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	METHOD	7471A	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	METHOD	8015B	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	METHOD	8015M	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	METHOD	8315A	IV
09-Mar-2011	SL-225-SA5B-SB-2.0-3.0	6226876	N	METHOD	9012B	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	3050B	6010B	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	3050B	6020	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	3060A	7199	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	3546	1625C	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	3550B	8015B	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	3550B	8015M	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	3550B	8082	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	3550B	8270C	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	3550B	8270C SIM	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	5035	8015M	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	5035	8260B	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	5035	8260B SIM	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	8330	8330A	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	Gen Prep	9045M	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	METHOD	300.0	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	METHOD	314.0	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	METHOD	7471A	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	METHOD	8015B	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	METHOD	8015M	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	METHOD	8315A	IV
09-Mar-2011	SL-304-SA5B-SB-3.0-4.0	6226875	N	METHOD	9012B	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE101 **Laboratory: LL**

EDD Filename: DE101_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: **SL-225-SA5B-SB-2.0-3.0** ***Collected:*** **3/9/2011 9:20:00 AM** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.6		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: **SL-304-SA5B-SB-3.0-4.0** ***Collected:*** **3/9/2011 12:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.3		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-225-SA5B-SB-2.0-3.0** ***Collected:*** **3/9/2011 9:20:00 AM** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	6.35		1.00	MDL	5.62	PQL	mg/Kg	J	I
TIN	3.01	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	2.48	J	0.944	MDL	5.62	PQL	mg/Kg	J	Z, I

Sample ID: **SL-304-SA5B-SB-3.0-4.0** ***Collected:*** **3/9/2011 12:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	7.65		0.987	MDL	5.55	PQL	mg/Kg	J	I
TIN	3.59	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.28	J	0.932	MDL	5.55	PQL	mg/Kg	J	Z, I

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-225-SA5B-SB-2.0-3.0** ***Collected:*** **3/9/2011 9:20:00 AM** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.186	J	0.0454	MDL	0.454	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE101 **Laboratory: LL**

EDD Filename: DE101_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-225-SA5B-SB-2.0-3.0 ***Collected:*** 3/9/2011 9:20:00 AM ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	180		0.123	MDL	0.454	PQL	mg/Kg	J	E, A

Sample ID: SL-225-SA5B-SB-2.0-3.0 ***Collected:*** 3/9/2011 9:20:00 AM ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.133	J	0.0681	MDL	0.227	PQL	mg/Kg	J	Z, Q
ARSENIC	7.28		0.0908	MDL	0.454	PQL	mg/Kg	J	E
CADMIUM	0.243		0.0454	MDL	0.113	PQL	mg/Kg	J	Q
COPPER	12.3		0.0749	MDL	0.454	PQL	mg/Kg	J	A
LEAD	8.16		0.0118	MDL	0.227	PQL	mg/Kg	J	Q, A
NICKEL	21.4		0.113	MDL	0.454	PQL	mg/Kg	J	Q, A
SILVER	0.110	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z
THALLIUM	0.303		0.0340	MDL	0.113	PQL	mg/Kg	J	Q
ZINC	75.1		0.635	MDL	3.40	PQL	mg/Kg	J	A

Sample ID: SL-304-SA5B-SB-3.0-4.0 ***Collected:*** 3/9/2011 12:30:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.143	J	0.0452	MDL	0.452	PQL	mg/Kg	J	Z

Sample ID: SL-304-SA5B-SB-3.0-4.0 ***Collected:*** 3/9/2011 12:30:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	181		0.122	MDL	0.452	PQL	mg/Kg	J	E, A

Sample ID: SL-304-SA5B-SB-3.0-4.0 ***Collected:*** 3/9/2011 12:30:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.196	J	0.0678	MDL	0.226	PQL	mg/Kg	J	Z, Q
ARSENIC	15.4		0.0905	MDL	0.452	PQL	mg/Kg	J	E
CADMIUM	0.142		0.0452	MDL	0.113	PQL	mg/Kg	J	Q
COPPER	25.3		0.0746	MDL	0.452	PQL	mg/Kg	J	A
LEAD	19.2		0.0118	MDL	0.226	PQL	mg/Kg	J	Q, A
NICKEL	39.5		0.113	MDL	0.452	PQL	mg/Kg	J	Q, A
THALLIUM	0.368		0.0339	MDL	0.113	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE101 **Laboratory: LL**

EDD Filename: DE101_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-304-SA5B-SB-3.0-4.0 ***Collected:*** 3/9/2011 12:30:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	121		0.633	MDL	3.39	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-225-SA5B-SB-2.0-3.0 ***Collected:*** 3/9/2011 9:20:00 AM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.36	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-304-SA5B-SB-3.0-4.0 ***Collected:*** 3/9/2011 12:30:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.51	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-304-SA5B-SB-3.0-4.0 ***Collected:*** 3/9/2011 12:30:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0234	J	0.0031	MDL	0.110	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-225-SA5B-SB-2.0-3.0 ***Collected:*** 3/9/2011 9:20:00 AM ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	27.4	J	19.3	MDL	38.6	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE101 **Laboratory: LL**

EDD Filename: DE101_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-225-SA5B-SB-2.0-3.0 ***Collected:*** 3/9/2011 9:20:00 AM ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	0.73	J	0.46	MDL	1.4	PQL	mg/Kg	UJ	L, B
EFH (C30-C40)	1.7		0.46	MDL	1.4	PQL	mg/Kg	UJ	L, B

Sample ID: SL-304-SA5B-SB-3.0-4.0 ***Collected:*** 3/9/2011 12:30:00 ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	1.0	J	0.46	MDL	1.4	PQL	mg/Kg	UJ	L, B
EFH (C30-C40)	2.6		0.46	MDL	1.4	PQL	mg/Kg	UJ	L, B

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-225-SA5B-SB-2.0-3.0 ***Collected:*** 3/9/2011 9:20:00 AM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	L
Aroclor 5442	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	L
Aroclor 5460	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	L

Sample ID: SL-304-SA5B-SB-3.0-4.0 ***Collected:*** 3/9/2011 12:30:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	L
Aroclor 5442	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	L
Aroclor 5460	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	L

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-225-SA5B-SB-2.0-3.0 ***Collected:*** 3/9/2011 9:20:00 AM ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.84	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	0.48	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.4	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE101 **Laboratory: LL**

EDD Filename: DE101_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-304-SA5B-SB-3.0-4.0 ***Collected:*** 3/9/2011 12:30:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	12	J	6.9	MDL	21	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: AQ**

Sample ID: TB-030911 ***Collected:*** 3/9/2011 8:00:00 AM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	6	U	6	MDL	20	PQL	ug/L	UJ	C
Chlorotrifluoroethylene	2	U	2	MDL	5	PQL	ug/L	UJ	C
DICHLORODIFLUOROMETHANE	2	U	2	MDL	5	PQL	ug/L	UJ	C

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-225-SA5B-SB-2.0-3.0 ***Collected:*** 3/9/2011 9:20:00 AM ***Analysis Type:*** RES ***Dilution:*** 0.83

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-HEXANONE	1.5	U	1.5	MDL	7.7	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.38	U	0.38	MDL	7.7	PQL	ug/Kg	UJ	C
BROMOCHLOROMETHANE	0.32	U	0.32	MDL	3.9	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	0.84	J	0.23	MDL	3.9	PQL	ug/Kg	U	B

Sample ID: SL-304-SA5B-SB-3.0-4.0 ***Collected:*** 3/9/2011 12:30:00 ***Analysis Type:*** RES ***Dilution:*** 0.82

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-HEXANONE	1.5	U	1.5	MDL	7.6	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.37	U	0.37	MDL	7.6	PQL	ug/Kg	UJ	C
BROMOCHLOROMETHANE	0.31	U	0.31	MDL	3.8	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	0.81	J	0.23	MDL	3.8	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE101 **Laboratory: LL**

EDD Filename: DE101_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
I	Interference Check Sample Analysis
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE101 **Laboratory: LL**

EDD Filename: DE101_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE101 **Laboratory: LL**

EDD Filename: DE101_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DE101

Method Blank Outlier Report

Lab Reporting Batch ID: DE101 **Laboratory: LL**

EDD Filename: DE101_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P07508AB221918	3/17/2011 7:18:00 PM	CALCIUM PHOSPHORUS TIN	8.02 mg/Kg 1.34 mg/Kg 1.44 mg/Kg	SL-225-SA5B-SB-2.0-3.0 SL-304-SA5B-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-225-SA5B-SB-2.0-3.0(RES)	TIN	3.01 mg/Kg	3.01U mg/Kg
SL-304-SA5B-SB-3.0-4.0(RES)	TIN	3.59 mg/Kg	3.59U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P07526AB222150A	3/18/2011 9:50:00 PM	LEAD ZINC	0.0105 mg/Kg 0.644 mg/Kg	SL-225-SA5B-SB-2.0-3.0 SL-304-SA5B-SB-3.0-4.0

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P73731AB320119A	3/16/2011 1:19:00 AM	EFH (C21-C30) EFH (C30-C40)	0.45 mg/Kg 1.3 mg/Kg	SL-225-SA5B-SB-2.0-3.0 SL-304-SA5B-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-225-SA5B-SB-2.0-3.0(REA2)	EFH (C21-C30)	0.73 mg/Kg	1.4U mg/Kg
SL-225-SA5B-SB-2.0-3.0(REA2)	EFH (C30-C40)	1.7 mg/Kg	1.7U mg/Kg
SL-304-SA5B-SB-3.0-4.0(REA2)	EFH (C21-C30)	1.0 mg/Kg	1.4U mg/Kg
SL-304-SA5B-SB-3.0-4.0(REA2)	EFH (C30-C40)	2.6 mg/Kg	2.6U mg/Kg

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB92B211246A	3/11/2011 12:46:00 PM	METHYLENE CHLORIDE	0.65 ug/Kg	SL-225-SA5B-SB-2.0-3.0 SL-304-SA5B-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-225-SA5B-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	0.84 ug/Kg	3.9U ug/Kg
SL-304-SA5B-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	0.81 ug/Kg	3.8U ug/Kg

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE101 **Laboratory: LL**

EDD Filename: DE101_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10731AQ320152A (SL-225-SA5B-SB-2.0-3.0 SL -304-SA5B-SB-3.0-4.0)	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	115 119 126 116	- - - -	66.00-113.00 66.00-113.00 66.00-113.00 66.00-113.00	- - - -	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	J (all detects)

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10746AQ241933A P10746AY241915A (SL-225-SA5B-SB-2.0-3.0 SL -304-SA5B-SB-3.0-4.0)	Aroclor 5442	72	73	75.00-125.00	-	Aroclor 5432, 5442, 5460	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE101 **Laboratory: LL**

EDD Filename: DE101_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-225-SA5B-SB-2.0-3.0	N-NITROSODIMETHYLAMINE	J	27.4	38.6	PQL	ng/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-225-SA5B-SB-2.0-3.0	TIN	J	3.01	11.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.48	5.62	PQL	mg/Kg	
SL-304-SA5B-SB-3.0-4.0	TIN	J	3.59	11.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.28	5.55	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-225-SA5B-SB-2.0-3.0	ANTIMONY	J	0.133	0.227	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.186	0.454	PQL	mg/Kg	
	SILVER	J	0.110	0.113	PQL	mg/Kg	
SL-304-SA5B-SB-3.0-4.0	ANTIMONY	J	0.196	0.226	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.143	0.452	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-225-SA5B-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.36	1.2	PQL	mg/Kg	J (all detects)
SL-304-SA5B-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.51	1.2	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-304-SA5B-SB-3.0-4.0	MERCURY	J	0.0234	0.110	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE101 **Laboratory: LL**

EDD Filename: DE101_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-225-SA5B-SB-2.0-3.0	EFH (C21-C30)	J	0.73	1.4	PQL	mg/Kg	J (all detects)
SL-304-SA5B-SB-3.0-4.0	EFH (C21-C30)	J	1.0	1.4	PQL	mg/Kg	J (all detects)

Method: 8260B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-225-SA5B-SB-2.0-3.0	METHYLENE CHLORIDE	J	0.84	3.9	PQL	ug/Kg	J (all detects)
SL-304-SA5B-SB-3.0-4.0	METHYLENE CHLORIDE	J	0.81	3.8	PQL	ug/Kg	J (all detects)

Method: 8270C SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-225-SA5B-SB-2.0-3.0	BENZO(A)PYRENE	J	0.84	1.9	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.48	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.4	1.9	PQL	ug/Kg	
SL-304-SA5B-SB-3.0-4.0	Di-n-octylphthalate	J	12	21	PQL	ug/Kg	J (all detects)

Enclosure II

EPA Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	March 9, 2011
LDC Report Date:	July 14, 2011
Matrix:	Soil/Water
Parameters:	Volatiles
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE101

Sample Identification

SL-304-SA5B-SB-3.0-4.0
SL-225-SA5B-SB-2.0-3.0
TB-030911

Introduction

This data review covers 2 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
3/11/11	4-Methyl-2-pentanone	43	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	J (all detects) UJ (all non-detects)	A
	2-Hexanone	51	VBLKB92	J (all detects) UJ (all non-detects)	

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
3/1/11 (bm01v02)	Bromochloromethane	36	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0 VBLKB92	J (all detects) UJ (all non-detects)	A
2/10/11 (yf10v20)	Dichlorodifluoromethane Acetone	30 28	TB-030911 VBLKY51	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A
2/10/11 (yf10v31)	Chlorotrifluoroethene	32	TB-030911 VBLKY51	J (all detects) UJ (all non-detects)	A

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
VBLKB92	3/11/11	Methylene chloride	0.65 ug/Kg	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
SL-304-SA5B-SB-3.0-4.0	Methylene chloride	0.81 ug/Kg	3.8U ug/Kg
SL-225-SA5B-SB-2.0-3.0	Methylene chloride	0.84 ug/Kg	3.9U ug/Kg

Sample TB-030911 was identified as a trip blank. No volatile contaminants were found in this blank.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE101	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Volatiles - Data Qualification Summary - SDG DE101

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	4-Methyl-2-pentanone 2-Hexanone	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	Bromochloromethane	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE101	TB-030911	Dichlorodifluoromethane Acetone Chlorotrifluoroethene	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0 TB-030911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Volatiles - Laboratory Blank Data Qualification Summary - SDG DE101

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE101	SL-304-SA5B-SB-3.0-4.0	Methylene chloride	3.8U ug/Kg	A	B
DE101	SL-225-SA5B-SB-2.0-3.0	Methylene chloride	3.9U ug/Kg	A	B

Santa Susana Field Laboratory
Volatiles - Field Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

LDC #: 25786C1a **VALIDATION COMPLETENESS WORKSHEET** Date: 7/11/11
SDG #: DE101 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: JVG
2nd Reviewer:

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/09/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30% r
IV.	Continuing calibration/ICV	SW	CCV/ICV ≤ 25%
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Client spec
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 3

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil + Water

1 SL-304-SA5B-SB-3.0-4.0 S	11	VBLKB92	21		31		
2 SL-225-SA5B-SB-2.0-3.0	12	VBLKY51	22		32		
3 TB-030911 W	13		23		33		
4	14		24		34		
5	15		25		35		
6	16		26		36		
7	17		27		37		
8	18		28		38		
9	19		29		39		
10	20		30		40		

LDC #: 25786 C1a

VALIDATION FINDINGS CHECKLIST

Reviewer: JW
2nd Reviewer: C

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of $\geq$ 0.990?	✓			
Were all percent relative standard deviations (%RSD) $\leq$ 30% and relative response factors (RRF) $\geq$ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) $<$ 25% and relative response factors (RRF) $>$ 0.05?		✓		
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?		✓		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds of the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?		✓		
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	lll. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Chlorotrifluoroethene
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

LDC #: 25786 C1A

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: JM
2nd Reviewer: [signature]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?

Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?

Y N N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤25.0%)	Finding RRF (Limit: ≥0.05)	Associated Samples	Qualifications
	3/01/11	bm01v02 (ICV)	PP	36		1, 2, VBLKB92	J/UJ/A (C)
	2/10/11	yf10v20 (ICV)	JJ	30		3, VBLKY51	
			F	28			
	2/10/11	yf10v31 (ICV)	NNNN	32			
	3/11/11	bm11c01 (CCV)	Y	43		1, 2, VBLKB92	
			Z	51			

LDC #: 25786 C1a

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: VB
2nd Reviewer: C

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a method blank associated with every sample in this SDG?
Y N N/A Was a method blank analyzed at least once every 12 hours for each matrix and concentration?
Y N N/A Was there contamination in the method blanks? If yes, please see the qualifications below.

Blank analysis date: 3/11/11
Conc. units: ug/kg Associated Samples: 1, 2 Cmds: B

Compound	Blank ID	Sample Identification								
	VBlkB92	1	2							
Methylene chloride E	0.65	0.81 / 3.8U	0.84 / 3.9U							
Acetone										
CROI										

Blank analysis date:
Conc. units: Associated Samples:

Compound	Blank ID	Sample Identification								
Methylene chloride										
Acetone										
CROI										

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 25786 C1a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of Compound
C_x = Concentration of compound
S= Standard deviation of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (RRF 50 std)	Recalculated RRF (RRF 50 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	02/10/11	Acetone (FBZ)	0.0410	0.0410	0.0429	0.0429	14	14
	HP09953		Toluene (CBZ)	1.0041	1.0041	0.9969	0.9969	3	3
			1,1,2,2-TCA (DCB)	0.9767	0.9767	0.9569	0.9569	7	7

Cis/Cx	Ax	Ais
50/100	89674	1092991
50/50	801855	798571
50/50	469555	480763

Conc	Acetone	Toluene	1,1,2,2-TCA
4	0.0509	0.9810	0.9274
10	0.0498	1.0449	1.0560
20	0.0411	0.9670	0.9796
50	0.0410	1.0041	0.9767
100	0.0392	0.9917	0.9563
300	0.0352	0.9929	0.8454
S =	0.0429	0.9969	0.9569
X =	0.0062	0.0266	0.0693

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25786 C1a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of Compound
C_x = Concentration of compound
S= Standard deviation of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (RRF 50 std)	Recalculated RRF (RRF 50 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	03/01/11	Methylene chloride (FBZ)	0.3130	0.3130	0.3108	0.3108	9	9
	HP09953		Toluene (CBZ)	0.8498	0.8498	0.8282	0.8282	7	7
			1,1,2,2-TCA (DCB)	0.6532	0.6532	0.6201	0.6201	8	8

Cis/Cx	Ax	Ais
50/50	386013	1233308
50/50	744690	876328
50/50	348637	533776

Conc	MeCl2	Toluene	1,1,2,2-TCA
4	0.3324	0.7056	0.5983
10	0.3397	0.8565	0.6441
20	0.3240	0.8626	0.6605
50	0.3130	0.8498	0.6532
100	0.2960	0.8430	0.6335
300	0.2596	0.8516	0.5312
S =	0.3108	0.8282	0.6201
X =	0.0294	0.0604	0.0487

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC # 35786 C1A

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: JVG
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
RRF = (Ax)(Cis)/(Ais)(Cx)

Where:
ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
Ax = Area of compound,
Cx = Concentration of compound,
Ais = Area of associated internal standard
Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound	(IS)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported % D	Recalculated %D
1	bm11c01	3/11/11	Methylene chloride	(FBZ)	0.3108	0.3329	0.3329	7	7
	HP09953		Toluene	(CBZ)	0.8282	0.8396	0.8396	1	1
			1,1,2,2-TCA	(DCB)	0.6201	0.6949	0.6949	12	12
2	ym15c01	3/15/11	Acetone	(FBZ)	0.0429	0.0349	0.0349	19	19
	HP09953		Toluene	(CBZ)	0.9969	0.9799	0.9799	2	2
			1,1,2,2-TCA	(DCB)	0.9569	0.9412	0.9412	2	2

CCV1

Cis/Cx	Compound		Response cpd	Response IS
50/50	Methylene chloride	(FBZ)	371724	1116713
50/50	Toluene	(CBZ)	681059	811125
50/50	1,1,2,2-TCA	(DCB)	346480	498629

CCV2

Cis/Cx	Compound		Response cpd	Response IS
50/100	Acetone	(FBZ)	87554	1255591
50/50	Toluene	(CBZ)	907450	926042
50/50	1,1,2,2-TCA	(DCB)	523870	556600

LDC #: 25786 C1C

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: JVG
2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8	50	49.34	99	99	0
Bromofluorobenzene		47.41	95	95	
1,2-Dichloroethane-d4		50.32	101	101	
Dibromofluoromethane		49.64	99	99	

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

LDC #: 25786 C1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Reviewer: 0V6
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS ID: LCS 1D 1B97

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene	20.0	20.0	22.78	22.1	114	114	111	111	3	3
Trichloroethene	↓	↓	20.23	20.05	101	101	100	100	1	1
Benzene			21.23	20.79	106	106	104	104	2	2
Toluene			20.3	19.8	101	101	99	99	2	2.5
Chlorobenzene			19.75	19.30	99	99	96	96.5	2	2

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

DC #: 25786 C1a

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: JVG
2nd reviewer: C

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A Were all reported results recalculated and verified for all level IV samples?

Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

$$\text{Concentration} = \frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

RRF = Relative response factor of the calibration standard.

V_o = Volume or weight of sample pruged in milliliters (ml) or grams (g).

Df = Dilution factor.

%S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. #1, MeCl ✓

Conc. = $\frac{(5517)(50.0)(5\,ml)}{(1039581)(0.3808)(6.11\,g)(0.867)}$

= 0.806

≈ 0.81 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 9, 2011

LDC Report Date: July 14, 2011

Matrix: Soil/Water

Parameters: 1,4-Dioxane

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE101

Sample Identification

SL-304-SA5B-SB-3.0-4.0
SL-225-SA5B-SB-2.0-3.0
TB-030911

Introduction

This data review covers 2 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B using Selected Ion Monitoring (SIM) for 1,4-Dioxane.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for 1,4-Dioxane.

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 25.0% for 1,4-Dioxane.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for 1,4-Dioxane.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No 1,4-dioxane was found in the method blanks.

Sample TB-030911 was identified as a trip blank. No 1,4-dioxane was found in this blank.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE101	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
1,4-Dioxane - Data Qualification Summary - SDG DE101

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0 TB-030911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
1,4-Dioxane - Laboratory Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
1,4-Dioxane - Field Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

LDC #: 25786C1b **VALIDATION COMPLETENESS WORKSHEET** Date: 7/11/11
SDG #: DE101 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: NV
2nd Reviewer: [illegible]

METHOD: GC/MS 1,4-Dioxane (EPA SW 846 Method 8260B-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/09/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤30%
IV.	Continuing calibration/ICV	A	CCV/ICV ≤25%
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client spec.
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 3

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	SL-304-SA5B-SB-3.0-4.0 S	11	VBLKE57	21		31	
2	SL-225-SA5B-SB-2.0-3.0	12	VBLKE55	22		32	
3	TB-030911 W	13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 25786 C1b

VALIDATION FINDINGS CHECKLIST

Reviewer: JW
2nd Reviewer: A

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of $\geq$ 0.990?			✓	
Were all percent relative standard deviations (%RSD) $\leq$ 30% and relative response factors (RRF) $\geq$ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) $<$ 25% and relative response factors (RRF) $>$ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?		✓		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds of the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?		✓		
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC # 25786 C16

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B-SIM)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = (Ax)(Cis)/(Ais)(Cx)
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

Ax = Area of Compound
Cx = Concentration of compound
S= Standard deviation of the RRFs

Ais = Area of associated internal standard
Cis = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (RRF 10 std)	Recalculated RRF (RRF 10 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	11/1/10	1,4-Dioxane (1,4-D-d8)	1.3193	1.3359	1.3219	1.3219	1	1
	HP15648								

Cis/Cx	Ax	Ax
10/10	29359	21977

Conc	RRF
0.5	1.3291
2.0	1.3004
5.0	1.3359
10.0	1.3193
25.0	1.3248
X =	1.3219
S =	0.0135

LDC # 25786 C1b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B-SIM)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = (Ax)(Cis)/(Ais)(Cx)
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

Ax = Area of Compound
Cx = Concentration of compound
S= Standard deviation of the RRFs

Ais = Area of associated internal standard
Cis = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (RRF 10 std)	Recalculated RRF (RRF 10 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	11/7/10	1,4-Dioxane (1,4-D-d8)	1.3392	1.3392	1.3396	1.3396	2	2
	HP15648								

Cis/Cx	Ax	Ax
10/10	25596	19113

Conc	RRF
0.5	1.3082
2.0	1.3793
5.0	1.3539
10.0	1.3392
25.0	1.3175
X =	1.3396
S =	0.0285

LDC #: 25786C1b

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: JVG
2nd reviewer: A

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8	10	9.496	95	95	0
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

LDC #: 25786C1b

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Reviewer: JVG
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration; SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboratry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS ID: LCS/D 57

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,4- Dioxane	125	125	135.79	130.19	109	109	104	104	4	4
~~1,1 Dichloroethene~~										
Trichloroethene										
Benzene										
Toluene										
Chlorobenzene										

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

SDC #: 25786C1b

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: JVG
2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A Were all reported results recalculated and verified for all level IV samples?

Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

RRF = Relative response factor of the calibration standard.

V_o = Volume or weight of sample pruged in milliliters (ml) or grams (g).

Df = Dilution factor.

%S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. _____, MB

Conc. = ( ) ( ) ( ) / ( ) ( ) ( ) ( )

=

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	March 9, 2011
LDC Report Date:	July 14, 2011
Matrix:	Soil
Parameters:	Semivolatiles
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE101

Sample Identification

SL-304-SA5B-SB-3.0-4.0
SL-225-SA5B-SB-2.0-3.0

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE101	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG DE101

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

LDC #: 25786C2a **VALIDATION COMPLETENESS WORKSHEET** Date: 7/11/11
SDG #: DE101 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: JV6
2nd Reviewer: C

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/09/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30% r²
IV.	Continuing calibration/ICV	A	CCV/ICV ≤ 25%
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Client Spec
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-304-SA5B-SB-3.0-4.0	11	SBLKLA 074	21		31	
2	SL-225-SA5B-SB-2.0-3.0	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

DC #: 25786 C2a

VALIDATION FINDINGS CHECKLIST

Reviewer: JVC
2nd Reviewer: A

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of $\geq$ 0.990?	✓			
Were all percent relative standard deviations (%RSD) $\leq$ 30% and relative response factors (RRF) $\geq$ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) $\leq$ 25% and relative response factors (RRF) $\geq$ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?		✓		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

VALIDATION FINDINGS CHECKLIST

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?		✓		
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25786C2a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: GC/MS SVOA (EPA SW 846 Method 8270C)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of Compound
C_x = Concentration of compound,
S= Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (RRF 40 std)	Recalculated RRF (RRF 40 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	03/18/11	Phenol (IS1)	3.164	3.164	3.132	3.132	3	3
			2,4-Dichlorophenol (IS2)	0.334	0.334	0.325	0.325	4	4
	HP09572		2,4,5-Trichlorophenol (IS3)	0.425	0.425	0.415	0.415	6	6
			Pentachlorophenol (IS4)	0.140	0.140	0.133	0.133	10	10
			Benzidine (IS5)	0.971	0.971	0.900	0.900	6	6

Conc IS/Cpd	Area cpd	Area IS
40/50	948454	239817
40/50	429574	1028868
40/50	368237	693280
40/50	225994	1291520
40/150	5204665	1429812

Conc	Phenol	2,4-DCP	2,4,5-TCP	PCP	Benzidine
5	3.025	0.315	0.411	0.117	0.847
15	3.025	0.307	0.378	0.122	0.866
30	3.116	0.320	0.401	0.126	0.899
50	3.164	0.334	0.425	0.140	0.971
80	3.315	0.340	0.453	0.148	0.956
120	3.144	0.333	0.421	0.146	0.859
X =	3.132	0.325	0.415	0.133	0.900
S =	0.108	0.013	0.025	0.013	0.053

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC # 25786C2a

VALIDATION FINDINGS WORSHEET
Continuing Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: GC/MS SVOA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
RRF = (Ax)(Cis)/(Ais)(Cx)

ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
Ax = Area of compound,

Cx = Concentration of compound,
Ais = Area of associated internal standard
Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Average RRF (Initial)	Reported RRF (CCV)	Recalculated RRF (CCV)	Reported % D	Recalculated %D
1	ec1111	03/22/11	Phenol (IS1)	3.132	3.262	3.262	4	4
			2,4-Dichlorophenol (IS2)	0.325	0.336	0.336	3	3
	HP09572		2,4,5-Trichlorophenol (IS3)	0.415	0.432	0.432	4	4
			Pentachlorophenol (IS4)	0.133	0.143	0.143	7	7.5
			Benzidine (IS5)	0.900	0.942	0.942	5	5

CCV1

Compound (IS)	Cis/Cx	Ax	Ais
Phenol (IS1)	40/80	1323116	202784
2,4-Dichlorophenol (IS2)	40/80	630874	938630
2,4,5-Trichlorophenol (IS3)	40/80	547610	634444
Pentachlorophenol (IS4)	40/80	329643	1150918
Benzidine (IS5)	40/240	6683296	1182958

LDC #: 26786C2a

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: JV
2nd reviewer: A

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	100	66.51	67	67	0
2-Fluorobiphenyl	↓	77.03	77	77	↓
Terphenyl-d14	↓	85.20	85	85	↓
Phenol-d5	200	150.68	75	75	↓
2-Fluorophenol	↓	156.20	78	78	↓
2,4,6-Tribromophenol	↓	146.27	73	73	↓
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: JV6
2nd Reviewer: C

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 074LA LCS

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	1666.67	NA	1546.5	NA	93	93				
N-Nitroso-di-n-propylamine			1422.08		85	85				
4-Chloro-3-methylphenol			1585.76		95	95				
Acenaphthene			1509.04		91	91				
Pentachlorophenol			1502.15		90	90				
Pyrene	✓	✓	1692.03		102	102				

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

DC #: 25 786 C 2a

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: JVK
2nd reviewer: [signature]

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

$$\text{Concentration} = \frac{(A_x)(I_s)(V_i)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_t)(\%S)}$$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. _____ , MD

Conc. = ( )( )( )( )( )
( )( )( )( )( )

=

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 9, 2011

LDC Report Date: July 14, 2011

Matrix: Soil

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: Lancaster laboratories

Sample Delivery Group (SDG): DE101

Sample Identification

SL-304-SA5B-SB-3.0-4.0
SL-225-SA5B-SB-2.0-3.0

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C using Selected Ion Monitoring (SIM) for Semivolatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE101	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

All tentatively identified compounds were within validation criteria.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Semivolatiles- Data Qualification Summary - SDG DE101

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Semivolatiles- Laboratory Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles- Field Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

LDC #: 25786C2b **VALIDATION COMPLETENESS WORKSHEET** Date: 7/11/11
SDG #: DE101 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: SVG
2nd Reviewer:

METHOD: GC/MS ~~Polynuclear Aromatic Hydrocarbons~~ SVOA (EPA SW 846 Method 8270C-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/09/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30% r²
IV.	Continuing calibration/ICV	A	CCV/ICV ≤ 25%
V.	Blanks	SVG SW A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client spec.
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-304-SA5B-SB-3.0-4.0	11	SBLKLB0749	21		31	
2	SL-225-SA5B-SB-2.0-3.0	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

VALIDATION FINDINGS CHECKLIST

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of $\geq$ 0.990?	✓			
Were all percent relative standard deviations (%RSD) $\leq$ 30% and relative response factors (RRF) $\geq$ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) $\leq$ 25% and relative response factors (RRF) $\geq$ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?		✓		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?		✓		
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

A. Phenol**	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol**	III. Benzo(a)pyrene**
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol**	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene**	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol*	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene**	T. 4-Chloroaniline	II. 4-Nitrophenol*	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene**	JJ. Dibenzofuran	YY. Fluoranthene**	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol**	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene*	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine*	Y. 2,4,6-Trichlorophenol**	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT.
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)**	FFF. Di-n-octylphthalate**	UUU
N. 2-Nitrophenol**	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

Notes:* = System performance check compound (SPCC) for RRF; ** = Calibration check compound (CCC) for %RSD.

LDC #: 25 786 C26

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: GC/MS SVOA (EPA SW 846 Method 8270C-SIM)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of Compound
C_x = Concentration of compound,
S= Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (RRF 1.0 std)	Recalculated RRF (RRF 1.0 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	03/18/11	NDMA (IS1)	0.961	0.961	0.954	0.954	2	2
			Naphthalene (IS2)	1.013	1.013	1.036	1.036	6	6
	HP10976		Diethylphthalate (IS3)	1.114	1.114	1.170	1.170	9	9
			Phenanthrene (IS4)	1.093	1.093	1.130	1.130	8	8
			Chrysene (IS5)	1.143	1.143	1.166	1.166	6	6
			Benzo(a)pyrene (IS6)	1.342	1.342	1.349	1.349	11	11

Cis/Cx	Ax	Ais
1/1	84069	87467
1/1	343632	339282
1/1	230725	207135
1/1	371146	339484
1/1	404794	354001
1/1	356552	265697

Conc	NDMA	Naphthalene	Diethylphthalate	Phenanthrene	Chrysene	benzo(a)py
0.05	0.940	1.004	1.122	1.077	1.125	1.199
0.2	0.949	1.008	1.063	1.090	1.149	1.265
0.5	0.945	1.012	1.146	1.080	1.116	1.252
1	0.961	1.013	1.114	1.093	1.143	1.342
5	0.945	1.023	1.201	1.131	1.159	1.415
10	0.982	1.154	1.374	1.308	1.305	1.622
X =	0.9537	1.036	1.170	1.130	1.166	1.349
S =	0.016	0.058	0.110	0.089	0.070	0.154

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC # 25786 C26

VALIDATION FINDINGS WORSHEET
Continuing Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: GC/MS SVOA (EPA SW 846 Method 8270C-SIM)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
RRF = (Ax)(Cis)/(Ais)(Cx)

ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
Ax = Area of compound,

Cx = Concentration of compound,
Ais = Area of associated internal standard
Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	Average RRF (Initial)	Reported RRF (CCV)	Recalculated RRF (CCV)	Reported % D	Recalculated %D
1	ic0731	03/21/11	NDMA (IS1)	0.954	0.888	0.888	7	7
			Naphthalene (IS2)	1.036	1.008	1.008	3	3
	HP10976		Diethylphthalate (IS3)	1.170	1.182	1.182	1	1
			Phenanthrene (IS4)	1.130	1.074	1.074	5	5
			Chrysene (IS5)	1.166	1.131	1.131	3	3
			Benzo(a)pyrene (IS6)	1.349	1.372	1.372	2	2
2	ic0761c	03/22/11	NDMA (IS1)	0.954	0.941	0.941	1	1
			Naphthalene (IS2)	1.036	1.020	1.020	2	2
	HP10976		Diethylphthalate (IS3)	1.170	1.132	1.132	3	3
			Phenanthrene (IS4)	1.130	1.119	1.119	1	1
			Chrysene (IS5)	1.166	1.162	1.162	0	0
			Benzo(a)pyrene (IS6)	1.349	1.426	1.426	6	6

CV1		CCV1		CCV2	
Cis/Cx	Compound (IS)	Ax	Ais	Ax	Ais
1/1	NDMA (IS1)	61481	69258	518033	110155
1/1	Naphthalene (IS2)	270627	268373	2154258	422526
1/1	Diethylphthalate (IS3)	197889	167481	1410707	249186
1/1	Phenanthrene (IS4)	314728	292993	2312417	413165
1/1	Chrysene (IS5)	392338	346835	2860871	492553
1/1	Benzo(a)pyrene (IS6)	369048	268898	2761651	387316

LDC #: 25786 C26

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: SV
2nd reviewer: C

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: # 1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	1.0	0.891	~~85~~ 89	89	0
2-Fluorobiphenyl	↓	0.823	82	82	↓
Terphenyl-d14	↓	0.817	82	82	↓
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: [illegible]

VALIDATION FINDINGS WORKSHEET

Page: 1 of 1

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: MG

2nd Reviewer: C

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 074 LB LCS

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol										
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene	33.33	NA	30.46	NA	91	91				
Pentachlorophenol										
Pyrene	33.33		30.46		91	91				

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25786 C26

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: DK
2nd reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #2, Benzo(a)pyrene

Conc. = $\frac{(11356)(1.00)(1\ ml)(1000)(\quad)}{(386194)(1.349)(30.0\ g)(0.864)(\quad)}$

= 0.84 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

LDC Report# 25786C2c

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 9, 2011

LDC Report Date: July 14, 2011

Matrix: Soil

Parameters: N-Nitrosodimethylamine

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE101

Sample Identification

SL-304-SA5B-SB-3.0-4.0
SL-225-SA5B-SB-2.0-3.0

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 1625C for N-Nitrosodimethylamine.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check is not required for by this method.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for N-Nitrosodimethylamine.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for N-Nitrosodimethylamine.

The percent difference (%D) of the second source calibration standard were less than or equal to 30.0% for N-Nitrosodimethylamine.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No N-nitrosodimethylamine was found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE101	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Data Qualification Summary - SDG DE101

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Laboratory Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Field Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

LDC #: 25786C2c **VALIDATION COMPLETENESS WORKSHEET** Date: 7/12/11
SDG #: DE101 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: JV
2nd Reviewer: C

METHOD: GC/MS N-Nitrosodimethylamine (EPA Method 1625C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/09 /11
II.	GC/MS Instrument performance check	N	Not reqd.
III.	Initial calibration	A	%RSD ≤ 30%
IV.	Continuing calibration/ICV	A	CCV ≤ 20% ICV ≤ 30%
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Client Spec
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-304-SA5B-SB-3.0-4.0	11	SBLKLA 070	21		31	
2	SL-225-SA5B-SB-2.0-3.0	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

DC #: 25786 C2C

VALIDATION FINDINGS CHECKLIST

Reviewer: JVR
2nd Reviewer:

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓		✓	
Were all samples analyzed within the 12 hour clock criteria?	✓		✓	
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓		✓	
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?		✓		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?		✓		
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC # 25786 C2c

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: GC/MS NDMA (EPA Method 1625C)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = (Ax)(Cis)/(Ais)(Cx)
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

Ax = Area of Compound
Cx = Concentration of compound
S= Standard deviation of the RRFs

Ais = Area of associated internal standard
Cis = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (IS)	Reported RRF (RRF 25 std)	Recalculated RRF (RRF 25 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/16/2011	NDMA (NDMA-d6)	1.0690	1.0693	1.2120	1.2120	16	16
	TE16311								

Cis/Cx	Ax	Ax
25/25	90106	84266

Conc	RRF
1.0	1.512
5.0	1.387
10.0	1.149
25.0	1.069
50.0	1.122
100.0	1.033
X =	1.2120
S =	0.1924

LDC # 25786C2C

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: GC/MS NDMA (EPA Method 1625C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
RRF = (Ax)(Cis)/(Ais)(Cx)

Where:
ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
Ax = Area of compound
Cx = Concentration of compound,
Ais = Area of associated internal standard
Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	CCV RRF	Reported RRF	Recalculated RRF	Reported % D	Recalculated %D
1	ac168	3/16/2011	NDMA (NDMA-d6)	1.2120	1.08759	1.08759	10	10
	TE16311							

	Compound (IS)	Cis/Cx	Ax	Ais
CCV1	NDMA (NDMA-d6)	25/25	87859	80783

LDC #: 45786 C2C

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: NG
2nd Reviewer:

METHOD: GC/MS ~~BNA~~ NDMA (EPA SW 846 Method ~~8270C~~ 1625C)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 670LA LCS

Compound	Spike Added (ng/kg)		Spike Concentration (ng/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
~~Phenol~~ NDMA	533.33	NA	708.97	NA	85	85				
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene										
Pentachlorophenol										
Pyrene										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25786C2C

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: JV
2nd reviewer: C

METHOD: GC/MS ~~BNA~~ NDMA (EPA SW 846 Method ~~8270C~~ 1625C)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_i)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_t)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #7, NDMA

Conc. = $\frac{(2853)(25)(1\text{ ml})(1000)(\quad)}{(82980)(1.212)(30.0\text{ g})(0.864)(\quad)}$

= 27.4 ng/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 9, 2011

LDC Report Date: July 14, 2011

Matrix: Soil

Parameters: Polychlorinated Biphenyls

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE101

Sample Identification

SL-304-SA5B-SB-3.0-4.0
SL-225-SA5B-SB-2.0-3.0

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Affected Compound	Flag	A or P
3/16/11	4C20069.29R	R1	Aroclor-5442	26.2	110740006A-BLK	Aroclor-5442	J (all detects) UJ (all non-detects)	A
3/16/11	4C20069.29R	R2	Aroclor-5442	32.2	110740006A-BLK	Aroclor-5442	J (all detects) UJ (all non-detects)	A

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Affected Compound	Flag	A or P
11074006A-LCS/D (All samples in SDG DE101)	Aroclor-5442	72 (75-125)	73 (75-125)	-	Aroclor-5442 Aroclor-5432 Aroclor-5460	J (all detects) UJ (all non-detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

All target compound identifications were within validation criteria.

XIII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE101	All compounds reported below the RL.	J (all detects)	A

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Data Qualification Summary - SDG DE101

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	Aroclor-5442 Aroclor-5432 Aroclor-5460	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

LDC #: 25786C3b **VALIDATION COMPLETENESS WORKSHEET** Date: 7-13-11
SDG #: DE101 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: MM
2nd Reviewer: A

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/9/11
II.	GC/ECD Instrument Performance Check	N	
III.	Initial calibration	A	%RSD≤20
IV.	Continuing calibration/ICV	SW	ICV/CCV ≤20%
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	Client Specified
VIII.	Laboratory control samples	SW	LCS/D
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	A	
XIII.	Compound quantitation and reported CRQLs	A	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-304-SA5B-SB-3.0-4.0 S	11		21		31	1107/0006A-BLK
2	SL-225-SA5B-SB-2.0-3.0 S	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 25786C3b
SDG #: See Cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 1
Reviewer: MS
2nd Reviewer: [illegible]

Method: Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/ECD Instrument performance check				
Was the instrument performance found to be acceptable?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?	✓			
Were the required standard concentrations analyzed in the initial calibration?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? ~~%D or~~ ___%R				
Were Evaluation mix standards analyzed prior to the initial calibration and sample analysis?			✓	
Were endrin and 4,4'-DDT breakdowns ≤ 15% for individual breakdown in the Evaluation mix standards?			✓	
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20% or percent recovieries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Were extract cleanup blanks analyzed with every batch requiring clean-up?	✓			
Was there contamination in the method blanks or clean-up blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				

LDC #: 25786C36
SDG #: See cover

VALIDATION FINDINGS CHECKLIST

Reviewer: KW
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?		✓		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓	✓		
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions, dry weight factors, and clean-up activities applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.		✓		

VALIDATION FINDINGS WORKSHEET

METHOD: Pesticide/PCBs (EPASW 846 Method 8081/8082)

A. alpha-BHC	I. Dieldrin	Q. Endrin ketone	Y. Aroclor-1242	GG. Chlordane
B. beta-BHC	J. 4,4'-DDE	R. Endrin aldehyde	Z. Aroclor-1248	HH. Chlordane (Technical)
C. delta-BHC	K. Endrin	S. alpha-Chlordane	AA. Aroclor-1254	II. Aroclor 5442
D. gamma-BHC	L. Endosulfan II	T. gamma-Chlordane	BB. Aroclor-1260	JJ. 5432
E. Heptachlor	M. 4,4'-DDD	U. Toxaphene	CC. 2,4'-DDD	KK. 5460
F. Aldrin	N. Endosulfan sulfate	V. Aroclor-1016	DD. 2,4'-DDE	LL.
G. Heptachlor epoxide	O. 4,4'-DDT	W. Aroclor-1221	EE. 2,4'-DDT	MM.
H. Endosulfan I	P. Methoxychlor	X. Aroclor-1232	FF. Hexachlorobenzene	NN.

Notes:_____

LDC #: 25786C35
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: KJ
2nd Reviewer:

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Please see qualifications below for all questions answered "N" Not applicable questions are identified as "N/A".

Y N N/A Were Evaluation mix standards run before initial calibration and before samples?

Y N N/A Were Endrin & 4,4'-DDT breakdowns acceptable in the Evaluation Mix standard (≤15.0% for individual breakdowns)?

Y N N/A Was at least one standard run daily to verify the working curve?

Y N N/A Did the continuing calibration standards meet the percent difference (%D) of ≤20.0%?

Level IV/D Only

Y N N/A Were the retention times for all calibrated compounds within their respective acceptance windows?

#	Date	Standard ID	Column	Compound	%D (Limit ≤ 20.0)	RT (Limits)	Associated Samples	Qualifications
	3/16/11	4C20069.29R	PL	II	26.2	( )	BLK	J/UJ/A (C)
			PK	II	32.2	( )		K
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
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						( )		
						( )		

A. alpha-BHC
B. beta-BHC
C. delta-BHC
D. gamma-BHC
E. Heptachlor
F. Aldrin
G. Heptachlor epoxide
H. Endosulfan I
I Dieldrin
J. 4,4'-DDE
K. Endrin
L Endosulfan II
M. 4,4'-DDD
N. Endosulfan sulfate
O. 4,4'-DDT
P. Methoxychlor
Q. Endrin ketone
R. Endrin aldehyde
S. alpha-Chlordane
T. gamma-Chlordane
U. Toxaphene
V. Aroclor-1016
W. Aroclor-1221
X. Aroclor-1232
Y. Aroclor-1242
Z. Aroclor-1248
AA. Aroclor-1254
BB. Aroclor-1260
CC. 2,4'-DDD
DD. 2,4'-DDE
EE. 2,4'-DDT
FF. Hexachlorobenzene
GG. Chlordane
HH Chlordane (Technical)

: #: 25786C55
3 #: -

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Reviewer: A
2nd Reviewer: ✓

THOD: ✓GC ___ HPLC

ase see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
N N/A Were a laboratory control samples (LCS) and laboratory control sample duplicate (LCSD) analyzed for each matrix in this SDG?
(N) N/A Were the LCS percent recoveries (%R) and relative percent differences (RPD) within the QC limits?

vel IV/D Only
N N/A Was an LCS analyzed every 20 samples for each matrix or whenever a sample extraction was performed?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	110740006A-LCS/D	II	72 (75-125)	73 (75-125)	( )	ALL	J/UJ/P (gml II-KK)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )	

LDC #: 25784C1b0
SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The calibration factors (CF) and relative standard deviation (%RSD) were recalculated using the following calculations:

CF = A/C
Average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

Where: A = Area of compound
C = Concentration of compound
S = Standard deviation of calibration factors
X = Mean of calibration factors

#	Standard ID	Calibration Date	Compound	Reported CF (200 std)	Recalculated CF (200 std)	Reported CF (initial)	Recalculated CF (intial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/10/11	BB (R1 Peak1)	17	17	18	18	6.9	6.9
			JJ (R2 Peak1)	237	237	236	236	8.7	8.7
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25786C36
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: M
2nd Reviewer: A

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Percent difference (%D) = 100 * (N - C)/N

Where: N = Initial Calibration Factor or Nominal Amount (ng)
C = Calibration Factor from Continuing Calibration Standard or Calculated Amount (ng)

Standard ID	Calibration Date/Time	Compound	Average CF/ CCV Conc	Reported CF/Conc CCV	Recalculated CF/Conc CCV	Reported %D	Recalculated %D
4C20069.27R	3/16/11	BB (R_1)	200.00	183.04	183.04	8.5	8.5
		↓ (R_2)	200.00	179.02	179.02	10.5	10.5
4C20069.5R	3/17/11	BB (R_1)	200.00	189.22	189.22	5.4	5.4
		↓ (R_2)	200.00	186.70	186.70	6.7	6.7

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: [illegible]
SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: [illegible]
2nd reviewer: [illegible]

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 2

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Tetrachloro-m-xylene	A	1.04	0.769543	74	74	0
Tetrachloro-m-xylene						
Decachlorobiphenyl	A	1.04	0.963205	92	92	0
Decachlorobiphenyl						

Sample ID: _____

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Tetrachloro-m-xylene						
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Decachlorobiphenyl						

Sample ID: _____

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Tetrachloro-m-xylene						
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Decachlorobiphenyl						

Sample ID: _____

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Tetrachloro-m-xylene						
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Decachlorobiphenyl						

Notes: _____

LDC #: 25786C3b
SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: VT
2nd Reviewer:

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA

Where: SSC = Spiked sample concentration
SA = Spike added
SC = Concentration

RPD = | LCS - LCSD | * 2/(LCS + LCSD)

LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: 1107400GA-LCS

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
gamma-BHC										
4,4'-DDT										
Aroclor 1260	16.67	n/a	15.5	n/a	93	93				

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25786c36
SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: M
2nd reviewer: C

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

X N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Example:

Sample I.D. ALL ALL :

Conc. = _____

= ND

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Note: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 9, 2011

LDC Report Date: July 13, 2011

Matrix: Soil

Parameters: Metals

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE101

Sample Identification

SL-304-SA5B-SB-3.0-4.0
SL-225-SA5B-SB-2.0-3.0

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B, 6020, and 7000 for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, and Zirconium.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5% .

III. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No metal contaminants were found in the initial, continuing and preparation blanks with the following exceptions:

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
PB (prep blank)	Calcium Lead Phosphorus Tin Zinc	8.017 mg/Kg 0.011 mg/Kg 1.342 mg/Kg 1.444 mg/Kg 0.644 mg/Kg	All samples in SDG DE101
ICB/CCB	Copper Titanium	2.7 ug/L 1.1 ug/L	All samples in SDG DE101

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-304-SA5B-SB-3.0-4.0	Tin	3.6 mg/Kg	3.6U mg/Kg
SL-225-SA5B-SB-2.0-3.0	Tin	3.0 mg/Kg	3.0U mg/Kg

No field blanks were identified in this SDG.

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met with the following exceptions:

ICS ID	Date/ Time	Analyte	Concentration (Limits)	Associated Samples	Flag	A or P
ICSA	3/17/11 (19:02, 21:26)	Boron	23 ug/L (≤8.9)	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	J (all detects)	A
ICSA	3/17/11 (19:02, 21:26)	Zirconium	-13 ug/L (≤8.4)	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	J (all detects) UJ (all non-detects)	A

Samples were qualified as estimated (J/UJ) if the interferent concentrations in the samples were greater than ninety percent of the spiked interferent concentrations in the ICSA.

VI. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-114-SA5A-SB-4.0-5.0MS/MSD (All samples in SDG DE101)	Antimony	50 (75-125)	45 (75-125)	-	J (all detects) UJ (all non-detects)	A
SL-114-SA5A-SB-4.0-5.0MS/MSD (All samples in SDG DE101)	Cadmium Lead Nickel Thallium	128 (75-125) 162 (75-125) 160 (75-125) 128 (75-125)	- - - -	- - - -	J (all detects) J (all detects) J (all detects) J (all detects)	A

VII. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the following exceptions:

DUP ID (Associated Samples)	Analyte	RPD (Limits)	Difference (Limits)	Flag	A or P
SL-114-SA5A-SB-4.0-5.0DUP (All samples in SDG DE101)	Arsenic	23 (≤20)	-	J (all detects) UJ (all non-detects)	A
	Barium	23 (≤20)	-	J (all detects) UJ (all non-detects)	

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Internal Standards

All internal standard percent recoveries (%R) were within QC limits.

X. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met with the following exceptions:

Diluted Sample	Analyte	%D (Limits)	Associated Samples	Flag	A or P
SL-114-SA5A-SB-4.0-5.0	Barium Copper Lead Nickel Zinc	14 (≤10) 27 (≤10) 15 (≤10) 17 (≤10) 20 (≤10)	All samples in SDG DE101	J (all detects) UJ (all non-detects)	A

XII. Sample Result Verification

All sample result verifications were acceptable.

All analytes reported below the RL and above the MDL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG DE101	All analytes reported below the RL and above the MDL.	J (all detects)	A

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Metals - Data Qualification Summary - SDG DE101

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	Boron	J (all detects)	A	ICP interference check sample analysis (concentration) (I)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	Zirconium	J (all detects) UJ (all non-detects)	A	ICP interference check sample analysis (concentration) (I)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	Antimony	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	Cadmium Lead Nickel Thallium	J (all detects) J (all detects) J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	Arsenic Barium	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Duplicate sample analysis (RPD) (E)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	Barium Copper Lead Nickel Zinc	J (all detects) UJ (all non-detects)	A	ICP serial dilution (%D) (A)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Metals - Laboratory Blank Data Qualification Summary - SDG DE101

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE101	SL-304-SA5B-SB-3.0-4.0	Tin	3.6U mg/Kg	A	B
DE101	SL-225-SA5B-SB-2.0-3.0	Tin	3.0U mg/Kg	A	B

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

LDC #: 25786C4 **VALIDATION COMPLETENESS WORKSHEET** Date: 7-11-11
SDG #: DE101 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: MG
2nd Reviewer: [illegible]

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3-9-11
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	SW	
VI.	Matrix Spike Analysis	SW	MS/MSD (SDG: DE102)
VII.	Duplicate Sample Analysis	SW	DUP ↓
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	A	
X.	Furnace Atomic Absorption QC	N	not utilized
XI.	ICP Serial Dilution	SW	
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	N	
XV	Field Blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: all soil

1	SL-304-SA5B-SB-3.0-4.0	11		21		31	
2	SL-225-SA5B-SB-2.0-3.0	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20	PBS	30		40	

Notes: _____

DC #: 25786C4

VALIDATION FINDINGS CHECKLIST

Reviewer: MG
2nd Reviewer: V

Method: Metals (EPA SW 846 Method 6010B/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. ICP/MS Tune				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution ≤5%?	✓			
III. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients ≥ 0.995?	✓			
IV. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
V. ICP Interference Check Sample				
Were ICP interference check samples performed daily?	✓			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	✓			
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.		✓		
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of +/- RL(+/-2X RL for soil) was used for samples that were ≤ 5X the RL, including when only one of the duplicate sample values were ≤ 5X the RL.	✓			
VII. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	✓			

LDC #: J5786C4

VALIDATION FINDINGS CHECKLIST

Reviewer: MG
2nd Reviewer: W

Validation Area	Yes	No	NA	Findings/Comments
VIII. Furnace Atomic Absorption QC				
If MSA was performed, was the correlation coefficients > 0.995?			✓	
Do all applicable analysies have duplicate injections? (Level IV only)			✓	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			✓	
Were analytical spike recoveries within the 85-115% QC limits?			✓	
IX. ICP Serial Dilution				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?		✓		
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.		✓		
X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?			✓	
XI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
XII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target analytes were detected in the field blanks.			✓	

LDC #: 25786C4
SDG #: —

VALIDATION FINDINGS WORKSHEET
Sample Specific Element Reference

Reviewer: MG
2nd reviewer:

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1, 2	S	(Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B) Si, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, ___
1, 2	S	Nb, Pd, (P,) Pt, (Sn, Sr, Ti,) W, U, (Li,) S, (Zr,) ___
		Nb, Pd, P, Pt, Sn, Sr, Ti, W, U, Li, S, Zr, ___
		Nb, Pd, P, Pt, Sn, Sr, Ti, W, U, Li, S, Zr, ___
		Nb, Pd, P, Pt, Sn, Sr, Ti, W, U, Li, S, Zr, ___
		Nb, Pd, P, Pt, Sn, Sr, Ti, W, U, Li, S, Zr, ___
		Nb, Pd, P, Pt, Sn, Sr, Ti, W, U, Li, S, Zr, ___
		Nb, Pd, P, Pt, Sn, Sr, Ti, W, U, Li, S, Zr, ___
		Nb, Pd, P, Pt, Sn, Sr, Ti, W, U, Li, S, Zr, ___
		Nb, Pd, P, Pt, Sn, Sr, Ti, W, U, Li, S, Zr, ___
		Nb, Pd, P, Pt, Sn, Sr, Ti, W, U, Li, S, Zr, ___
		Nb, Pd, P, Pt, Sn, Sr, Ti, W, U, Li, S, Zr, ___
		Nb, Pd, P, Pt, Sn, Sr, Ti, W, U, Li, S, Zr, ___
		Nb, Pd, P, Pt, Sn, Sr, Ti, W, U, Li, S, Zr, ___
		Nb, Pd, P, Pt, Sn, Sr, Ti, W, U, Li, S, Zr, ___

Analysis Method		
ICP	S	(Li) S, (Al, B, Ca, Fe, Mg, Mn, P, K, Na, Sr, Sn, Ti, Zr)
ICP-MS	↓	Al, (Sb, As, Ba, Be, Cd) Ca, (Cr, Co, Cu) Fe, (Pb) Mg, Mn, (Ni) K, (Se, Ag) Na, (Tl, V, Zn, Mo) B, Si, ___
ICP-MS		Nb, Pd, P, Pt, Sn, Sr, Ti, W, U, Zr, ___
GFAA		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN, ___

Comments: (Mercury by CVAA if performed)
Nb: Niobium, Pd: Palladium, P: Phosphorus, Pt: Platinum, S: Sulfur, W: Tungsten, U: Uranium, Zr: Zirconium

LDC #: 25786C4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Reviewer: MG
2nd Reviewer:

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: 100x; ICP-MS 2x dil
Sample Concentration units, unless otherwise noted: mg/kg
Associated Samples: all

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	1	2								
Ca	8.017			40.085										
Cu			2.7	2.7										
Pb	0.011			0.055										
P	1.342			6.71										
Ti			1.1	0.55										
Sn	1.444			7.22	3.6	3.0								
Zn	0.644			3.22										

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".

Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 25786C4

VALIDATION FINDINGS WORKSHEET
ICP Interference Check Sample

Reviewer: MG
2nd Reviewer: LA

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were ICP interference check samples performed as required?

(Y) N N/A Were the AB solution percent recoveries (%R) within the control limits of 80-120% ?

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	ICS Identification	Analyte	ICSA (≤MDL) (µg/L) Finding		Associated Samples	Qualifications
1	3-17-11	ICSA (19:02, 21:26)	B	23	(8.9)	1	J dets / A (I)
		↓	Li	6	(2.2)	↓	No Qual
			Mn	4	(0.78)		↓
			P	16	(5.6)		
			Sr	3	(0.62)		
		↓	Zr	-13	(8.4)	↓	J / UJ / A (I)
2	3-17-11	ICSA (19:02, 21:26)	B	23	(8.9)	2	J dets / A (I)
		↓	Li	6	(2.2)	↓	No Qual
			Mn	4	(0.78)		↓
			P	16	(5.6)		
			Sr	3	(0.62)		
		↓	Zr	-13	(8.4)	↓	J / UJ / A (I)

Comments: Fe > 90% ICSA

LDC #: 25786C4

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: MG
2nd Reviewer:

METHOD: Trace metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y (N) N/A Were matrix spike percent recoveries (%R) within the control limits of 75-125? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

(Y) N N/A Were all duplicate sample relative percent differences (RPD) ≤ 20% for water samples and ≤35% for soil samples?

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	MS/MSD ID	Soil Matrix	Analyte	MS %Recovery	MSD %Recovery	RPD (Limits)	Associated Samples	Qualifications
1	SL-114-SA5A-S	B-4.0-5.0	Sb	50 (75-125)	45 (75-125)		all	J/UJ/A (Q)
	MS/MSD	↓	Cd	128 ( )			↓	J dets/A
	↓	↓	Pb	162 ( )				↓
			Ni	160 ( )				
			Tl	128 (↓)				

Comments:

LDC #: 25786C4

VALIDATION FINDINGS WORKSHEET
Duplicate Analysis

Page: 1 of 1
Reviewer: MG
2nd Reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a duplicate sample analyzed for each matrix in this SDG?

Y (N) N/A Were all duplicate sample relative percent differences (RPD) ≤ 20% for water samples and ≤ 35% for soil samples? If no, see qualifications below. A control limit of ±R.L. (±2X R.L. for soil) was used for sample values that were <5X the R.L., including the case when only one of the duplicate sample values was <5X R.L.. If field blanks were used for laboratory duplicates, note in the Overall Assessment.

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Duplicate ID	Soil Matrix	Analyte	RPD (Limits)	Difference (Limits)	Associated Samples	Qualifications
1		SL-114-SA5A-SB-4	0-5.0	As	23 (≤ 20)		all	J / UJ / A (E)
		DUP ↓	↓	Ba	23 (↓)		↓	↓ ↓

Comments:

DUP.4SW

LDC #: 25786C4

VALIDATION FINDINGS WORKSHEET
ICP Serial Dilution

Reviewer: MG
2nd Reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A If analyte concentrations were > 50X the MDL (ICP) ,or >100X the MDL (ICP/MS), was a serial dilution analyzed?
Y (N) N/A Were ICP serial dilution percent differences (%D) ≤10%?
Y (N) N/A Is there evidence of negative interference? If yes, professional judgement will be used to qualify the data.

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Diluted Sample ID	Matrix (soil)	Analyte	%D (Limits)	Associated Samples	Qualifications
1		SL-114-SA5A-SB-	4.0-5.0	Ba	14 (≤10)	all	J/UJ/A (A)
		↓	↓	Cu	27 ( )	↓	↓ ↓
				Pb	15 ( )		
				Ni	17 ( )		
		↓	↓	Zn	20 ( )	↓	

Comments:

LDC #: 25786C4

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Reviewer: MG
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found x 100 / True

Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution
True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated %R	Reported %R	Acceptable (Y/N)
1851 ICV	ICP (Initial calibration)	Fe	31366.83	30000.0	104.6	104.6	Y
2128 ICV	ICP/MS (Initial calibration)	Be	53.65	50.0	107.3	107.3	
0502 ICV	CVAA (Initial calibration)	Hg	2.47	2.5	98.8	98.8	
1959 CCV2	ICP (Continuing calibration)	Sn	492.37	500.0	98.5	98.5	
2221 CCV2	ICP/MS (Continuing calibration)	Tl	25.41	25.0	101.6	101.6	
0534 CCV3	CVAA (Continuing calibration)	Hg	1.05	1.0	105.0	105.0	
	GFAA (Initial calibration)						
	GFAA (Continuing calibation)						

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25786C4

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: MG
2nd Reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{Found}{True} \times 100$ Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$ Where, S = Original sample concentration
D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$\%D = \frac{|I-SDR|}{I} \times 100$ Where, I = Initial Sample Result (mg/L)
SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated %R / RPD / %D	Reported %R / RPD / %D	Acceptable (Y/N)
ICSAB	ICP interference check	Cd	19.77 (µg/L)	20 (µg/L)	98.8	99.0	Y
LCS	Laboratory control sample	Ag	49.38 (mg/kg)	46.2 (mg/kg)	107	107	
-114-SA5A-SB-4.0-5.0 MS	Matrix spike	Sb	(SSR-SR) 0.78 (mg/kg)	1.55 (mg/kg)	50	50	
-114-SA5A-SB-4.0-5.0 DUP	Duplicate	As	9.31 (mg/kg)	7.38 (mg/kg)	23	23	
-114-SA5A-SB-4.0-5.0	ICP serial dilution	Zn	326.40 (µg/L)	261.05 (µg/L)	20	20	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25786C4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 2
Reviewer: MG
2nd reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Have results been reported and calculated correctly?
(Y) N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
(Y) N N/A Are all detection limits below the CRDL?

Detected analyte results for # 1, Al were recalculated and verified using the following equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)}$

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation:

$$\frac{(262.66216\ mg/L)(0.100\ L)}{(0.00104\ kg)(0.867)} = 29130.3\ mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
1	1	Al	29100	29100	Y
		Sb	0.20	0.20	
		As	15.4	15.4	
		Ba	181	181	
		Be	1.8	1.8	
		B	7.7	7.7	
		Cd	0.14	0.14	
		Ca	5590	5590	
		Cr	43.7	43.7	
		Co	16.4	16.4	
		Cu	25.3	25.3	
		Fe	38700	38700	
		Pb	19.2	19.2	
		Li	53.2	53.2	
		Mg	8930	8930	
		Mn	441	441	
		Hg	0.023	0.023	
		Mo	0.62	0.62	
		Ni	39.5	39.5	
		P	173	173	

Note:

LDC #: 25786C4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: MG
2nd reviewer: ✓

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Have results been reported and calculated correctly?
(Y) N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
(Y) N N/A Are all detection limits below the CRDL?

Detected analyte results for #1, Tl were recalculated and verified using the following equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)}$

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation:

$$\frac{(1.62900\ \mu g/L)(0.100\ L)(2)}{(1.02\ g)(0.867)} = 0.3684\ \mu g/g \text{ or } mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
1	1 cont'd.	K	2140	2140	Y
		Se	0.14	0.14	
		Ag	0.21	0.21	
		Na	470	470	
		Sr	40.6	40.6	
		Tl	0.37	0.37	
		Sn	3.6	3.6	
		Ti	1380	1380	
		V	79.7	79.7	
		Zn	121	121	
		Zr	1.3	1.3	

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 9, 2011

LDC Report Date: July 14, 2011

Matrix: Soil

Parameters: Wet Chemistry

Validation Level: Level IV

Laboratory, Area IV: Lancaster Laboratories

Sample Delivery Group (SDG): DE101

Sample Identification

SL-304-SA5B-SB-3.0-4.0
SL-225-SA5B-SB-2.0-3.0

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 9012B for Cyanide, EPA Method 300.0 for Nitrate and Fluoride, EPA SW 846 Method 7199 for Hexavalent Chromium, EPA SW 846 Method 9045C for pH, and EPA Method 314.0 for Perchlorate.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a Laboratory, Area IV deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

All criteria for the initial calibration of each method were met.

III. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

No field blanks were identified in this SDG.

V. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	%R (Limits)	Flag	A or P
SL-114-SA5A-SB-4.0-5.0MS (All samples in SDG DE101)	Fluoride	72 (80-120)	J (all detects) UJ (all non-detects)	A

VI. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and were within QC limits.

VIII. Sample Result Verification

All sample result verifications were acceptable

All analytes reported below the RL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG DE101	All analytes reported below the RL and above the MDL.	J (all detects)	A

IX. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

X. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Wet Chemistry - Data Qualification Summary - SDG DE101

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	Fluoride	J (all detects) UJ (all non-detects)	A	Matrix spike analysis (%R) (Q)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Wet Chemistry – Laboratory Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Wet Chemistry - Field Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

LDC #: 25786C6

SDG #: DE101

Laboratory: Lancaster Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level IV

9M4.

Date: 7-11-11

Page: 1 of 1

Reviewer: MG

2nd Reviewer: V

METHOD: (Analyte) Cyanide (EPA SW846 Method 9012B), Nitrate-N, Fluoride (EPA Method 300.0), Hexavalent Chromium (EPA SW846 Method 7199), ~~Oxidation Reduction Potential (ASTM D1498)~~, pH (~~EPA Method 150.1~~/EPA SW846 Method 9045C) Perchlorate (EPA Method 314.0)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3-9-11
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	A	
IV	Matrix Spike/Matrix Spike Duplicates	SW	MS (SDG: DE102)
V	Duplicates	A	DUP (↓)
VI.	Laboratory control samples	A	LCS
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: all soil

1	SL-304-SA5B-SB-3.0-4.0	11		21		31	
2	SL-225-SA5B-SB-2.0-3.0	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20	PBS	30		40	

Notes:

LDC #: 25786C6

VALIDATION FINDINGS CHECKLIST

Reviewer: MG
2nd Reviewer:

Method: Inorganics (EPA Method see cover)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients ≥ 0.995?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)			✓	
III. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
IV. Matrix spike/Matrix spike duplicates and Duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.		✓		
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of ≤ CRDL(≤ 2X CRDL for soil) was used for samples that were ≤ 5X the CRDL, including when only one of the duplicate sample values were ≤ 5X the CRDL.	✓			
V. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
VI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 25786C6

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Reviewer: MG
2nd reviewer:

All circled methods are applicable to each sample.

Sample ID	Matrix	Parameter
1, 2	S	(pH) TDS Cl (F) (NO_3) NO_2 SO_4 PO_4 ALK (CN) NH_3 TKN TOC (CR^{6+}) (ClO_4) _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4 _____ _____

Comments: _____

LDC #: 25786C6

VALIDATION FINDINGS WORKSHEET
Matrix Spike Analysis

Page: 1 of 1
Reviewer: MG
2nd Reviewer: V

METHOD: Inorganics, Method see cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y (N) N/A Were matrix spike percent recoveries (%R) within the control limits of 75-125 (85-115% for Method 300.0)? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Matrix Spike ID	Soil Matrix	Analyte	%R	Associated Samples	Qualifications
1		SL-114-SA5A-SB-4 MS	.0-5.0	F	72 (80-120)	all	J/UJ/A

Comments:

LDC #: 25786C6

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: MG
2nd Reviewer:

METHOD: Inorganics, Method see cover

The correlation coefficient (r) for the calibration of F was recalculated. Calibration date: 3-17-11

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found x 100 / True

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution
True = concentration of each analyte in the ICV or CCV source

Type of Analysis	Analyte	Standard ID	Conc Found (units)	Area True (units)	Recalculated r or %R	Reported r or %R	Acceptable (Y/N)
Initial calibration	F	Blank	0.0 (mg/L)	0	r^2 = 0.998403	r^2 = 0.998704	Y
		Standard 1	0.1 ( )	0.014			
		Standard 2	0.4 ( )	0.057			
		Standard 3	1.0 ( )	0.167			
		Standard 4	2.0 ( )	0.342			
		Standard 5	3.0 ( )	0.543			
		Standard 6	-	-			
		Standard 7	-	-			
Calibration verification	NO_3-N	1643 CCV	1.491 (mg/L)	1.5 (mg/L)	99	99	
Calibration verification	CN	1530 CCV	0.1567 (mg/L)	0.15 (mg/L)	104	104	
Calibration verification	Cr VI	1151 CCV	201.09 (µg/L)	200 (µg/L)	101	101	

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25786C6

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: MG
2nd Reviewer:

METHOD: Inorganics, Method see cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{Found}{True} \times 100$ Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$ Where, S = Original sample concentration
D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated %R / RPD	Reported %R / RPD	Acceptable (Y/N)
1709 LCS	Laboratory control sample	ClO_4	560.29 (mg/kg)	500 (mg/kg)	112	not reported	Y
L-114-SA5A-SB-4.0-5.0 MS	Matrix spike sample	F	(SSR-SR) 7.3 (mg/kg)	10.18 (mg/kg)	72	72	
L-114-SA5A-SB-4.0-5.0 DUP	Duplicate sample	NO_3-N	1.7 (mg/kg)	1.5 (mg/kg)	12	13	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25786C6

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: MG
2nd reviewer: V

METHOD: Inorganics, Method See cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Have results been reported and calculated correctly?
(Y) N N/A Are results within the calibrated range of the instruments?
(Y) N N/A Are all detection limits below the CRQL?

Compound (analyte) results for #1, NO_3-N reported with a positive detect were recalculated and verified using the following equation:

Concentration =

$Y = mx + b$
where $m = 0.2859$
$b = -0.0192$

Recalculation:

$0.031 = 0.2859(x) - 0.0192$

$0.176\ mg/L = x$

then $\frac{(0.176\ mg/L)(0.050\ L)}{(0.00492\ kg)(0.867)} = 2.063\ mg/kg$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
1	1	F	3.3	3.3	Y
		NO_3-N	2.1	2.1	↓
		Cr VI	0.51	0.51	
		pH	7.87 (pH unit)	7.87 (pH unit)	↓

Note: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	March 9, 2011
LDC Report Date:	July 14, 2011
Matrix:	Soil/Water
Parameters:	Total Petroleum Hydrocarbons as Gasoline
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE101

Sample Identification

SL-304-SA5B-SB-3.0-4.0
SL-225-SA5B-SB-2.0-3.0
TB-030911

Introduction

This data review covers 2 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

Sample TB-030911 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found in this blank.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE101	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG DE101

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0 TB-030911	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

LDC #: 25786C7 **VALIDATION COMPLETENESS WORKSHEET** Date: 7-12-11
SDG #: DE101 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: KM
2nd Reviewer: C

METHOD: GC TPH as Gasoline (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/9/11
II	Initial calibration	A	%RSD ≤ 20%
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20%
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS/D
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	TB=3

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	SL-304-SA5B-SB-3.0-4.0 S	11		21		31	110730304A-BLK	S
2	SL-225-SA5B-SB-2.0-3.0 S	12		22		32	110750420A-BLK	W
3	TB-030911 W	13		23		33		
4		14		24		34		
5		15		25		35		
6		16		26		36		
7		17		27		37		
8		18		28		38		
9		19		29		39		
10		20		30		40		

Notes:

LDC #: 20148C4

VALIDATION FINDINGS CHECKLIST

Reviewer: LM
2nd Reviewer: [illegible]

Method: X GC ____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) < 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? ✓ %D or ___ %R				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?		✓		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				

Validation Area	Yes	No	NA	Findings/Comments
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC #: [illegible]
SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: VT
2nd Reviewer:

METHOD: GC X HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the followin calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (118 std)	Recalculated CF (118 std)	Reported Average CF (Initial)	Recalculated Average CF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	5/14/10	GRO	7676	7676	8050	8050	5.2	5.2
	ICAL	11/29/10	GRO	39008	39008	37329	37329	127	127
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: WF
2nd Reviewer: C

METHOD: GC X HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	20075002	3/16/11	GRO	550.00	619.19	619.19	12.6	12.6
	34073B0002	3/14/11	GRO	220.00	195.34	195.34	11.2	11.2
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Surrogate Results Verification

Reviewer: [illegible]
2nd reviewer: C

METHOD: X GC __ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 3

Surrogate	Detector Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
TFT	FID	30	19.568	65.2	65.2	0

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Notes:

LDC #:

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: X GC __ HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

RPD =(((SSCLCS - SSCLCSD) * 2) / (SSCLCS + SSCLCSD))*100

Where SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory Control Sample
SC = Sample concentration
LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: 1107 3A34A-LCS

Compound	Spike Added (MG/KG)		Spike Sample Concentration (MG/KG)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)	11	n/a	7.9	n/a	72	72				
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25786C7

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: KF
2nd Reviewer:

METHOD: X GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. ALL Compound Name GRO

Concentration = ND

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments:

LDC Report# 25786C8

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 9, 2011

LDC Report Date: July 14, 2011

Matrix: Soil

Parameters: Total Petroleum Hydrocarbons as Extractables

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE101

Sample Identification

SL-304-SA5B-SB-3.0-4.0
SL-225-SA5B-SB-2.0-3.0

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound	Concentration	Associated Samples
110730021A-BLK	3/16/11	C21-C30 C30-C40	0.45 mg/Kg 1.3 mg/Kg	All samples in SDG DE101

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-304-SA5B-SB-3.0-4.0	C21-C30 C30-C40	1.0 mg/Kg 2.6 mg/Kg	1.38U mg/Kg 2.6U mg/Kg
SL-225-SA5B-SB-2.0-3.0	C21-C30 C30-C40	0.73 mg/Kg 1.7 mg/Kg	1.38U mg/Kg 1.7U mg/Kg

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
110730021A-LCS	C12-C14 C15-C20 C21-C30 C30-C40	115 (66-113) 119 (66-113) 126 (66-113) 116 (66-113)	All samples in SDG DE101	J (all detects) J (all detects) J (all detects) J (all detects)	P

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE101	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG DE101

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	C12-C14 C15-C20 C21-C30 C30-C40	J (all detects) J (all detects) J (all detects) J (all detects)	P	Laboratory control samples (%R) (L)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG DE101

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
DE101	SL-304-SA5B-SB-3.0-4.0	C21-C30 C30-C40	1.38U mg/Kg 2.6U mg/Kg	A	B
DE101	SL-225-SA5B-SB-2.0-3.0	C21-C30 C30-C40	1.38U mg/Kg 1.7U mg/Kg	A	B

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

LDC #: 25786C8
SDG #: DE101
Laboratory: Lancaster Laboratories

VALIDATION COMPLETENESS WORKSHEET
Level IV

Date: 7-12-11
Page: 1 of 1
Reviewer: LA
2nd Reviewer: C

METHOD: GC TPH as Extractables (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/9/11
II	Initial calibration	A	0/0RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20%
IV.	Blanks	SW	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	Client Specified
VII.	Laboratory control samples	SW	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: ALL SOIL

1	SL-304-SA5B-SB-3.0-4.0	11		21		31	110730021A-BLK
2	SL-225-SA5B-SB-2.0-3.0	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 23786

VALIDATION FINDINGS CHECKLIST

Reviewer: LW
2nd Reviewer: A

Method: X GC ____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) < 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? ~~%D~~ or ____ %R				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?		✓		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		
IX. Regional Quality Assurance and Quality Control				

LDC #: 25706C5

VALIDATION FINDINGS CHECKLIST

Reviewer: JM
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25786C8
SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Blanks

Page: 1 of 1
Reviewer: MT
2nd Reviewer: A

METHOD: X GC ___ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were all samples associated with a given method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction procedure was performed?
Y N N/A Was a method blank performed with each extraction batch?
Y N N/A Were any contaminants found in the method blanks? If yes, please see findings below.

11 B 11

Level IV/D Only

Y N N/A (Gasoline and aromatics only)Was a method blank analyzed with each 24 hour batch?
Y N N/A Was a method blank analyzed for each analytical / extraction batch of ≤20 samples?

Blank extraction date: / **Blank analysis date:** ~~3/19/11~~ 3/16/11 **Associated samples:** ALL
Conc. units: mg/kg

Compound	Blank ID	Sample Identification						
		1	2					
C21-C30	0.45	1.0/1.38U	0.73/1.38U					
C30-C40	1.3	2.6/U	1.7/U					

Blank extraction date: _____ **Blank analysis date:** _____ **Associated samples:** _____
Conc. units: _____

Compound	Blank ID	Sample Identification						

ALL CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were a laboratory control samples (LCS) and laboratory control sample duplicate (LCSD) analyzed for each matrix in this SDG?

Y (N) N/A Were the LCS percent recoveries (%R) and relative percent differences (RPD) within the QC limits?

Level IV/D Only

(Y) N N/A Was an LCS analyzed every 20 samples for each matrix or whenever a sample extraction was performed?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	1107300 2/A-LCS	C12-C14	115 (66-113)	( )	( )	ALL	J det (L)
		C15-C20	119 ( )	( )	( )		
		C21-C30	126 ( )	( )	( )		
		C30-C40	116 ( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		

LDC #: [illegible]
SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC X HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the followin calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (288 std)	Recalculated CF (288 std)	Reported Average CF (Initial)	Recalculated Average CF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/11/11	C8-C40	16811	16811	16752	16752	1.4	1.4
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: WA
2nd Reviewer:

METHOD: GC X HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	J073.62R	3/15/11	C8-C40	575.96	615.38	615.38	6.8	6.8
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Surrogate Results Verification

Reviewer: LA
2nd reviewer: A

METHOD: X GC __ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

Surrogate	Detector/ Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Chlorobenzene	FID	1.00	.8015	80	80	0
o-Terphenyl	FID	1.00	1.066	107	107	0

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Notes:

LDC #: 27[illegible]

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: MA
2nd Reviewer: A

METHOD: X GC __ HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentration; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample duplicate

RPD =(({SSCLCS - SSCLCSD} * 2) / (SSCLCS + SSCLCSD))*100

LCS/LCSD samples: 1107300Z1A-LCS

Compound	Spike Added (mg/kg)		Spike Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
~~Diesel~~ C8-C40 (8015)	.84	n/a	.8	n/a	95	95				
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 257868

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: A

METHOD: X GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. 1 Compound Name C30-C40

Concentration = $\frac{(2288706)(1mL)}{(16752)(60.1g)(.867)}$

= 2.6 mg/kg

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

LDC Report# 25786C40

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 9, 2011

LDC Report Date: July 14, 2011

Matrix: Soil

Parameters: Explosives

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE101

Sample Identification

SL-304-SA5B-SB-3.0-4.0
SL-225-SA5B-SB-2.0-3.0

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8330A for Explosives.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed for the primary (quantitation) column and confirmation column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at the required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No explosive contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE101	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Explosives - Data Qualification Summary - SDG DE101

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Explosives - Laboratory Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Explosives - Field Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

LDC #: 25786C40 **VALIDATION COMPLETENESS WORKSHEET** Date: 7-12-11
SDG #: DE101 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: MM
2nd Reviewer:

METHOD: HPLC Explosives (EPA SW 846 Method 8330A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/9/11
II	Initial calibration	A	r/%RSD ≤ 20, r²
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20%
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	Client Specified
VII.	Laboratory control samples	A	LCS/D
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable ND = No compounds detected D = Duplicate
N = Not provided/applicable R = Rinsate TB = Trip blank
SW = See worksheet FB = Field blank EB = Equipment blank

Validated Samples: ALL SOIL

1	SL-304-SA5B-SB-3.0-4.0	11		21		31	1107/0003A-BLK
2	SL-225-SA5B-SB-2.0-3.0	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 43 10801C

VALIDATION FINDINGS CHECKLIST

Reviewer: MF
2nd Reviewer: 2

Method: ____ GC __X__ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) < 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?	✓			
Did the initial calibration meet the curve fit acceptance criteria?	✓			
Were the RT windows properly established?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? ✓ %D or ____ %R				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?		✓		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
X. Regional Quality Assurance and Quality Control				

Validation Area	Yes	No	NA	Findings/Comments
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: [illegible]
SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC _____ HPLC X

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the followin calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (600.6 std)	Recalculated CF (600.6 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/8/11	RDX (clA)	86.4	86.4	95.2	95.2	16.1	16.1
			2,4,6-TNT ↓	195	195	197	197	0.8	0.8
2			(ClB) for confirmation only						
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: AT
2nd Reviewer: A

METHOD: GC _____ HPLC X

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	25120679.06R	3/15/11	RDX (CCA)	493.50	456.84	456.84	7.4	7.4
			2,4,6-TNT ↓	500.50	500.41	500.41	0	0
2	25120679.18R	3/16/11	RDX (CCA)	987.00	919.70	919.70	6.8	6.8
			2,4,6-TNT ↓	1001.00	1010.61	1010.61	1.0	1.0
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Surrogate Results Verification

Reviewer: MT
2nd reviewer: C

METHOD: __ GC X HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
2-NMX	A	1923.43	2135.01	111	111	0

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Notes:

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: RT
2nd Reviewer: CA

METHOD: ___ GC X HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

RPD =(({SSCLCS - SSCLCSD} * 2) / (SSCLCS + SSCLCSD))*100

Where SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory Control Sample
SC = Sample concentration
LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: 110710003A-LCS

Compound	Spike Added (ug/kg)		Spike Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)	2000.25	n/a	2048.55	n/a	102	102				
2,4,6-Trinitrotoluene (8330)	1999.2	n/a	2304.23	n/a	115	115				

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25786C4O

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: MV
2nd Reviewer:

METHOD: __ GC X HPLC

N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. ALL Compound Name ALL

Concentration = ND

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	March 9, 2011
LDC Report Date:	July 14, 2011
Matrix:	Soil
Parameters:	Terphenyls
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE101

Sample Identification

SL-304-SA5B-SB-3.0-4.0
SL-225-SA5B-SB-2.0-3.0

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Terphenyls.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No terphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

The QAPP reporting limits (RL) were met with the following exceptions:

Sample	Compound	Finding	Criteria	Flag	A or P
All samples in SDG DE101	o-Terphenyl m-Terphenyl p-Terphenyl	Laboratory reporting limit reported at 3.5 mg/Kg.	Reporting limit should be reported at 0.167 mg/Kg per the QAPP.	None None None	P

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE101	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Terphenyls - Data Qualification Summary - SDG DE101

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	o-Terphenyl m-Terphenyl p-Terphenyl	None None None	P	Compound quantitation and CRQLs (*IX)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Terphenyls - Laboratory Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Terphenyls - Field Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

LDC #: 25786C41 **VALIDATION COMPLETENESS WORKSHEET** Date: 7-13-11
SDG #: DE101 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Terphenyls (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/29/11
II	Initial calibration	A	%RSD ≤ 20 %
III.	Calibration verification ~~/ICV~~	A	CCV ≤ 20 %
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	Client Specified
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A SW	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: ALL SOIL

1 FB	SL-304-SA5B-SB-3.0-4.0	11		21		31	110730020A-BLK
2 FB	SL-225-SA5B-SB-2.0-3.0	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 45700-11

VALIDATION FINDINGS CHECKLIST

Reviewer: MT
2nd Reviewer: A

Method: A GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) < 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? ✓ %D or ___ %R				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?		✓		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
X. Regional Quality Assurance and Quality Control				

LDC #: 25466G1

VALIDATION FINDINGS CHECKLIST

Reviewer: M
2nd Reviewer: C

Validation Area	Yes	No	NA	Findings/Comments
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

SDG #: See cover

Compound Quantitation and Reported CRQLs

Reviewer: M
2nd Reviewer: A

METHOD: X **GC** __ **HPLC**

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Level IV/D Only

N N/A Were CRQLs adjusted for sample dilutions, dry weight factors, etc.?

N N/A Did the reported results for detected target compounds agree within 10.0% of the recalculated results?

#	Compound Name	Finding	Associated Samples	Qualifications
	ALL	lab RL's higher than QAPP.	ALL	TEXT (Z)
		QAPP = 0.167 mg/kg		
		Lab = 3.5 mg/kg		

Comments: See sample calculation verification worksheet for recalculations

LDC #: [illegible]
SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: [signature]
2nd Reviewer: [signature]

METHOD: GC X HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the followin calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (17.7_{std})	Recalculated CF (17.7_{std})	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/16/11	O-Terphenyl	2.59 E4	2.59 E4	2.54 E4	2.57 E4	2.1	2.1
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: MT
2nd Reviewer:

METHOD: GC X HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = Initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	R073.53R	3/16/11	O-Terphenyl	35.48	35.18	35.18	0.9	0.9
	R073.64R	3/16/11	O-Terphenyl	35.48	35.40	35.40	0.2	0.2
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

DC #:_____ VALIDATION FINDINGS WORKSHEET Page: 1 of 1

Surrogate Results Verification

Reviewer: AH
2nd reviewer: A

METHOD: X GC __ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID:_____

Surrogate	Detector/ Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
n-Tricontane	FID	0.333	0.255163	77	77	0

Sample ID:_____

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:_____

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:_____

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:_____

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Notes:_____

LDC #: ____

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: AL
2nd Reviewer: C

METHOD: X GC __ HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

RPD =(((SSCLCS - SSCLCSD) * 2) / (SSCLCS + SSCLCSD))*100

Where SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory Control Sample
SC = Sample concentration
LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: 1107300204-LCS

Compound	Spike Added (mg/kg)		Spike Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
O-Terphenyl	1.67	n/a	1.61	n/a	96	96				

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25786C41

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: X GC ___ HPLC

X N N/A Were all reported results recalculated and verified for all level IV samples?
X N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. ALL Compound Name ALL

Concentration = _____

MD

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 9, 2011

LDC Report Date: July 13, 2011

Matrix: Soil

Parameters: Alcohols

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE101

Sample Identification

SL-304-SA5B-SB-3.0-4.0
SL-225-SA5B-SB-2.0-3.0

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Alcohols.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No alcohol contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE101	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Alcohols - Data Qualification Summary - SDG DE101

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Alcohols - Laboratory Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Alcohols - Field Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

LDC #: 25786C43 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/11/11
SDG #: DE101 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: JW
2nd Reviewer: A

METHOD: GC Alcohols (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/09/11
II	Initial calibration	A	%RSD ≤ 20%
III.	Calibration verification/ICV	A	CAL/ICV ≤ 20%
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	Client Spec
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-304-SA5B-SB-3.0-4.0	11	PBLK26075	21		31	
2	SL-225-SA5B-SB-2.0-3.0	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 25786 C43

VALIDATION FINDINGS CHECKLIST

Reviewer: JVC
2nd Reviewer: A

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? ✓ %D or ____ %R	✓			
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?		✓		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				

Validation Area	Yes	No	NA	Findings/Comments
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25786 CF3

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer: A

METHOD: GC _____ HPLC _____

The calibration factors (CF), average CF, and relative standard deviation (%RSD) were recalculated for compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

Where: A = Area of compound
C = Concentration of compound
S = Standard deviation of calibration factors
X = Mean of calibration factors

#	Standard ID	Calibration Date	Compound	Reported (CF 5000 std)	Recalculated (CF 5000 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/4/2011	Methanol	6.070	6.071	6.110	6.110	6.1	6.1
	H2739B								

C	A
5000	30354

Conc	Methanol
1000	6.500
2500	6.480
5000	6.070
10000	5.790
2.37	5.710
X=	6.110
S=	0.372

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #25786C43

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: JVG
2nd Reviewer:

METHOD: GC_____HPLC_____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration percent difference (%D) values were recalculated for the compounds identified below using the following calculation:

Percent difference (%D) = 100 * (N - C)/N

Where: N = Initial Calibration Factor or Nominal Amount
C = Calibration Factor from Continuing Calibration Standard or Calculated Amount

#	Standard ID	Calibration Date	Compound	CCV Conc	Reported Conc	Recalculated Conc	Reported % D	Recalculated %D
1	0003	3/16/2011	Methanol	2500	2382.57	2382.82	4.7	4.7
	H2739B							

CCV1

Compound	Area	CF
Methanol	14559	6.110

LDC #: 25786 C43

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: JVG
2nd reviewer:

METHOD: / GC ___ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Acetone	SP-1000	250	232.25	90	96	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 25766 C4y

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: JVG
2nd Reviewer: [signature]

METHOD: /GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentration; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample duplicate

RPD =(({SSCLCS - SSCLCSD} * 2) / (SSCLCS + SSCLCSD))*100

LCS/LCSD samples: LCS 26075

Compound	Spike Added (ug/kg)		Spike Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
~~Gasoline~~ Mogt (8015)	2500	NA	2277.61	NA	91	91				
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25786C43

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: JVG
2nd Reviewer: C

METHOD: ✓ GC ___ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound In the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name MB

Concentration =_____

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALCnew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 9, 2011

LDC Report Date: July 13, 2011

Matrix: Soil

Parameters: Glycols

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE101

Sample Identification

SL-304-SA5B-SB-3.0-4.0
SL-225-SA5B-SB-2.0-3.0

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Glycols.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0%.

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No glycol contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE101	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Glycols - Data Qualification Summary - SDG DE101

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Glycols - Laboratory Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Glycols - Field Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

LDC #: 25786C45 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/11/11
SDG #: DE101 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: JVC
2nd Reviewer:

METHOD: GC Glycols (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/09/11
II	Initial calibration	A	%RSD ≤20%
III.	Calibration verification/ICV	A	CCV/ICV ≤20%
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	Client Spec
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-~~314~~ 304 -SA5B-~~SB-0.0-0.5~~ SB-3.0-4.0	11	PBLK07073	21		31	
2	SL-~~316~~ 225 -SA5B-SB-~~4.5-5.5~~ 2.0-3.0	12		22		32	
3	~~SL-328-SA5B-SB-3.5-4.5~~	13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 25786 C45

VALIDATION FINDINGS CHECKLIST

Reviewer: JVG
2nd Reviewer: A

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? ✓ %D or ___ %R	✓			
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?		✓		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				

LDC #: 25786 C45

VALIDATION FINDINGS CHECKLIST

Reviewer: JVG
2nd Reviewer: C

Validation Area	Yes	No	NA	Findings/Comments
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25786C 4F

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: GC ✓ HPLC _____

The calibration factors (CF), average CF, and relative standard deviation (%RSD) were recalculated for compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

Where: H = Height of compound
C = Concentration of compound
S = Standard deviation of calibration factors
X = Mean of calibration factors

#	Standard ID	Calibration Date	Compound	Reported (211.111 std)	Recalculated (211.111 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/16/2011	Ethylene glycol	176.6665	176.6667	184.8493	184.8493	10.7	10.7
	H6612A								

C	H
211.111	37296.28

Conc	Ethylene glycol
10.556	181.1939
52.778	160.0332
105.556	192.6461
211.111	176.6665
316.667	179.3655
527.778	219.1904
X=	184.8493
S=	19.831

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC # 25786C48

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: JVG
2nd Reviewer:

METHOD: GC ✓ HPLC_____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration percent difference (%D) values were recalculated for the compounds identified below using the following calculation:

Percent difference (%D) = 100 * (N - C)/N

Where: N = Initial Calibration Factor or Nominal Amount
C = Calibration Factor from Continuing Calibration Standard or Calculated Amount

#	Standard ID	Calibration Date	Compound	CCV Conc	Reported Conc	Recalculated Conc	Reported % D	Recalculated %D
1	0023	3/16/2011	Ethylene glycol	105.56	120.77	120.77	14.4	14.4

	Compound	Height	CF
CCV1	Ethylene glycol	22324	184.85

LDC #: 25786C45

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: JVG
2nd reviewer: A

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetramethylene glycol	Col. A	196.86	121.88	62 ✓	62 ✓	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 25786C45

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: JVG
2nd Reviewer: A

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentration

RPD =(({SSCLCS - SSCLCSD} * 2) / (SSCLCS + SSCLCSD))*100

LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: LCS07073

Compound	Spike Added (mg/kg)		Spike Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
~~Gasoline~~ Gasoline (8015)	205.03	NA	173.25	NA	85	84.5				
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25786C45

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: JVG
2nd Reviewer:

METHOD: / GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound In the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name ND

Concentration =_____

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALCnew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 9, 2011

LDC Report Date: July 14, 2011

Matrix: Soil

Parameters: Formaldehyde

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE101

Sample Identification

SL-304-SA5B-SB-3.0-4.0
SL-225-SA5B-SB-2.0-3.0

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8315A for Formaldehyde.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No formaldehyde was found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE101	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Formaldehyde - Data Qualification Summary - SDG DE101

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE101	SL-304-SA5B-SB-3.0-4.0 SL-225-SA5B-SB-2.0-3.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Formaldehyde - Laboratory Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Formaldehyde - Field Blank Data Qualification Summary - SDG DE101

No Sample Data Qualified in this SDG

LDC #: 25786C71 **VALIDATION COMPLETENESS WORKSHEET** Date: 7-12-4
SDG #: DE101 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HPLC Formaldehyde (EPA SW 846 Method 8315A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/9/4
II	Initial calibration	A	%RSD≤20
III.	Calibration verification/~~ICV~~	A	CCV≤20%
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	Client Specified
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: All soil

1	SL-304-SA5B-SB-3.0-4.0	11		21		31	1107300084-TBLK
2	SL-225-SA5B-SB-2.0-3.0	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 25T0011

VALIDATION FINDINGS CHECKLIST

Reviewer: lut
2nd Reviewer: [illegible]

Method: ____ GC __X__ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) < 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? ✓ %D or ____ %R				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?				
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?		✓		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
X. Regional Quality Assurance and Quality Control				

LDC #: 25786A7

VALIDATION FINDINGS CHECKLIST

Reviewer: JA
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 6[illegible]
SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: VA
2nd Reviewer: C

METHOD: GC_____HPLC X

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the followin calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (2nd std)	Recalculated CF (2nd std)	Reported Average CF (Initial)	Recalculated Average CF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/16/11	Formaldehyde	61.5	61.5	59.8	59.8	4.0	4.0
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC _____ HPLC X

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified belo using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	IF4075.20R	3/16/11	Formaldehyde	199000	1956.33	1956.33	1.7	1.7
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Surrogate Results Verification

Reviewer: [illegible]
2nd reviewer: [illegible]

METHOD: ___ GC _X_ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 2

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Butyraldehyde	A	3948.53	3869.57	98	98	0

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Notes:

LDC #: _____

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: MA
2nd Reviewer: _____

METHOD: ___ GC X HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

RPD =(((SSCLCS - SSCLCSD) * 2) / (SSCLCS + SSCLCSD))*100

Where SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory Control Sample
SC = Sample concentration
LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: 1107300 08A- LCS

Compound	Spike Added (ug/kg)		Spike Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
Formaldehyde	5010	n/a	4996.35	n/a	96	96				

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25786C74

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: TM
2nd Reviewer: C

METHOD: ___ GC X HPLC

X N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. ALL Compound Name Formaldehyde

Concentration = _____

MD

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPLE DELIVERY GROUP

DE102

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Mar-2011	TB-031111	6228986	TB	5030B	8015M	III
11-Mar-2011	TB-031111	6228986	TB	5030B	8260B	III
11-Mar-2011	TB-031111	6228986	TB	5030B	8260B SIM	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	3050B	6010B	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	3050B	6020	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	3060A	7199	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	3546	1625C	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	3550B	8015B	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	3550B	8015M	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	3550B	8082	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	3550B	8270C	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	3550B	8270C SIM	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	5035	8015M	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	5035	8260B	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	5035	8260B SIM	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	8330	8330A	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	Gen Prep	9045M	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	METHOD	300.0	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	METHOD	314.0	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	METHOD	7471A	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	METHOD	8015B	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	METHOD	8015M	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	METHOD	8315A	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0	6228978	N	METHOD	9012B	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	3050B	6010B	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	3060A	7199	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	3546	1625C	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	3550B	8015B	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	3550B	8015M	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	3550B	8082	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	3550B	8270C	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	3550B	8270C SIM	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	5035	8015M	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	5035	8260B	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	5035	8260B SIM	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	8330	8330A	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	METHOD	300.0	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	METHOD	314.0	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	METHOD	7471A	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	METHOD	8015B	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	METHOD	8015M	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	METHOD	8315A	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	6228979	MS	METHOD	9012B	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	6228980	MSD	3050B	6010B	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	6228980	MSD	3050B	6020	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	6228980	MSD	3546	1625C	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	6228980	MSD	3550B	8015B	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	6228980	MSD	3550B	8015M	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	6228980	MSD	3550B	8082	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	6228980	MSD	3550B	8270C	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	6228980	MSD	3550B	8270C SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	6228980	MSD	5035	8015M	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	6228980	MSD	5035	8260B	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	6228980	MSD	5035	8260B SIM	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	6228980	MSD	8330	8330A	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	6228980	MSD	METHOD	7471A	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	6228980	MSD	METHOD	8015B	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	6228980	MSD	METHOD	8015M	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	6228980	MSD	METHOD	8315A	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0DUP	6228981	DUP	3050B	6010B	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0DUP	6228981	DUP	3050B	6020	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0DUP	6228981	DUP	3060A	7199	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0DUP	6228981	DUP	Gen Prep	9045M	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0DUP	6228981	DUP	METHOD	300.0	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0DUP	6228981	DUP	METHOD	314.0	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0DUP	6228981	DUP	METHOD	7471A	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0DUP	6228981	DUP	METHOD	9012B	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MSD	P228978M320217A	MSD	3550B	8015M	III
11-Mar-2011	SL-114-SA5A-SB-4.0-5.0MS	P228978R320152A	MS	3550B	8015M	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	3050B	6010B	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	3050B	6020	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	3060A	7199	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	3546	1625C	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	3550B	8015B	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	3550B	8015M	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	3550B	8082	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	3550B	8270C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	3550B	8270C SIM	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	5035	8015M	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	5035	8260B	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	5035	8260B SIM	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	8330	8330A	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	Gen Prep	9045M	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	METHOD	300.0	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	METHOD	314.0	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	METHOD	7471A	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	METHOD	8015B	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	METHOD	8015M	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	METHOD	8315A	III
11-Mar-2011	SL-114-SA5A-SB-9.0-10.0	6228982	N	METHOD	9012B	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	3050B	6010B	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	3050B	6020	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	3060A	7199	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	3546	1625C	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	3550B	8015B	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	3550B	8015M	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	3550B	8082	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	3550B	8270C	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	3550B	8270C SIM	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	5035	8015M	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	5035	8260B	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	5035	8260B SIM	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	8330	8330A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	Gen Prep	9045M	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	METHOD	300.0	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	METHOD	314.0	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	METHOD	7471A	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	METHOD	8015B	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	METHOD	8015M	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	METHOD	8315A	III
11-Mar-2011	DUP09-SA5A-QC-031111	6228975	FD	METHOD	9012B	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	3050B	6010B	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	3050B	6020	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	3060A	7199	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	3546	1625C	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	3550B	8015B	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	3550B	8015M	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	3550B	8082	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	3550B	8270C	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	3550B	8270C SIM	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	5035	8015M	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	5035	8260B	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	5035	8260B SIM	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	8330	8330A	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	Gen Prep	9045M	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	METHOD	300.0	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	METHOD	314.0	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	METHOD	7471A	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	METHOD	8015B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	METHOD	8015M	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	METHOD	8315A	III
11-Mar-2011	SL-112-SA5A-SB-8.5-9.5	6228976	N	METHOD	9012B	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	3050B	6010B	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	3050B	6020	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	3060A	7199	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	3546	1625C	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	3550B	8015B	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	3550B	8015M	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	3550B	8082	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	3550B	8270C	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	3550B	8270C SIM	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	5035	8015M	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	5035	8260B	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	5035	8260B SIM	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	8330	8330A	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	Gen Prep	9045M	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	METHOD	300.0	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	METHOD	314.0	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	METHOD	7471A	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	METHOD	8015B	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	METHOD	8015M	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	METHOD	8315A	III
11-Mar-2011	SL-112-SA5A-SB-14.0-15.0	6228977	N	METHOD	9012B	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	3050B	6010B	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	3060A	7199	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	3546	1625C	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	3550B	8015B	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	3550B	8015M	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	3550B	8082	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	3550B	8270C	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	3550B	8270C SIM	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	5035	8015M	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	5035	8260B	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	5035	8260B SIM	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	8330	8330A	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	Gen Prep	9045M	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	METHOD	300.0	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	METHOD	314.0	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	METHOD	7471A	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	METHOD	8015B	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	METHOD	8015M	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	METHOD	8315A	III
11-Mar-2011	SL-227-SA5B-SB-2.5-3.5	6228985	N	METHOD	9012B	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	3050B	6010B	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	3050B	6020	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	3060A	7199	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	3546	1625C	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	3550B	8015B	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	3550B	8015M	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	3550B	8082	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	3550B	8270C	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	3550B	8270C SIM	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	5035	8015M	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	5035	8260B	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	5035	8260B SIM	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	8330	8330A	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	Gen Prep	9045M	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	METHOD	300.0	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	METHOD	314.0	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	METHOD	7471A	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	METHOD	8015B	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	METHOD	8015M	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	METHOD	8315A	III
11-Mar-2011	SL-113-SA5A-SB-9.0-10.0	6228983	N	METHOD	9012B	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	3050B	6010B	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	3050B	6020	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	3060A	7199	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	3546	1625C	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	3550B	8015B	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	3550B	8015M	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	3550B	8082	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	3550B	8270C	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	3550B	8270C SIM	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	5035	8015M	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	5035	8260B	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	5035	8260B SIM	III

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	8330	8330A	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	Gen Prep	9045M	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	METHOD	300.0	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	METHOD	314.0	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	METHOD	7471A	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	METHOD	8015B	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	METHOD	8015M	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	METHOD	8315A	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15	6228984	N	METHOD	9012B	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15DUP	P228984D271627A	DUP	METHOD	9012B	III
11-Mar-2011	SL-113-SA5A-SB-14.0-15MS	P228984R271631A	MS	METHOD	9012B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE102 Laboratory: LL

EDD Filename: DE102_v1. eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 Matrix: SO

Sample ID: DUP09-SA5A-QC-031111 Collected: 3/11/2011 8:58:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.2		0.97	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-112-SA5A-SB-14.0-15.0 Collected: 3/11/2011 12:16:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.3		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-112-SA5A-SB-8.5-9.5 Collected: 3/11/2011 12:06:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.6		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-113-SA5A-SB-14.0-15 Collected: 3/11/2011 3:39:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.6		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-113-SA5A-SB-9.0-10.0 Collected: 3/11/2011 3:29:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.8		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-114-SA5A-SB-4.0-5.0 Collected: 3/11/2011 8:34:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	6.6		1.0	MDL	1.3	PQL	mg/Kg	J	Q

Sample ID: SL-114-SA5A-SB-9.0-10.0 Collected: 3/11/2011 8:43:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.9		1.0	MDL	1.3	PQL	mg/Kg	J	Q

Sample ID: SL-227-SA5B-SB-2.5-3.5 Collected: 3/11/2011 2:10:00 Analysis Type: RES Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.6		0.91	MDL	1.1	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory:** LL

EDD Filename: DE102_v1. **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: DUP09-SA5A-QC-031111 ***Collected:*** 3/11/2011 8:58:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	18500		7.30	MDL	23.8	PQL	mg/Kg	J	FD
TIN	3.01	J	1.19	MDL	11.9	PQL	mg/Kg	U	B
Zirconium	5.35	J	1.00	MDL	5.96	PQL	mg/Kg	J	Z

Sample ID: SL-112-SA5A-SB-14.0-15.0 ***Collected:*** 3/11/2011 12:16:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.47	J	0.974	MDL	5.47	PQL	mg/Kg	J	Z
TIN	2.63	J	1.09	MDL	10.9	PQL	mg/Kg	U	B

Sample ID: SL-112-SA5A-SB-8.5-9.5 ***Collected:*** 3/11/2011 12:06:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.79	J	0.977	MDL	5.49	PQL	mg/Kg	J	Z
TIN	2.79	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.74	J	0.922	MDL	5.49	PQL	mg/Kg	J	Z

Sample ID: SL-113-SA5A-SB-14.0-15 ***Collected:*** 3/11/2011 3:39:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.77	J	0.942	MDL	5.29	PQL	mg/Kg	J	Z
TIN	2.09	J	1.06	MDL	10.6	PQL	mg/Kg	U	B

Sample ID: SL-113-SA5A-SB-9.0-10.0 ***Collected:*** 3/11/2011 3:29:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.17	J	0.993	MDL	5.58	PQL	mg/Kg	J	Z
TIN	2.57	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	0.941	J	0.938	MDL	5.58	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-114-SA5A-SB-4.0-5.0** ***Collected:*** **3/11/2011 8:34:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	35900		7.64	MDL	24.9	PQL	mg/Kg	J	FD
TIN	3.11	J	1.25	MDL	12.5	PQL	mg/Kg	U	B
Zirconium	5.57	J	1.05	MDL	6.23	PQL	mg/Kg	J	Z

Sample ID: **SL-114-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 8:43:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.95	J	1.23	MDL	12.3	PQL	mg/Kg	U	B
Zirconium	5.48	J	1.03	MDL	6.13	PQL	mg/Kg	J	Z

Sample ID: **SL-227-SA5B-SB-2.5-3.5** ***Collected:*** **3/11/2011 2:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.19	J	0.985	MDL	5.54	PQL	mg/Kg	J	Z
TIN	2.90	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	2.06	J	0.930	MDL	5.54	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **DUP09-SA5A-QC-031111** ***Collected:*** **3/11/2011 8:58:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.162	J	0.0481	MDL	0.481	PQL	mg/Kg	J	Z

Sample ID: **DUP09-SA5A-QC-031111** ***Collected:*** **3/11/2011 8:58:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	160		0.130	MDL	0.481	PQL	mg/Kg	J	E, A

Sample ID: **DUP09-SA5A-QC-031111** ***Collected:*** **3/11/2011 8:58:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.227	J	0.0722	MDL	0.241	PQL	mg/Kg	J	Z, Q
ARSENIC	8.98		0.0962	MDL	0.481	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **DUP09-SA5A-QC-031111** ***Collected:*** **3/11/2011 8:58:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.383		0.0481	MDL	0.120	PQL	mg/Kg	J	Q
COPPER	17.7		0.0794	MDL	0.481	PQL	mg/Kg	J	A
LEAD	13.2		0.0125	MDL	0.241	PQL	mg/Kg	J	Q, A
NICKEL	29.7		0.120	MDL	0.481	PQL	mg/Kg	J	Q, A
SILVER	0.0505	J	0.0144	MDL	0.120	PQL	mg/Kg	J	Z
THALLIUM	0.441		0.0361	MDL	0.120	PQL	mg/Kg	J	Q
ZINC	89.9		0.674	MDL	3.61	PQL	mg/Kg	J	A

Sample ID: **SL-112-SA5A-SB-14.0-15.0** ***Collected:*** **3/11/2011 12:16:00** ***Analysis Type:*** **REA** ***Dilution:*** **5**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	209		1.56	MDL	8.37	PQL	mg/Kg	J	A

Sample ID: **SL-112-SA5A-SB-14.0-15.0** ***Collected:*** **3/11/2011 12:16:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.119	J	0.0446	MDL	0.446	PQL	mg/Kg	J	Z

Sample ID: **SL-112-SA5A-SB-14.0-15.0** ***Collected:*** **3/11/2011 12:16:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	87.3		0.121	MDL	0.446	PQL	mg/Kg	J	E, A

Sample ID: **SL-112-SA5A-SB-14.0-15.0** ***Collected:*** **3/11/2011 12:16:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0670	U	0.0670	MDL	0.223	PQL	mg/Kg	UJ	Q
ARSENIC	3.88		0.0893	MDL	0.446	PQL	mg/Kg	J	E
CADMIUM	0.0949	J	0.0446	MDL	0.112	PQL	mg/Kg	J	Z, Q
COPPER	9.73		0.0737	MDL	0.446	PQL	mg/Kg	J	A
LEAD	4.25		0.0116	MDL	0.223	PQL	mg/Kg	J	Q, A
NICKEL	9.27		0.112	MDL	0.446	PQL	mg/Kg	J	Q, A
SILVER	0.0247	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z
THALLIUM	0.253		0.0335	MDL	0.112	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-112-SA5A-SB-8.5-9.5** ***Collected:*** **3/11/2011 12:06:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0998	J	0.0426	MDL	0.426	PQL	mg/Kg	J	Z

Sample ID: **SL-112-SA5A-SB-8.5-9.5** ***Collected:*** **3/11/2011 12:06:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	115		0.115	MDL	0.426	PQL	mg/Kg	J	E, A

Sample ID: **SL-112-SA5A-SB-8.5-9.5** ***Collected:*** **3/11/2011 12:06:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0640	U	0.0640	MDL	0.213	PQL	mg/Kg	UJ	Q
ARSENIC	4.94		0.0853	MDL	0.426	PQL	mg/Kg	J	E
CADMIUM	0.119		0.0426	MDL	0.107	PQL	mg/Kg	J	Q
COPPER	8.04		0.0704	MDL	0.426	PQL	mg/Kg	J	A
LEAD	5.56		0.0111	MDL	0.213	PQL	mg/Kg	J	Q, A
NICKEL	12.5		0.107	MDL	0.426	PQL	mg/Kg	J	Q, A
SILVER	0.0245	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z
THALLIUM	0.294		0.0320	MDL	0.107	PQL	mg/Kg	J	Q
ZINC	74.1		0.597	MDL	3.20	PQL	mg/Kg	J	A

Sample ID: **SL-113-SA5A-SB-14.0-15** ***Collected:*** **3/11/2011 3:39:00** ***Analysis Type:*** **REA** ***Dilution:*** **20**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	1100		5.93	MDL	31.8	PQL	mg/Kg	J	A

Sample ID: **SL-113-SA5A-SB-14.0-15** ***Collected:*** **3/11/2011 3:39:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	132		0.114	MDL	0.424	PQL	mg/Kg	J	E, A

Sample ID: **SL-113-SA5A-SB-14.0-15** ***Collected:*** **3/11/2011 3:39:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0635	U	0.0635	MDL	0.212	PQL	mg/Kg	UJ	Q
ARSENIC	3.22		0.0847	MDL	0.424	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-113-SA5A-SB-14.0-15** ***Collected:*** **3/11/2011 3:39:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.171		0.0424	MDL	0.106	PQL	mg/Kg	J	Q
COPPER	17.9		0.0699	MDL	0.424	PQL	mg/Kg	J	A
LEAD	3.63		0.0110	MDL	0.212	PQL	mg/Kg	J	Q, A
NICKEL	7.84		0.106	MDL	0.424	PQL	mg/Kg	J	Q, A
SILVER	0.0263	J	0.0127	MDL	0.106	PQL	mg/Kg	J	Z
THALLIUM	0.225		0.0318	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: **SL-113-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 3:29:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0866	J	0.0451	MDL	0.451	PQL	mg/Kg	J	Z

Sample ID: **SL-113-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 3:29:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	69.8		0.122	MDL	0.451	PQL	mg/Kg	J	E, A

Sample ID: **SL-113-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 3:29:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0676	U	0.0676	MDL	0.225	PQL	mg/Kg	UJ	Q
ARSENIC	4.09		0.0902	MDL	0.451	PQL	mg/Kg	J	E
CADMIUM	0.138		0.0451	MDL	0.113	PQL	mg/Kg	J	Q
COPPER	6.37		0.0744	MDL	0.451	PQL	mg/Kg	J	A
LEAD	4.50		0.0117	MDL	0.225	PQL	mg/Kg	J	Q, A
NICKEL	9.69		0.113	MDL	0.451	PQL	mg/Kg	J	Q, A
SILVER	0.0199	J	0.0135	MDL	0.113	PQL	mg/Kg	J	Z
THALLIUM	0.250		0.0338	MDL	0.113	PQL	mg/Kg	J	Q
ZINC	58.9		0.631	MDL	3.38	PQL	mg/Kg	J	A

Sample ID: **SL-114-SA5A-SB-4.0-5.0** ***Collected:*** **3/11/2011 8:34:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.162	J	0.0503	MDL	0.503	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-114-SA5A-SB-4.0-5.0** ***Collected:*** **3/11/2011 8:34:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	152		0.136	MDL	0.503	PQL	mg/Kg	J	E, A

Sample ID: **SL-114-SA5A-SB-4.0-5.0** ***Collected:*** **3/11/2011 8:34:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.290		0.0755	MDL	0.252	PQL	mg/Kg	J	Q
ARSENIC	9.31		0.101	MDL	0.503	PQL	mg/Kg	J	E
CADMIUM	0.445		0.0503	MDL	0.126	PQL	mg/Kg	J	Q
COPPER	17.7		0.0830	MDL	0.503	PQL	mg/Kg	J	A
LEAD	13.3		0.0131	MDL	0.252	PQL	mg/Kg	J	Q, A
NICKEL	27.7		0.126	MDL	0.503	PQL	mg/Kg	J	Q, A
SILVER	0.0781	J	0.0151	MDL	0.126	PQL	mg/Kg	J	Z
THALLIUM	0.419		0.0377	MDL	0.126	PQL	mg/Kg	J	Q
ZINC	82.1		0.704	MDL	3.77	PQL	mg/Kg	J	A

Sample ID: **SL-114-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 8:43:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.134	J	0.0495	MDL	0.495	PQL	mg/Kg	J	Z

Sample ID: **SL-114-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 8:43:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	122		0.134	MDL	0.495	PQL	mg/Kg	J	E, A

Sample ID: **SL-114-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 8:43:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.187	J	0.0743	MDL	0.248	PQL	mg/Kg	J	Z, Q
ARSENIC	7.53		0.0990	MDL	0.495	PQL	mg/Kg	J	E
CADMIUM	0.336		0.0495	MDL	0.124	PQL	mg/Kg	J	Q
COPPER	15.4		0.0817	MDL	0.495	PQL	mg/Kg	J	A
LEAD	11.3		0.0129	MDL	0.248	PQL	mg/Kg	J	Q, A
NICKEL	24.4		0.124	MDL	0.495	PQL	mg/Kg	J	Q, A
SILVER	0.0375	J	0.0149	MDL	0.124	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-114-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 8:43:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.310		0.0371	MDL	0.124	PQL	mg/Kg	J	Q
ZINC	69.5		0.693	MDL	3.71	PQL	mg/Kg	J	A

Sample ID: **SL-227-SA5B-SB-2.5-3.5** ***Collected:*** **3/11/2011 2:10:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.145	J	0.0447	MDL	0.447	PQL	mg/Kg	J	Z

Sample ID: **SL-227-SA5B-SB-2.5-3.5** ***Collected:*** **3/11/2011 2:10:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	140		0.121	MDL	0.447	PQL	mg/Kg	J	E, A

Sample ID: **SL-227-SA5B-SB-2.5-3.5** ***Collected:*** **3/11/2011 2:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0901	J	0.0671	MDL	0.224	PQL	mg/Kg	J	Z, Q
ARSENIC	7.07		0.0894	MDL	0.447	PQL	mg/Kg	J	E
CADMIUM	0.161		0.0447	MDL	0.112	PQL	mg/Kg	J	Q
COPPER	12.1		0.0738	MDL	0.447	PQL	mg/Kg	J	A
LEAD	17.7		0.0116	MDL	0.224	PQL	mg/Kg	J	Q, A
NICKEL	20.9		0.112	MDL	0.447	PQL	mg/Kg	J	Q, A
SILVER	0.0645	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z
THALLIUM	0.335		0.0335	MDL	0.112	PQL	mg/Kg	J	Q
ZINC	67.8		0.626	MDL	3.35	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: **DUP09-SA5A-QC-031111** ***Collected:*** **3/11/2011 8:58:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.29	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z, FD

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-112-SA5A-SB-8.5-9.5 *Collected:* 3/11/2011 12:06:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.23	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-114-SA5A-SB-4.0-5.0 *Collected:* 3/11/2011 8:34:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.26	U	0.26	MDL	1.3	PQL	mg/Kg	UJ	FD

Sample ID: SL-227-SA5B-SB-2.5-3.5 *Collected:* 3/11/2011 2:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.65	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: DUP09-SA5A-QC-031111 *Collected:* 3/11/2011 8:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0083	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z

Sample ID: SL-112-SA5A-SB-14.0-15.0 *Collected:* 3/11/2011 12:16:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0162	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z

Sample ID: SL-112-SA5A-SB-8.5-9.5 *Collected:* 3/11/2011 12:06:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0093	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-113-SA5A-SB-14.0-15 *Collected:* 3/11/2011 3:39:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0337	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: **SL-114-SA5A-SB-4.0-5.0** ***Collected:*** **3/11/2011 8:34:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0091	J	0.0036	MDL	0.125	PQL	mg/Kg	J	Z

Sample ID: **SL-114-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 8:43:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0079	J	0.0034	MDL	0.119	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: **SL-114-SA5A-SB-4.0-5.0** ***Collected:*** **3/11/2011 8:34:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **10**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	216	U	216	MDL	432	PQL	ng/Kg	UJ	Q

Sample ID: **SL-114-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 8:43:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **10**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	351	J	211	MDL	421	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: **DUP09-SA5A-QC-031111** ***Collected:*** **3/11/2011 8:58:00** ***Analysis Type:*** **REA2** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.48	U	0.48	MDL	1.4	PQL	mg/Kg	UJ	FD
EFH (C21-C30)	1.0	J	0.48	MDL	1.4	PQL	mg/Kg	J	Z, L, FD
EFH (C30-C40)	2.9		0.48	MDL	1.4	PQL	mg/Kg	J	L, FD

Sample ID: **SL-112-SA5A-SB-14.0-15.0** ***Collected:*** **3/11/2011 12:16:00** ***Analysis Type:*** **REA2** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	1.5		0.45	MDL	1.4	PQL	mg/Kg	J	L
EFH (C30-C40)	3.1		0.45	MDL	1.4	PQL	mg/Kg	J	L

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: **SL-113-SA5A-SB-14.0-15** ***Collected:*** **3/11/2011 3:39:00** ***Analysis Type:*** **REA2** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	1.2	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z, L
EFH (C30-C40)	5.3		0.44	MDL	1.3	PQL	mg/Kg	J	L

Sample ID: **SL-113-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 3:29:00** ***Analysis Type:*** **REA2** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	5.5		0.45	MDL	1.4	PQL	mg/Kg	J	L
EFH (C30-C40)	19		0.45	MDL	1.4	PQL	mg/Kg	J	L

Sample ID: **SL-114-SA5A-SB-4.0-5.0** ***Collected:*** **3/11/2011 8:34:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	6.5	U	6.5	MDL	16	PQL	mg/Kg	UJ	Q

Sample ID: **SL-114-SA5A-SB-4.0-5.0** ***Collected:*** **3/11/2011 8:34:00** ***Analysis Type:*** **REA2** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	2.0		0.52	MDL	1.6	PQL	mg/Kg	J	Q, L, FD
EFH (C21-C30)	7.3		0.52	MDL	1.6	PQL	mg/Kg	J	Q, L, FD
EFH (C30-C40)	29		0.52	MDL	1.6	PQL	mg/Kg	J	L, FD

Sample ID: **SL-114-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 8:43:00** ***Analysis Type:*** **REA2** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	1.5		0.51	MDL	1.5	PQL	mg/Kg	J	L
EFH (C30-C40)	3.7		0.51	MDL	1.5	PQL	mg/Kg	J	L

Sample ID: **SL-227-SA5B-SB-2.5-3.5** ***Collected:*** **3/11/2011 2:10:00** ***Analysis Type:*** **REA2** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	2.3		0.45	MDL	1.4	PQL	mg/Kg	J	L
EFH (C30-C40)	5.9		0.45	MDL	1.4	PQL	mg/Kg	J	L

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **DUP09-SA5A-QC-031111** ***Collected:*** **3/11/2011 8:58:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.2	U	1.2	MDL	4.0	PQL	ug/Kg	UJ	L
Aroclor 5442	1.2	U	1.2	MDL	4.0	PQL	ug/Kg	UJ	L
Aroclor 5460	1.2	U	1.2	MDL	4.0	PQL	ug/Kg	UJ	L

Sample ID: **SL-112-SA5A-SB-14.0-15.0** ***Collected:*** **3/11/2011 12:16:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L

Sample ID: **SL-112-SA5A-SB-8.5-9.5** ***Collected:*** **3/11/2011 12:06:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.59	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L

Sample ID: **SL-113-SA5A-SB-14.0-15** ***Collected:*** **3/11/2011 3:39:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.69	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	L

Sample ID: **SL-113-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 3:29:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.71	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	L
Aroclor 5460	1.4	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z, L

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **SL-114-SA5A-SB-4.0-5.0** ***Collected:*** **3/11/2011 8:34:00** ***Analysis Type:*** **RES** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.3	U	1.3	MDL	4.3	PQL	ug/Kg	UJ	L
Aroclor 5442	1.3	U	1.3	MDL	4.3	PQL	ug/Kg	UJ	L
Aroclor 5460	1.3	U	1.3	MDL	4.3	PQL	ug/Kg	UJ	L

Sample ID: **SL-114-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 8:43:00** ***Analysis Type:*** **RES** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.3	U	1.3	MDL	4.2	PQL	ug/Kg	UJ	L
Aroclor 5442	1.3	U	1.3	MDL	4.2	PQL	ug/Kg	UJ	L
Aroclor 5460	1.3	U	1.3	MDL	4.2	PQL	ug/Kg	UJ	L

Sample ID: **SL-227-SA5B-SB-2.5-3.5** ***Collected:*** **3/11/2011 2:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.45	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5432	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	L
Aroclor 5442	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	L
Aroclor 5460	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	L

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-112-SA5A-SB-8.5-9.5** ***Collected:*** **3/11/2011 12:06:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	25	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	20	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	25	J	18	MDL	180	PQL	ug/Kg	J	Z
CHRYSENE	24	J	18	MDL	180	PQL	ug/Kg	J	Z
FLUORANTHENE	20	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	28	J	18	MDL	180	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-114-SA5A-SB-4.0-5.0** ***Collected:*** **3/11/2011 8:34:00** ***Analysis Type:*** **RES-ACID** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-CHLORO-3-METHYLPHENOL	43	U	43	MDL	220	PQL	ug/Kg	UJ	Q

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: **SL-112-SA5A-SB-14.0-15.0** ***Collected:*** **3/11/2011 12:16:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.82	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
FLUORANTHENE	1.0	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.1	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.1	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-112-SA5A-SB-8.5-9.5** ***Collected:*** **3/11/2011 12:06:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIBENZO(A,H)ANTHRACENE	0.78	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.5	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	0.88	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-113-SA5A-SB-14.0-15** ***Collected:*** **3/11/2011 3:39:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	0.81	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-113-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 3:29:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.88	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	0.53	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-114-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 8:43:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.2	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-114-SA5A-SB-9.0-10.0 *Collected:* 3/11/2011 8:43:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	1.2	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.5	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z
CHRYSENE	1.5	J	0.42	MDL	2.1	PQL	ug/Kg	J	Z
FLUORANTHENE	1.3	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z
PYRENE	1.3	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z

Sample ID: SL-227-SA5B-SB-2.5-3.5 *Collected:* 3/11/2011 2:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.80	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.94	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	0.75	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.0	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8315A **Matrix: SO**

Sample ID: SL-112-SA5A-SB-14.0-15.0 *Collected:* 3/11/2011 12:16:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	730	J	680	MDL	1700	PQL	ug/Kg	J	Z

Sample ID: SL-113-SA5A-SB-14.0-15 *Collected:* 3/11/2011 3:39:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	840	J	650	MDL	1600	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8015B **Matrix: SO**

Sample ID: SL-114-SA5A-SB-4.0-5.0 *Collected:* 3/11/2011 8:34:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m-Terphenyl	1.9	U	1.9	MDL	4.5	PQL	mg/Kg	UJ	Q
p-Terphenyl	1.9	U	1.9	MDL	4.5	PQL	mg/Kg	UJ	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8015B **Matrix: SO**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: **DUP09-SA5A-QC-031111** ***Collected:*** **3/11/2011 8:58:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.85**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.78	J	0.25	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: **SL-112-SA5A-SB-14.0-15.0** ***Collected:*** **3/11/2011 12:16:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.95**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.72	J	0.26	MDL	4.3	PQL	ug/Kg	U	B

Sample ID: **SL-112-SA5A-SB-8.5-9.5** ***Collected:*** **3/11/2011 12:06:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.99**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.8	J	0.26	MDL	4.4	PQL	ug/Kg	U	B

Sample ID: **SL-113-SA5A-SB-14.0-15** ***Collected:*** **3/11/2011 3:39:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.84**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZENE	0.12	J	0.09	MDL	3.7	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	2.2	J	0.22	MDL	3.7	PQL	ug/Kg	U	B

Sample ID: **SL-113-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 3:29:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.9**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.3	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: **SL-114-SA5A-SB-4.0-5.0** ***Collected:*** **3/11/2011 8:34:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.94**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.0	J	0.29	MDL	4.9	PQL	ug/Kg	U	B

Sample ID: **SL-114-SA5A-SB-9.0-10.0** ***Collected:*** **3/11/2011 8:43:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.88**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.70	J	0.27	MDL	4.4	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: **SL-227-SA5B-SB-2.5-3.5** ***Collected:*** **3/11/2011 2:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.97**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
METHYLENE CHLORIDE	0.95	J	0.26	MDL	4.4	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE102

Method Blank Outlier Report

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P07508AB221918	3/17/2011 7:18:00 PM	CALCIUM PHOSPHORUS TIN	8.02 mg/Kg 1.34 mg/Kg 1.44 mg/Kg	DUP09-SA5A-QC-031111 SL-112-SA5A-SB-14.0-15.0 SL-112-SA5A-SB-8.5-9.5 SL-113-SA5A-SB-14.0-15 SL-113-SA5A-SB-9.0-10.0 SL-114-SA5A-SB-4.0-5.0 SL-114-SA5A-SB-9.0-10.0 SL-227-SA5B-SB-2.5-3.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP09-SA5A-QC-031111(RES)	TIN	3.01 mg/Kg	3.01U mg/Kg
SL-112-SA5A-SB-14.0-15.0(RES)	TIN	2.63 mg/Kg	2.63U mg/Kg
SL-112-SA5A-SB-8.5-9.5(RES)	TIN	2.79 mg/Kg	2.79U mg/Kg
SL-113-SA5A-SB-14.0-15(RES)	TIN	2.09 mg/Kg	2.09U mg/Kg
SL-113-SA5A-SB-9.0-10.0(RES)	TIN	2.57 mg/Kg	2.57U mg/Kg
SL-114-SA5A-SB-4.0-5.0(RES)	TIN	3.11 mg/Kg	3.11U mg/Kg
SL-114-SA5A-SB-9.0-10.0(RES)	TIN	2.95 mg/Kg	2.95U mg/Kg
SL-227-SA5B-SB-2.5-3.5(RES)	TIN	2.90 mg/Kg	2.90U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P07526AB222150A	3/18/2011 9:50:00 PM	LEAD ZINC	0.0105 mg/Kg 0.644 mg/Kg	DUP09-SA5A-QC-031111 SL-112-SA5A-SB-14.0-15.0 SL-112-SA5A-SB-8.5-9.5 SL-113-SA5A-SB-14.0-15 SL-113-SA5A-SB-9.0-10.0 SL-114-SA5A-SB-4.0-5.0 SL-114-SA5A-SB-9.0-10.0 SL-227-SA5B-SB-2.5-3.5

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P76760AB322112A	3/19/2011 9:12:00 PM	EFH (C21-C30) EFH (C30-C40) EFH (C8-C11)	0.48 mg/Kg 2.6 mg/Kg 0.47 mg/Kg	SL-112-SA5A-SB-8.5-9.5
P81813AB321805A	3/24/2011 6:05:00 PM	EFH (C30-C40)	0.54 mg/Kg	DUP09-SA5A-QC-031111 SL-112-SA5A-SB-14.0-15.0 SL-113-SA5A-SB-14.0-15 SL-113-SA5A-SB-9.0-10.0 SL-114-SA5A-SB-4.0-5.0 SL-114-SA5A-SB-9.0-10.0 SL-227-SA5B-SB-2.5-3.5

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB95B211312A	3/15/2011 1:12:00 PM	METHYLENE CHLORIDE TOLUENE	0.67 ug/Kg 0.11 ug/Kg	DUP09-SA5A-QC-031111 SL-112-SA5A-SB-14.0-15.0 SL-112-SA5A-SB-8.5-9.5 SL-113-SA5A-SB-14.0-15 SL-113-SA5A-SB-9.0-10.0 SL-114-SA5A-SB-4.0-5.0 SL-114-SA5A-SB-9.0-10.0 SL-227-SA5B-SB-2.5-3.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP09-SA5A-QC-031111(RES)	METHYLENE CHLORIDE	0.78 ug/Kg	4.1U ug/Kg
SL-112-SA5A-SB-14.0-15.0(RES)	METHYLENE CHLORIDE	0.72 ug/Kg	4.3U ug/Kg
SL-112-SA5A-SB-8.5-9.5(RES)	METHYLENE CHLORIDE	1.8 ug/Kg	4.4U ug/Kg
SL-113-SA5A-SB-14.0-15(RES)	METHYLENE CHLORIDE	2.2 ug/Kg	3.7U ug/Kg
SL-113-SA5A-SB-9.0-10.0(RES)	METHYLENE CHLORIDE	1.3 ug/Kg	4.0U ug/Kg
SL-114-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.0 ug/Kg	4.9U ug/Kg
SL-114-SA5A-SB-9.0-10.0(RES)	METHYLENE CHLORIDE	0.70 ug/Kg	4.4U ug/Kg
SL-227-SA5B-SB-2.5-3.5(RES)	METHYLENE CHLORIDE	0.95 ug/Kg	4.4U ug/Kg

Method: 8270C SIM
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLK07B260657	3/24/2011 6:57:00 AM	Di-n-butylphthalate Di-n-octylphthalate	11 ug/Kg 11 ug/Kg	DUP09-SA5A-QC-031111 SL-112-SA5A-SB-14.0-15.0 SL-112-SA5A-SB-8.5-9.5 SL-113-SA5A-SB-14.0-15 SL-113-SA5A-SB-9.0-10.0 SL-114-SA5A-SB-4.0-5.0 SL-114-SA5A-SB-9.0-10.0 SL-227-SA5B-SB-2.5-3.5

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-114-SA5A-SB-4.0-5.0MS	CADMIUM	128	-	75.00-125.00	-	CADMIUM	
(DUP09-SA5A-QC-031111	LEAD	162	-	75.00-125.00	-	LEAD	
SL-112-SA5A-SB-14.0-15.0	NICKEL	160	-	75.00-125.00	-	NICKEL	
SL-112-SA5A-SB-8.5-9.5	THALLIUM	128	-	75.00-125.00	-	THALLIUM	
SL-113-SA5A-SB-14.0-15							J (all detects)
SL-113-SA5A-SB-9.0-10.0							
SL-114-SA5A-SB-4.0-5.0							
SL-114-SA5A-SB-9.0-10.0							
SL-227-SA5B-SB-2.5-3.5)							
SL-114-SA5A-SB-4.0-5.0MS	ANTIMONY	50	45	75.00-125.00	-	ANTIMONY	
SL-114-SA5A-SB-4.0-5.0MSD	ZINC	66	69	75.00-125.00	-	ZINC	
(DUP09-SA5A-QC-031111							
SL-112-SA5A-SB-14.0-15.0							
SL-112-SA5A-SB-8.5-9.5							J(all detects)
SL-113-SA5A-SB-14.0-15							UJ(all non-detects)
SL-113-SA5A-SB-9.0-10.0							
SL-114-SA5A-SB-4.0-5.0							Zn No Qual, >4x
SL-114-SA5A-SB-9.0-10.0							
SL-227-SA5B-SB-2.5-3.5)							
SL-114-SA5A-SB-4.0-5.0MS	BARIUM	134	-	75.00-125.00	-	BARIUM	
(DUP09-SA5A-QC-031111							
SL-112-SA5A-SB-14.0-15.0							
SL-112-SA5A-SB-8.5-9.5							
SL-113-SA5A-SB-14.0-15							No Qual, >4x
SL-113-SA5A-SB-9.0-10.0							
SL-114-SA5A-SB-4.0-5.0							
SL-114-SA5A-SB-9.0-10.0							
SL-227-SA5B-SB-2.5-3.5)							

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-114-SA5A-SB-4.0-5.0MS	ALUMINUM	1171	414	75.00-125.00	-	ALUMINUM	
SL-114-SA5A-SB-4.0-5.0MSD	CALCIUM	6342	7873	75.00-125.00	-	CALCIUM	
(DUP09-SA5A-QC-031111	TITANIUM	163	138	75.00-125.00	-	TITANIUM	
SL-112-SA5A-SB-14.0-15.0							
SL-112-SA5A-SB-8.5-9.5							
SL-113-SA5A-SB-14.0-15							No Qual, >4x
SL-113-SA5A-SB-9.0-10.0							
SL-114-SA5A-SB-4.0-5.0							
SL-114-SA5A-SB-9.0-10.0							
SL-227-SA5B-SB-2.5-3.5)							
SL-114-SA5A-SB-4.0-5.0MS	IRON	-650	-2631	75.00-125.00	-	IRON	
SL-114-SA5A-SB-4.0-5.0MSD	MAGNESIUM	-50	-194	75.00-125.00	-	MAGNESIUM	
(DUP09-SA5A-QC-031111	MANGANESE	-167	-131	75.00-125.00	-	MANGANESE	
SL-112-SA5A-SB-14.0-15.0							
SL-112-SA5A-SB-8.5-9.5							No Qual, >4x
SL-113-SA5A-SB-14.0-15							
SL-113-SA5A-SB-9.0-10.0							
SL-114-SA5A-SB-4.0-5.0							
SL-114-SA5A-SB-9.0-10.0							
SL-227-SA5B-SB-2.5-3.5)							

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-114-SA5A-SB-4.0-5.0MS (DUP09-SA5A-QC-031111 SL-112-SA5A-SB-14.0-15.0 SL-112-SA5A-SB-8.5-9.5 SL-113-SA5A-SB-14.0-15 SL-113-SA5A-SB-9.0-10.0 SL-114-SA5A-SB-4.0-5.0 SL-114-SA5A-SB-9.0-10.0 SL-227-SA5B-SB-2.5-3.5)	FLUORIDE	72	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Method: 1625C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-114-SA5A-SB-4.0-5.0MS **SL-114-SA5A-SB-4.0-5.0MSD** (SL-114-SA5A-SB-4.0-5.0)	N-NITROSODIMETHYLAMINE	68	67	70.00-130.00	-	N-NITROSODIMETHYLAMINE	J(all detects) UJ(all non-detects)

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-114-SA5A-SB-4.0-5.0MS **SL-114-SA5A-SB-4.0-5.0MSD** (SL-114-SA5A-SB-4.0-5.0)	Di-n-butylphthalate	77	73	78.00-160.00	-	Di-n-butylphthalate	J(all detects) UJ(all non-detects)

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-114-SA5A-SB-4.0-5.0MS (SL-114-SA5A-SB-4.0-5.0)	4-CHLORO-3-METHYLPHENOL	75	-	76.00-110.00	-	4-CHLORO-3-METHYLPHENOL	J(all detects) UJ(all non-detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-114-SA5A-SB-4.0-5.0MS **SL-114-SA5A-SB-4.0-5.0MSD** (SL-114-SA5A-SB-4.0-5.0)	DIETHYLENE GLYCOL	54	-	59.00-109.00	21 (20.00)	DIETHYLENE GLYCOL	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8330A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-114-SA5A-SB-4.0-5.0MS (SL-114-SA5A-SB-4.0-5.0)	1,3,5-TRINITROBENZENE	137	-	82.00-126.00	-	1,3,5-TRINITROBENZENE	J(all detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-114-SA5A-SB-4.0-5.0MSD (SL-114-SA5A-SB-4.0-5.0)	EFH (C21-C30) EFH (C30-C40)	- -	179 -	49.00-123.00 49.00-123.00	51 (20.00) 45 (20.00)	EFH (C21-C30) EFH (C30-C40)	No Qual Analysis not reported

Method: 8015B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-114-SA5A-SB-4.0-5.0MS **SL-114-SA5A-SB-4.0-5.0MSD** (SL-114-SA5A-SB-4.0-5.0)	m-Terphenyl p-Terphenyl	72 71	- 74	75.00-125.00 75.00-125.00	- -	m-Terphenyl p-Terphenyl	J(all detects) UJ(all non-detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-114-SA5A-SB-4.0-5.0MS **SL-114-SA5A-SB-4.0-5.0MSD** (SL-114-SA5A-SB-4.0-5.0)	EFH (C21-C30) EFH (C30-C40)	-28 -485	-37 -518	49.00-123.00 49.00-123.00	- -	EFH (C21-C30) EFH (C30-C40)	J(all detects) R(all non-detects) EFH (C30-40) No Qual, >4x
SL-114-SA5A-SB-4.0-5.0MS **SL-114-SA5A-SB-4.0-5.0MSD** (SL-114-SA5A-SB-4.0-5.0)	EFH (C15-C20)	8	15	49.00-123.00	-	EFH (C15-C20)	J(all detects) UJ(all non-detects)

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-114-SA5A-SB-4.0-5.0MSD (SL-114-SA5A-SB-4.0-5.0)	BROMOMETHANE CHLOROETHANE N-PROPYLBENZENE	- - -	- - -	42.00-168.00 39.00-152.00 39.00-157.00	32 (30.00) 32 (30.00) 32 (30.00)	BROMOMETHANE CHLOROETHANE N-PROPYLBENZENE	J(all detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-114-SA5A-SB-4.0-5.0DUP	ANTIMONY	36	20.00	
(DUP09-SA5A-QC-031111	ARSENIC	23	20.00	J (all detects)
SL -112-SA5A-SB-14.0-15.0	BARIUM	23	20.00	UJ (all non-detects)
SL -112-SA5A-SB-8.5-9.5	CADMIUM	49	20.00	
SL -113-SA5A-SB-14.0-15	SELENIUM	62	20.00	Sb, Cd, Se, Ag, Tl
SL -113-SA5A-SB-9.0-10.0	SILVER	25	20.00	No Qual
SL -114-SA5A-SB-4.0-5.0	THALLIUM	25	20.00	OK by difference
SL -114-SA5A-SB-9.0-10.0				
SL -227-SA5B-SB-2.5-3.5)				

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-114-SA5A-SB-4.0-5.0DUP	MERCURY	43	20.00	
(DUP09-SA5A-QC-031111				
SL -112-SA5A-SB-14.0-15.0				
SL -112-SA5A-SB-8.5-9.5				No Qual
SL -113-SA5A-SB-14.0-15				OK by difference
SL -113-SA5A-SB-9.0-10.0				
SL -114-SA5A-SB-4.0-5.0				
SL -114-SA5A-SB-9.0-10.0				
SL -227-SA5B-SB-2.5-3.5)				

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10754AY240521A (DUP09-SA5A-QC-031111 SL-112-SA5A-SB-14.0-15.0 SL-112-SA5A-SB-8.5-9.5 SL-113-SA5A-SB-14.0-15 SL-113-SA5A-SB-9.0-10.0 SL-114-SA5A-SB-4.0-5.0 SL-114-SA5A-SB-9.0-10.0 SL-227-SA5B-SB-2.5-3.5)	Aroclor 5442	-	74	75.00-125.00	-	Aroclor 5432, 5442, 5460	J (all detects) UJ (all non-detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10813AQ321831A (DUP09-SA5A-QC-031111 SL-112-SA5A-SB-14.0-15.0 SL-113-SA5A-SB-14.0-15 SL-113-SA5A-SB-9.0-10.0 SL-114-SA5A-SB-4.0-5.0 SL-114-SA5A-SB-9.0-10.0 SL-227-SA5B-SB-2.5-3.5)	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	118 121 126 116	- - - -	66.00-113.00 66.00-113.00 66.00-113.00 66.00-113.00	- - - -	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	J(all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-114-SA5A-SB-4.0-5.0	DUP09-SA5A-QC-031111			
MOISTURE	22.8	17.7	25		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-114-SA5A-SB-4.0-5.0	DUP09-SA5A-QC-031111			
FLUORIDE	6.6	5.2	24	50.00	No Qualifiers Applied
Nitrate-NO3	2.2	2.0	10	50.00	

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-114-SA5A-SB-4.0-5.0	DUP09-SA5A-QC-031111			
ALUMINUM	37200	35100	6	50.00	
BORON	13.8	12.4	11	50.00	
IRON	34200	34500	1	50.00	
LITHIUM	33.0	29.6	11	50.00	
MAGNESIUM	8320	8330	0	50.00	
MANGANESE	454	388	16	50.00	
PHOSPHORUS	246	313	24	50.00	No Qualifiers Applied
POTASSIUM	3430	3920	13	50.00	
SODIUM	284	211	29	50.00	
STRONTIUM	67.4	56.2	18	50.00	
TIN	3.11	3.01	3	50.00	
TITANIUM	1570	1530	3	50.00	
Zirconium	5.57	5.35	4	50.00	
CALCIUM	35900	18500	64	50.00	J(all detects)

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-114-SA5A-SB-4.0-5.0	DUP09-SA5A-QC-031111			
ANTIMONY	0.290	0.227	24	50.00	
ARSENIC	9.31	8.98	4	50.00	
BARIUM	152	160	5	50.00	
BERYLLIUM	1.14	1.08	5	50.00	
CADMIUM	0.445	0.383	15	50.00	
CHROMIUM	44.3	39.2	12	50.00	
COBALT	10.3	12.3	18	50.00	
COPPER	17.7	17.7	0	50.00	No Qualifiers Applied
LEAD	13.3	13.2	1	50.00	
MOLYBDENUM	0.350	0.458	27	50.00	
NICKEL	27.7	29.7	7	50.00	
SELENIUM	0.162	0.162	0	50.00	
SILVER	0.0781	0.0505	43	50.00	
THALLIUM	0.419	0.441	5	50.00	
VANADIUM	82.1	75.8	8	50.00	
ZINC	82.1	89.9	9	50.00	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-114-SA5A-SB-4.0-5.0	DUP09-SA5A-QC-031111			
HEXAVALENT CHROMIUM	1.3 U	0.29	200	50.00	J(all detects) UJ(all non-detects)

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-114-SA5A-SB-4.0-5.0	DUP09-SA5A-QC-031111			
MERCURY	0.0091	0.0083	9	50.00	No Qualifiers Applied

Method: 8015M
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-114-SA5A-SB-4.0-5.0	DUP09-SA5A-QC-031111			
EFH (C15-C20)	2.0	1.4 U	200	50.00	J(all detects) UJ(all non-detects)
EFH (C21-C30)	7.3	1.0	152	50.00	
EFH (C30-C40)	29	2.9	164	50.00	

Method: 8260B
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-114-SA5A-SB-4.0-5.0	DUP09-SA5A-QC-031111			
METHYLENE CHLORIDE	1.0	0.78	25	50.00	No Qualifiers Applied

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-114-SA5A-SB-4.0-5.0	DUP09-SA5A-QC-031111			
PH	8.06	11.5	35	50.00	No Qualifiers Applied

Method: ASTM D1498
Matrix: SO

Analyte	Concentration (mV)		Sample RPD	eQAPP RPD	Flag
	SL-114-SA5A-SB-4.0-5.0	DUP09-SA5A-QC-031111			
Oxidation Reduction Potential	328	388	17		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-114-SA5A-SB-9.0-10.0	N-NITROSODIMETHYLAMINE	J	351	421	PQL	ng/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5A-QC-031111	TIN	J	3.01	11.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	5.35	5.96	PQL	mg/Kg	
SL-112-SA5A-SB-14.0-15.0	BORON	J	4.47	5.47	PQL	mg/Kg	J (all detects)
	TIN	J	2.63	10.9	PQL	mg/Kg	
SL-112-SA5A-SB-8.5-9.5	BORON	J	4.79	5.49	PQL	mg/Kg	J (all detects)
	TIN	J	2.79	11.0	PQL	mg/Kg	
	Zirconium	J	1.74	5.49	PQL	mg/Kg	
SL-113-SA5A-SB-14.0-15	BORON	J	2.77	5.29	PQL	mg/Kg	J (all detects)
	TIN	J	2.09	10.6	PQL	mg/Kg	
SL-113-SA5A-SB-9.0-10.0	BORON	J	4.17	5.58	PQL	mg/Kg	J (all detects)
	TIN	J	2.57	11.2	PQL	mg/Kg	
	Zirconium	J	0.941	5.58	PQL	mg/Kg	
SL-114-SA5A-SB-4.0-5.0	TIN	J	3.11	12.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	5.57	6.23	PQL	mg/Kg	
SL-114-SA5A-SB-9.0-10.0	TIN	J	2.95	12.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	5.48	6.13	PQL	mg/Kg	
SL-227-SA5B-SB-2.5-3.5	BORON	J	5.19	5.54	PQL	mg/Kg	J (all detects)
	TIN	J	2.90	11.1	PQL	mg/Kg	
	Zirconium	J	2.06	5.54	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5A-QC-031111	ANTIMONY	J	0.227	0.241	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.162	0.481	PQL	mg/Kg	
	SILVER	J	0.0505	0.120	PQL	mg/Kg	
SL-112-SA5A-SB-14.0-15.0	CADMIUM	J	0.0949	0.112	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.119	0.446	PQL	mg/Kg	
	SILVER	J	0.0247	0.112	PQL	mg/Kg	
SL-112-SA5A-SB-8.5-9.5	SELENIUM	J	0.0998	0.426	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0245	0.107	PQL	mg/Kg	
SL-113-SA5A-SB-14.0-15	SILVER	J	0.0263	0.106	PQL	mg/Kg	J (all detects)
SL-113-SA5A-SB-9.0-10.0	SELENIUM	J	0.0866	0.451	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0199	0.113	PQL	mg/Kg	
SL-114-SA5A-SB-4.0-5.0	SELENIUM	J	0.162	0.503	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0781	0.126	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-114-SA5A-SB-9.0-10.0	ANTIMONY	J	0.187	0.248	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.134	0.495	PQL	mg/Kg	
	SILVER	J	0.0375	0.124	PQL	mg/Kg	
SL-227-SA5B-SB-2.5-3.5	ANTIMONY	J	0.0901	0.224	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.145	0.447	PQL	mg/Kg	
	SILVER	J	0.0645	0.112	PQL	mg/Kg	

Method: 7199
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5A-QC-031111	HEXAVALENT CHROMIUM	J	0.29	1.2	PQL	mg/Kg	J (all detects)
SL-112-SA5A-SB-8.5-9.5	HEXAVALENT CHROMIUM	J	0.23	1.1	PQL	mg/Kg	J (all detects)
SL-227-SA5B-SB-2.5-3.5	HEXAVALENT CHROMIUM	J	0.65	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5A-QC-031111	MERCURY	J	0.0083	0.115	PQL	mg/Kg	J (all detects)
SL-112-SA5A-SB-14.0-15.0	MERCURY	J	0.0162	0.106	PQL	mg/Kg	J (all detects)
SL-112-SA5A-SB-8.5-9.5	MERCURY	J	0.0093	0.107	PQL	mg/Kg	J (all detects)
SL-113-SA5A-SB-14.0-15	MERCURY	J	0.0337	0.105	PQL	mg/Kg	J (all detects)
SL-114-SA5A-SB-4.0-5.0	MERCURY	J	0.0091	0.125	PQL	mg/Kg	J (all detects)
SL-114-SA5A-SB-9.0-10.0	MERCURY	J	0.0079	0.119	PQL	mg/Kg	J (all detects)

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5A-QC-031111	EFH (C21-C30)	J	1.0	1.4	PQL	mg/Kg	J (all detects)
SL-113-SA5A-SB-14.0-15	EFH (C21-C30)	J	1.2	1.3	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-112-SA5A-SB-8.5-9.5	AROCLOR 1260	J	0.59	1.9	PQL	ug/Kg	J (all detects)
SL-113-SA5A-SB-14.0-15	AROCLOR 1260	J	0.69	1.9	PQL	ug/Kg	J (all detects)
SL-113-SA5A-SB-9.0-10.0	AROCLOR 1260 Aroclor 5460	J J	0.71 1.4	1.9 3.7	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-227-SA5B-SB-2.5-3.5	AROCLOR 1260	J	0.45	1.9	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5A-QC-031111	METHYLENE CHLORIDE	J	0.78	4.1	PQL	ug/Kg	J (all detects)
SL-112-SA5A-SB-14.0-15.0	METHYLENE CHLORIDE	J	0.72	4.3	PQL	ug/Kg	J (all detects)
SL-112-SA5A-SB-8.5-9.5	METHYLENE CHLORIDE	J	1.8	4.4	PQL	ug/Kg	J (all detects)
SL-113-SA5A-SB-14.0-15	BENZENE METHYLENE CHLORIDE	J J	0.12 2.2	3.7 3.7	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-113-SA5A-SB-9.0-10.0	METHYLENE CHLORIDE	J	1.3	4.0	PQL	ug/Kg	J (all detects)
SL-114-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.0	4.9	PQL	ug/Kg	J (all detects)
SL-114-SA5A-SB-9.0-10.0	METHYLENE CHLORIDE	J	0.70	4.4	PQL	ug/Kg	J (all detects)
SL-227-SA5B-SB-2.5-3.5	METHYLENE CHLORIDE	J	0.95	4.4	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-112-SA5A-SB-8.5-9.5	BENZO(A)ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE CHRYSENE FLUORANTHENE PYRENE	J J J J J J	25 20 25 24 20 28	180 180 180 180 180 180	PQL PQL PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-112-SA5A-SB-14.0-15.0	CHRYSENE FLUORANTHENE PHENANTHRENE PYRENE	J J J J	0.82 1.0 1.1 1.1	1.9 1.9 1.9 1.9	PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE102 **Laboratory: LL**

EDD Filename: DE102_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-112-SA5A-SB-8.5-9.5	DIBENZO(A,H)ANTHRACENE	J	0.78	1.8	PQL	ug/Kg	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	1.5	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	0.88	1.8	PQL	ug/Kg	
SL-113-SA5A-SB-14.0-15	NAPHTHALENE	J	0.81	1.8	PQL	ug/Kg	J (all detects)
SL-113-SA5A-SB-9.0-10.0	BENZO(B)FLUORANTHENE	J	0.88	1.9	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.53	1.9	PQL	ug/Kg	
SL-114-SA5A-SB-9.0-10.0	BENZO(A)ANTHRACENE	J	1.2	2.1	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.2	2.1	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.5	2.1	PQL	ug/Kg	
	CHRYSENE	J	1.5	2.1	PQL	ug/Kg	
	FLUORANTHENE	J	1.3	2.1	PQL	ug/Kg	
	PYRENE	J	1.3	2.1	PQL	ug/Kg	
SL-227-SA5B-SB-2.5-3.5	BENZO(B)FLUORANTHENE	J	0.80	1.9	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	0.94	1.9	PQL	ug/Kg	
	CHRYSENE	J	0.75	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.0	1.9	PQL	ug/Kg	

Method: 8315A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-112-SA5A-SB-14.0-15.0	FORMALDEHYDE	J	730	1700	PQL	ug/Kg	J (all detects)
SL-113-SA5A-SB-14.0-15	FORMALDEHYDE	J	840	1600	PQL	ug/Kg	J (all detects)

LDC #: 25786A4 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/8/11
SDG #: DE102 ADR Page: 1 of
Laboratory: Lancaster Laboratories Reviewer:
2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	ICB/CCB hits - No qual
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ba, Ca, Fe, Mg, Mn, Ti, V, Zn > 4X)
VII.	Duplicate Sample Analysis	N	Dup (Sb, Cd, Hg, Se, Ag, Tl
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	J/UJ/A
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: SO, 1

1	DUP09-SA5A-QC-031111	11	SL-114-SA5A-SB-4.0-5.0DUP	21		31	
2	SL-112-SA5A-SB-8.5-9.5	12		22		32	
3	SL-112-SA5A-SB-14.0-15.0	13		23		33	
4	SL-114-SA5A-SB-4.0-5.0	14		24		34	
5	SL-114-SA5A-SB-9.0-10.0	15		25		35	
6	SL-113-SA5A-SB-9.0-10.0	16		26		36	
7	SL-113-SA5A-SB-14.0-15.0	17		27		37	
8	SL-227-SA5B-SB-2.5-3.5	18		28		38	
9	SL-114-SA5A-SB-4.0-5.0MS	19		29		39	
10	SL-114-SA5A-SB-4.0-5.0MSD	20		30		40	

Notes:

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE102
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6228978BKG Serial Dilution Lab Sample ID: 6228978L
Batch ID(s): P07508A, P07526A
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		298373.3200		306656.1500		3		P
Antimony	121	1.1530		1.5000	U	100		MS
Arsenic	75	37.0100		31.2250		16		MS
Barium	137	603.6000		522.0000		14	E	MS
Beryllium	9	4.5460		4.4185		3		MS
Boron		111.0400		132.9500	B	20		P
Cadmium	111	1.7710		1.2755	B	28		MS
Calcium		288486.7800		302765.0000		5		P
Chromium	52	176.3000		173.1000		2		MS
Cobalt	59	41.0300		42.3250		3		MS
Copper	63	70.2900		89.6000		27	E	MS
Iron		54857.5200		54285.6000		1		P
Lead	208	52.8500		44.9200		15	E	MS
Lithium		265.1900		273.5000		3		P
Magnesium		66823.9800		69099.1000		3		P
Manganese		3642.4700		3984.8000		9		P
Molybdenum	98	1.3910		1.3655	B	2		MS
Nickel	60	110.0000		91.4000		17	E	MS
Phosphorus		1977.2600		2040.8000		3		P
Potassium		27559.8600		28020.2500		2		P
Selenium	78	0.6422	B	1.0000	U	100		MS
Silver	107	0.3107	B	0.3684	B	19		MS
Sodium		2279.0800		2325.1000	B	2		P
Strontium		541.0100		571.3500		6		P
Thallium	203	1.6660		1.5315	B	8		MS
Tin		24.9400	B	50.0000	U	100		P
Titanium		12580.4600		13738.4000		9		P
Vanadium	51	326.6000		319.0500		2		MS
Zinc	66	326.4000		261.0500		20	E	MS
Zirconium		44.7000	B	61.3500	B	37		P

NOTE: An E in column Q indicates the presence of a chemical or physical interference in the matrix when the % difference is greater than 10%. This applies only when (I) is greater than or equal to 50x MDL for ICP, 100x MDL for ICP-MS (6020), 50x MDL for ICP-MS (200.8), or 25x MDL for GFAA.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ

FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

SAMPLE DELIVERY GROUP

DE103

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
10-Mar-2011	TB-031011	6229294	TB	5030B	8015M	IV
10-Mar-2011	TB-031011	6229294	TB	5030B	8260B	IV
10-Mar-2011	TB-031011	6229294	TB	5030B	8260B SIM	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	3050B	6010B	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	3050B	6020	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	3060A	7199	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	3546	1625C	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	3550B	8015B	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	3550B	8015M	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	3550B	8082	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	3550B	8270C	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	3550B	8270C SIM	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	5035	8015M	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	5035	8260B	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	5035	8260B SIM	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	8330	8330A	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	Gen Prep	9045M	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	METHOD	300.0	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	METHOD	314.0	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	METHOD	7471A	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	METHOD	8015B	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	METHOD	8015M	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	METHOD	8315A	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5	6229290	N	METHOD	9012B	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5DUP	P229290D271047B	DUP	METHOD	300.0	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5MSD	P229290M240823A	MSD	METHOD	8315A	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5MSD	P229290M321702A	MSD	3550B	8015M	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5MS	P229290R240813A	MS	METHOD	8315A	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5MS	P229290R271133B	MS	METHOD	300.0	IV
10-Mar-2011	SL-115-SA5A-SB-6.5-7.5MS	P229290R321636A	MS	3550B	8015M	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	3050B	6010B	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	3050B	6020	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	3060A	7199	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	3546	1625C	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	3550B	8015B	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	3550B	8015M	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	3550B	8082	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	3550B	8270C	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	3550B	8270C SIM	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	5035	8015M	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	5035	8260B	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	5035	8260B SIM	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	8330	8330A	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	Gen Prep	9045M	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	METHOD	300.0	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	METHOD	314.0	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	METHOD	7471A	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	METHOD	8015B	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	METHOD	8015M	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	METHOD	8315A	IV
10-Mar-2011	SL-115-SA5A-SB-13.0-14.0	6229291	N	METHOD	9012B	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	3050B	6010B	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	3050B	6020	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	3060A	7199	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	3546	1625C	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	3550B	8015B	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	3550B	8015M	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	3550B	8082	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	3550B	8270C	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	3550B	8270C SIM	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	5035	8015M	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	5035	8260B	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	5035	8260B SIM	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	8330	8330A	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	Gen Prep	9045M	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	METHOD	300.0	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	METHOD	314.0	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	METHOD	6850	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	METHOD	7471A	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	METHOD	8015B	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	METHOD	8015M	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	METHOD	8315A	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0	6229292	N	METHOD	9012B	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0MSD	P229292M241615A	MSD	METHOD	6850	IV
10-Mar-2011	SL-116-SA5A-SB-6.0-7.0MS	P229292R241609A	MS	METHOD	6850	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	3050B	6010B	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	3050B	6020	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	3060A	7199	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	3546	1625C	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	3550B	8015B	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	3550B	8015M	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	3550B	8082	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	3550B	8270C	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	3550B	8270C SIM	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	5035	8015M	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	5035	8260B	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	5035	8260B SIM	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	8330	8330A	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	Gen Prep	9045M	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	METHOD	300.0	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	METHOD	314.0	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	METHOD	7471A	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	METHOD	8015B	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	METHOD	8015M	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	METHOD	8315A	IV
10-Mar-2011	SL-116-SA5A-SB-14.0-15.0	6229293	N	METHOD	9012B	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE103 **Laboratory:** LL

EDD Filename: DE103_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-115-SA5A-SB-13.0-14.0 **Collected:** 3/10/2011 10:44:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.61	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.90	J	0.919	MDL	5.47	PQL	mg/Kg	J	Z

Sample ID: SL-115-SA5A-SB-6.5-7.5 **Collected:** 3/10/2011 10:22:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.91	J	0.955	MDL	5.36	PQL	mg/Kg	J	Z
TIN	2.65	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	1.91	J	0.901	MDL	5.36	PQL	mg/Kg	J	Z

Sample ID: SL-116-SA5A-SB-14.0-15.0 **Collected:** 3/10/2011 2:10:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.42	J	1.01	MDL	5.66	PQL	mg/Kg	J	Z
TIN	2.60	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	2.04	J	0.950	MDL	5.66	PQL	mg/Kg	J	Z

Sample ID: SL-116-SA5A-SB-6.0-7.0 **Collected:** 3/10/2011 1:57:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.27	J	0.975	MDL	5.48	PQL	mg/Kg	J	Z
TIN	2.71	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.26	J	0.920	MDL	5.48	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-115-SA5A-SB-13.0-14.0 **Collected:** 3/10/2011 10:44:00 **Analysis Type:** REA **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0828	J	0.0433	MDL	0.433	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE103 **Laboratory: LL**

EDD Filename: DE103_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-115-SA5A-SB-13.0-14.0 *Collected:* 3/10/2011 10:44:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0758	J	0.0650	MDL	0.217	PQL	mg/Kg	J	Z
SILVER	0.0221	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-115-SA5A-SB-6.5-7.5 *Collected:* 3/10/2011 10:22:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.105	J	0.0425	MDL	0.425	PQL	mg/Kg	J	Z

Sample ID: SL-115-SA5A-SB-6.5-7.5 *Collected:* 3/10/2011 10:22:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0273	J	0.0127	MDL	0.106	PQL	mg/Kg	J	Z

Sample ID: SL-116-SA5A-SB-14.0-15.0 *Collected:* 3/10/2011 2:10:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.119	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

Sample ID: SL-116-SA5A-SB-14.0-15.0 *Collected:* 3/10/2011 2:10:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.113	J	0.0666	MDL	0.222	PQL	mg/Kg	J	Z
SILVER	0.0524	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-116-SA5A-SB-6.0-7.0 *Collected:* 3/10/2011 1:57:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.117	J	0.0434	MDL	0.434	PQL	mg/Kg	J	Z

Sample ID: SL-116-SA5A-SB-6.0-7.0 *Collected:* 3/10/2011 1:57:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0949	J	0.0651	MDL	0.217	PQL	mg/Kg	J	Z
CADMIUM	0.0956	J	0.0434	MDL	0.108	PQL	mg/Kg	J	Z
SILVER	0.0250	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE103 **Laboratory:** LL

EDD Filename: DE103_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS **Method:** 7199 **Matrix:** SO

Sample ID: SL-116-SA5A-SB-14.0-15.0 *Collected:* 3/10/2011 2:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.26	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS **Method:** 7471A **Matrix:** SO

Sample ID: SL-115-SA5A-SB-13.0-14.0 *Collected:* 3/10/2011 10:44:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0109	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-115-SA5A-SB-6.5-7.5 *Collected:* 3/10/2011 10:22:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0074	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z

Sample ID: SL-116-SA5A-SB-14.0-15.0 *Collected:* 3/10/2011 2:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0412	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

Method Category: SVOA **Method:** 8015M **Matrix:** SO

Sample ID: SL-115-SA5A-SB-13.0-14.0 *Collected:* 3/10/2011 10:44:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.6	U	5.6	MDL	14	PQL	mg/Kg	UJ	C
ETHYLENE GLYCOL	5.6	U	5.6	MDL	14	PQL	mg/Kg	UJ	C
Propylene glycol	5.6	U	5.6	MDL	14	PQL	mg/Kg	UJ	C

Sample ID: SL-115-SA5A-SB-6.5-7.5 *Collected:* 3/10/2011 10:22:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	8.8	U	8.8	MDL	14	PQL	mg/Kg	UJ	C
ETHYLENE GLYCOL	6.6	U	6.6	MDL	14	PQL	mg/Kg	UJ	C

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE103 **Laboratory: LL**

EDD Filename: DE103_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-115-SA5A-SB-6.5-7.5 *Collected:* 3/10/2011 10:22:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Propylene glycol	5.5	U	5.5	MDL	14	PQL	mg/Kg	UJ	C

Sample ID: SL-115-SA5A-SB-6.5-7.5 *Collected:* 3/10/2011 10:22:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.85	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-116-SA5A-SB-14.0-15.0 *Collected:* 3/10/2011 2:10:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.7	U	5.7	MDL	14	PQL	mg/Kg	UJ	C
ETHYLENE GLYCOL	5.7	U	5.7	MDL	14	PQL	mg/Kg	UJ	C
Propylene glycol	5.7	U	5.7	MDL	14	PQL	mg/Kg	UJ	C

Sample ID: SL-116-SA5A-SB-6.0-7.0 *Collected:* 3/10/2011 1:57:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.6	U	5.6	MDL	14	PQL	mg/Kg	UJ	C
ETHYLENE GLYCOL	5.6	U	5.6	MDL	14	PQL	mg/Kg	UJ	C
Propylene glycol	5.6	U	5.6	MDL	14	PQL	mg/Kg	UJ	C

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-115-SA5A-SB-13.0-14.0 *Collected:* 3/10/2011 10:44:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.97	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5460	2.3	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z

Sample ID: SL-115-SA5A-SB-6.5-7.5 *Collected:* 3/10/2011 10:22:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.64	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z, *XIII

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE103 **Laboratory: LL**

EDD Filename: DE103_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-116-SA5A-SB-6.0-7.0 *Collected:* 3/10/2011 1:57:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.78	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5460	1.9	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-116-SA5A-SB-14.0-15.0 *Collected:* 3/10/2011 2:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	100	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	62	J	19	MDL	190	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	57	J	19	MDL	380	PQL	ug/Kg	J	Z
Butylbenzylphthalate	50	J	19	MDL	190	PQL	ug/Kg	J	Z
CHRYSENE	83	J	19	MDL	190	PQL	ug/Kg	J	Z
Di-n-octylphthalate	92	J	19	MDL	190	PQL	ug/Kg	J	Z
PYRENE	21	J	19	MDL	190	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-115-SA5A-SB-13.0-14.0 *Collected:* 3/10/2011 10:44:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.79	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	0.97	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	0.64	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
FLUORANTHENE	0.77	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	0.79	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-115-SA5A-SB-6.5-7.5 *Collected:* 3/10/2011 10:22:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(K)FLUORANTHENE	1.3	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE103 **Laboratory: LL**

EDD Filename: DE103_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-116-SA5A-SB-14.0-15.0 *Collected:* 3/10/2011 2:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIBENZO(A,H)ANTHRACENE	6.1	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z
Di-n-butylphthalate	72	J	34	MDL	100	PQL	ug/Kg	U	B
FLUORANTHENE	6.6	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	5.2	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z
PHENANTHRENE	4.7	J	3.8	MDL	9.5	PQL	ug/Kg	J	Z

Sample ID: SL-116-SA5A-SB-6.0-7.0 *Collected:* 3/10/2011 1:57:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.58	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.4	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: AQ**

Sample ID: TB-031011 *Collected:* 3/10/2011 8:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	6	U	6	MDL	20	PQL	ug/L	UJ	C
DICHLORODIFLUOROMETHANE	2	U	2	MDL	5	PQL	ug/L	UJ	C

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-115-SA5A-SB-13.0-14.0 *Collected:* 3/10/2011 10:44:00 *Analysis Type:* RES *Dilution:* 1.07

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE (MEK)	1.5	U	1.5	MDL	9.5	PQL	ug/Kg	UJ	C
2-HEXANONE	1.9	U	1.9	MDL	9.5	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.46	U	0.46	MDL	9.5	PQL	ug/Kg	UJ	C
ACETONE	8.0	U	8.0	MDL	9.5	PQL	ug/Kg	UJ	C
BROMOCHLOROMETHANE	0.39	U	0.39	MDL	4.8	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	1.7	J	0.29	MDL	4.8	PQL	ug/Kg	U	B
TOLUENE	0.12	J	0.09	MDL	4.8	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE103 **Laboratory: LL**

EDD Filename: DE103_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-115-SA5A-SB-6.5-7.5 *Collected:* 3/10/2011 10:22:00 *Analysis Type:* RES *Dilution:* 0.87

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE (MEK)	1.2	U	1.2	MDL	7.6	PQL	ug/Kg	UJ	C
2-HEXANONE	1.5	U	1.5	MDL	7.6	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.37	U	0.37	MDL	7.6	PQL	ug/Kg	UJ	C
ACETONE	6.4	U	6.4	MDL	7.6	PQL	ug/Kg	UJ	C
BROMOCHLOROMETHANE	0.31	U	0.31	MDL	3.8	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	1.5	J	0.23	MDL	3.8	PQL	ug/Kg	U	B
TOLUENE	0.11	J	0.08	MDL	3.8	PQL	ug/Kg	U	B

Sample ID: SL-116-SA5A-SB-14.0-15.0 *Collected:* 3/10/2011 2:10:00 *Analysis Type:* RES *Dilution:* 0.93

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE (MEK)	1.3	U	1.3	MDL	8.5	PQL	ug/Kg	UJ	C
2-HEXANONE	1.7	U	1.7	MDL	8.5	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.41	U	0.41	MDL	8.5	PQL	ug/Kg	UJ	C
ACETONE	7.1	U	7.1	MDL	8.5	PQL	ug/Kg	UJ	C
BROMOCHLOROMETHANE	0.35	U	0.35	MDL	4.3	PQL	ug/Kg	UJ	C
ETHYLBENZENE	0.12	J	0.06	MDL	4.3	PQL	ug/Kg	J	Z
m,p-Xylene	0.41	J	0.18	MDL	4.3	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	2.3	J	0.25	MDL	4.3	PQL	ug/Kg	U	B

Sample ID: SL-116-SA5A-SB-6.0-7.0 *Collected:* 3/10/2011 1:57:00 *Analysis Type:* RES *Dilution:* 0.93

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE (MEK)	1.3	U	1.3	MDL	8.4	PQL	ug/Kg	UJ	C
2-HEXANONE	1.7	U	1.7	MDL	8.4	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.41	U	0.41	MDL	8.4	PQL	ug/Kg	UJ	C
ACETONE	11		7.0	MDL	8.4	PQL	ug/Kg	J	C
BROMOCHLOROMETHANE	0.34	U	0.34	MDL	4.2	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	1.5	J	0.25	MDL	4.2	PQL	ug/Kg	U	B
TOLUENE	0.09	J	0.08	MDL	4.2	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE103 **Laboratory: LL**

EDD Filename: DE103_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*XIII	Compound Quantitation and CRQL
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE103 **Laboratory: LL**

EDD Filename: DE103_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE103 **Laboratory: LL**

EDD Filename: DE103_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE103

Method Blank Outlier Report

Lab Reporting Batch ID: DE103 **Laboratory: LL**

EDD Filename: DE103_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P07508AB221918	3/17/2011 7:18:00 PM	CALCIUM PHOSPHORUS TIN	8.02 mg/Kg 1.34 mg/Kg 1.44 mg/Kg	SL-115-SA5A-SB-13.0-14.0 SL-115-SA5A-SB-6.5-7.5 SL-116-SA5A-SB-14.0-15.0 SL-116-SA5A-SB-6.0-7.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-115-SA5A-SB-13.0-14.0(RES)	TIN	2.61 mg/Kg	2.61U mg/Kg
SL-115-SA5A-SB-6.5-7.5(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-116-SA5A-SB-14.0-15.0(RES)	TIN	2.60 mg/Kg	2.60U mg/Kg
SL-116-SA5A-SB-6.0-7.0(RES)	TIN	2.71 mg/Kg	2.71U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P07526AB222150A	3/18/2011 9:50:00 PM	LEAD ZINC	0.0105 mg/Kg 0.644 mg/Kg	SL-115-SA5A-SB-13.0-14.0 SL-115-SA5A-SB-6.5-7.5 SL-116-SA5A-SB-14.0-15.0 SL-116-SA5A-SB-6.0-7.0

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P78785AB321519A	3/21/2011 3:19:00 PM	EFH (C30-C40)	1.2 mg/Kg	SL-115-SA5A-SB-13.0-14.0 SL-115-SA5A-SB-6.5-7.5 SL-116-SA5A-SB-14.0-15.0 SL-116-SA5A-SB-6.0-7.0

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB95B211312A	3/15/2011 1:12:00 PM	METHYLENE CHLORIDE TOLUENE	0.67 ug/Kg 0.11 ug/Kg	SL-115-SA5A-SB-13.0-14.0 SL-115-SA5A-SB-6.5-7.5 SL-116-SA5A-SB-14.0-15.0 SL-116-SA5A-SB-6.0-7.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE103 **Laboratory: LL**

EDD Filename: DE103_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-115-SA5A-SB-13.0-14.0(RES)	METHYLENE CHLORIDE	1.7 ug/Kg	4.8U ug/Kg
SL-115-SA5A-SB-13.0-14.0(RES)	TOLUENE	0.12 ug/Kg	4.8U ug/Kg
SL-115-SA5A-SB-6.5-7.5(RES)	METHYLENE CHLORIDE	1.5 ug/Kg	3.8U ug/Kg
SL-115-SA5A-SB-6.5-7.5(RES)	TOLUENE	0.11 ug/Kg	3.8U ug/Kg
SL-116-SA5A-SB-14.0-15.0(RES)	METHYLENE CHLORIDE	2.3 ug/Kg	4.3U ug/Kg
SL-116-SA5A-SB-6.0-7.0(RES)	METHYLENE CHLORIDE	1.5 ug/Kg	4.2U ug/Kg
SL-116-SA5A-SB-6.0-7.0(RES)	TOLUENE	0.09 ug/Kg	4.2U ug/Kg

Method: **8270C SIM**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLK07B260657	3/24/2011 6:57:00 AM	Di-n-butylphthalate	11 ug/Kg	SL-115-SA5A-SB-13.0-14.0 SL-115-SA5A-SB-6.5-7.5 SL-116-SA5A-SB-14.0-15.0 SL-116-SA5A-SB-6.0-7.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-116-SA5A-SB-14.0-15.0(RES)	Di-n-butylphthalate	72 ug/Kg	100U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE103 | Laboratory: LL

EDD Filename: DE103_v1 | eQAPP Name: CDM_SSFL_110509

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-115-SA5A-SB-6.5-7.5MS SL-115-SA5A-SB-6.5-7.5MSD (SL-115-SA5A-SB-6.5-7.5)	EFH (C21-C30) EFH (C30-C40)	-418 -611	-326 -438	49.00-123.00 49.00-123.00	- -	EFH (C21-C30) EFH (C30-C40)	No Qual, >4x

Reporting Limit Outliers

Lab Reporting Batch ID: DE103 **Laboratory: LL**

EDD Filename: DE103_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-115-SA5A-SB-13.0-14.0	TIN	J	2.61	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.90	5.47	PQL	mg/Kg	
SL-115-SA5A-SB-6.5-7.5	BORON	J	3.91	5.36	PQL	mg/Kg	J (all detects)
	TIN	J	2.65	10.7	PQL	mg/Kg	
	Zirconium	J	1.91	5.36	PQL	mg/Kg	
SL-116-SA5A-SB-14.0-15.0	BORON	J	5.42	5.66	PQL	mg/Kg	J (all detects)
	TIN	J	2.60	11.3	PQL	mg/Kg	
	Zirconium	J	2.04	5.66	PQL	mg/Kg	
SL-116-SA5A-SB-6.0-7.0	BORON	J	4.27	5.48	PQL	mg/Kg	J (all detects)
	TIN	J	2.71	11.0	PQL	mg/Kg	
	Zirconium	J	1.26	5.48	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-115-SA5A-SB-13.0-14.0	ANTIMONY	J	0.0758	0.217	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0828	0.433	PQL	mg/Kg	
	SILVER	J	0.0221	0.108	PQL	mg/Kg	
SL-115-SA5A-SB-6.5-7.5	SELENIUM	J	0.105	0.425	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0273	0.106	PQL	mg/Kg	
SL-116-SA5A-SB-14.0-15.0	ANTIMONY	J	0.113	0.222	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.119	0.444	PQL	mg/Kg	
	SILVER	J	0.0524	0.111	PQL	mg/Kg	
SL-116-SA5A-SB-6.0-7.0	ANTIMONY	J	0.0949	0.217	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0956	0.108	PQL	mg/Kg	
	SELENIUM	J	0.117	0.434	PQL	mg/Kg	
	SILVER	J	0.0250	0.108	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-116-SA5A-SB-14.0-15.0	HEXAVALENT CHROMIUM	J	0.26	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-115-SA5A-SB-13.0-14.0	MERCURY	J	0.0109	0.111	PQL	mg/Kg	J (all detects)
SL-115-SA5A-SB-6.5-7.5	MERCURY	J	0.0074	0.106	PQL	mg/Kg	J (all detects)
SL-116-SA5A-SB-14.0-15.0	MERCURY	J	0.0412	0.111	PQL	mg/Kg	J (all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE103 **Laboratory: LL**

EDD Filename: DE103_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-115-SA5A-SB-6.5-7.5	EFH (C15-C20)	J	0.85	1.3	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-115-SA5A-SB-13.0-14.0	AROCLOR 1260	J	0.97	1.9	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	2.3	3.7	PQL	ug/Kg	
SL-115-SA5A-SB-6.5-7.5	AROCLOR 1260	J	0.64	1.9	PQL	ug/Kg	J (all detects)
SL-116-SA5A-SB-6.0-7.0	AROCLOR 1260	J	0.78	1.9	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	1.9	3.7	PQL	ug/Kg	

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-115-SA5A-SB-13.0-14.0	METHYLENE CHLORIDE	J	1.7	4.8	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.12	4.8	PQL	ug/Kg	
SL-115-SA5A-SB-6.5-7.5	METHYLENE CHLORIDE	J	1.5	3.8	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.11	3.8	PQL	ug/Kg	
SL-116-SA5A-SB-14.0-15.0	ETHYLBENZENE	J	0.12	4.3	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.41	4.3	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	2.3	4.3	PQL	ug/Kg	
SL-116-SA5A-SB-6.0-7.0	METHYLENE CHLORIDE	J	1.5	4.2	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.09	4.2	PQL	ug/Kg	

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-116-SA5A-SB-14.0-15.0	BENZO(A)PYRENE	J	100	190	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	62	190	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	57	380	PQL	ug/Kg	
	Butylbenzylphthalate	J	50	190	PQL	ug/Kg	
	CHRYSENE	J	83	190	PQL	ug/Kg	
	Di-n-octylphthalate	J	92	190	PQL	ug/Kg	
	PYRENE	J	21	190	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE103 **Laboratory: LL**

EDD Filename: DE103_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-115-SA5A-SB-13.0-14.0	BENZO(A)PYRENE	J	0.79	1.9	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	0.97	1.9	PQL	ug/Kg	
	CHRYSENE	J	0.64	1.9	PQL	ug/Kg	
	FLUORANTHENE	J	0.77	1.9	PQL	ug/Kg	
	PYRENE	J	0.79	1.9	PQL	ug/Kg	
SL-115-SA5A-SB-6.5-7.5	BENZO(K)FLUORANTHENE	J	1.3	1.8	PQL	ug/Kg	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.8	PQL	ug/Kg	
SL-116-SA5A-SB-14.0-15.0	DIBENZO(A,H)ANTHRACENE	J	6.1	9.5	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	72	100	PQL	ug/Kg	
	FLUORANTHENE	J	6.6	9.5	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	5.2	9.5	PQL	ug/Kg	
	PHENANTHRENE	J	4.7	9.5	PQL	ug/Kg	
SL-116-SA5A-SB-6.0-7.0	ANTHRACENE	J	0.58	1.9	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	1.4	1.9	PQL	ug/Kg	

Enclosure II

EPA Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 10, 2011

LDC Report Date: August 18, 2011

Matrix: Soil/Water

Parameters: Volatiles

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE103

Sample Identification

SL-115-SA5A-SB-6.5-7.5
SL-115-SA5A-SB-13.0-14.0
SL-116-SA5A-SB-6.0-7.0
SL-116-SA5A-SB-14.0-15.0
TB-031011

Introduction

This data review covers 4 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
3/15/11	Acetone 2-Butanone 4-Methyl-2-pentanone 2-Hexanone	30 34 50 58	All soil samples in SDG DE103	J (all detects) UJ (all non-detects)	A

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
3/1/11	Bromochloromethane	36	All soil samples in SDG DE103	J (all detects) UJ (all non-detects)	A
2/10/11	Dichlorodifluoromethane Acetone	30 28	All water samples in SDG DE103	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
VBLKB95	3/15/11	Methylene chloride Toluene	0.67 ug/Kg 0.11 ug/Kg	All soil samples in SDG DE103

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
SL-115-SA5A-SB-6.5-7.5	Methylene chloride Toluene	1.5 ug/Kg 0.11 ug/Kg	3.8U ug/Kg 3.8U ug/Kg
SL-115-SA5A-SB-13.0-14.0	Methylene chloride Toluene	1.7 ug/Kg 0.12 ug/Kg	4.8U ug/Kg 4.8U ug/Kg
SL-116-SA5A-SB-6.0-7.0	Methylene chloride Toluene	1.5 ug/Kg 0.09 ug/Kg	4.2U ug/Kg 4.2U ug/Kg
SL-116-SA5A-SB-14.0-15.0	Methylene chloride	2.3 ug/Kg	4.3U ug/Kg

Sample TB-031011 was identified as a trip blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE103	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Volatiles - Data Qualification Summary - SDG DE103

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0	Acetone 2-Butanone 4-Methyl-2-pentanone 2-Hexanone	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0	Bromochloromethane	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE103	TB-031011	Dichlorodifluoromethane Acetone	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0 TB-031011	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Volatiles - Laboratory Blank Data Qualification Summary - SDG DE103

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE103	SL-115-SA5A-SB-6.5-7.5	Methylene chloride Toluene	3.8U ug/Kg 3.8U ug/Kg	A	B
DE103	SL-115-SA5A-SB-13.0-14.0	Methylene chloride Toluene	4.8U ug/Kg 4.8U ug/Kg	A	B
DE103	SL-116-SA5A-SB-6.0-7.0	Methylene chloride Toluene	4.2U ug/Kg 4.2U ug/Kg	A	B
DE103	SL-116-SA5A-SB-14.0-15.0	Methylene chloride	4.3U ug/Kg	A	B

Santa Susana Field Laboratory
Volatiles - Field Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

LDC #: 25911L1a **VALIDATION COMPLETENESS WORKSHEET** Date: 8/8/11
SDG #: DE103 Level IV Page: 1 of 2
Laboratory: Lancaster Laboratories Reviewer:
2nd Reviewer: A

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	SW	Sampling dates: 3/10/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30, r2
IV.	Continuing calibration/ICV	SW	ICV/CCV ≤ 25
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	res ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 5

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil + water

1	SL-115-SA5A-SB-6.5-7.5	11	VBLKB95	21		31	
2	SL-115-SA5A-SB-13.0-14.0	12	VBLKY51	22		32	
3	SL-115-SA5A-SB-6.0-7.0	13		23		33	
4	SL-115-SA5A-SB-14.0-15.0	14		24		34	
5	TB-031011	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 25911L1a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓	✓		
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?		✓		
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 25911La

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: C

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal Standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within + 30 seconds of the associated calibration standard?	✓			
XI. Target Compound Identification				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?				
XII. Compound Quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively Identified Compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System Performance				
System performance was found to be acceptable.		✓		
XV. Overall Assessment of Data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field Duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field Blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN.
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

LDC #: 25911L1a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?

Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?

Y N N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤25.0%)	Finding RRF (Limit: >0.05)	Associated Samples	Qualifications
	3/15/11	ccv	F	30		All soils	J/UJ/A (C)
	12:00		M	34		↓	↓
			Y	50			
			Z	58			
	3/01/11	ICV	PP	36		↓	↓
	2/10/11	ICV	JJ	30		All water	J/UJ/A (C)
			F	28		↓	↓

LDC #: 25911L1a

VALIDATION FINDINGS WORKSHEET
Blanks

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a method blank associated with every sample in this SDG?
Y N N/A Was a method blank analyzed at least once every 12 hours for each matrix and concentration?
Y N N/A Was there contamination in the method blanks? If yes, please see the qualifications below.

(B)

Blank analysis date: 3/15/11
Conc. units: ug/kg
Associated Samples: All soils

Compound	Blank ID	Sample Identification								
	YBLKB95		1	1	2	3	4			
E	0.67		1.5 /64	1.5 /3.84	1.7 /4.84	1.5 /4.24	2.3 /4.34			
cc	0.11		0.1	0.11/3.84	0.12 /4.81	0.09/4.24	—			
CRQL										

Blank analysis date:
Conc. units:
Associated Samples:

Compound	Blank ID	Sample Identification								
CRQL										

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 25911c1a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (50 std)	Recalculated RRF (50 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/01/11	C (1st internal standard)	0.4158	0.4158	0.4296	0.4296	9	9
			EE (2nd internal standard)	1.6663	1.6663	1.5916	1.5916	10	10
			JJJ (3rd internal standard)	1.4144	1.4144	1.3506	1.3506	9	9
			(4th internal standard)						
2	ICAL	2/10/11	C (1st internal standard)	0.3993	0.3993	0.4001	0.4001	7	7
			EE (2nd internal standard)	1.9698	1.9698	1.9465	1.9465	3	3
			JJJ (3rd internal standard)	1.6823	1.6823	1.6848	1.6848	4	4
			(4th internal standard)						
3			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
4			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 35911L/a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer: C

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV	3/15/11	C (1st internal standard)	0.4001	0.3654	0.3654	9	9
			EE (2nd internal standard)	1.9465	1.9840	1.9840	2	2
			JJ (3rd internal standard)	1.6848	1.6580	1.6580	2	2
			(4th internal standard)					
2	CCV	3/15/11	C (1st internal standard)	0.4296	0.4282	0.4282	0	0
	12:00		EE (2nd internal standard)	1.5916	1.6506	1.6506	4	4
			JJJ (3rd internal standard)	1.3506	1.4142	1.4142	5	5
			(4th internal standard)					
3			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
4			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L1a

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: A

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane	50.0	48.587	97	97	0
1,2-Dichloroethane-d4	↓	49.832	100	100	↓
Toluene-d8		49.114	98	98	
Bromofluorobenzene		47.110	94	94	

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

LDC #: 25111218

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = | LCS - LCSD | * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: WBS SOIL

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene	20	NA	22.36	NA	112	112				
Trichloroethene			19.36		97	97				
Benzene			20.3		101	101				
Toluene			19.8		99	99				
Chlorobenzene			19.14		96	96	NA			

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25711L1c

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Y N N/A Were all reported results recalculated and verified for all level IV samples?

Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
RRF	=	Relative response factor of the calibration standard.
V_o	=	Volume or weight of sample pruged in milliliters (ml) or grams (g).
Df	=	Dilution factor.
%S	=	Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. #1, Toluene

Conc. = $\frac{(1131)(50)(5)}{(599979)(0.8282)(5.78)(0.90)}$

= 0.109 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 10, 2011

LDC Report Date: August 18, 2011

Matrix: Soil/Water

Parameters: 1,4-Dioxane

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE103

Sample Identification

SL-115-SA5A-SB-6.5-7.5
SL-115-SA5A-SB-13.0-14.0
SL-116-SA5A-SB-6.0-7.0
SL-116-SA5A-SB-14.0-15.0
TB-031011

Introduction

This data review covers 4 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B using Selected Ion Monitoring (SIM) for 1,4-Dioxane.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for 1,4-Dioxane.

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 25.0% for 1,4-Dioxane.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for 1,4-Dioxane.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No 1,4-dioxane was found in the method blanks.

Sample TB-031011 was identified as a trip blank. No 1,4-dioxane was found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE103	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
1,4-Dioxane - Data Qualification Summary - SDG DE103

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0 TB-031011	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
1,4-Dioxane - Laboratory Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
1,4-Dioxane - Field Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

LDC #: 25911L1b **VALIDATION COMPLETENESS WORKSHEET** Date: 8/2/11
SDG #: DE103 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: M
2nd Reviewer: C

METHOD: GC/MS 1,4-Dioxane (EPA SW 846 Method 8260B-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	~~SW~~ A	Sampling dates: 3/10/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤ 30
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 25
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	ND	TB = 5

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil + water

1	SL-115-SA5A-SB-6.5-7.5 S	11	VBLKE57	21		31	
2	SL-115-SA5A-SB-13.0-14.0	12	VBLKE55	22		32	
3	SL-115-SA5A-SB-6.0-7.0	13		23		33	
4	SL-115-SA5A-SB-14.0-15.0	14		24		34	
5	TB-031011 W	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 25911L1b

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?			✓	
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?		✓		
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓		✓	
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 25911L6

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds of the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?			✓	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?			✓	
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?			✓	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?		✓		
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN.
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

LDC #: 25911L1b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = $(A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (5 std)	Recalculated RRF (5 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL SOIL	11/7/10	1,4-Dioxane (1st internal standard)	1.3539	1.3537	1.3396	1.3396	2	2
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
2	ICAL water	11/01/10	1,4-Dioxane (1st internal standard)	1.3359	1.3539	1.3219	1.3219	1	1
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
3			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
4			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L1b

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer: C

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV	3/15/11	1,4-Dioxane (1st internal standard)	1.3396	1.4670	1.4670	10	10
	9:44		(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
2	CCV	3/14/11	↓ (1st internal standard)	1.3219	1.4649	1.4649	11	11
	9:55		(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
3			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
4			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L1b

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
~~Dibromofluoromethane~~					
1,~~2-Dichloroethane~~-d4					
Toluene-d8	10	9.649	96	96	0
~~Bromofluorobenzene~~					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

LDC #: [illegible]

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = | LCS - LCSD | * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: las 10

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene										
Trichloroethene										
Benzene										
Toluene										
Chlorobenzene										
1,4- Dioxane	125	125	135.79	130.19	109	109	104	104	4	4

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L4b

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer: A

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
RRF	=	Relative response factor of the calibration standard.
V_o	=	Volume or weight of sample pruged in milliliters (ml) or grams (g).
Df	=	Dilution factor.
%S	=	Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. _____, _____:

Conc. = ( ) ( ) ( ) / ( ) ( ) ( ) ( )

=

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 10, 2011

LDC Report Date: August 18, 2011

Matrix: Soil

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE103

Sample Identification

SL-115-SA5A-SB-6.5-7.5
SL-115-SA5A-SB-13.0-14.0
SL-116-SA5A-SB-6.0-7.0
SL-116-SA5A-SB-14.0-15.0

Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
3/25/11	N-Nitrosodimethylamine	30	SBLKLA082	J (all detects) UJ (all non-detects)	A

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE103	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG DE103

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

LDC #: 25911L2a **VALIDATION COMPLETENESS WORKSHEET** Date: 8/4/11
SDG #: DE103 Level IV Page: 1 of 2
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30 r^2
IV.	Continuing calibration/ICV	SW	1CV/CCV ≤ 25
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: SOIL

1	SL-115-SA5A-SB-6.5-7.5	11	SBLKLA082	21		31	11082SLA026
2	SL-115-SA5A-SB-13.0-14.0	12		22		32	
3	SL-115-SA5A-SB-6.0-7.0	13		23		33	
4	SL-115-SA5A-SB-14.0-15.0	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 25911L2a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?		✓		
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogates				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicate				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 25911L2a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.		✓	✓	
Target compounds were detected in the field blanks.				

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 25911L2S

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours of sample analysis for each instrument?
Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?
Y N N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: <25.0%)	Finding RRF (Limit: >0.05)	Associated Samples	Qualifications
	3/25/11 12:03	CCV	000	30		SBLKLA082	J/UJ/A (C)
	3/28/11 23:03	CCV					

CONCAL.2S

LDC #: 25911L 25

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (50 std)	Recalculated RRF (50 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/18/11	Phenol (1st internal standard)	3.164	3.164	3.132	3.132	3	3
			Naphthalene (2nd internal standard)	1.175	1.175	1.156	1.156	3	3
			Fluorene (3rd internal standard)	1.508	1.508	1.481	1.481	4	4
			Pentachlorophenol (4th internal standard)	0.140	0.140	0.133	0.133	10	10
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.823	0.823	0.814	0.814	3	3
			Benzo(a)pyrene (6th internal standard)	1.147	1.141	1.116	1.116	4	4
2			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L29

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV	3/5/11	Phenol (1st internal standard)	3.132	2.772	2.772	11	11.
			Naphthalene (2nd internal standard)	1.156	1.105	1.105	4	4
			Fluorene (3rd internal standard)	1.481	1.421	1.421	4	4
			Pentachlorophenol (4th internal standard)	0.133	0.122	0.122	8	8
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.814	0.729	0.729	11	11
			Benzo(a)pyrene (6th internal standard)	1.116	1.075	1.075	4	4
2	CCV	3/5/11	Phenol (1st internal standard)		2.862	2.862	9	9
		23:23	Naphthalene (2nd internal standard)		1.140	1.140	1	1
			Fluorene (3rd internal standard)		1.443	1.443	3	3
			Pentachlorophenol (4th internal standard)		0.136	0.136	2	2
			Bis(2-ethylhexyl)phthalate (5th internal standard)		0.807	0.807	1	1
			Benzo(a)pyrene (6th internal standard)		1.119	1.119	0	0
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L29

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer: C

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	100	65.472	65	65	0
2-Fluorobiphenyl	↓	88.102	88	88	↓
Terphenyl-d14	↓	88.431	88	88	↓
Phenol-d5	200	159.523	80	80	↓
2-Fluorophenol	↓	166.718	83	83	↓
2,4,6-Tribromophenol	↓	159.596	80	80	↓
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 25911L25

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	1666.67	NA	1335.03	NA	80	80				
N-Nitroso-di-n-propylamine			1160.11		70	70				
4-Chloro-3-methylphenol			1346.88		81	81				
Acenaphthene			1464.47		88	88				
Pentachlorophenol			1385.58		83	83				
Pyrene			1621.77		97	97	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L29

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

V_i = Volume of extract injected in microliters (ul)

V_t = Volume of the concentrated extract in microliters (ul)

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

2.0 = Factor of 2 to account for GPC cleanup

Example:

Sample I.D. 4, EEE

Conc. = $\frac{(23275)(40)(1000)(\quad)(\quad)}{(764657)(0.729)(30)(0.88)(0.814)}$ =

57 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 10, 2011

LDC Report Date: August 18, 2011

Matrix: Soil

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: Lancaster laboratories

Sample Delivery Group (SDG): DE103

Sample Identification

SL-115-SA5A-SB-6.5-7.5
SL-115-SA5A-SB-13.0-14.0
SL-116-SA5A-SB-6.0-7.0
SL-116-SA5A-SB-14.0-15.0

Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C using Selected Ion Monitoring (SIM) for Semivolatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
SBLKLK0769	3/18/11	Di-n-butylphthalate	11.23 ug/Kg	All samples in SDG DE103

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
SL-116-SA5A-SB-14.0-15.0	Di-n-butylphthalate	71.87 ug/Kg	100U ug/Kg

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE103	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Semivolatiles- Data Qualification Summary - SDG DE103

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Semivolatiles- Laboratory Blank Data Qualification Summary - SDG DE103

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE103	SL-116-SA5A-SB-14.0-15.0	Di-n-butylphthalate	100U ug/Kg	A	B

Santa Susana Field Laboratory
Semivolatiles- Field Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

LDC #: 25911L2b **VALIDATION COMPLETENESS WORKSHEET** Date: 8/4/11
SDG #: DE103 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: P
SVOA 2nd Reviewer: C

METHOD: GC/MS ~~Polynuclear Aromatic Hydrocarbons~~ (EPA SW 846 Method 8270C-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30, r^2
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 25
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:
Soil

1	SL-115-SA5A-SB-6.5-7.5	11	110765LK026	21	(SBLKLK0769)	31	
2	SL-115-SA5A-SB-13.0-14.0	12		22		32	
3	SL-115-SA5A-SB-6.0-7.0	13		23		33	
4	SL-115-SA5A-SB-14.0-15.0	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 25911L26

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: A

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
VI. Surrogates				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/matrix spike duplicate				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 25911L2b

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. [illegible]				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. [illegible]				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. [illegible]				
System performance was found to be acceptable.	✓			
XV. [illegible]				
Overall assessment of data was found to be acceptable.	✓			
XVI. [illegible]				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. [illegible]				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 25911L26

VALIDATION FINDINGS WORKSHEET
Blanks

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a method blank analyzed for each matrix?
Y N N/A Was a method blank analyzed for each concentration preparation level?
Y N N/A Was a method blank associated with every sample?
Y N N/A Was the blank contaminated? If yes, please see qualification below.

(B)

Blank extraction date: 3/18/11 **Blank analysis date:** 3/24/11

Conc. units: ug/kg Associated Samples: All

Compound	Blank ID	Sample Identification							
	SBLKLK0769		1	2	3 4	3			
XX	11.23		16.71/4	18.92/4	7/87/400u	17.42/4			
~~EFF~~	~~10.57~~		~~17.07/4~~	~~16.3/4~~	59.51/4	11.33/4			

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 25911226

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (/ std)	Recalculated RRF (/ std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/18/11	~~Phenol (1st internal standard)~~						
			Naphthalene (2nd internal standard)	1.013	1.013	1.036	1.036	6	6
			Fluorene (3rd internal standard)	1.221	1.221	1.232	1.232	10	10
			~~Pentachlorophenol~~ Anthracene (4th internal standard)	1.059	1.059	1.069	1.069	14	14
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)	1.143	1.143	1.166	1.166	6	6
			Benzo(a)pyrene (6th internal standard)	1.342	1.342	1.349	1.349	11	11
2			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911226

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer: [signature]

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	ccv	3/24/11 5:54	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)	1.036	1.004	1.004	3	3
			Fluorene (3rd internal standard)	1.232	1.220	1.220	1	1
			~~Pentachlorophenol~~ Anthracene (4th internal standard)	1.069	1.041	1.041	3.0	3.0
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)	1.164	1.140	1.140	2	2.
			Benzo(a)pyrene (6th internal standard)	1.349	1.355	1.355	0	0
2			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L26

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer: A

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: # 1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	1.0	0.905	91	91	0
2-Fluorobiphenyl	↓	0.875	87	87	↓
Terphenyl-d14	↓	0.847	85	85	↓
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 25911200

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS

Compound	Spike Added (ug/Kg)		Spike Concentration (ug/Kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol										
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene	33.33	NA	29.51	NA	89	89				
Pentachlorophenol										
Pyrene	33.33	NA	30.35	NA	91	91	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911126

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer: C

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_t	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #1, Benzo(a) pyrene

Conc. = (43420)(1.0)(1000)( )( )
( )( )( )( )( )( )
46176 1.349 30 0.90
=

2.58 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 10, 2011

LDC Report Date: August 18, 2011

Matrix: Soil

Parameters: N-Nitrosodimethylamine

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE103

Sample Identification

SL-115-SA5A-SB-6.5-7.5
SL-115-SA5A-SB-13.0-14.0
SL-116-SA5A-SB-6.0-7.0
SL-116-SA5A-SB-14.0-15.0

Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 1625C for N-Nitrosodimethylamine.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check is not required for by this method.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% .

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% .

The percent difference (%D) of the second source calibration standard were less than or equal to 30.0% .

V. Blanks

Method blanks were reviewed for each matrix as applicable. No N-nitrosodimethylamine was found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE103	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Data Qualification Summary - SDG DE103

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Laboratory Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Field Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

LDC #: 25911L2c **VALIDATION COMPLETENESS WORKSHEET** Date: 8/8/11
SDG #: DE103 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: EF
2nd Reviewer: A

METHOD: GC/MS N-Nitrosodimethylamine (EPA Method 1625C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30%
IV.	Continuing calibration/ICV	A	~~ICV/CCV~~ CCV ≤ 20 ICV ≤ 30
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

SOIL

1	SL-115-SA5A-SB-6.5-7.5	11	SBLKLI076	21		31	
2	SL-115-SA5A-SB-13.0-14.0	12		22		32	
3	SL-116-SA5A-SB-6.0-7.0	13		23		33	
4	SL-116-SA5A-SB-14.0-15.0	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 25911L2e

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 25911L2C

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
X. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compounds identified				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?			✓	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?			✓	
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation and CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?			✓	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25911L2e

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard
S = Standard deviation of the RRFs, X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (25 std)	Recalculated RRF (25 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/31/11	N-Nitrosodimethylamine						
			Phenol (1st internal standard)	1.471	1.471	1.633	1.633	16	16
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
2			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911c2c

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	AC318	4/01/11	~~Phenol~~ NDMA (1st internal standard)	1.63291	1.4147	1.4147	13.36262	13.36262
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
2			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911C2C

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer: [illegible]

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
~~Nitrobenzene-d5~~ n-nitrosodimethylamine-d6	25	26.204	105	105	0
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 25911C2C

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS

Compound	Spike Added (ng/kg)		Spike Concentration (ng/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol										
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene										
Pentachlorophenol										
Pyrene										
N-Nitrosodimethylamine	833.33	NA	740.22	NA	89	89	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L2C

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_i)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_t)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. _____ , _____:

Conc. = $\frac{(\quad)(\quad)(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)(\quad)}$

= ND

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 10, 2011

LDC Report Date: August 18, 2011

Matrix: Soil

Parameters: Polychlorinated Biphenyls

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE103

Sample Identification

SL-115-SA5A-SB-6.5-7.5
SL-115-SA5A-SB-13.0-14.0
SL-116-SA5A-SB-6.0-7.0
SL-116-SA5A-SB-14.0-15.0

Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Affected Compound	Flag	A or P
3/18/11	6C20069.05R	ZB Multi R1	Aroclor-5460	30.4	PBLK08076	Aroclor-5460	J (all detects) UJ (all non-detects)	A
3/18/11	6C20069.05R	ZB Multi R2	Aroclor-5460	47.7	PBLK08076	Aroclor-5460	J (all detects) UJ (all non-detects)	A

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

All target compound identifications were within validation criteria.

XIII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria.

The sample results for detected compounds from the two columns were within 40% relative percent difference (RPD) with the following exceptions:

Sample	Compound	RPD	Flag	A or P
SL-115-SA5A-SB-6.5-7.5	Aroclor-1260	55	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE103	All compounds reported below the RL.	J (all detects)	A

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Data Qualification Summary - SDG DE103

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE103	SL-115-SA5A-SB-6.5-7.5	Aroclor-1260	J (all detects)	A	Compound quantitation and CRQLs (RPD) (*XIII)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

LDC #: 25911L3b **VALIDATION COMPLETENESS WORKSHEET** Date: 8/8/11
SDG #: DE103 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: EJ
2nd Reviewer:

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10/11
II.	GC/ECD Instrument Performance Check	NA	
III.	Initial calibration	A	%D RSD ≤ 20
IV.	Continuing calibration/ICV	SW	ICV/CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	A	
XIII.	Compound quantitation and reported CRQLs	SW	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

SOIL

1†	SL-115-SA5A-SB-6.5-7.5	11	PBLK08076	21		31	
2†	SL-115-SA5A-SB-13.0-14.0	12		22		32	
3†	SL-115-SA5A-SB-6.0-7.0	13		23		33	
4	SL-115-SA5A-SB-14.0-15.0	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 29111b3b
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FD
2nd Reviewer: C

Method: ✓ GC ____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓	✓		
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?				
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 25911-23b
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25911L3h

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: FT

METHOD: ✓ GC ___ HPLC

2nd Reviewer: A

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
What type of continuing calibration calculation was performed? ___%D or ___RPD
Y N N/A Were continuing calibration standards analyzed at the required frequencies?
Y N N/A Did the continuing calibration standards meet the %D / RPD validation criteria of ≤20.0%?
Level IV Only
Y N N/A Were the retention times for all calibrated compounds within their respective acceptance windows?

#	Date	Standard ID	Detector/ Column	Compound	%D (Limit ≤ 20.0)	RT (limit)	Associated Samples	Qualifications
	3/18/11	GC 20069.05R	ZB MultiR1	5460	30.4	( )	PBLK058076	J/UJ/A (E)
			ZB Multi R2	↓	47.7	( )	↓	qual 5460 only
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
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						( )		
						( )		

LDC #: 25911L3b
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Page: 1 of 1
Reviewer: F7
2nd Reviewer: C

METHOD: ✓ GC ___ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Level IV/D Only

Y N N/A Were CRQLs adjusted for sample dilutions, dry weight factors, etc.?
Y N N/A Did the reported results for detected target compounds agree within 10.0% of the recalculated results?

#	Compound Name	% RPD Between Col. Finding	Associated Samples	Qualifications
	BB	55	1	J/A det (* XIII)
	BB = Aroclor	1260		

Comments: See sample calculation verification worksheet for recalculations

LDC #: 25911C3b
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: EJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (200std)	Recalculated CF (206std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL ZB Multi R1	3/10/11	Aroclor 1260-1	17.495	17.495	18	18	6.9	6.9
2	ZB Multi R2	3/10/11	↓	237	236.52	236	236	8.7	8.7
3	ZB R1	3/21/11	↓	18	18.455	19	19	6.0	6.0
4	ZB R2	3/21/11	↓	244	244	251	251	10.2	10.2

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L3b
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: F
2nd Reviewer: A

METHOD: GC ✓ HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	6c20069.04R	3/18/11	Aroclor 1260 ZBR1	200.0	196.45	196.45	1.8	1.8
			ZBR2	200.0	189.89	189.89	5.1	5.1
2	IC2008.29R	3/22/11	↓	200.40	183.60	183.60	8.4	8.4
				200.40	176.81	176.81	11.8	11.8
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 37112-SD
SDG #: see cover

METHOD: ✓ GC __ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: [signature]

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
TCMX	ZB multi R1	1.05	0.9214	88	88	0
DCB	↓	↓	0.7579	73	73	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 25911L36
SDG #: pu cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = I LCS - LCSD I * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
PCB-1260	16.67	NA	14.91	NA	89	89	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L3b
SDG #: pu seven

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. #1 Compound Name Aroclor 1260

final
Concentration = $\frac{0.582747}{0.905}$

= 0.64 ug/kg

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications
	Aroclor 1260-1 =	$\frac{4973.804688 \ (2000)}{251 \ (60)(1000)}$	= 0.660	1260-1 = 0.660	
				2 = 0.505831	
				3 = 0.513843	
				4 = 0.573526	
				5 = 0.635676	
				6 = 0.604906	
				Ave = 0.582747	

Comments: _____

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 10, 2011

LDC Report Date: August 18, 2011

Matrix: Soil

Parameters: Metals

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE103

Sample Identification

SL-115-SA5A-SB-6.5-7.5
SL-115-SA5A-SB-13.0-14.0
SL-116-SA5A-SB-6.0-7.0
SL-116-SA5A-SB-14.0-15.0

Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B, 6020, and 7000 for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, and Zirconium.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5% .

III. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No metal contaminants were found in the initial, continuing and preparation blanks with the following exceptions:

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
PB (prep blank)	Calcium Lead Phosphorus Tin Zinc	8.017 mg/Kg 0.011 mg/Kg 1.342 mg/Kg 1.444 mg/Kg 0.644 mg/Kg	All samples in SDG DE103
ICB/CCB	Copper Titanium	2.7 ug/L 1.1 ug/L	All samples in SDG DE103

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-115-SA5A-SB-6.5-7.5	Tin	2.6 mg/Kg	2.6U mg/Kg
SL-115-SA5A-SB-13.0-14.0	Tin	2.6 mg/Kg	2.6U mg/Kg

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-116-SA5A-SB-6.0-7.0	Tin	2.7 mg/Kg	2.7U mg/Kg
SL-116-SA5A-SB-14.0-15.0	Tin	2.6 mg/Kg	2.6U mg/Kg

No field blanks were identified in this SDG.

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VI. Matrix Spike Analysis

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Internal Standards

All internal standard percent recoveries (%R) were within QC limits.

X. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

XI. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

XII. Sample Result Verification

All sample result verifications were acceptable.

All metals reported below the RL and above the MDL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG DE103	All analytes reported below the RL and above the MDL.	J (all detects)	A

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Metals - Data Qualification Summary - SDG DE103

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Metals - Laboratory Blank Data Qualification Summary - SDG DE103

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE103	SL-115-SA5A-SB-6.5-7.5	Tin	2.6U mg/Kg	A	B
DE103	SL-115-SA5A-SB-13.0-14.0	Tin	2.6U mg/Kg	A	B
DE103	SL-116-SA5A-SB-6.0-7.0	Tin	2.7U mg/Kg	A	B
DE103	SL-116-SA5A-SB-14.0-15.0	Tin	2.6U mg/Kg	A	B

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

LDC #: 25911L4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-2-11
SDG #: DE103 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10/11
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	SW	
VI.	Matrix Spike Analysis	N	Client specified
VII.	Duplicate Sample Analysis	N	↓
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	A	
X.	Furnace Atomic Absorption QC	N	Not utilized
XI.	ICP Serial Dilution	N	Not performed
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	N	
XV	Field Blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-115-SA5A-SB-6.5-7.5	11	POS	21		31	
2	SL-115-SA5A-SB-13.0-14.0	12		22		32	
3	SL-116-SA5A-SB-6.0-7.0	13		23		33	
4	SL-116-SA5A-SB-14.0-15.0	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 2891L4

VALIDATION FINDINGS CHECKLIST

Reviewer: CR
2nd Reviewer: [signature]

Method: Metals (EPA SW 846 Method 6010B/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. ICP/MS Tune				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution ≤5%?	✓			
III. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients > 0.995?	✓			
IV. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
V. ICP Interference Check Sample				
Were ICP interference check samples performed daily?	✓			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	✓			
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.		✓		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.			✓	
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of +/- RL(+/-2X RL for soil) was used for samples that were ≤ 5X the RL, including when only one of the duplicate sample values were ≤ 5X the RL.			✓	
VII. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	✓			

Validation Area	Yes	No	NA	Findings/Comments
VIII. Furnace Atomic Absorption QC				
If MSA was performed, was the correlation coefficients > 0.995?			✓	
Do all applicable analysies have duplicate injections? (Level IV only)			✓	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			✓	
Were analytical spike recoveries within the 85-115% QC limits?			✓	
IX. ICP Serial Dilution				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?		✓		
Were all percent differences (%Ds) < 10%?			✓	
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.			✓	
X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?	✓			
XI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
XII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓	✓	
Target analytes were detected in the field blanks.			✓	

LDC #: 25911 4

VALIDATION FINDINGS WORKSHEET
Sample Specific Element Reference

Reviewer: CR
2nd reviewer:

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1-4		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr

LDC #: 25911L4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: 100x x (MS: 2xdil)
Sample Concentration units, unless otherwise noted: mg/Kg
Associated Samples: All

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	1	2	3	4						
Ca	8.017			40.09										
Cu			2.7	2.7										
Pb	0.011			0.06										
P	1.342			6.71										
Sn	1.444			7.22	2.6	2.6	2.7	2.6						
Ti			1.1	1.35										
Zn	0.644			3.22										

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 25911L4

VALIDATION FINDINGS WORKSHEET
ICP Interference Check Sample

Reviewer: CR
2nd Reviewer: L

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were ICP interference check samples performed as required?
(Y) N N/A Were the AB solution percent recoveries (%R) within the control limits of 80-120% ?

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	ICS Identification	Analyte	Concentration (ug/L)	Limit (<MDL)	Associated Samples	Qualifications
	3/17/11	ICSA (19:02)	Mn	4	0.78	All	No Qual (>10x)
	3/17/11	ICSA (21:26	Mn	4	0.78	All	↓

Comments:

LDC #: 25111L4

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: CS
2nd Reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found / True x 100 Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution
True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated %R	Reported %R	Acceptable (Y/N)
ICV	ICP (Initial calibration)	Ti	617.46	600	102.9	102.9	Y
ICV	ICP/MS (Initial calibration)	Cd	50.82	50	101.6	101.6	
ICV	CVAA (Initial calibration)	Hg	2.47	2.5	98.8	98.8	
CCV (20:47)	ICP (Continuing calibration)	Al	23953.31	25000	95.8	95.8	
CCV (22:58)	ICP/MS (Continuing calibration)	Se	26.74	25	107.0	107.0	
CCV (65:48)	CVAA (Continuing calibration)	Hg	1.09	1	109.0	109.0	
	GFAA (Initial calibration)						
	GFAA (Continuing calibation)						

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L4

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: CR
2nd Reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{Found}{True} \times 100$ Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$ Where, S = Original sample concentration
D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$\%D = \frac{|I-SDR|}{I} \times 100$ Where, I = Initial Sample Result (mg/L)
SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated %R / RPD / %D	Reported %R / RPD / %D	Acceptable (Y/N)
ICSAB	ICP interference check	AS	19.7	20	98.5	98.5	Y
LCS	Laboratory control sample	P	1049.6	1000	105	105	Y
N	Matrix spike		(SSR-SR)				
N	Duplicate						
N	ICP serial dilution						

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 2
Reviewer: AR
2nd reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
Y N N/A Are all detection limits below the CRDL?

Detected analyte results for Zn were recalculated and verified using the following equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)}$

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation:

$$\frac{100mL(0.01783mg/L)}{0.905(1.03)} = 1.9\ mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	Al	11500	11500	
		Sb	0.25	0.25	
		As	5.9	5.9	
		Ba	101	101	
		Be	0.50	0.50	
		B	3.9	3.9	
		Cd	0.16	0.16	
		Ca	3210	3210	
		Cr	25.3	25.3	
		Co	6.3	6.3	
		Cu	21.8	21.8	
		Fe	17600	17600	
		Pb	7.7	7.7	
		Li	22.1	22.1	
		Mg	3900	3900	
		Mn	264	264	
		Hg	0.0074	0.0074	
		Mo	5.4	5.4	
		Ni	18.9	18.9	
		P	366	366	

Note:

LDC #: 25911L4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: CR
2nd reviewer: [signature]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
Y N N/A Are all detection limits below the CRDL?

Detected analyte results for _____ were recalculated and verified using the following equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)}$

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation: see Previous Page

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	K	2610	2610	Y
		Se	0.11	0.11	
		As	0.027	0.027	
		Na	123	123	
		Sr	17.5	17.5	
		Tl	0.24	0.24	
		Sn	2.6	2.6	
		Ti	104.0	1040	
		V	37.4	37.4	
		Zn	73.4	73.4	
		Zr	1.9	1.9	↓

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	March 10, 2011
LDC Report Date:	August 18, 2011
Matrix:	Soil
Parameters:	Wet Chemistry
Validation Level:	Level IV
Laboratory, Area IV:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE103

Sample Identification

SL-115-SA5A-SB-6.5-7.5
SL-115-SA5A-SB-13.0-14.0
SL-116-SA5A-SB-6.0-7.0
SL-116-SA5A-SB-14.0-15.0
SL-115-SA5A-SB-6.5-7.5MS
SL-115-SA5A-SB-6.5-7.5DUP

Introduction

This data review covers 6 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 9012B for Cyanide, EPA Method 300.0 for Nitrate and Fluoride, EPA SW 846 Method 7199 for Hexavalent Chromium, EPA SW 846 Method 9045C for pH, and EPA Method 314.0 for Perchlorate.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

All criteria for the initial calibration of each method were met.

III. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

No field blanks were identified in this SDG.

V. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VI. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Sample Result Verification

All sample result verifications were acceptable

All analytes reported below the RL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG DE103	All analytes reported below the RL and above the MDL.	J (all detects)	A

IX. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

X. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Wet Chemistry - Data Qualification Summary - SDG DE103

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Wet Chemistry – Laboratory Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Wet Chemistry - Field Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

LDC #: 25911L6 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-2-11
SDG #: DE103 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer: MV

METHOD: (Analyte) Cyanide (EPA SW846 Method 9012B), Nitrate-N, Fluoride (EPA Method 300.0), Hexavalent Chromium (EPA SW846 Method 7199), pH (~~EPA Method 150.1~~/EPA SW846 Method 9045C), Perchlorate (EPA Method 314.0)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10/11
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	A	
IV	Matrix Spike/Matrix Spike Duplicates	A	MS
V	Duplicates	A	Dup
VI.	Laboratory control samples	A	LCS/D
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-115-SA5A-SB-6.5-7.5	11	PBS	21		31	
2	SL-115-SA5A-SB-13.0-14.0	12		22		32	
3	SL-116-SA5A-SB-6.0-7.0	13		23		33	
4	SL-116-SA5A-SB-14.0-15.0	14		24		34	
5	(MS) MS	15		25		35	
6	↓ DUP	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 25916

VALIDATION FINDINGS CHECKLIST

Reviewer: CV
2nd Reviewer: W

Method: Inorganics (EPA Method See Cover)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients > 0.995?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)			✓	
III. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
IV. Matrix spike/Matrix spike duplicates and Duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of ≤ CRDL(≤ 2X CRDL for soil) was used for samples that were ≤ 5X the CRDL, including when only one of the duplicate sample values were < 5X the CRDL.	✓			
V. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
VI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

Validation Area	Yes	No	NA	Findings/Comments
VII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
VIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
IX. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
X. Field blanks				
Field blanks were identified in this SDG.		✓		
Target analytes were detected in the field blanks.			✓	

LDC #: 25911A6

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Reviewer: CR
2nd reviewer: W

All circled methods are applicable to each sample.

Sample ID	Matrix	Parameter
1-4		(pH) TDS Cl (F) (NO_3) NO_2 SO_4 PO_4 ALK (CN) NH_3 TKN TOC (CR^{6+}) (ClO_4)
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
QC 5, 6		pH TDS Cl (F) (NO_3) NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4

Comments:

LDC #: 25911L6

Validation Findings Worksheet
Initial and Continuing Calibration Calculation Verification

Reviewer: CR
2nd Reviewer:

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of 3/16/11 was recalculated. Calibration date: 0104

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found} \times 100}{\text{True}}$$

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution
True = concentration of each analyte in the ICV or CCV source

Type of analysis	Analyte	Standard	Conc. (ug/L)	Response	Recalculated r or r^2	Reported r or r^2	Acceptable (Y/N)
Initial calibration	0104	s1	2	0.005	*0.9997*	0.9996	Y
		s2	4.00	0.009			
		s3	10.00	0.024			
		s4	25.00	0.062			
		s5	100.00	0.267			
Calibration verification	NO3	CCV	1.5	1.4492	97	97	
Calibration verification	F	↓	1.5	1.3829	92	92	
Calibration verification	CN	↓	0.15	0.16030	107	107	↓

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 45711L6

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: QR
2nd Reviewer: [illegible]

METHOD: Inorganics, Method See cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

%R = Found / True x 100 Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

RPD = |S-D| / (S+D)/2 x 100 Where, S = Original sample concentration
D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated %R / RPD	Reported %R / RPD	Acceptable (Y/N)
LCS	Laboratory control sample	Cl04	560	500	112	-	Y
5	Matrix spike sample	F	(SSR-SR) 9.3	10.10101	92	92	↓
6	Duplicate sample	NO3	1.7	1.8	3	3	↓

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L6

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd reviewer: [illegible]

METHOD: Inorganics, Method See cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments?
Y N N/A Are all detection limits below the CRQL?

Compound (analyte) results for F reported with a positive detect were recalculated and verified using the following equation:

Concentration =

$y = 0.1827x - 0.0131$

Recalculation:

$$\frac{\frac{0.035 + 0.0131}{0.1827} \times 50mL}{4.93g(0.905)} = 2.95 mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	F	2.9	3.0	Y
		NO_3	1.9	1.9	↓
		pH	8.35	8.35	↓

Note: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	March 10, 2011
LDC Report Date:	August 18, 2011
Matrix:	Soil/Water
Parameters:	Total Petroleum Hydrocarbons as Gasoline
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE103

Sample Identification

SL-115-SA5A-SB-6.5-7.5
SL-115-SA5A-SB-13.0-14.0
SL-116-SA5A-SB-6.0-7.0
SL-116-SA5A-SB-14.0-15.0
TB-031011

Introduction

This data review covers 4 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

Sample TB-031011 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE103	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG DE103

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0 TB-031011	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

LDC #: 25911L7 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/4/11
SDG #: DE103 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: FT
2nd Reviewer: C

METHOD: GC TPH as Gasoline (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A ~~STAT~~	Sampling dates: 3/10/11
II	Initial calibration	A	%D RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS/D
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	TB = 5

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: SOIL + WATER

1	SL-115-SA5A-SB-6.5-7.5 S	11	110731A34A	21		31	
2	SL-115-SA5A-SB-13.0-14.0	12	11075B20A	22		32	
3	SL-115-SA5A-SB-6.0-7.0	13		23		33	
4	SL-115-SA5A-SB-14.0-15.0	14		24		34	
5	TB-031011 W	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 25911L7
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FD
2nd Reviewer: C

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 25911L7
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?			✓	
XII. System performance				
System performance was found to be acceptable.			✓	
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC #: 25911L7
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FJ
2nd Reviewer: A

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (550 std)	Recalculated CF (550 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL 110025	5/14/10	GRO	8420	8420	8050	8050	5.2	5.2
2	05398F	11/29/10	GRO	34175	34175	37329	37329	12.7	12.7
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 35 9/1L7
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC_____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV	3/17/11 10:32	GRO	550.0	569.66	569.66	3.6	3.6
2	CCV	3/14/11 10:54	↓	220.0	195.34	195.34	11.2	11.2
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25711 /
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer:

METHOD: ✓ GC ___ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
TFT	NS	635	501.73	79	79	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 25911L7
SDG #: pc cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: F2
2nd Reviewer:

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: 1cs

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)	11	NA	7.9	NA	72	72	NA			
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L7
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC ___ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration = _____

ND

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	March 10, 2011
LDC Report Date:	August 18, 2011
Matrix:	Soil
Parameters:	Total Petroleum Hydrocarbons as Extractables
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE103

Sample Identification

SL-115-SA5A-SB-6.5-7.5
SL-115-SA5A-SB-13.0-14.0
SL-116-SA5A-SB-6.0-7.0
SL-116-SA5A-SB-14.0-15.0
SL-115-SA5A-SB-6.5-7.5MS
SL-115-SA5A-SB-6.5-7.5MSD

Introduction

This data review covers 6 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound	Concentration	Associated Samples
PBLK15078	3/21/11	EFH (C30-C40)	1.2 mg/Kg	All samples in SDG DE103

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. Surrogate recoveries (%R) were not within QC limits for sample SL-116-SA5A-SB-14.0-15.0. Since the sample was diluted out, no data were qualified.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) were not within QC limits. Since the sample concentration was greater than the spiked concentration, no data were qualified.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE103	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG DE103

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

LDC #: 25911L8 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/8/11
SDG #: DE103 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC TPH as Extractables (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10/11
II	Initial calibration	A	% RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	SW	
V	Surrogate recovery	SW	
VI.	Matrix spike/Matrix spike duplicates	SW	
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: SOIL

1	SL-115-SA5A-SB-6.5-7.5	11	PBLK15078	21		31	
2	SL-115-SA5A-SB-13.0-14.0	12		22		32	
3	SL-115-SA5A-SB-6.0-7.0	13		23		33	
4	SL-115-SA5A-SB-14.0-15.0	14		24		34	
5	#1 MS	15		25		35	
6	#1 MSD	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 59111L8
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: EJ
2nd Reviewer:

Method: ✓ GC ____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 59112B
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25911/28

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: FT
2nd Reviewer: A

METHOD: ✓ GC ___ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were all samples associated with a given method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction procedure was performed?
Y N N/A Was a method blank performed with each extraction batch?
Y N N/A Were any contaminants found in the method blanks? If yes, please see findings below.

Level IV/D Only

Y N N/A (Gasoline and aromatics only)Was a method blank analyzed with each 24 hour batch?
Y N N/A Was a method blank analyzed for each analytical / extraction batch of ≤20 samples?

Blank extraction date: 3/21/11 **Blank analysis date:** 3/21/11 **Associated samples:** All (75X) (B)

Conc. units: mg/kg

Compound	Blank ID	Sample Identification						
	PBLK15078	5X						
EFH (C30-C40)	1·2	6						

Blank extraction date: ___ **Blank analysis date:** ___ **Associated samples:** ___

Conc. units: ___

Compound	Blank ID	Sample Identification						

ALL CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 25911L8

VALIDATION FINDINDS WORKSHEET
Surrogate Recovery

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: ✓ GC __ HPLC

Are surrogates required by the method? Yes____ or No____.

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were surrogates spiked into all samples and blanks?

Y N N/A Did all surrogate recoveries (%R) meet the QC limits?

B (S)

#	Sample ID	Detector/ Column	Surrogate Compound	%R (Limits)	Qualifications
	4	NS	A	220 (37-125)	~~LHP det~~ (All TCL
			H	245 (47-145)	✓
				( )	~~NO qual for B~~
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

	Surrogate Compound		Surrogate Compound		Surrogate Compound		Surrogate Compound		
A	Chlorobenzene (CBZ)	G	Octacosane	M	Benzo(e)Pyrene	S	1-Chloro-3-Nitrobenzene	Y	Tetrachloro-m- xylene
B	4-Bromofluorobenzene (BFB)	H	Ortho-Terphenyl	N	Terphenyl-D14	T	3,4-Dinitrotoluene		
C	a,a,a-Trifluorotoluene	I	Fluorobenzene (FBZ)	O	Decachlorobiphenyl (DCB)	U	Tripentyltin		
D	Bromochlorobenene	J	n-Triacontane	P	1-methylnaphthalene	V	Tri-n-propyltin		
E	1,4-Dichlorobutane	K	Hexacosane	Q	Dichlorophenyl Acetic Acid (DCAA)	W	Tributyl Phosphate		
F	1,4-Difluorobenzene (DFB)	L	Bromobenzene	R	4-Nitrophenol	X	Triphenyl Phosphate		

LDC #: 25911L8

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: ___ GC __ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG?

Y N N/A Was an MS/MSD analyzed every 20 samples for each matrix or whenever a sample extraction was performed?

Y N N/A Were the MS/MSD percent recoveries (%R) and relative percent differences (RPD) within QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	5+6	EFH (C21-C30)	-418 (49-123)	-326 (49-123)	( )	1	no qual parent
		4PH (C30-C40)	-611 (49-123)	-438 (49-123)	( )		74x spk Amt
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 25911L8
SDG #: per work

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FD
2nd Reviewer: C

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (28 std)	Recalculated CF (28 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/16/11	CX-CYC	19955	19955	20453	20453	4.7	4.7
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L8
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: A

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	J080.02R	3/21/11	C8-C40	143.99	154.18	154.18	7.1	7.1
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25711L8

SDG #: see cover

METHOD: ✓ GC ___ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: [signature]

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: # 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
chlorobenzene	NJ	1.0	0.8925	89	89	0
orthoterphenyl	↓	1.0	1.019	102	102	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 26 7140
SDG #: pw covers

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: EZ
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration
SA = Spike added
RPD =(((SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: # 5 + 6

Compound	Spike Added (mg/kg)		Sample Conc. (mg/kg)	Spike Sample Concentration (mg/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	---	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
EFH (C8-C11)	0.83	0.83	ND	0.66	0.65	80	80	78	78	2	2

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911A8
SDG #: MC cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: FO
2nd Reviewer: CA

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: MC3

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
EFH (C8-C41)	0.84	NA	0.72	NA	86	86	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L8
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC ___ HPLC

(Y) N N/A Were all reported results recalculated and verified for all level IV samples?
Y/N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration = $\frac{28694235\ (1000)}{(20453)(60.1)(1000)}$

$= 25.79\ mg/kg$

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 10, 2011

LDC Report Date: August 18, 2011

Matrix: Soil

Parameters: Explosives

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE103

Sample Identification

SL-115-SA5A-SB-6.5-7.5
SL-115-SA5A-SB-13.0-14.0
SL-116-SA5A-SB-6.0-7.0
SL-116-SA5A-SB-14.0-15.0

Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8330A for Explosives.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed for the primary (quantitation) column and confirmation column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at the required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No explosive contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE103	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Explosives - Data Qualification Summary - SDG DE103

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Explosives - Laboratory Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Explosives - Field Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

LDC #: 25911L40 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/8/11
SDG #: DE103 Level IV Page: of
Laboratory: Lancaster Laboratories Reviewer:
2nd Reviewer:

METHOD: HPLC Explosives (EPA SW 846 Method 8330A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10/11
II	Initial calibration	A	%D RSD ≤ 20, r²
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

SOIL

1	SL-115-SA5A-SB-6.5-7.5	11	PBLK02075	21		31	
2	SL-115-SA5A-SB-13.0-14.0	12		22		32	
3	SL-116-SA5A-SB-6.0-7.0	13		23		33	
4	SL-116-SA5A-SB-14.0-15.0	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 25911L40
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FD
2nd Reviewer: C

Method: ____ GC ✓ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 25911L4U
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			✓	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25911L4U
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

Level 3

#	Standard ID	Calibration Date	Compound	Reported CF (std)	Recalculated CF (std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL chrompack L	3/8/11	RDX (col. 1)	8.64×10^{1}	8.64×10^{1}	9.52×10^{1}	9.52×10^{1}	16.1	16.1
			1,3,5- TNB L	1.95×10^{2}	1.95×10^{2}	1.96×10^{2}	1.96×10^{2}	0.9	0.9
2	ICAL capcell CN	3/8/11	~~RDX~~ HMX (col. 3)	8.92×10^{1}	8.92×10^{1}	9.72×10^{1}	9.72×10^{1}	17.2	17.2
			Nitrobenzene	1.64×10^{2}	1.64×10^{2}	1.76×10^{2}	1.76×10^{2}	13.8	13.8
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L40
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: EJ
2nd Reviewer:

METHOD: GC_____HPLC ✓

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = Initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	3E12067.	3/18/11	RDX (col 1)	493.50	458.19	458.19	7.2	7.2
	06R		1,3,5-TNB ↓	500.50	499.78	499.78	0.1	0.1
	chrompack							
2	3E12067.	3/18/11	↓	987.00	910.63	910.63	7.7	7.7
	18R		↓	1001.00	1008.81	1008.81	0.8	0.8
	chrompack							
3	3E12067.06R		1+MA (col 3)	502.00	453.98	453.98	9.2	9.2
	•		Nitrobenzene ↓	499.50	468.53	468.53	6.2	6.2
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26911L4U
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: A

METHOD: __ GC __ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
2-Nitro-m-xylene	col. B	210 U	22.68	108	108	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 25911L4U
SDG #: all cores

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ___ GC ✓ HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = I LCS - LCSD I * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (ug/Kg)		Spiked Sample Concentration (ug/Kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)	2002.25	NA	2066.28	NA	103	103				
2,4,6-Trinitrotoluene (8330)	1999.2	↓	2308.09	↓	115	115	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911C4C
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ___ GC ✓ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration =_____

MP

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 10, 2011

LDC Report Date: August 18, 2011

Matrix: Soil

Parameters: Terphenyls

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE103

Sample Identification

SL-115-SA5A-SB-6.5-7.5
SL-115-SA5A-SB-13.0-14.0
SL-116-SA5A-SB-6.0-7.0
SL-116-SA5A-SB-14.0-15.0

Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Terphenyls.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No terphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Surrogate	%R (Limits)	Compound	Flag	A or P
SL-116-SA5A-SB-14.0-15.0	n-Triacontane-d62	192 (50-150)	All TCL compounds	J (all detects)	P

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE103	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Terphenyls - Data Qualification Summary - SDG DE103

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE103	SL-116-SA5A-SB-14.0-15.0	All TCL compounds	J (all detects)	P	Surrogate spikes (%R) (S)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Terphenyls - Laboratory Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Terphenyls - Field Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

LDC #: 25911L41 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/8/11
SDG #: DE103 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: EF
2nd Reviewer: AV

METHOD: GC Terphenyls (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10/11
II	Initial calibration	A	%D RSD ≤ 20
III.	Calibration verification/~~ICV~~	A	CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	SW	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:
SOIL

1	SL-115-SA5A-SB-6.5-7.5	11	PBLK37076	21		31	
2	SL-115-SA5A-SB-13.0-14.0	12		22		32	
3	SL-1156-SA5A-SB-6.0-7.0	13		23		33	
4	SL-1156-SA5A-SB-14.0-15.0	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 29114
SDG #: all water

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: EM
2nd Reviewer: A

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration.				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓	✓		
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?		✓		
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 25911L41
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: C

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			✓	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.		✓		

LDC #: 25911641

VALIDATION FINDINDS WORKSHEET
Surrogate Recovery

Reviewer: FT
2nd Reviewer: A

METHOD: __ GC ✓ HPLC
Are surrogates required by the method? Yes____ or No____.
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y (N) N/A Were surrogates spiked into all samples and blanks?
Y (N) N/A Did all surrogate recoveries (%R) meet the QC limits?

#	Sample ID	Detector/ Column	Surrogate Compound	%R (Limits)	Qualifications
	4	NS	*	192 (50-150)	J/P det (S)
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
		* n-Triacontane-d62		( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

	Surrogate Compound		Surrogate Compound		Surrogate Compound		Surrogate Compound		
A	Chlorobenzene (CBZ)	G	Octacosane	M	Benzo(e)Pyrene	S	1-Chloro-3-Nitrobenzene	Y	Tetrachloro-m- xylene
B	4-Bromofluorobenzene (BFB)	H	Ortho-Terphenyl	N	Terphenyl-D14	T	3,4-Dinitrotoluene		
C	a,a,a-Trifluorotoluene	I	Fluorobenzene (FBZ)	O	Decachlorobiphenyl (DCB)	U	Tripentyltin		
D	Bromochlorobenene	J	n-Triacontane	P	1-methylnaphthalene	V	Tri-n-propyltin		
E	1,4-Dichlorobutane	K	Hexacosane	Q	Dichlorophenyl Acetic Acid (DCAA)	W	Tributyl Phosphate		
F	1,4-Difluorobenzene (DFB)	L	Bromobenzene	R	4-Nitrophenol	X	Triphenyl Phosphate		

LDC #: 25911L4/
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

Level 3

#	Standard ID	Calibration Date	Compound	Reported CF (17.7/std)	Recalculated CF (17.7/std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/16/11	o-Terphenyl	2.59×10^4	2.59×10^4	2.54×10^4	2.54×10^4	2.1	2.1
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L41
SDG #: fw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: EJ
2nd Reviewer: A

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	R078.03	3/19/11	o-Terphenyl	35.48	35.70	35.70	0.6	0.6
2	R078.14R	3/20/11	↓	35.48	34.75	34.75	2.1	2.1
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25711C47
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer:

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
D- Triacontane - d62	NS	0.3338	0.360586	108	108	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 25911641
SDG #: all cores

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: FV
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
SC = Concentration
LCS = Laboratory control sample percent recovery
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
m-Terphenyl	1.68	NA	1.31	NA	78	78	NA	—		

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L41
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration =_____

NP

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	March 10, 2011
LDC Report Date:	August 18, 2011
Matrix:	Soil
Parameters:	Alcohols
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE103

Sample Identification

SL-115-SA5A-SB-6.5-7.5
SL-115-SA5A-SB-13.0-14.0
SL-116-SA5A-SB-6.0-7.0
SL-116-SA5A-SB-14.0-15.0

Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Alcohols.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No alcohol contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE103	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Alcohols - Data Qualification Summary - SDG DE103

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Alcohols - Laboratory Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Alcohols - Field Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

LDC #: 25911L43 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/8/11
SDG #: DE103 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer:
2nd Reviewer:

METHOD: GC Alcohols (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/14/11
II	Initial calibration	A	%D RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: SOIL

1	SL-115-SA5A-SB-6.5-7.5	11	PBLK 260TS	21		31	
2	SL-115-SA5A-SB-13.0-14.0	12		22		32	
3	SL-115-SA5A-SB-6.0-7.0	13		23		33	
4	SL-115-SA5A-SB-14.0-15.0	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 59114J3
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FM
2nd Reviewer: A

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control			✓	
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 25911L43
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25911L43
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

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#	Standard ID	Calibration Date	Compound	Reported CF (500 std)	Recalculated CF (500 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/4/11	methanol	6.07	6.07	6.11	6.11	6.1	6.1
2	ICAL	2/23/11	methanol	8.63	8.63	8.50	8.50	3.0	3.0
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 95911L43
SDG #: w conn

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: C

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV	3/16/11	Methanol	2500.0	2382.57	2382.57	4.7	4.7
	16:08							
2	CCV	3/16/11	↓	↓	2371.57	2371.57	5.1	5.1
	20:06							
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25711C7

SDG #: see cover

METHOD: ✓ GC __ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: [illegible]

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Acetone	NS	2500	2302.02	92	92	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 25911L43
SDG #: all cases

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: FR
2nd Reviewer: C

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
SC = Concentration
LCS = Laboratory control sample percent recovery
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
Methane	2507	NA	2271.6	NA	91	91	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L43
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC ___ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration = _____

N/A ND

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	March 10, 2011
LDC Report Date:	August 18, 2011
Matrix:	Soil
Parameters:	Glycols
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE103

Sample Identification

SL-115-SA5A-SB-6.5-7.5
SL-115-SA5A-SB-13.0-14.0
SL-116-SA5A-SB-6.0-7.0
SL-116-SA5A-SB-14.0-15.0

Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Glycols.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0%.

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
3/16/11 (F075.0034)	Propylene glycol Ethylene glycol Diethylene glycol	27.8 29.8 63.3	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0	J (all detects) UJ (all non-detects)	A

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No glycol contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE103	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Glycols - Data Qualification Summary - SDG DE103

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0	Propylene glycol Ethylene glycol Diethylene glycol	J (all detects) UJ (all non-detects)	A	Calibration verification (%D) (C)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Glycols - Laboratory Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Glycols - Field Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

LDC #: 25911L45 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/8/11
SDG #: DE103 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: EJ
2nd Reviewer: AI

METHOD: GC Glycols (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10/11
II	Initial calibration	A	% RSD ≤ 20
III.	Calibration verification/ICV	SW	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: SOIL

1	SL-115-SA5A-SB-6.5-7.5	11	PBLK07073	21		31	
2	SL-115-SA5A-SB-13.0-14.0	12		22		32	
3	SL-115-SA5A-SB-6.0-7.0	13		23		33	
4	SL-115-SA5A-SB-14.0-15.0	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 25911L45
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FM
2nd Reviewer: [illegible]

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	A	✓		
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 25911L45
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			✓	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25911L45

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: FT

METHOD: ✓ GC __ HPLC

2nd Reviewer: C

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
What type of continuing calibration calculation was performed? __%D or __RPD
Y N N/A Were continuing calibration standards analyzed at the required frequencies?
Y N N/A Did the continuing calibration standards meet the %D / RPD validation criteria of ≤20.0%?
Level IV Only
Y N N/A Were the retention times for all calibrated compounds within their respective acceptance windows?

(C)

#	Date	Standard ID	Detector/ Column	Compound	%D (Limit ≤ 20.0)	RT (limit)	Associated Samples	Qualifications
-	3/16/11	F075.0034	NS	propylene glycol	27.8	( )	1-D 4	J/UJ/A
-				ethylene glycol	29.8	( )	↓	↓
-				diethylene glycol	63.3	( )		
						( )		
						( )		
						( )		
						( )		
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LDC #: 25911L45
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

lw 4

#	Standard ID	Calibration Date	Compound	Reported 200.5164 CF (std)	Recalculated 200.5164 CF (std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/16/11	Propylene glycol	2.12×10^2	2.12×10^2	2.2×10^2 (218.26 ~~ED~~)	2.2×10^2	11.3	11.29
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 75911L4J
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: E

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = Initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	F075.0012	3/16/11	Propylene Glycol	320.07	318.20	318.20	0.6	0.6
2	F075.0034	3/16/11	↓	100.26	72.38	72.38	27.8	27.8
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911243

SDG #: see cover

METHOD: ✓ GC ___ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: A

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetramethylene glycol	NS	~~185~~ 197	~~108.589~~	55	55	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 25911L4J
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
Ethylene glycol	205.03	NA	173.35	NA	85	85	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L45
SDG #: 44 gones

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Y N (N/A) Were all reported results recalculated and verified for all level IV samples?
Y N (N/A) Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration = _____

ND

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 10, 2011

LDC Report Date: August 18, 2011

Matrix: Soil

Parameters: Formaldehyde

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE103

Sample Identification

SL-115-SA5A-SB-6.5-7.5
SL-115-SA5A-SB-13.0-14.0
SL-116-SA5A-SB-6.0-7.0
SL-116-SA5A-SB-14.0-15.0
SL-115-SA5A-SB-6.5-7.5MS
SL-115-SA5A-SB-6.5-7.5MSD

Introduction

This data review covers 6 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8315A for Formaldehyde.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No formaldehyde was found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE103	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Formaldehyde - Data Qualification Summary - SDG DE103

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE103	SL-115-SA5A-SB-6.5-7.5 SL-115-SA5A-SB-13.0-14.0 SL-116-SA5A-SB-6.0-7.0 SL-116-SA5A-SB-14.0-15.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Formaldehyde - Laboratory Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Formaldehyde - Field Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

LDC #: 25911L71 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/8/11
SDG #: DE103 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: FT
2nd Reviewer:

METHOD: HPLC Formaldehyde (EPA SW 846 Method 8315A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10/11
II	Initial calibration	A	%RSD ≤ 20
III.	Calibration verification/ICV	A	CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	~~A~~	
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

SOIL

1	SL-115-SA5A-SB-6.5-7.5	11	PB LK 01075	21		31	
2	SL-115-SA5A-SB-13.0-14.0	12		22		32	
3	SL-115-SA5A-SB-6.0-7.0	13		23		33	
4	SL-115-SA5A-SB-14.0-15.0	14		24		34	
5	#1 MS	15		25		35	
6	#1 MS D	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 25911L71
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 25911L7
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			✓	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?		✓		
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25911L7 /
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (100/ std)	Recalculated CF (100/ std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/19/11	Formaldehyde	4.13×10^{1}	4.13×10^{1}	5.45×10^{1}	5.45×10^{1}	18.0	18.0
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 35911C7 1
SDG #: fw cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: A

METHOD: GC ✓ HPLC_____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	IF4078.20R	3/19/11	Formaldehyde	2002.00	1906.95	1906.95	4.7	4.7
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25711L11
SDG #: see cover

METHOD: ✓ GC ___ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: C

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Butyraldehyde	NS	4000	5031.232	126	126	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 25911C11
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration
SA = Spike added
RPD =(((SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 5 + 6

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	---	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
Formaldehyde	5010	5010	ND	532784	5296.77	106	106	106	106	1	1

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L71
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: FQ
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
Formaldehyde	5010	NA	5044.32	NA	105	105	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L7J
SDG #: JJ9 power

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC ___ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration = _____

ND

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	March 10, 2011
LDC Report Date:	August 11, 2011
Matrix:	Soil
Parameters:	Perchlorate
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE103

Sample Identification

SL-115-SA5A-SB-6.0-7.0
SL-115-SA5A-SB-6.0-7.0MS
SL-115-SA5A-SB-6.0-7.0MSD

Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6850 for Perchlorate.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check is not required by the method.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990 .

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 15.0% for unlabeled compounds and less than or equal to 50.0% for labeled compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 15.0% for unlabeled compounds and less than or equal to 50.0% for labeled compounds.

The percent differences (%D) of the limit of detection verification (LODV) calibration standard were less than or equal to 30.0% for perchlorate.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No perchlorate was found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogate spikes were not required by the method.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE103	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Perchlorate - Data Qualification Summary - SDG DE103

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE103	SL-115-SA5A-SB-6.0-7.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Perchlorate - Laboratory Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Perchlorate - Field Blank Data Qualification Summary - SDG DE103

No Sample Data Qualified in this SDG

LDC #: 25911L87 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/8/11
SDG #: DE103 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer:
2nd Reviewer:

METHOD: LC/MS Perchlorate (EPA SW846 Method 6850)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/10/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	r^2
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 15/30 LODV ≤ 30
V.	Blanks	A	
VI.	Surrogate spikes	N	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-115-SA5A-SB-6.0-7.0	11	PBLK23080	21		31	
2	SOIL #/M	12		22		32	
3	#/MSD	13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 25911L87

VALIDATION FINDINGS CHECKLIST

Page: 1 of 1
Reviewer: FT
2nd Reviewer: C

Method: ~~Semivolatiles (EPA SW 846 Method 8270C)~~ 8270

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?			✓	
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?			✓	
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?			✓	
Were all percent differences (%D) ~~≤ 25%~~ 15/20 and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogates				
Were all surrogate %R within QC limits?			✓	
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix Spike				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. LCS				
Was an LCS analyzed for this SDG?	✓			

LDC #: 25911L87

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
X. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal Standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within + 30 seconds from the associated calibration standard?	✓			
XI. Target Compound Identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?			✓	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?			✓	
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound Quantitation and CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?			✓	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively Identified Compounds				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System Performance				
System performance was found to be acceptable.	✓			
XV. Overall Assessment				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field Duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field Blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC # 25911L87
SDG# see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Method 6850

Parameter: perchlorate

Date	Column	Compound	y	x	
03/22/2011	LCMS	perchlorate	0.0282	0.020	
			0.0448	0.040	
			0.1060	0.100	
			0.2088	0.200	
			0.4177	0.400	
			1.0595	1.000	
			2.7232	2.500	

Regression Output:	Regression Output:	Reported	
Constant	-0.00653		-6.6000E-003
Std Err of Y Est	0.01376		
R Squared	0.99984		0.99900
No. of Observations	7.00000		
Degrees of Freedom	5.00000		
X Coefficient(s)	1.088E+000	0.10880	
Std Err of Coef.	0.006235	0.04	

LDC #: 25911L87

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: ~~GC/MS BNA (EPA SW-846 Method 8270C)~~ 6850

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV	3/22/11	~~Phenol (1st internal standard)~~ Perchlorate	4	4.21	4.21	5	5
			~~Naphthalene (2nd internal standard)~~					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			~~Benzo(a)pyrene (6th internal standard)~~					
2			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911487

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: ~~GC/MS BNA (EPA SW 846 Method 8270)~~ 6850

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = | MSC - MSC | * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 2 + 3

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	-----	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Perchlorati ~~Phenol~~	100	100	ND	98	103	98	98	103	103	5	5
~~N-Nitroso-di-n-propylamine~~											
4-Chloro-3-methylphenol											
Acenaphthene											
Pentachlorophenol											
~~Pyrene~~											

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911681

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: ~~GC/MS BNA (EPA SW 846 Method 8270)~~ 6852

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol										
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene										
Pentachlorophenol										
Pyrene										
Perchlorate	100	NA	10U	NA	100	10U	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911187

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer: A

METHOD: ~~GC/MS~~ BNA (EPA SW 846 Method 8270) GBS2

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. _____, _____:

Conc. = $\frac{(\quad)(\quad)(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)(\quad)}$

=

ND

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

SAMPLE DELIVERY GROUP

DE104

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Mar-2011	TB-031411	6230065	TB	5030B	8015M	III
14-Mar-2011	TB-031411	6230065	TB	5030B	8260B	III
14-Mar-2011	TB-031411	6230065	TB	5030B	8260B SIM	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	3050B	6010B	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	3050B	6020	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	3060A	7199	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	3546	1625C	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	3550B	8015B	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	3550B	8015M	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	3550B	8082	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	3550B	8270C	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	3550B	8270C SIM	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	5035	8015M	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	5035	8260B	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	5035	8260B SIM	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	8330	8330A	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	Gen Prep	9045M	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	METHOD	300.0	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	METHOD	314.0	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	METHOD	7471A	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	METHOD	8015B	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	METHOD	8015M	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	METHOD	8315A	III
14-Mar-2011	SL-117-SA5A-SB-5.0-6.0	6230063	N	METHOD	9012B	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	3050B	6010B	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	3060A	7199	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	3546	1625C	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	3550B	8015B	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	3550B	8015M	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	3550B	8082	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	3550B	8270C	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	3550B	8270C SIM	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	5035	8015M	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	5035	8260B	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	5035	8260B SIM	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	8330	8330A	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	Gen Prep	9045M	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	METHOD	300.0	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	METHOD	314.0	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	METHOD	7471A	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	METHOD	8015B	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	METHOD	8015M	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	METHOD	8315A	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5	6230062	N	METHOD	9012B	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5MSD	P230062M321041A	MSD	3550B	8015B	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5MSD	P230062M321949A	MSD	METHOD	8015M	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5MS	P230062R320956A	MS	3550B	8015B	III
14-Mar-2011	SL-118-SA5A-SB-2.5-3.5MS	P230062R321932A	MS	METHOD	8015M	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0	6230061	N	3050B	6010B	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0	6230061	N	3050B	6020	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0	6230061	N	3060A	7199	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0	6230061	N	3550B	8082	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0	6230061	N	3550B	8270C	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0	6230061	N	3550B	8270C SIM	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0	6230061	N	5035	8260B	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0	6230061	N	5035	8260B SIM	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0	6230061	N	Gen Prep	9045M	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0	6230061	N	METHOD	300.0	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0	6230061	N	METHOD	314.0	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0	6230061	N	METHOD	6850	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0	6230061	N	METHOD	7471A	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0DUP	P230061D271735A	DUP	3060A	7199	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0DUP	P230061D272013A	DUP	METHOD	314.0	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0DUP	P230061D272046B	DUP	METHOD	300.0	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0DUP	P230061D290930A	DUP	Gen Prep	9045M	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0MSD	P230061M241328A	MSD	3550B	8082	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0MSD	P230061M260929	MSD	3550B	8270C	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0MSD	P230061M260931	MSD	3550B	8270C SIM	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0MS	P230061R241310A	MS	3550B	8082	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0MS	P230061R260900	MS	3550B	8270C SIM	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0MS	P230061R260904	MS	3550B	8270C	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0MS	P230061R271701A	MS	3060A	7199	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0MS	P230061R272037A	MS	METHOD	314.0	III
14-Mar-2011	SL-121-SA5A-SB-2.0-3.0MS	P230061R272102B	MS	METHOD	300.0	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	3050B	6010B	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	3050B	6020	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	3060A	7199	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	3546	1625C	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	3550B	8015B	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	3550B	8015M	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	3550B	8082	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	3550B	8270C	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	3550B	8270C SIM	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	5035	8015M	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	5035	8260B	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	5035	8260B SIM	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	8330	8330A	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	Gen Prep	9045M	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	METHOD	300.0	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	METHOD	314.0	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	METHOD	7471A	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	METHOD	8015B	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	METHOD	8015M	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	METHOD	8315A	III
14-Mar-2011	SL-001-SA5A-SB-4.0-5.0	6230064	N	METHOD	9012B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE104 **Laboratory:** LL

EDD Filename: DE104_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-001-SA5A-SB-4.0-5.0 *Collected:* 3/14/2011 2:57:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.32	J	1.01	MDL	5.66	PQL	mg/Kg	J	Z
TIN	2.75	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	1.42	J	0.951	MDL	5.66	PQL	mg/Kg	J	Z

Sample ID: SL-117-SA5A-SB-5.0-6.0 *Collected:* 3/14/2011 9:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.30	J	0.971	MDL	5.45	PQL	mg/Kg	J	Z
TIN	2.76	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.27	J	0.916	MDL	5.45	PQL	mg/Kg	J	Z

Sample ID: SL-118-SA5A-SB-2.5-3.5 *Collected:* 3/14/2011 10:33:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.53	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	1.93	J	0.891	MDL	5.30	PQL	mg/Kg	J	Z

Sample ID: SL-121-SA5A-SB-2.0-3.0 *Collected:* 3/14/2011 12:02:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.29	J	0.933	MDL	5.24	PQL	mg/Kg	J	Z
TIN	2.67	J	1.05	MDL	10.5	PQL	mg/Kg	U	B

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-001-SA5A-SB-4.0-5.0 *Collected:* 3/14/2011 2:57:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.113	J	0.0440	MDL	0.440	PQL	mg/Kg	J	Z

Sample ID: SL-001-SA5A-SB-4.0-5.0 *Collected:* 3/14/2011 2:57:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.0451	J	0.0440	MDL	0.110	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE104 **Laboratory:** LL

EDD Filename: DE104_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-001-SA5A-SB-4.0-5.0 *Collected:* 3/14/2011 2:57:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0508	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-117-SA5A-SB-5.0-6.0 *Collected:* 3/14/2011 9:14:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.120	J	0.0436	MDL	0.436	PQL	mg/Kg	J	Z

Sample ID: SL-117-SA5A-SB-5.0-6.0 *Collected:* 3/14/2011 9:14:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0250	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: SL-118-SA5A-SB-2.5-3.5 *Collected:* 3/14/2011 10:33:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.143	J	0.0428	MDL	0.428	PQL	mg/Kg	J	Z

Sample ID: SL-118-SA5A-SB-2.5-3.5 *Collected:* 3/14/2011 10:33:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0332	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-121-SA5A-SB-2.0-3.0 *Collected:* 3/14/2011 12:02:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.142	J	0.0428	MDL	0.428	PQL	mg/Kg	J	Z

Sample ID: SL-121-SA5A-SB-2.0-3.0 *Collected:* 3/14/2011 12:02:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0327	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE104 **Laboratory: LL**

EDD Filename: DE104_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-121-SA5A-SB-2.0-3.0 *Collected:* 3/14/2011 12:02:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.30	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-118-SA5A-SB-2.5-3.5 *Collected:* 3/14/2011 10:33:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0123	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-001-SA5A-SB-4.0-5.0 *Collected:* 3/14/2011 2:57:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	0.93	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z, L
EFH (C30-C40)	3.9		0.45	MDL	1.4	PQL	mg/Kg	J	L

Sample ID: SL-117-SA5A-SB-5.0-6.0 *Collected:* 3/14/2011 9:14:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.92	J	0.90	MDL	2.7	PQL	mg/Kg	J	Z, L
EFH (C21-C30)	29		0.90	MDL	2.7	PQL	mg/Kg	J	L
EFH (C30-C40)	64		0.90	MDL	2.7	PQL	mg/Kg	J	L

Sample ID: SL-118-SA5A-SB-2.5-3.5 *Collected:* 3/14/2011 10:33:00 *Analysis Type:* REA2 *Dilution:* 50

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	520		22	MDL	66	PQL	mg/Kg	J	L
EFH (C30-C40)	1200		22	MDL	66	PQL	mg/Kg	J	L

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE104 **Laboratory: LL**

EDD Filename: DE104_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-118-SA5A-SB-2.5-3.5 *Collected:* 3/14/2011 10:33:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	20	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-121-SA5A-SB-2.0-3.0 *Collected:* 3/14/2011 12:02:00 *Analysis Type:* RES-ACID *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DIMETHYLPHENOL	36	U	36	MDL	180	PQL	ug/Kg	UJ	Q
2,4-DINITROPHENOL	360	U	360	MDL	1100	PQL	ug/Kg	UJ	Q
2,4-DINITROTOLUENE	36	U	36	MDL	180	PQL	ug/Kg	UJ	Q
4-CHLORO-3-METHYLPHENOL	36	U	36	MDL	180	PQL	ug/Kg	UJ	Q

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-117-SA5A-SB-5.0-6.0 *Collected:* 3/14/2011 9:14:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.62	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-118-SA5A-SB-2.5-3.5 *Collected:* 3/14/2011 10:33:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	6.5	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	4.4	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
CHRYSENE	6.1	J	1.8	MDL	9.2	PQL	ug/Kg	J	Z
Di-n-butylphthalate	58	J	33	MDL	99	PQL	ug/Kg	U	B

Sample ID: SL-121-SA5A-SB-2.0-3.0 *Collected:* 3/14/2011 12:02:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIBENZO(A,H)ANTHRACENE	0.78	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
FLUORENE	0.87	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	2.2		0.72	MDL	1.8	PQL	ug/Kg	J	L
NAPHTHALENE	0.80	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE104 **Laboratory: LL**

EDD Filename: DE104_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8015B **Matrix: SO**

Sample ID: SL-118-SA5A-SB-2.5-3.5 *Collected:* 3/14/2011 10:33:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m-Terphenyl	1.7	U	1.7	MDL	3.9	PQL	mg/Kg	UJ	Q
p-Terphenyl	1.7	U	1.7	MDL	3.9	PQL	mg/Kg	UJ	Q

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-001-SA5A-SB-4.0-5.0 *Collected:* 3/14/2011 2:57:00 *Analysis Type:* RES *Dilution:* 0.83

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.9	J	0.22	MDL	3.7	PQL	ug/Kg	U	B

Sample ID: SL-117-SA5A-SB-5.0-6.0 *Collected:* 3/14/2011 9:14:00 *Analysis Type:* RES *Dilution:* 0.95

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.0	J	0.26	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: SL-118-SA5A-SB-2.5-3.5 *Collected:* 3/14/2011 10:33:00 *Analysis Type:* RES *Dilution:* 0.95

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.96	J	0.25	MDL	4.2	PQL	ug/Kg	U	B
TOLUENE	2.3	J	0.08	MDL	4.2	PQL	ug/Kg	J	Z

Sample ID: SL-121-SA5A-SB-2.0-3.0 *Collected:* 3/14/2011 12:02:00 *Analysis Type:* RES *Dilution:* 0.98

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.4	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE104 **Laboratory: LL**

EDD Filename: DE104_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE104 **Laboratory: LL**

EDD Filename: DE104_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE104 **Laboratory: LL**

EDD Filename: DE104_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE104

Method Blank Outlier Report

Lab Reporting Batch ID: DE104 Laboratory: LL

EDD Filename: DE104_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P07508AB221918	3/17/2011 7:18:00 PM	CALCIUM PHOSPHORUS TIN	8.02 mg/Kg 1.34 mg/Kg 1.44 mg/Kg	SL-001-SA5A-SB-4.0-5.0 SL-117-SA5A-SB-5.0-6.0 SL-118-SA5A-SB-2.5-3.5 SL-121-SA5A-SB-2.0-3.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-001-SA5A-SB-4.0-5.0(RES)	TIN	2.75 mg/Kg	2.75U mg/Kg
SL-117-SA5A-SB-5.0-6.0(RES)	TIN	2.78 mg/Kg	2.76U mg/Kg
SL-118-SA5A-SB-2.5-3.5(RES)	TIN	2.53 mg/Kg	2.53U mg/Kg
SL-121-SA5A-SB-2.0-3.0(RES)	TIN	2.67 mg/Kg	2.67U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P07526AB222150A	3/18/2011 9:50:00 PM	LEAD ZINC	0.0105 mg/Kg 0.644 mg/Kg	SL-001-SA5A-SB-4.0-5.0 SL-117-SA5A-SB-5.0-6.0 SL-118-SA5A-SB-2.5-3.5 SL-121-SA5A-SB-2.0-3.0

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P76765AB321804A	3/18/2011 6:04:00 PM	ETHYLENE GLYCOL	8.8 mg/Kg	SL-001-SA5A-SB-4.0-5.0 SL-118-SA5A-SB-2.5-3.5
P81813AB321805A	3/24/2011 6:05:00 PM	EFH (C30-C40)	0.54 mg/Kg	SL-001-SA5A-SB-4.0-5.0 SL-117-SA5A-SB-5.0-6.0 SL-118-SA5A-SB-2.5-3.5

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB95B211312A	3/15/2011 1:12:00 PM	METHYLENE CHLORIDE TOLUENE	0.67 ug/Kg 0.11 ug/Kg	SL-001-SA5A-SB-4.0-5.0 SL-117-SA5A-SB-5.0-6.0 SL-118-SA5A-SB-2.5-3.5 SL-121-SA5A-SB-2.0-3.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE104 **Laboratory: LL**

EDD Filename: DE104_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-001-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.9 ug/Kg	3.7U ug/Kg
SL-117-SA5A-SB-5.0-6.0(RES)	METHYLENE CHLORIDE	1.0 ug/Kg	4.2U ug/Kg
SL-118-SA5A-SB-2.5-3.5(RES)	METHYLENE CHLORIDE	0.96 ug/Kg	4.2U ug/Kg
SL-121-SA5A-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	1.4 ug/Kg	4.2U ug/Kg

Method: **8270C SIM**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLB08B260727	3/25/2011 7:27:00 AM	Di-n-butylphthalate	11 ug/Kg	SL-001-SA5A-SB-4.0-5.0 SL-117-SA5A-SB-5.0-6.0 SL-118-SA5A-SB-2.5-3.5 SL-121-SA5A-SB-2.0-3.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-118-SA5A-SB-2.5-3.5(RES)	Di-n-butylphthalate	58 ug/Kg	99U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE104 **Laboratory: LL**

EDD Filename: DE104_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-121-SA5A-SB-2.0-3.0MS	2,4-DIMETHYLPHENOL	77	-	78.00-110.00	-	2,4-DIMETHYLPHENOL	
SL-121-SA5A-SB-2.0-3.0MSD	2,4-DINITROPHENOL	-	16	20.00-143.00	-	2,4-DINITROPHENOL	J (all detects)
(SL-121-SA5A-SB-2.0-3.0)	2,4-DINITROTOLUENE	72	72	73.00-113.00	-	2,4-DINITROTOLUENE	UJ (all non-detects)
	4-CHLORO-3-METHYLPHENOL	71	73	76.00-110.00	-	4-CHLORO-3-METHYLPHENOL	

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-118-SA5A-SB-2.5-3.5MS	DIETHYLENE GLYCOL	129	140	59.00-109.00	-	DIETHYLENE GLYCOL	
SL-118-SA5A-SB-2.5-3.5MSD	ETHYLENE GLYCOL	132	145	63.00-107.00	-	ETHYLENE GLYCOL	J(all detects)
(SL-118-SA5A-SB-2.5-3.5)	Propylene glycol	132	140	63.00-107.00	-	Propylene glycol	

Method: 8015B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-118-SA5A-SB-2.5-3.5MS	m-Terphenyl	72	72	75.00-125.00	-	m-Terphenyl	
SL-118-SA5A-SB-2.5-3.5MSD	p-Terphenyl	72	69	75.00-125.00	-	p-Terphenyl	J(all detects)
(SL-118-SA5A-SB-2.5-3.5)							UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE104 **Laboratory: LL**

EDD Filename: DE104_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-121-SA5A-SB-2.0-3.0DUP (SL-001-SA5A-SB-4.0-5.0 SL -117-SA5A-SB-5.0-6.0 SL -118-SA5A-SB-2.5-3.5 SL -121-SA5A-SB-2.0-3.0)	Nitrate-NO3	200	20.00	No Qual OK by difference

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-121-SA5A-SB-2.0-3.0DUP (SL-001-SA5A-SB-4.0-5.0 SL -117-SA5A-SB-5.0-6.0 SL -118-SA5A-SB-2.5-3.5 SL -121-SA5A-SB-2.0-3.0)	HEXAVALENT CHROMIUM	200	20.00	No Qual OK by difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE104 Laboratory: LL

EDD Filename: DE104_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P1LBLCSQ260758 (SL-001-SA5A-SB-4.0-5.0 SL-117-SA5A-SB-5.0-6.0 SL-118-SA5A-SB-2.5-3.5 SL-121-SA5A-SB-2.0-3.0)	INDENO(1,2,3-CD)PYRENE	135	-	56.00-134.00	-	INDENO(1,2,3-CD)PYRENE	J (all detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10813AQ321831A (SL-001-SA5A-SB-4.0-5.0 SL-117-SA5A-SB-5.0-6.0 SL-118-SA5A-SB-2.5-3.5)	EFH (C12-C14)	118	-	66.00-113.00	-	EFH (C12-C14)	J(all detects)
	EFH (C15-C20)	121	-	66.00-113.00	-	EFH (C15-C20)	
	EFH (C21-C30)	126	-	66.00-113.00	-	EFH (C21-C30)	
	EFH (C30-C40)	116	-	66.00-113.00	-	EFH (C30-C40)	

Reporting Limit Outliers

Lab Reporting Batch ID: DE104 **Laboratory: LL**

EDD Filename: DE104_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA5A-SB-4.0-5.0	BORON	J	3.32	5.66	PQL	mg/Kg	J (all detects)
	TIN	J	2.75	11.3	PQL	mg/Kg	
	Zirconium	J	1.42	5.66	PQL	mg/Kg	
SL-117-SA5A-SB-5.0-6.0	BORON	J	3.30	5.45	PQL	mg/Kg	J (all detects)
	TIN	J	2.76	10.9	PQL	mg/Kg	
	Zirconium	J	1.27	5.45	PQL	mg/Kg	
SL-118-SA5A-SB-2.5-3.5	TIN	J	2.53	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.93	5.30	PQL	mg/Kg	
SL-121-SA5A-SB-2.0-3.0	BORON	J	3.29	5.24	PQL	mg/Kg	J (all detects)
	TIN	J	2.67	10.5	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA5A-SB-4.0-5.0	CADMIUM	J	0.0451	0.110	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.113	0.440	PQL	mg/Kg	
	SILVER	J	0.0508	0.110	PQL	mg/Kg	
SL-117-SA5A-SB-5.0-6.0	SELENIUM	J	0.120	0.436	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0250	0.109	PQL	mg/Kg	
SL-118-SA5A-SB-2.5-3.5	SELENIUM	J	0.143	0.428	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0332	0.107	PQL	mg/Kg	
SL-121-SA5A-SB-2.0-3.0	SELENIUM	J	0.142	0.428	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0327	0.107	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-121-SA5A-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.30	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-118-SA5A-SB-2.5-3.5	MERCURY	J	0.0123	0.105	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE104 **Laboratory: LL**

EDD Filename: DE104_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA5A-SB-4.0-5.0	EFH (C21-C30)	J	0.93	1.4	PQL	mg/Kg	J (all detects)
SL-117-SA5A-SB-5.0-6.0	EFH (C15-C20)	J	0.92	2.7	PQL	mg/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	2.9	3.7	PQL	ug/Kg	J (all detects)
SL-117-SA5A-SB-5.0-6.0	METHYLENE CHLORIDE	J	1.0	4.2	PQL	ug/Kg	J (all detects)
SL-118-SA5A-SB-2.5-3.5	METHYLENE CHLORIDE	J	0.96	4.2	PQL	ug/Kg	J (all detects)
	TOLUENE	J	2.3	4.2	PQL	ug/Kg	
SL-121-SA5A-SB-2.0-3.0	METHYLENE CHLORIDE	J	1.4	4.2	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-118-SA5A-SB-2.5-3.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	370	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-117-SA5A-SB-5.0-6.0	CHRYSENE	J	0.62	1.9	PQL	ug/Kg	J (all detects)
SL-118-SA5A-SB-2.5-3.5	BENZO(A)PYRENE	J	6.5	9.2	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	4.4	9.2	PQL	ug/Kg	
	CHRYSENE	J	6.1	9.2	PQL	ug/Kg	
	Di-n-butylphthalate	J	58	99	PQL	ug/Kg	
SL-121-SA5A-SB-2.0-3.0	DIBENZO(A,H)ANTHRACENE	J	0.78	1.8	PQL	ug/Kg	J (all detects)
	FLUORENE	J	0.87	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	0.80	1.8	PQL	ug/Kg	

LDC #: 25911M4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-11
SDG #: DE104 ADR
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer: e

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No Quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	CS
VII.	Duplicate Sample Analysis	N	↓
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	N	Not performed
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-121-SA5A-SB-2.0-3.0	11		21		31	
2	SL-118-SA5A-SB-2.5-3.5	12		22		32	
3	SL-117-SA5A-SB-5.0-3.0	13		23		33	
4	SL-001-SA5A-SB-4.0-5.0	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

SAMPLE DELIVERY GROUP

DE105

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
15-Mar-2011	TB-031511	6230975	TB	5030B	8015M	III
15-Mar-2011	TB-031511	6230975	TB	5030B	8260B	III
15-Mar-2011	TB-031511	6230975	TB	5030B	8260B SIM	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	3005A	6010B	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	3020A	6020	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	3510C	8015B	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	3510C	8015M	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	3510C	8082	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	3510C	8270C	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	3510C	8270C SIM	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	3520C	1625C	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	5030B	8015M	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	5030B	8260B	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	5030B	8260B SIM	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	8330	8330A	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	Gen Prep	300.0	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	Gen Prep	314.0	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	Gen Prep	7199	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	Gen Prep	8015B	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	Gen Prep	8015M	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	Gen Prep	9040B	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	METHOD	7470A	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	METHOD	8315A	III
15-Mar-2011	EB07-SA5A-031511	6230974	EB	METHOD	9012B	III
15-Mar-2011	EB07-SA5A-031511MSD	P230974M322237A	MSD	Gen Prep	8015M	III
15-Mar-2011	EB07-SA5A-031511MS	P230974R322219A	MS	Gen Prep	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	3050B	6010B	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	3050B	6020	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	3060A	7199	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	3546	1625C	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	3550B	8015B	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	3550B	8015M	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	3550B	8082	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	3550B	8270C	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	3550B	8270C SIM	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	5035	8015M	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	5035	8260B	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	5035	8260B SIM	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	8330	8330A	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	Gen Prep	9045M	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	METHOD	300.0	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	METHOD	314.0	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	METHOD	7471A	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	METHOD	8015B	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	METHOD	8015M	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	METHOD	8315A	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0	6230971	N	METHOD	9012B	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0DUP	P230971D220752	DUP	METHOD	7471A	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0DUP	P230971D221126A	DUP	3050B	6020	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0DUP	P230971D221126B	DUP	3050B	6020	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0DUP	P230971D221126C	DUP	3050B	6020	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0DUP	P230971D221126D	DUP	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0DUP	P230971D222005	DUP	3050B	6010B	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MSD	P230971M220754	MSD	METHOD	7471A	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MSD	P230971M221133A	MSD	3050B	6020	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MSD	P230971M221133B	MSD	3050B	6020	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MSD	P230971M221133C	MSD	3050B	6020	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MSD	P230971M221133D	MSD	3050B	6020	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MSD	P230971M222013	MSD	3050B	6010B	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MSD	P230971M241908A	MSD	8330	8330A	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MSD	P230971M242140A	MSD	METHOD	8315A	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MSD	P230971M261001	MSD	3546	1625C	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MSD	P230971M321430A	MSD	3550B	8015M	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MS	P230971R220753	MS	METHOD	7471A	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MS	P230971R221130A	MS	3050B	6020	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MS	P230971R221130B	MS	3050B	6020	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MS	P230971R221130C	MS	3050B	6020	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MS	P230971R221130D	MS	3050B	6020	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MS	P230971R222009	MS	3050B	6010B	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MS	P230971R241826A	MS	8330	8330A	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MS	P230971R242130A	MS	METHOD	8315A	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MS	P230971R260944	MS	3546	1625C	III
15-Mar-2011	SL-137-SA5A-SB-4.0-5.0MS	P230971R321404A	MS	3550B	8015M	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	3050B	6010B	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	3050B	6020	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	3060A	7199	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	3546	1625C	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	3550B	8015B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	3550B	8015M	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	3550B	8082	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	3550B	8270C	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	3550B	8270C SIM	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	5035	8015M	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	5035	8260B	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	5035	8260B SIM	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	8330	8330A	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	Gen Prep	9045M	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	METHOD	300.0	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	METHOD	314.0	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	METHOD	7471A	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	METHOD	8015B	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	METHOD	8015M	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	METHOD	8315A	III
15-Mar-2011	SL-138-SA5A-SB-4.0-5.0	6230973	N	METHOD	9012B	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	3050B	6010B	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	3050B	6020	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	3060A	7199	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	3546	1625C	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	3550B	8015B	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	3550B	8015M	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	3550B	8082	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	3550B	8270C	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	3550B	8270C SIM	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	5035	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	5035	8260B	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	5035	8260B SIM	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	8330	8330A	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	Gen Prep	9045M	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	METHOD	300.0	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	METHOD	314.0	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	METHOD	7471A	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	METHOD	8015B	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	METHOD	8015M	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	METHOD	8315A	III
15-Mar-2011	SL-132-SA5A-SB-2.0-3.0	6230972	N	METHOD	9012B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE105 **Laboratory:** LL

EDD Filename: DE105_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** AQ

Sample ID: EB07-SA5A-031511 *Collected:* 3/15/2011 10:00:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MAGNESIUM	0.0202	J	0.0172	MDL	0.100	PQL	mg/L	U	B

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-132-SA5A-SB-2.0-3.0 *Collected:* 3/15/2011 3:37:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.20	J	0.971	MDL	5.45	PQL	mg/Kg	J	Z
MANGANESE	304		0.0851	MDL	0.545	PQL	mg/Kg	J	E, E
TIN	3.30	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	2.32	J	0.916	MDL	5.45	PQL	mg/Kg	J	Z

Sample ID: SL-137-SA5A-SB-4.0-5.0 *Collected:* 3/15/2011 10:19:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.16	J	1.01	MDL	5.67	PQL	mg/Kg	J	Z
MANGANESE	283		0.0884	MDL	0.567	PQL	mg/Kg	J	E, E
TIN	3.19	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	2.48	J	0.952	MDL	5.67	PQL	mg/Kg	J	Z

Sample ID: SL-138-SA5A-SB-4.0-5.0 *Collected:* 3/15/2011 2:36:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.45	J	0.981	MDL	5.51	PQL	mg/Kg	J	Z
MANGANESE	243		0.0860	MDL	0.551	PQL	mg/Kg	J	E, E
TIN	3.00	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.57	J	0.926	MDL	5.51	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE105 **Laboratory:** LL

EDD Filename: DE105_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-132-SA5A-SB-2.0-3.0 *Collected:* 3/15/2011 3:37:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.182	J	0.0432	MDL	0.432	PQL	mg/Kg	J	Z

Sample ID: SL-132-SA5A-SB-2.0-3.0 *Collected:* 3/15/2011 3:37:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	128		0.117	MDL	0.432	PQL	mg/Kg	J	Q, E

Sample ID: SL-132-SA5A-SB-2.0-3.0 *Collected:* 3/15/2011 3:37:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.179	J	0.0648	MDL	0.216	PQL	mg/Kg	J	Z, Q, E
ARSENIC	8.83		0.0864	MDL	0.432	PQL	mg/Kg	J	Q
BERYLLIUM	1.42		0.0173	MDL	0.108	PQL	mg/Kg	J	Q, E
CADMIUM	0.0617	J	0.0432	MDL	0.108	PQL	mg/Kg	J	Z, Q
CHROMIUM	26.7		0.130	MDL	0.432	PQL	mg/Kg	J	Q
COBALT	6.73		0.0216	MDL	0.108	PQL	mg/Kg	J	Q, E, A
COPPER	8.47		0.0713	MDL	0.432	PQL	mg/Kg	J	Q, E
LEAD	8.81		0.0112	MDL	0.216	PQL	mg/Kg	J	Q, E, E
NICKEL	16.4		0.108	MDL	0.432	PQL	mg/Kg	J	Q, E
SILVER	0.0821	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z, Q
THALLIUM	0.399		0.0324	MDL	0.108	PQL	mg/Kg	J	Q
VANADIUM	52.8		0.0238	MDL	0.108	PQL	mg/Kg	J	Q, A
ZINC	72.9		0.605	MDL	3.24	PQL	mg/Kg	J	Q, E

Sample ID: SL-137-SA5A-SB-4.0-5.0 *Collected:* 3/15/2011 10:19:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.119	J	0.0458	MDL	0.458	PQL	mg/Kg	J	Z

Sample ID: SL-137-SA5A-SB-4.0-5.0 *Collected:* 3/15/2011 10:19:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	45.1		0.124	MDL	0.458	PQL	mg/Kg	J	Q, E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE105 **Laboratory: LL**

EDD Filename: DE105_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: **SL-137-SA5A-SB-4.0-5.0** ***Collected:*** **3/15/2011 10:19:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.127	J	0.0687	MDL	0.229	PQL	mg/Kg	J	Z, Q, E
ARSENIC	7.78		0.0916	MDL	0.458	PQL	mg/Kg	J	Q
BERYLLIUM	0.727		0.0183	MDL	0.114	PQL	mg/Kg	J	Q, E
CHROMIUM	18.1		0.137	MDL	0.458	PQL	mg/Kg	J	Q
COBALT	3.02		0.0229	MDL	0.114	PQL	mg/Kg	J	Q, E, A
COPPER	5.91		0.0755	MDL	0.458	PQL	mg/Kg	J	Q, E
LEAD	5.45		0.0119	MDL	0.229	PQL	mg/Kg	J	Q, E, E
NICKEL	7.77		0.114	MDL	0.458	PQL	mg/Kg	J	Q, E
SILVER	0.0256	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z, Q
THALLIUM	0.294		0.0343	MDL	0.114	PQL	mg/Kg	J	Q
VANADIUM	40.1		0.0252	MDL	0.114	PQL	mg/Kg	J	Q, A
ZINC	39.7		0.641	MDL	3.43	PQL	mg/Kg	J	Q, E

Sample ID: **SL-138-SA5A-SB-4.0-5.0** ***Collected:*** **3/15/2011 2:36:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.117	J	0.0445	MDL	0.445	PQL	mg/Kg	J	Z

Sample ID: **SL-138-SA5A-SB-4.0-5.0** ***Collected:*** **3/15/2011 2:36:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	52.8		0.120	MDL	0.445	PQL	mg/Kg	J	Q, E

Sample ID: **SL-138-SA5A-SB-4.0-5.0** ***Collected:*** **3/15/2011 2:36:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.154	J	0.0668	MDL	0.223	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.14		0.0891	MDL	0.445	PQL	mg/Kg	J	Q
BERYLLIUM	0.792		0.0178	MDL	0.111	PQL	mg/Kg	J	Q, E
CADMIUM	0.0454	J	0.0445	MDL	0.111	PQL	mg/Kg	J	Z, Q
CHROMIUM	18.5		0.134	MDL	0.445	PQL	mg/Kg	J	Q
COBALT	6.96		0.0223	MDL	0.111	PQL	mg/Kg	J	Q, E, A
COPPER	5.49		0.0735	MDL	0.445	PQL	mg/Kg	J	Q, E
LEAD	5.96		0.0116	MDL	0.223	PQL	mg/Kg	J	Q, E, E
NICKEL	8.55		0.111	MDL	0.445	PQL	mg/Kg	J	Q, E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE105 **Laboratory: LL**

EDD Filename: DE105_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-138-SA5A-SB-4.0-5.0 *Collected:* 3/15/2011 2:36:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0341	J	0.0134	MDL	0.111	PQL	mg/Kg	J	Z, Q
THALLIUM	0.257		0.0334	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	36.9		0.0245	MDL	0.111	PQL	mg/Kg	J	Q, A
ZINC	44.1		0.624	MDL	3.34	PQL	mg/Kg	J	Q, E

Method Category: METALS

Method: 7199 **Matrix: AQ**

Sample ID: EB07-SA5A-031511 *Collected:* 3/15/2011 10:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	5.0	U	5.0	MDL	10.0	PQL	ug/L	UJ	H

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-137-SA5A-SB-4.0-5.0 *Collected:* 3/15/2011 10:19:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.36	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-138-SA5A-SB-4.0-5.0 *Collected:* 3/15/2011 2:36:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.91	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-132-SA5A-SB-2.0-3.0 *Collected:* 3/15/2011 3:37:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0088	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE105 Laboratory: LL

EDD Filename: DE105_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: SL-137-SA5A-SB-4.0-5.0 *Collected:* 3/15/2011 10:19:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0088	J	0.0032	MDL	0.113	PQL	mg/Kg	J	Z

Sample ID: SL-138-SA5A-SB-4.0-5.0 *Collected:* 3/15/2011 2:36:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0108	J	0.0031	MDL	0.110	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix:** AQ

Sample ID: EB07-SA5A-031511 *Collected:* 3/15/2011 10:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	1.14		0.491	MDL	0.982	PQL	ng/L	U	B

Method Category: SVOA

Method: 1625C **Matrix:** SO

Sample ID: SL-138-SA5A-SB-4.0-5.0 *Collected:* 3/15/2011 2:36:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	30.3	J	18.8	MDL	37.5	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix:** AQ

Sample ID: EB07-SA5A-031511 *Collected:* 3/15/2011 10:00:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	10	U	10	MDL	100	PQL	mg/L	UJ	Q
ETHYLENE GLYCOL	10	U	10	MDL	100	PQL	mg/L	UJ	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE105 **Laboratory: LL**

EDD Filename: DE105_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: AQ**

Sample ID: EB07-SA5A-031511 *Collected:* 3/15/2011 10:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROTOLUENE	1	U	1	MDL	5	PQL	ug/L	UJ	L
2,6-DINITROTOLUENE	1	U	1	MDL	5	PQL	ug/L	UJ	L
2-NITROANILINE	1	U	1	MDL	5	PQL	ug/L	UJ	L
2-NITROPHENOL	1	U	1	MDL	5	PQL	ug/L	UJ	L
4,6-DINITRO-2-METHYLPHENOL	5	U	5	MDL	15	PQL	ug/L	UJ	L
BENZYL ALCOHOL	5	U	5	MDL	15	PQL	ug/L	UJ	L
NITROBENZENE	1	U	1	MDL	5	PQL	ug/L	UJ	L

Method Category: SVOA

Method: 8270C SIM **Matrix: AQ**

Sample ID: EB07-SA5A-031511 *Collected:* 3/15/2011 10:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	0.075	J	0.048	MDL	0.96	PQL	ug/L	U	B
Diethylphthalate	0.067	J	0.048	MDL	0.96	PQL	ug/L	J	Z
Di-n-butylphthalate	0.44	J	0.048	MDL	0.96	PQL	ug/L	J	Z
NAPHTHALENE	0.029	J	0.029	MDL	0.048	PQL	ug/L	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-138-SA5A-SB-4.0-5.0 *Collected:* 3/15/2011 2:36:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	7.5	J	6.7	MDL	20	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8015B **Matrix: AQ**

Sample ID: EB07-SA5A-031511 *Collected:* 3/15/2011 10:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m-Terphenyl	0.079	U	0.079	MDL	0.25	PQL	mg/L	UJ	S

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE105 **Laboratory: LL**

EDD Filename: DE105_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8015B **Matrix: AQ**

Sample ID: EB07-SA5A-031511 *Collected:* 3/15/2011 10:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
O-TERPHENYL	0.079	U	0.079	MDL	0.25	PQL	mg/L	UJ	S
p-Terphenyl	0.079	U	0.079	MDL	0.25	PQL	mg/L	UJ	L, S

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-132-SA5A-SB-2.0-3.0 *Collected:* 3/15/2011 3:37:00 *Analysis Type:* RES *Dilution:* 0.89

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.1	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: SL-137-SA5A-SB-4.0-5.0 *Collected:* 3/15/2011 10:19:00 *Analysis Type:* RES *Dilution:* 0.9

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.14	J	0.06	MDL	4.2	PQL	ug/Kg	J	Z
m,p-Xylene	0.49	J	0.18	MDL	4.2	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	3.4	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: SL-138-SA5A-SB-4.0-5.0 *Collected:* 3/15/2011 2:36:00 *Analysis Type:* RES *Dilution:* 1.03

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.10	J	0.07	MDL	4.6	PQL	ug/Kg	J	Z
m,p-Xylene	0.31	J	0.20	MDL	4.6	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	2.0	J	0.28	MDL	4.6	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE105 **Laboratory: LL**

EDD Filename: DE105_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE105 **Laboratory: LL**

EDD Filename: DE105_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE105 **Laboratory: LL**

EDD Filename: DE105_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE105

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE105 **Laboratory: LL**

EDD Filename: DE105_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199 **Preparation Method: Gen Prep**

Matrix: AQ

Sample ID	*Type*	*Actual*	*Criteria*	*Units*	*Flag*
EB07-SA5A-031511 (RES)	Sampling To Analysis	25.00	24.00	HOURS	J (all detects) UJ (all non-detects)

Project Name and Number: 1203-004-008-AL -

Method Blank Outlier Report

Lab Reporting Batch ID: DE105 Laboratory: LL

EDD Filename: DE105_v1 eQAPP Name: CDM_SSFL_110509

Method: 1625C
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWA07B261124	3/18/2011 11:24:00 AM	N-NITROSODIMETHYLAMINE	0.908 ng/L	EB07-SA5A-031511

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB07-SA5A-031511(RES)	N-NITROSODIMETHYLAMINE	1.14 ng/L	1.14U ng/L

Method: 6010B
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P07748BB222039	3/21/2011 8:39:00 PM	MAGNESIUM	0.0362 mg/L	EB07-SA5A-031511

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB07-SA5A-031511(REA)	MAGNESIUM	0.0202 mg/L	0.0202U mg/L

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P07608BB221945	3/19/2011 7:45:00 PM	ALUMINUM IRON PHOSPHORUS TIN	22.6 mg/Kg 11.7 mg/Kg 1.05 mg/Kg 1.37 mg/Kg	SL-132-SA5A-SB-2.0-3.0 SL-137-SA5A-SB-4.0-5.0 SL-138-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-132-SA5A-SB-2.0-3.0(RES)	TIN	3.30 mg/Kg	3.30U mg/Kg
SL-137-SA5A-SB-4.0-5.0(RES)	TIN	3.19 mg/Kg	3.19U mg/Kg
SL-138-SA5A-SB-4.0-5.0(RES)	TIN	3.00 mg/Kg	3.00U mg/Kg

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P76765AB321804A	3/18/2011 6:04:00 PM	ETHYLENE GLYCOL	8.8 mg/Kg	SL-132-SA5A-SB-2.0-3.0 SL-137-SA5A-SB-4.0-5.0 SL-138-SA5A-SB-4.0-5.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE105 Laboratory: LL

EDD Filename: DE105_v1 eQAPP Name: CDM_SSFL_110509

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB96B211227A	3/17/2011 12:27:00 PM	METHYLENE CHLORIDE TOLUENE	0.59 ug/Kg 0.15 ug/Kg	SL-132-SA5A-SB-2.0-3.0 SL-137-SA5A-SB-4.0-5.0 SL-138-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-132-SA5A-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	1.1 ug/Kg	4.0U ug/Kg
SL-137-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	3.4 ug/Kg	4.2U ug/Kg
SL-138-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.0 ug/Kg	4.6U ug/Kg

Method: 8270C SIM
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWB07B260818	3/23/2011 8:18:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE	0.092 ug/L	EB07-SA5A-031511

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB07-SA5A-031511(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.075 ug/L	0.96U ug/L

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE105 **Laboratory: LL**

EDD Filename: DE105_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
EB07-SA5A-031511MS EB07-SA5A-031511MSD (EB07-SA5A-031511)	DIETHYLENE GLYCOL ETHYLENE GLYCOL	75 85	- -	83.00-130.00 89.00-125.00	33 (20.00) -	DIETHYLENE GLYCOL ETHYLENE GLYCOL	J(all detects) UJ(all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-137-SA5A-SB-4.0-5.0MS SL-137-SA5A-SB-4.0-5.0MSD (SL-132-SA5A-SB-2.0-3.0 SL-137-SA5A-SB-4.0-5.0 SL-138-SA5A-SB-4.0-5.0)	ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT COPPER NICKEL SILVER THALLIUM VANADIUM ZINC	162 146 140 157 - 128 134 128 - 145 209	217 160 146 169 127 142 143 136 140 186 248	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - - - - - - -	ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT COPPER NICKEL SILVER THALLIUM VANADIUM ZINC	J (all detects)
SL-137-SA5A-SB-4.0-5.0MS SL-137-SA5A-SB-4.0-5.0MSD (SL-132-SA5A-SB-2.0-3.0 SL-137-SA5A-SB-4.0-5.0 SL-138-SA5A-SB-4.0-5.0)	ANTIMONY LEAD	55 176	- 289	75.00-125.00 75.00-125.00	28 (20.00) 29 (20.00)	ANTIMONY LEAD	J(all detects) UJ(all non-detects)
SL-137-SA5A-SB-4.0-5.0MS SL-137-SA5A-SB-4.0-5.0MSD (SL-132-SA5A-SB-2.0-3.0 SL-137-SA5A-SB-4.0-5.0 SL-138-SA5A-SB-4.0-5.0)	BARIUM	244	264	75.00-125.00	-	BARIUM	J(all detects)

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-137-SA5A-SB-4.0-5.0MS SL-137-SA5A-SB-4.0-5.0MSD (SL-132-SA5A-SB-2.0-3.0 SL-137-SA5A-SB-4.0-5.0 SL-138-SA5A-SB-4.0-5.0)	ALUMINUM CALCIUM IRON MAGNESIUM TITANIUM	1917 149 243 184 265	1979 156 168 282 266	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	ALUMINUM CALCIUM IRON MAGNESIUM TITANIUM	No Qual, >4x
SL-137-SA5A-SB-4.0-5.0MS SL-137-SA5A-SB-4.0-5.0MSD (SL-132-SA5A-SB-2.0-3.0 SL-137-SA5A-SB-4.0-5.0 SL-138-SA5A-SB-4.0-5.0)	MANGANESE	-92	-	75.00-125.00	40 (20.00)	MANGANESE	J(all detects) UJ(all non-detects) No Qual %R, >4x

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE105 **Laboratory: LL**

EDD Filename: DE105_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-137-SA5A-SB-4.0-5.0DUP (SL-132-SA5A-SB-2.0-3.0 SL -137-SA5A-SB-4.0-5.0 SL -138-SA5A-SB-4.0-5.0)	MANGANESE	32	20.00	J (all detects) UJ (all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-137-SA5A-SB-4.0-5.0DUP (SL-132-SA5A-SB-2.0-3.0 SL -137-SA5A-SB-4.0-5.0 SL -138-SA5A-SB-4.0-5.0)	ANTIMONY	34	20.00	
	BARIUM	38	20.00	
	BERYLLIUM	22	20.00	
	COBALT	140	20.00	
	COPPER	26	20.00	J(all detects)
	LEAD	55	20.00	UJ(all non-detects)
	NICKEL	29	20.00	
	SELENIUM	46	20.00	Sb, Se, Ag No Qual
	SILVER	67	20.00	OK by difference
	ZINC	37	20.00	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE105 **Laboratory: LL**

EDD Filename: DE105_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P6WJLCSQ260305 P6WJLCSY260330 (EB07-SA5A-031511)	2,4-DINITROTOLUENE	80	-	81.00-115.00	-	2,4-DINITROTOLUENE	J (all detects) UJ (all non-detects)
	2,6-DINITROTOLUENE	82	-	85.00-115.00	-	2,6-DINITROTOLUENE	
	2-NITROANILINE	79	-	83.00-116.00	-	2-NITROANILINE	
	2-NITROPHENOL	81	84	86.00-120.00	-	2-NITROPHENOL	
	4,6-DINITRO-2-METHYLPHENOL	73	73	78.00-119.00	-	4,6-DINITRO-2-METHYLPHEN	
	BENZYL ALCOHOL	62	-	66.00-97.00	-	BENZYL ALCOHOL	
	NITROBENZENE	72	-	75.00-109.00	-	NITROBENZENE	

Method: 8015B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10764AY322220A (EB07-SA5A-031511)	p-Terphenyl	-	67	75.00-125.00	-	p-Terphenyl	J(all detects) UJ(all non-detects)

Method: 8330A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10804AQ242342A P10804AY240024A (EB07-SA5A-031511)	2,4,6-TRINITROTOLUENE	110	110	76.00-109.00	-	2,4,6-TRINITROTOLUENE	J(all detects)

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P1LBLCSQ260758 (SL-132-SA5A-SB-2.0-3.0 SL-137-SA5A-SB-4.0-5.0 SL-138-SA5A-SB-4.0-5.0)	INDENO(1,2,3-CD)PYRENE	135	-	56.00-134.00	-	INDENO(1,2,3-CD)PYRENE	J(all detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE105 **Laboratory: LL**

EDD Filename: DE105_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8015B**
Matrix: **AQ**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
EB07-SA5A-031511	n-Triacontane-d62	17	50.00-150.00	All Target Analytes	J (all detects) UJ (all non-detects)

Method: **8270C**
Matrix: **AQ**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
EB07-SA5A-031511	PHENOL-D6	19	20.00-120.00	No Affected Compounds	No Qualifiers

Reporting Limit Outliers

Lab Reporting Batch ID: DE105 Laboratory: LL

EDD Filename: DE105_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB07-SA5A-031511	MAGNESIUM	J	0.0202	0.100	PQL	mg/L	J (all detects)

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB07-SA5A-031511	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.075	0.96	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.067	0.96	PQL	ug/L	
	Di-n-butylphthalate	J	0.44	0.96	PQL	ug/L	
	NAPHTHALENE	J	0.029	0.048	PQL	ug/L	

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-138-SA5A-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	30.3	37.5	PQL	ng/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-132-SA5A-SB-2.0-3.0	BORON	J	3.20	5.45	PQL	mg/Kg	J (all detects)
	TIN	J	3.30	10.9	PQL	mg/Kg	
	Zirconium	J	2.32	5.45	PQL	mg/Kg	
SL-137-SA5A-SB-4.0-5.0	BORON	J	2.16	5.67	PQL	mg/Kg	J (all detects)
	TIN	J	3.19	11.3	PQL	mg/Kg	
	Zirconium	J	2.48	5.67	PQL	mg/Kg	
SL-138-SA5A-SB-4.0-5.0	BORON	J	2.45	5.51	PQL	mg/Kg	J (all detects)
	TIN	J	3.00	11.0	PQL	mg/Kg	
	Zirconium	J	1.57	5.51	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-132-SA5A-SB-2.0-3.0	ANTIMONY	J	0.179	0.216	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0617	0.108	PQL	mg/Kg	
	SELENIUM	J	0.182	0.432	PQL	mg/Kg	
	SILVER	J	0.0821	0.108	PQL	mg/Kg	
SL-137-SA5A-SB-4.0-5.0	ANTIMONY	J	0.127	0.229	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.119	0.458	PQL	mg/Kg	
	SILVER	J	0.0256	0.114	PQL	mg/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE105 **Laboratory: LL**

EDD Filename: DE105_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-138-SA5A-SB-4.0-5.0	ANTIMONY	J	0.154	0.223	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0454	0.111	PQL	mg/Kg	
	SELENIUM	J	0.117	0.445	PQL	mg/Kg	
	SILVER	J	0.0341	0.111	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-137-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.36	1.2	PQL	mg/Kg	J (all detects)
SL-138-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.91	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-132-SA5A-SB-2.0-3.0	MERCURY	J	0.0088	0.108	PQL	mg/Kg	J (all detects)
SL-137-SA5A-SB-4.0-5.0	MERCURY	J	0.0088	0.113	PQL	mg/Kg	J (all detects)
SL-138-SA5A-SB-4.0-5.0	MERCURY	J	0.0108	0.110	PQL	mg/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-132-SA5A-SB-2.0-3.0	METHYLENE CHLORIDE	J	1.1	4.0	PQL	ug/Kg	J (all detects)
SL-137-SA5A-SB-4.0-5.0	ETHYLBENZENE	J	0.14	4.2	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.49	4.2	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	3.4	4.2	PQL	ug/Kg	
SL-138-SA5A-SB-4.0-5.0	ETHYLBENZENE	J	0.10	4.6	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.31	4.6	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	2.0	4.6	PQL	ug/Kg	

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-138-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.5	20	PQL	ug/Kg	J (all detects)

LDC #: 25911N4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/3/11
SDG #: DE105 ADR
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ca, Fe, Mg, Mn, Ti > 4x)
VII.	Duplicate Sample Analysis	N	Dup (Sb, Se, Ag, Zr <5x RL)
VIII.	Laboratory Control Samples (LCS)	NA	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Co: 23%, V: 12% J/UJ
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	SW	EB=4

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	SL-137-SA5A-SB-4.0-5.0	11		21		31	
2	SL-132-SA5A-SB-2.0-3.0	12		22		32	
3	SL-138-SA5A-SB-4.0-5.0	13		23		33	
4	EB07-SA5A-031511	14		24		34	
5	(XXI) MS	15		25		35	
6	MSD	16		26		36	
7	DUP	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 25911N4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: 100x x MS: 2xdil
Sample Concentration units, unless otherwise noted: ug/L
Associated Samples: All Water

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	4											
Mg			89.7	448.5	20.2											

Sample Concentration units, unless otherwise noted: ug/L
Associated Samples: All Soil

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	No Quals											
Tl			0.098	0.098												
Sn			2.3	1.15												

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 25911N4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: AL
2nd Reviewer: _____

METHOD: Trace Metals (EPA SW846 6010B/7000)
Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target analytes detected in the field blanks?
Blank units: ug/L **Associated sample units:** mg/Kg
Sampling date: 3/15/11 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: _____ Associated Samples: All Soil

Analyte	Blank ID	Sample Identification										
	4	Action Level	No Qualifiers									
Mg	20.2	10.1										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

SAMPLE DELIVERY GROUP

DE106

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Mar-2011	TB-031611	6232224	TB	5030B	8015M	III
16-Mar-2011	TB-031611	6232224	TB	5030B	8260B	III
16-Mar-2011	TB-031611	6232224	TB	5030B	8260B SIM	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	3050B	6010B	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	3050B	6020	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	3060A	7199	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	3546	1625C	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	3550B	8015B	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	3550B	8015M	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	3550B	8082	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	3550B	8270C	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	3550B	8270C SIM	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	5035	8015M	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	5035	8260B	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	5035	8260B SIM	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	8330	8330A	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	Gen Prep	9045M	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	METHOD	300.0	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	METHOD	314.0	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	METHOD	7471A	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	METHOD	8015B	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	METHOD	8015M	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	METHOD	8315A	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0	6232220	N	METHOD	9012B	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0DUP	P232220D270030A	DUP	METHOD	300.0	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0DUP	P232220D270302A	DUP	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0DUP	P232220D271618A	DUP	METHOD	9012B	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0MSD	P232220M321609A	MSD	3550B	8015B	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0MS	P232220R270045A	MS	METHOD	300.0	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0MS	P232220R270326A	MS	METHOD	314.0	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0MS	P232220R271619A	MS	METHOD	9012B	III
16-Mar-2011	SL-146-SA5A-SB-3.0-4.0MS	P232220R321524A	MS	3550B	8015B	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	3050B	6010B	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	3050B	6020	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	3060A	7199	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	3546	1625C	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	3550B	8015B	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	3550B	8015M	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	3550B	8082	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	3550B	8270C	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	3550B	8270C SIM	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	5035	8015M	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	5035	8260B	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	5035	8260B SIM	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	8330	8330A	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	Gen Prep	9045M	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	METHOD	300.0	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	METHOD	314.0	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	METHOD	7471A	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	METHOD	8015B	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	METHOD	8015M	III
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	METHOD	8315A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Mar-2011	SL-128-SA5A-SB-4.0-5.0	6232221	N	METHOD	9012B	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	3050B	6010B	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	3050B	6020	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	3060A	7199	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	3546	1625C	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	3550B	8015B	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	3550B	8015M	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	3550B	8082	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	3550B	8270C	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	3550B	8270C SIM	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	5035	8015M	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	5035	8260B	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	5035	8260B SIM	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	8330	8330A	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	Gen Prep	9045M	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	METHOD	300.0	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	METHOD	314.0	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	METHOD	7471A	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	METHOD	8015B	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	METHOD	8015M	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	METHOD	8315A	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10.0	6232222	N	METHOD	9012B	III
16-Mar-2011	SL-128-SA5A-SB-9.0-10DUP	P232222D290930B	DUP	Gen Prep	9045M	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	3050B	6010B	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	3050B	6020	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	3060A	7199	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	3546	1625C	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	3550B	8015B	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	3550B	8015M	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	3550B	8082	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	3550B	8270C	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	3550B	8270C SIM	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	5035	8015M	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	5035	8260B	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	5035	8260B SIM	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	8330	8330A	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	Gen Prep	9045M	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	METHOD	300.0	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	METHOD	314.0	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	METHOD	7471A	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	METHOD	8015B	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	METHOD	8015M	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	METHOD	8315A	III
16-Mar-2011	SL-133-SA5A-SB-4.0-5.0	6232223	N	METHOD	9012B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE106 Laboratory: LL

EDD Filename: DE106_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 Matrix: SO

Sample ID: SL-128-SA5A-SB-4.0-5.0 *Collected:* 3/16/2011 12:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.0		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-128-SA5A-SB-9.0-10.0 *Collected:* 3/16/2011 12:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.8		0.85	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-133-SA5A-SB-4.0-5.0 *Collected:* 3/16/2011 3:18:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.7		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-146-SA5A-SB-3.0-4.0 *Collected:* 3/16/2011 10:16:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.3		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B Matrix: SO

Sample ID: SL-128-SA5A-SB-4.0-5.0 *Collected:* 3/16/2011 12:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.08	J	0.962	MDL	5.40	PQL	mg/Kg	J	Z
MANGANESE	280		0.0843	MDL	0.540	PQL	mg/Kg	J	Q, E
SODIUM	88.0	J	40.3	MDL	108	PQL	mg/Kg	J	Z
TIN	2.85	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	1.52	J	0.908	MDL	5.40	PQL	mg/Kg	J	Z

Sample ID: SL-128-SA5A-SB-9.0-10.0 *Collected:* 3/16/2011 12:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.01	J	0.922	MDL	5.18	PQL	mg/Kg	J	Z
MANGANESE	283		0.0808	MDL	0.518	PQL	mg/Kg	J	Q, E
TIN	2.73	J	1.04	MDL	10.4	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE106 Laboratory: LL

EDD Filename: DE106_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B Matrix: SO

Sample ID: SL-128-SA5A-SB-9.0-10.0 *Collected:* 3/16/2011 12:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	1.51	J	0.871	MDL	5.18	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA5A-SB-4.0-5.0 *Collected:* 3/16/2011 3:18:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.37	J	0.983	MDL	5.52	PQL	mg/Kg	J	Z
MANGANESE	284		0.0861	MDL	0.552	PQL	mg/Kg	J	Q, E
TIN	2.74	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.57	J	0.927	MDL	5.52	PQL	mg/Kg	J	Z

Sample ID: SL-146-SA5A-SB-3.0-4.0 *Collected:* 3/16/2011 10:16:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.36	J	1.01	MDL	5.70	PQL	mg/Kg	J	Z
MANGANESE	293		0.0889	MDL	0.570	PQL	mg/Kg	J	Q, E
SODIUM	92.8	J	42.5	MDL	114	PQL	mg/Kg	J	Z
TIN	3.32	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	2.32	J	0.957	MDL	5.70	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 Matrix: SO

Sample ID: SL-128-SA5A-SB-4.0-5.0 *Collected:* 3/16/2011 12:49:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.211	J	0.0441	MDL	0.441	PQL	mg/Kg	J	Z

Sample ID: SL-128-SA5A-SB-4.0-5.0 *Collected:* 3/16/2011 12:49:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.630		0.0551	MDL	0.110	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE106 **Laboratory:** LL

EDD Filename: DE106_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-128-SA5A-SB-4.0-5.0 *Collected:* 3/16/2011 12:49:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	110		0.119	MDL	0.441	PQL	mg/Kg	J	A

Sample ID: SL-128-SA5A-SB-4.0-5.0 *Collected:* 3/16/2011 12:49:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	11.3		0.0713	MDL	0.432	PQL	mg/Kg	J	E

Sample ID: SL-128-SA5A-SB-4.0-5.0 *Collected:* 3/16/2011 12:49:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.231		0.0661	MDL	0.220	PQL	mg/Kg	J	Q, E
ARSENIC	6.10		0.0881	MDL	0.441	PQL	mg/Kg	J	Q
BERYLLIUM	0.798		0.0176	MDL	0.110	PQL	mg/Kg	J	Q
CADMIUM	0.317		0.0441	MDL	0.110	PQL	mg/Kg	J	Q
CHROMIUM	21.8		0.132	MDL	0.441	PQL	mg/Kg	J	Q, A
LEAD	11.3		0.0115	MDL	0.220	PQL	mg/Kg	J	Q, A
NICKEL	14.2		0.110	MDL	0.441	PQL	mg/Kg	J	Q
SILVER	0.0321	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z, Q
VANADIUM	43.7		0.0242	MDL	0.110	PQL	mg/Kg	J	A
ZINC	89.5		0.617	MDL	3.30	PQL	mg/Kg	J	A

Sample ID: SL-128-SA5A-SB-9.0-10.0 *Collected:* 3/16/2011 12:58:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.176	J	0.0415	MDL	0.415	PQL	mg/Kg	J	Z

Sample ID: SL-128-SA5A-SB-9.0-10.0 *Collected:* 3/16/2011 12:58:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.749		0.0518	MDL	0.104	PQL	mg/Kg	J	Q

Sample ID: SL-128-SA5A-SB-9.0-10.0 *Collected:* 3/16/2011 12:58:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	112		0.112	MDL	0.415	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE106 **Laboratory: LL**

EDD Filename: DE106_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: **SL-128-SA5A-SB-9.0-10.0** ***Collected:*** **3/16/2011 12:58:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	10.9		0.0671	MDL	0.407	PQL	mg/Kg	J	E

Sample ID: **SL-128-SA5A-SB-9.0-10.0** ***Collected:*** **3/16/2011 12:58:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.174	J	0.0622	MDL	0.207	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.98		0.0829	MDL	0.415	PQL	mg/Kg	J	Q
BERYLLIUM	0.745		0.0166	MDL	0.104	PQL	mg/Kg	J	Q
CADMIUM	0.264		0.0415	MDL	0.104	PQL	mg/Kg	J	Q
CHROMIUM	20.8		0.124	MDL	0.415	PQL	mg/Kg	J	Q, A
LEAD	13.2		0.0108	MDL	0.207	PQL	mg/Kg	J	Q, A
NICKEL	13.2		0.104	MDL	0.415	PQL	mg/Kg	J	Q
SILVER	0.0326	J	0.0124	MDL	0.104	PQL	mg/Kg	J	Z, Q
VANADIUM	41.8		0.0228	MDL	0.104	PQL	mg/Kg	J	A
ZINC	134		0.580	MDL	3.11	PQL	mg/Kg	J	A

Sample ID: **SL-133-SA5A-SB-4.0-5.0** ***Collected:*** **3/16/2011 3:18:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.140	J	0.0433	MDL	0.433	PQL	mg/Kg	J	Z

Sample ID: **SL-133-SA5A-SB-4.0-5.0** ***Collected:*** **3/16/2011 3:18:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.647		0.0541	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: **SL-133-SA5A-SB-4.0-5.0** ***Collected:*** **3/16/2011 3:18:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	105		0.117	MDL	0.433	PQL	mg/Kg	J	A

Sample ID: **SL-133-SA5A-SB-4.0-5.0** ***Collected:*** **3/16/2011 3:18:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	9.32		0.0729	MDL	0.442	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE106 **Laboratory: LL**

EDD Filename: DE106_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: **SL-133-SA5A-SB-4.0-5.0** ***Collected:*** **3/16/2011 3:18:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.101	J	0.0650	MDL	0.217	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.23		0.0866	MDL	0.433	PQL	mg/Kg	J	Q
BERYLLIUM	0.725		0.0173	MDL	0.108	PQL	mg/Kg	J	Q
CADMIUM	0.162		0.0433	MDL	0.108	PQL	mg/Kg	J	Q
CHROMIUM	19.8		0.130	MDL	0.433	PQL	mg/Kg	J	Q, A
LEAD	6.77		0.0113	MDL	0.217	PQL	mg/Kg	J	Q, A
NICKEL	12.4		0.108	MDL	0.433	PQL	mg/Kg	J	Q
SILVER	0.0304	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z, Q
VANADIUM	39.2		0.0238	MDL	0.108	PQL	mg/Kg	J	A
ZINC	72.8		0.606	MDL	3.25	PQL	mg/Kg	J	A

Sample ID: **SL-146-SA5A-SB-3.0-4.0** ***Collected:*** **3/16/2011 10:16:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.201	J	0.0456	MDL	0.456	PQL	mg/Kg	J	Z

Sample ID: **SL-146-SA5A-SB-3.0-4.0** ***Collected:*** **3/16/2011 10:16:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.00		0.0570	MDL	0.114	PQL	mg/Kg	J	Q

Sample ID: **SL-146-SA5A-SB-3.0-4.0** ***Collected:*** **3/16/2011 10:16:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	134		0.123	MDL	0.456	PQL	mg/Kg	J	A

Sample ID: **SL-146-SA5A-SB-3.0-4.0** ***Collected:*** **3/16/2011 10:16:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	9.05		0.0745	MDL	0.451	PQL	mg/Kg	J	E

Sample ID: **SL-146-SA5A-SB-3.0-4.0** ***Collected:*** **3/16/2011 10:16:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.142	J	0.0684	MDL	0.228	PQL	mg/Kg	J	Z, Q, E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE106 **Laboratory: LL**

EDD Filename: DE106_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-146-SA5A-SB-3.0-4.0 *Collected:* 3/16/2011 10:16:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	9.94		0.0911	MDL	0.456	PQL	mg/Kg	J	Q
BERYLLIUM	1.39		0.0182	MDL	0.114	PQL	mg/Kg	J	Q
CADMIUM	0.0763	J	0.0456	MDL	0.114	PQL	mg/Kg	J	Z, Q
CHROMIUM	32.0		0.137	MDL	0.456	PQL	mg/Kg	J	Q, A
LEAD	11.0		0.0118	MDL	0.228	PQL	mg/Kg	J	Q, A
NICKEL	15.5		0.114	MDL	0.456	PQL	mg/Kg	J	Q
SILVER	0.0909	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z, Q
VANADIUM	60.6		0.0251	MDL	0.114	PQL	mg/Kg	J	A
ZINC	73.2		0.638	MDL	3.42	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-128-SA5A-SB-9.0-10.0 *Collected:* 3/16/2011 12:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.29	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA5A-SB-4.0-5.0 *Collected:* 3/16/2011 3:18:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.31	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-146-SA5A-SB-3.0-4.0 *Collected:* 3/16/2011 10:16:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.47	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-128-SA5A-SB-4.0-5.0 *Collected:* 3/16/2011 12:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0736	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE106 **Laboratory:** LL

EDD Filename: DE106_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 7471A **Matrix:** SO

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-128-SA5A-SB-4.0-5.0 *Collected:* 3/16/2011 12:49:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.48	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-128-SA5A-SB-9.0-10.0 *Collected:* 3/16/2011 12:58:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.53	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-133-SA5A-SB-4.0-5.0 *Collected:* 3/16/2011 3:18:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.87	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-128-SA5A-SB-4.0-5.0 *Collected:* 3/16/2011 12:49:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	5.7	J	3.7	MDL	9.3	PQL	ug/Kg	J	Z
Di-n-butylphthalate	57	J	33	MDL	100	PQL	ug/Kg	U	B

Sample ID: SL-128-SA5A-SB-9.0-10.0 *Collected:* 3/16/2011 12:58:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	4.9	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z
CHRYSENE	4.9	J	1.8	MDL	8.8	PQL	ug/Kg	J	Z
Di-n-butylphthalate	56	J	32	MDL	95	PQL	ug/Kg	U	B
Di-n-octylphthalate	52	J	32	MDL	95	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE106 **Laboratory: LL**

EDD Filename: DE106_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-133-SA5A-SB-4.0-5.0 *Collected:* 3/16/2011 3:18:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	4.5	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	6.9	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
Di-n-butylphthalate	57	J	33	MDL	100	PQL	ug/Kg	U	B

Sample ID: SL-146-SA5A-SB-3.0-4.0 *Collected:* 3/16/2011 10:16:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.92	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	1.3	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
FLUORANTHENE	1.8	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.2	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8015B **Matrix: SO**

Sample ID: SL-146-SA5A-SB-3.0-4.0 *Collected:* 3/16/2011 10:16:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m-Terphenyl	1.7	U	1.7	MDL	4.0	PQL	mg/Kg	UJ	Q
p-Terphenyl	1.7	U	1.7	MDL	4.0	PQL	mg/Kg	UJ	Q

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-128-SA5A-SB-4.0-5.0 *Collected:* 3/16/2011 12:49:00 *Analysis Type:* RES *Dilution:* 0.92

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.07	J	0.06	MDL	4.1	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.80	J	0.25	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: SL-128-SA5A-SB-9.0-10.0 *Collected:* 3/16/2011 12:58:00 *Analysis Type:* RES *Dilution:* 1.04

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.73	J	0.27	MDL	4.4	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE106 **Laboratory: LL**

EDD Filename: DE106_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **VOA**

Method: **8260B** ***Matrix:*** **SO**

Sample ID: **SL-133-SA5A-SB-4.0-5.0** ***Collected:*** **3/16/2011 3:18:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.83**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
METHYLENE CHLORIDE	0.64	J	0.22	MDL	3.7	PQL	ug/Kg	U	B

Sample ID: **SL-146-SA5A-SB-3.0-4.0** ***Collected:*** **3/16/2011 10:16:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.9**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
METHYLENE CHLORIDE	0.67	J	0.25	MDL	4.1	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE106 **Laboratory: LL**

EDD Filename: DE106_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE106 **Laboratory: LL**

EDD Filename: DE106_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE106 **Laboratory: LL**

EDD Filename: DE106_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE106

Method Blank Outlier Report

Lab Reporting Batch ID: DE106 **Laboratory: LL**

EDD Filename: DE106_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08008BB222027	3/22/2011 8:27:00 PM	PHOSPHORUS TIN	1.33 mg/Kg 1.57 mg/Kg	SL-128-SA5A-SB-4.0-5.0 SL-128-SA5A-SB-9.0-10.0 SL-133-SA5A-SB-4.0-5.0 SL-146-SA5A-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-128-SA5A-SB-4.0-5.0(RES)	TIN	2.85 mg/Kg	2.85U mg/Kg
SL-128-SA5A-SB-9.0-10.0(RES)	TIN	2.73 mg/Kg	2.73U mg/Kg
SL-133-SA5A-SB-4.0-5.0(RES)	TIN	2.74 mg/Kg	2.74U mg/Kg
SL-146-SA5A-SB-3.0-4.0(RES)	TIN	3.32 mg/Kg	3.32U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08726AB220813A	3/29/2011 8:13:00 AM	COPPER	0.139 mg/Kg	SL-128-SA5A-SB-4.0-5.0 SL-128-SA5A-SB-9.0-10.0 SL-133-SA5A-SB-4.0-5.0 SL-146-SA5A-SB-3.0-4.0

Method: **8015M**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P76765AB321804A	3/18/2011 6:04:00 PM	ETHYLENE GLYCOL	8.8 mg/Kg	SL-128-SA5A-SB-4.0-5.0 SL-133-SA5A-SB-4.0-5.0 SL-146-SA5A-SB-3.0-4.0

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB96B211227A	3/17/2011 12:27:00 PM	METHYLENE CHLORIDE TOLUENE	0.59 ug/Kg 0.15 ug/Kg	SL-128-SA5A-SB-4.0-5.0 SL-128-SA5A-SB-9.0-10.0 SL-133-SA5A-SB-4.0-5.0 SL-146-SA5A-SB-3.0-4.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE106 Laboratory: LL

EDD Filename: DE106_v1 eQAPP Name: CDM_SSFL_110509

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-128-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.80 ug/Kg	4.1U ug/Kg
SL-128-SA5A-SB-9.0-10.0(RES)	METHYLENE CHLORIDE	0.73 ug/Kg	4.4U ug/Kg
SL-133-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.64 ug/Kg	3.7U ug/Kg
SL-146-SA5A-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	0.67 ug/Kg	4.1U ug/Kg

Method: 8270C SIM
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLB08B260727	3/25/2011 7:27:00 AM	Di-n-butylphthalate Di-n-octylphthalate	11 ug/Kg 11 ug/Kg	SL-128-SA5A-SB-4.0-5.0 SL-128-SA5A-SB-9.0-10.0 SL-133-SA5A-SB-4.0-5.0 SL-146-SA5A-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-128-SA5A-SB-4.0-5.0(RES)	Di-n-butylphthalate	57 ug/Kg	100U ug/Kg
SL-128-SA5A-SB-9.0-10.0(RES)	Di-n-butylphthalate	56 ug/Kg	95U ug/Kg
SL-128-SA5A-SB-9.0-10.0(RES)	Di-n-octylphthalate	52 ug/Kg	95U ug/Kg
SL-133-SA5A-SB-4.0-5.0(RES)	Di-n-butylphthalate	57 ug/Kg	100U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE106 **Laboratory: LL**

EDD Filename: DE106_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-146-SA5A-SB-3.0-4.0MS (SL-128-SA5A-SB-4.0-5.0 SL-128-SA5A-SB-9.0-10.0 SL-133-SA5A-SB-4.0-5.0 SL-146-SA5A-SB-3.0-4.0)	FLUORIDE	41	-	80.00-120.00	-	FLUORIDE	J (all detects) UJ (all non-detects)

Method: 8015B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-146-SA5A-SB-3.0-4.0MSD (SL-146-SA5A-SB-3.0-4.0)	m-Terphenyl	-	73	75.00-125.00	-	m-Terphenyl	J(all detects)
	p-Terphenyl	-	72	75.00-125.00	-	p-Terphenyl	UJ(all non-detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE106 Laboratory: LL

EDD Filename: DE106_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P1LBLCSQ260758 (SL-128-SA5A-SB-4.0-5.0 SL-128-SA5A-SB-9.0-10.0 SL-133-SA5A-SB-4.0-5.0 SL-146-SA5A-SB-3.0-4.0)	INDENO(1,2,3-CD)PYRENE	135	-	56.00-134.00	-	INDENO(1,2,3-CD)PYRENE	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE106 Laboratory: LL

EDD Filename: PrepDE106_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-128-SA5A-SB-4.0-5.0	BORON	J	2.08	5.40	PQL	mg/Kg	J (all detects)
	SODIUM	J	88.0	108	PQL	mg/Kg	
	TIN	J	2.85	10.8	PQL	mg/Kg	
	Zirconium	J	1.52	5.40	PQL	mg/Kg	
SL-128-SA5A-SB-9.0-10.0	BORON	J	2.01	5.18	PQL	mg/Kg	J (all detects)
	TIN	J	2.73	10.4	PQL	mg/Kg	
	Zirconium	J	1.51	5.18	PQL	mg/Kg	
SL-133-SA5A-SB-4.0-5.0	BORON	J	2.37	5.52	PQL	mg/Kg	J (all detects)
	TIN	J	2.74	11.0	PQL	mg/Kg	
	Zirconium	J	1.57	5.52	PQL	mg/Kg	
SL-146-SA5A-SB-3.0-4.0	BORON	J	2.36	5.70	PQL	mg/Kg	J (all detects)
	SODIUM	J	92.8	114	PQL	mg/Kg	
	TIN	J	3.32	11.4	PQL	mg/Kg	
	Zirconium	J	2.32	5.70	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-128-SA5A-SB-4.0-5.0	SELENIUM	J	0.211	0.441	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0321	0.110	PQL	mg/Kg	
SL-128-SA5A-SB-9.0-10.0	ANTIMONY	J	0.174	0.207	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.176	0.415	PQL	mg/Kg	
	SILVER	J	0.0326	0.104	PQL	mg/Kg	
SL-133-SA5A-SB-4.0-5.0	ANTIMONY	J	0.101	0.217	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.140	0.433	PQL	mg/Kg	
	SILVER	J	0.0304	0.108	PQL	mg/Kg	
SL-146-SA5A-SB-3.0-4.0	ANTIMONY	J	0.142	0.228	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0763	0.114	PQL	mg/Kg	
	SELENIUM	J	0.201	0.456	PQL	mg/Kg	
	SILVER	J	0.0909	0.114	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-128-SA5A-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.29	1.1	PQL	mg/Kg	J (all detects)
SL-133-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.31	1.1	PQL	mg/Kg	J (all detects)
SL-146-SA5A-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.47	1.2	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE106 Laboratory: LL

EDD Filename: PrepDE106_v1 eQAPP Name: CDM_SSFL_110509

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-128-SA5A-SB-4.0-5.0	MERCURY	J	0.0736	0.111	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-128-SA5A-SB-4.0-5.0	AROCLOR 1260	J	0.48	1.9	PQL	ug/Kg	J (all detects)
SL-128-SA5A-SB-9.0-10.0	AROCLOR 1260	J	0.53	1.8	PQL	ug/Kg	J (all detects)
SL-133-SA5A-SB-4.0-5.0	AROCLOR 1260	J	0.87	1.9	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-128-SA5A-SB-4.0-5.0	ETHYLBENZENE	J	0.07	4.1	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	0.80	4.1	PQL	ug/Kg	
SL-128-SA5A-SB-9.0-10.0	METHYLENE CHLORIDE	J	0.73	4.4	PQL	ug/Kg	J (all detects)
SL-133-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.64	3.7	PQL	ug/Kg	J (all detects)
SL-146-SA5A-SB-3.0-4.0	METHYLENE CHLORIDE	J	0.67	4.1	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-128-SA5A-SB-4.0-5.0	BENZO(B)FLUORANTHENE	J	5.7	9.3	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	57	100	PQL	ug/Kg	
SL-128-SA5A-SB-9.0-10.0	BENZO(G,H,I)PERYLENE	J	4.9	8.8	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	4.9	8.8	PQL	ug/Kg	
	Di-n-butylphthalate	J	56	95	PQL	ug/Kg	
	Di-n-octylphthalate	J	52	95	PQL	ug/Kg	
SL-133-SA5A-SB-4.0-5.0	BENZO(A)PYRENE	J	4.5	9.2	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	6.9	9.2	PQL	ug/Kg	
	Di-n-butylphthalate	J	57	100	PQL	ug/Kg	
SL-146-SA5A-SB-3.0-4.0	BENZO(B)FLUORANTHENE	J	0.92	1.9	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	1.3	1.9	PQL	ug/Kg	
	FLUORANTHENE	J	1.8	1.9	PQL	ug/Kg	
	PYRENE	J	1.2	1.9	PQL	ug/Kg	

LDC #: 2591104 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-11
SDG #: DE106 ADR
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets. .

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No Qual
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (SDG: DE108)
VII.	Duplicate Sample Analysis	N	DUP J
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	—	(DE108)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-146-SA5A-SB-3.0-4.0	11		21		31	
2	SL-128-SA5A-SB-4.0-5.0	12		22		32	
3	SL-128-SA5A-SB-9.0-10.0	13		23		33	
4	SL-133-SA5A-SB-4.0-5.0	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

SAMPLE DELIVERY GROUP

DE107

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Mar-2011	TB-031711	6233380	TB	5030B	8015M	III
17-Mar-2011	TB-031711	6233380	TB	5030B	8260B	III
17-Mar-2011	TB-031711	6233380	TB	5030B	8260B SIM	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	3050B	6010B	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	3050B	6020	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	3060A	7199	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	3546	1625C	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	3550B	8015B	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	3550B	8015M	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	3550B	8082	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	3550B	8270C	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	3550B	8270C SIM	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	5035	8015M	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	5035	8260B	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	5035	8260B SIM	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	8330	8330A	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	Gen Prep	9045M	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	METHOD	300.0	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	METHOD	314.0	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	METHOD	7471A	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	METHOD	8015B	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	METHOD	8015M	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	METHOD	8315A	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5	6233378	N	METHOD	9012B	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5MSD	P233378M321942A	MSD	METHOD	8015B	III
17-Mar-2011	SL-139-SA5A-SB-2.5-3.5MS	P233378R321927A	MS	METHOD	8015B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	3050B	6010B	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	3050B	6020	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	3060A	7199	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	3546	1625C	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	3550B	8015B	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	3550B	8015M	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	3550B	8082	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	3550B	8270C	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	3550B	8270C SIM	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	5035	8015M	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	5035	8260B	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	5035	8260B SIM	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	8330	8330A	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	Gen Prep	9045M	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	METHOD	300.0	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	METHOD	314.0	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	METHOD	7471A	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	METHOD	8015B	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	METHOD	8015M	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	METHOD	8315A	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0	6233377	N	METHOD	9012B	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0MSD	P233377M321949A	MSD	METHOD	8015M	III
17-Mar-2011	SL-136-SA5A-SB-4.0-5.0MS	P233377R321931A	MS	METHOD	8015M	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	3050B	6010B	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	3050B	6020	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	3060A	7199	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	3546	1625C	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	3550B	8015B	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	3550B	8015M	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	3550B	8082	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	3550B	8270C	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	3550B	8270C SIM	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	5035	8015M	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	5035	8260B	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	5035	8260B SIM	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	8330	8330A	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	Gen Prep	9045M	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	METHOD	300.0	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	METHOD	314.0	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	METHOD	6850	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	METHOD	7471A	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	METHOD	8015B	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	METHOD	8015M	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	METHOD	8315A	III
17-Mar-2011	SL-158-SA5A-SB-4.0-5.0	6233379	N	METHOD	9012B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE107 **Laboratory:** LL

EDD Filename: DE107_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-136-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 11:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.05	J	0.926	MDL	5.20	PQL	mg/Kg	J	Z
MANGANESE	216		0.0812	MDL	0.520	PQL	mg/Kg	J	Q, E
TIN	2.95	J	1.04	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	1.43	J	0.874	MDL	5.20	PQL	mg/Kg	J	Z

Sample ID: SL-139-SA5A-SB-2.5-3.5 *Collected:* 3/17/2011 8:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.29	J	0.954	MDL	5.36	PQL	mg/Kg	J	Z
MANGANESE	239		0.0836	MDL	0.536	PQL	mg/Kg	J	Q, E
TIN	2.89	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	0.917	J	0.900	MDL	5.36	PQL	mg/Kg	J	Z

Sample ID: SL-158-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 3:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.91	J	0.989	MDL	5.56	PQL	mg/Kg	J	Z
MANGANESE	172		0.0867	MDL	0.556	PQL	mg/Kg	J	Q, E
TIN	2.95	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.90	J	0.933	MDL	5.56	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-136-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 11:35:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.138	J	0.0416	MDL	0.416	PQL	mg/Kg	J	Z

Sample ID: SL-136-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 11:35:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.847		0.0520	MDL	0.104	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE107 **Laboratory:** LL

EDD Filename: DE107_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-136-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 11:35:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	81.1		0.112	MDL	0.416	PQL	mg/Kg	J	A

Sample ID: SL-136-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 11:35:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	6.05		0.0694	MDL	0.420	PQL	mg/Kg	J	E

Sample ID: SL-136-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 11:35:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.126	J	0.0624	MDL	0.208	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.66		0.0833	MDL	0.416	PQL	mg/Kg	J	Q
BERYLLIUM	0.869		0.0167	MDL	0.104	PQL	mg/Kg	J	Q
CADMIUM	0.0647	J	0.0416	MDL	0.104	PQL	mg/Kg	J	Z, Q
CHROMIUM	22.6		0.125	MDL	0.416	PQL	mg/Kg	J	Q, A
LEAD	6.80		0.0108	MDL	0.208	PQL	mg/Kg	J	Q, A
NICKEL	11.9		0.104	MDL	0.416	PQL	mg/Kg	J	Q
SILVER	0.0395	J	0.0125	MDL	0.104	PQL	mg/Kg	J	Z, Q
VANADIUM	43.4		0.0229	MDL	0.104	PQL	mg/Kg	J	A
ZINC	59.4		0.583	MDL	3.12	PQL	mg/Kg	J	A

Sample ID: SL-139-SA5A-SB-2.5-3.5 *Collected:* 3/17/2011 8:58:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.136	J	0.0433	MDL	0.433	PQL	mg/Kg	J	Z

Sample ID: SL-139-SA5A-SB-2.5-3.5 *Collected:* 3/17/2011 8:58:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.500		0.0541	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-139-SA5A-SB-2.5-3.5 *Collected:* 3/17/2011 8:58:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	61.5		0.117	MDL	0.433	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE107 **Laboratory: LL**

EDD Filename: DE107_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-139-SA5A-SB-2.5-3.5 ***Collected:*** 3/17/2011 8:58:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	8.34		0.0700	MDL	0.424	PQL	mg/Kg	J	E

Sample ID: SL-139-SA5A-SB-2.5-3.5 ***Collected:*** 3/17/2011 8:58:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0784	J	0.0649	MDL	0.216	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.93		0.0866	MDL	0.433	PQL	mg/Kg	J	Q
BERYLLIUM	0.569		0.0173	MDL	0.108	PQL	mg/Kg	J	Q
CADMIUM	0.0665	J	0.0433	MDL	0.108	PQL	mg/Kg	J	Z, Q
CHROMIUM	17.9		0.130	MDL	0.433	PQL	mg/Kg	J	Q, A
LEAD	4.97		0.0113	MDL	0.216	PQL	mg/Kg	J	Q, A
NICKEL	10.3		0.108	MDL	0.433	PQL	mg/Kg	J	Q
VANADIUM	36.1		0.0238	MDL	0.108	PQL	mg/Kg	J	A
ZINC	54.8		0.606	MDL	3.25	PQL	mg/Kg	J	A

Sample ID: SL-158-SA5A-SB-4.0-5.0 ***Collected:*** 3/17/2011 3:40:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.162	J	0.0440	MDL	0.440	PQL	mg/Kg	J	Z

Sample ID: SL-158-SA5A-SB-4.0-5.0 ***Collected:*** 3/17/2011 3:40:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.679		0.0550	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: SL-158-SA5A-SB-4.0-5.0 ***Collected:*** 3/17/2011 3:40:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	67.8		0.119	MDL	0.440	PQL	mg/Kg	J	A

Sample ID: SL-158-SA5A-SB-4.0-5.0 ***Collected:*** 3/17/2011 3:40:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	8.87		0.0726	MDL	0.440	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE107 **Laboratory: LL**

EDD Filename: DE107_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-158-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 3:40:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0829	J	0.0660	MDL	0.220	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.32		0.0880	MDL	0.440	PQL	mg/Kg	J	Q
BERYLLIUM	0.822		0.0176	MDL	0.110	PQL	mg/Kg	J	Q
CADMIUM	0.0790	J	0.0440	MDL	0.110	PQL	mg/Kg	J	Z, Q
CHROMIUM	20.3		0.132	MDL	0.440	PQL	mg/Kg	J	Q, A
LEAD	6.04		0.0114	MDL	0.220	PQL	mg/Kg	J	Q, A
NICKEL	9.20		0.110	MDL	0.440	PQL	mg/Kg	J	Q
SILVER	0.0551	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z, Q
VANADIUM	41.8		0.0242	MDL	0.110	PQL	mg/Kg	J	A
ZINC	53.8		0.616	MDL	3.30	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-158-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 3:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.36	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-136-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 11:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0765	J	0.0030	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-139-SA5A-SB-2.5-3.5 *Collected:* 3/17/2011 8:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0182	J	0.0030	MDL	0.104	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE107 **Laboratory: LL**

EDD Filename: DE107_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-158-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 3:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	35.1	J	18.7	MDL	37.4	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-136-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 11:35:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	6.4	U	6.4	MDL	13	PQL	mg/Kg	UJ	Q

Sample ID: SL-136-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 11:35:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	1.1	J	0.42	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-158-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 3:40:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.91	J	0.45	MDL	1.3	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-158-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 3:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.47	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
FLUORANTHENE	1.3	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	0.83	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE107 **Laboratory:** LL

EDD Filename: DE107_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-136-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 11:35:00 *Analysis Type:* RES *Dilution:* 1.03

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.80	J	0.26	MDL	4.4	PQL	ug/Kg	U	B

Sample ID: SL-139-SA5A-SB-2.5-3.5 *Collected:* 3/17/2011 8:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.87	J	0.26	MDL	4.4	PQL	ug/Kg	U	B

Sample ID: SL-158-SA5A-SB-4.0-5.0 *Collected:* 3/17/2011 3:40:00 *Analysis Type:* RES *Dilution:* 0.87

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.07	J	0.06	MDL	3.9	PQL	ug/Kg	J	Z
m,p-Xylene	0.24	J	0.17	MDL	3.9	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	1.8	J	0.23	MDL	3.9	PQL	ug/Kg	U	B
TRICHLOROETHENE	0.16	J	0.15	MDL	3.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE107 **Laboratory: LL**

EDD Filename: DE107_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE107 **Laboratory: LL**

EDD Filename: DE107_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE107 **Laboratory: LL**

EDD Filename: DE107_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE107

Method Blank Outlier Report

Lab Reporting Batch ID: DE107 Laboratory: LL

EDD Filename: DE107_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08008BB222027	3/22/2011 8:27:00 PM	PHOSPHORUS TIN	1.33 mg/Kg 1.57 mg/Kg	SL-136-SA5A-SB-4.0-5.0 SL-139-SA5A-SB-2.5-3.5 SL-158-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-136-SA5A-SB-4.0-5.0(RES)	TIN	2.95 mg/Kg	2.95U mg/Kg
SL-139-SA5A-SB-2.5-3.5(RES)	TIN	2.89 mg/Kg	2.89U mg/Kg
SL-158-SA5A-SB-4.0-5.0(RES)	TIN	2.95 mg/Kg	2.95U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08726AB220813A	3/29/2011 8:13:00 AM	COPPER	0.139 mg/Kg	SL-136-SA5A-SB-4.0-5.0 SL-139-SA5A-SB-2.5-3.5 SL-158-SA5A-SB-4.0-5.0

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB00B211218A	3/22/2011 12:18:00 PM	METHYLENE CHLORIDE TOLUENE	1.2 ug/Kg 0.20 ug/Kg	SL-136-SA5A-SB-4.0-5.0 SL-139-SA5A-SB-2.5-3.5 SL-158-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-136-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.80 ug/Kg	4.4U ug/Kg
SL-139-SA5A-SB-2.5-3.5(RES)	METHYLENE CHLORIDE	0.87 ug/Kg	4.4U ug/Kg
SL-158-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.8 ug/Kg	3.9U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE107 **Laboratory: LL**

EDD Filename: DE107_v1 **eQAPP Name: CDM_SSFL_110509**

***Method:* 8015M**

***Matrix:* SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-136-SA5A-SB-4.0-5.0MS SL-136-SA5A-SB-4.0-5.0MSD (SL-136-SA5A-SB-4.0-5.0)	DIETHYLENE GLYCOL	54	-	59.00-109.00	39 (20.00)	DIETHYLENE GLYCOL	J (all detects) UJ (all non-detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE107 Laboratory: LL

EDD Filename: DE107_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P1LBLCSQ260758 (SL-136-SA5A-SB-4.0-5.0 SL-139-SA5A-SB-2.5-3.5 SL-158-SA5A-SB-4.0-5.0)	INDENO(1,2,3-CD)PYRENE	135	-	56.00-134.00	-	INDENO(1,2,3-CD)PYRENE	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE107 | Laboratory: LL

EDD Filename: DE107_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-158-SA5A-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	35.1	37.4	PQL	ng/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-136-SA5A-SB-4.0-5.0	BORON	J	2.05	5.20	PQL	mg/Kg	J (all detects)
	TIN	J	2.95	10.4	PQL	mg/Kg	
	Zirconium	J	1.43	5.20	PQL	mg/Kg	
SL-139-SA5A-SB-2.5-3.5	BORON	J	1.29	5.36	PQL	mg/Kg	J (all detects)
	TIN	J	2.89	10.7	PQL	mg/Kg	
	Zirconium	J	0.917	5.36	PQL	mg/Kg	
SL-158-SA5A-SB-4.0-5.0	BORON	J	1.91	5.56	PQL	mg/Kg	J (all detects)
	TIN	J	2.95	11.1	PQL	mg/Kg	
	Zirconium	J	1.90	5.56	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-136-SA5A-SB-4.0-5.0	ANTIMONY	J	0.126	0.208	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0647	0.104	PQL	mg/Kg	
	SELENIUM	J	0.138	0.416	PQL	mg/Kg	
	SILVER	J	0.0395	0.104	PQL	mg/Kg	
SL-139-SA5A-SB-2.5-3.5	ANTIMONY	J	0.0784	0.216	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0665	0.108	PQL	mg/Kg	
	SELENIUM	J	0.136	0.433	PQL	mg/Kg	
SL-158-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0829	0.220	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0790	0.110	PQL	mg/Kg	
	SELENIUM	J	0.162	0.440	PQL	mg/Kg	
	SILVER	J	0.0551	0.110	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-158-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.36	1.1	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE107 | Laboratory: LL

EDD Filename: DE107_v1 | eQAPP Name: CDM_SSFL_110509

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-136-SA5A-SB-4.0-5.0	MERCURY	J	0.0765	0.104	PQL	mg/Kg	J (all detects)
SL-139-SA5A-SB-2.5-3.5	MERCURY	J	0.0182	0.104	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-136-SA5A-SB-4.0-5.0	EFH (C30-C40)	J	1.1	1.3	PQL	mg/Kg	J (all detects)
SL-158-SA5A-SB-4.0-5.0	EFH (C30-C40)	J	0.91	1.3	PQL	mg/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-136-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.80	4.4	PQL	ug/Kg	J (all detects)
SL-139-SA5A-SB-2.5-3.5	METHYLENE CHLORIDE	J	0.87	4.4	PQL	ug/Kg	J (all detects)
SL-158-SA5A-SB-4.0-5.0	ETHYLBENZENE	J	0.07	3.9	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.24	3.9	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	1.8	3.9	PQL	ug/Kg	
	TRICHLOROETHENE	J	0.16	3.9	PQL	ug/Kg	

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-158-SA5A-SB-4.0-5.0	CHRYSENE	J	0.47	1.9	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	1.3	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	0.83	1.9	PQL	ug/Kg	

LDC #: 25911P4 **VALIDATION COMPLETENESS WORKSHEET** Date 8-3-11
SDG #: DE107 ADR
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No Quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (SDG DE108)
VII.	Duplicate Sample Analysis	N	Dup J
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	—	(DE108)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-136-SA5A-SB-4.0-5.0	11		21		31	
2	SL-139-SA5A-SB-2.5-3.5	12		22		32	
3	SL-158-SA5A-SB-4.0-5.0	13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

SAMPLE DELIVERY GROUP

DE108

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Mar-2011	TB-031811	6234511	TB	5030B	8015M	III
18-Mar-2011	TB-031811	6234511	TB	5030B	8260B	III
18-Mar-2011	TB-031811	6234511	TB	5030B	8260B SIM	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	3050B	6010B	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	3050B	6020	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	3060A	7199	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	3546	1625C	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	3550B	8015B	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	3550B	8015M	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	3550B	8082	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	3550B	8270C	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	3550B	8270C SIM	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	5035	8015M	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	5035	8260B	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	5035	8260B SIM	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	8330	8330A	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	Gen Prep	9045M	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	METHOD	300.0	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	METHOD	314.0	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	METHOD	7471A	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	METHOD	8015B	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	METHOD	8015M	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	METHOD	8315A	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0	6234506	N	METHOD	9012B	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0DUP	P234506D270317B	DUP	METHOD	300.0	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0DUP	P234506D270702B	DUP	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0DUP	P234506D271726A	DUP	METHOD	9012B	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0MSD	P234506M260442	MSD	3550B	8270C	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0MSD	P234506M261209	MSD	3546	1625C	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0MSD	P234506M321959A	MSD	METHOD	8015M	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0MS	P234506R260416	MS	3550B	8270C	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0MS	P234506R261152	MS	3546	1625C	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0MS	P234506R270333B	MS	METHOD	300.0	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0MS	P234506R270726B	MS	METHOD	314.0	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0MS	P234506R271727A	MS	METHOD	9012B	III
18-Mar-2011	SL-159-SA5A-SB-4.0-5.0MS	P234506R321924A	MS	METHOD	8015M	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	3050B	6010B	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	3050B	6020	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	3060A	7199	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	3546	1625C	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	3550B	8015B	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	3550B	8015M	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	3550B	8082	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	3550B	8270C	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	3550B	8270C SIM	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	5035	8015M	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	5035	8260B	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	5035	8260B SIM	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	8330	8330A	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	Gen Prep	9045M	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	METHOD	300.0	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	METHOD	7471A	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	METHOD	8015B	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	METHOD	8015M	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	METHOD	8315A	III
18-Mar-2011	SL-169-SA5A-SB-4.0-5.0	6234507	N	METHOD	9012B	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	3050B	6010B	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	3050B	6020	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	3060A	7199	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	3546	1625C	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	3550B	8015B	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	3550B	8015M	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	3550B	8082	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	3550B	8270C	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	3550B	8270C SIM	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	5035	8015M	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	5035	8260B	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	5035	8260B SIM	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	8330	8330A	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	Gen Prep	9045M	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	METHOD	300.0	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	METHOD	314.0	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	METHOD	6850	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	METHOD	7471A	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	METHOD	8015B	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	METHOD	8015M	III
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	METHOD	8315A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Mar-2011	SL-168-SA5A-SB-4.0-5.0	6234508	N	METHOD	9012B	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	3050B	6010B	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	3060A	7199	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	3546	1625C	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	3550B	8015B	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	3550B	8015M	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	3550B	8082	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	3550B	8270C	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	3550B	8270C SIM	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	5035	8015M	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	5035	8260B	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	5035	8260B SIM	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	8330	8330A	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	Gen Prep	9045M	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	METHOD	300.0	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	METHOD	314.0	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	METHOD	7471A	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	METHOD	8015B	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	METHOD	8015M	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	METHOD	8315A	III
18-Mar-2011	SL-160-SA5A-SB-4.0-5.0	6234509	N	METHOD	9012B	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	3050B	6010B	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	3060A	7199	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	3546	1625C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	3550B	8015B	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	3550B	8015M	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	3550B	8082	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	3550B	8270C	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	3550B	8270C SIM	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	5035	8015M	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	5035	8260B	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	5035	8260B SIM	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	8330	8330A	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	Gen Prep	9045M	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	METHOD	300.0	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	METHOD	314.0	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	METHOD	7471A	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	METHOD	8015B	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	METHOD	8015M	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	METHOD	8315A	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10	6234510	N	METHOD	9012B	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10DUP	P234510D220803	DUP	METHOD	7471A	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10DUP	P234510D220821A	DUP	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10DUP	P234510D221309A	DUP	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10DUP	P234510D221309B	DUP	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10DUP	P234510D221309C	DUP	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10DUP	P234510D221309D	DUP	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10DUP	P234510D222047	DUP	3050B	6010B	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10MSD	P234510M220808	MSD	METHOD	7471A	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10MSD	P234510M220824A	MSD	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Mar-2011	SL-160-SA5A-SB-9.0-10MSD	P234510M221315A	MSD	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10MSD	P234510M221315B	MSD	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10MSD	P234510M221315C	MSD	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10MSD	P234510M221315D	MSD	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10MSD	P234510M221503A	MSD	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10MSD	P234510M222055	MSD	3050B	6010B	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10MS	P234510R220806	MS	METHOD	7471A	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10MS	P234510R220823A	MS	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10MS	P234510R221312A	MS	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10MS	P234510R221312B	MS	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10MS	P234510R221312C	MS	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10MS	P234510R221312D	MS	3050B	6020	III
18-Mar-2011	SL-160-SA5A-SB-9.0-10MS	P234510R222051	MS	3050B	6010B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE108 Laboratory: LL

EDD Filename: PrepDE108_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 Matrix: SO

Sample ID: SL-159-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 9:24:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.0		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-160-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 3:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-160-SA5A-SB-9.0-10 *Collected:* 3/18/2011 3:24:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.6		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-168-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 12:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.9		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-169-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 10:47:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.5		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B Matrix: SO

Sample ID: SL-159-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 9:24:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.63	J	0.950	MDL	5.34	PQL	mg/Kg	J	Z
MANGANESE	209		0.0833	MDL	0.534	PQL	mg/Kg	J	Q, E
TIN	3.11	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	2.11	J	0.897	MDL	5.34	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: PrepDE108_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6010B** ***Matrix:*** **SO**

Sample ID: **SL-160-SA5A-SB-4.0-5.0** ***Collected:*** **3/18/2011 3:14:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.71	J	0.969	MDL	5.44	PQL	mg/Kg	J	Z
MANGANESE	254		0.0849	MDL	0.544	PQL	mg/Kg	J	Q, E
SODIUM	90.7	J	40.6	MDL	109	PQL	mg/Kg	J	Z
TIN	2.82	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	2.14	J	0.915	MDL	5.44	PQL	mg/Kg	J	Z

Sample ID: **SL-160-SA5A-SB-9.0-10** ***Collected:*** **3/18/2011 3:24:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.28	J	0.929	MDL	5.22	PQL	mg/Kg	J	Z
MANGANESE	194		0.0814	MDL	0.522	PQL	mg/Kg	J	Q, E
TIN	2.98	J	1.04	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	1.91	J	0.877	MDL	5.22	PQL	mg/Kg	J	Z

Sample ID: **SL-168-SA5A-SB-4.0-5.0** ***Collected:*** **3/18/2011 12:49:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.80	J	0.989	MDL	5.56	PQL	mg/Kg	J	Z
MANGANESE	179		0.0867	MDL	0.556	PQL	mg/Kg	J	Q, E
TIN	2.98	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.45	J	0.933	MDL	5.56	PQL	mg/Kg	J	Z

Sample ID: **SL-169-SA5A-SB-4.0-5.0** ***Collected:*** **3/18/2011 10:47:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.99	J	1.00	MDL	5.63	PQL	mg/Kg	J	Z
MANGANESE	195		0.0879	MDL	0.563	PQL	mg/Kg	J	Q, E
SODIUM	96.2	J	42.0	MDL	113	PQL	mg/Kg	J	Z
TIN	3.11	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	1.19	J	0.946	MDL	5.63	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: PrepDE108_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-159-SA5A-SB-4.0-5.0 ***Collected:*** 3/18/2011 9:24:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.165	J	0.0431	MDL	0.431	PQL	mg/Kg	J	Z

Sample ID: SL-159-SA5A-SB-4.0-5.0 ***Collected:*** 3/18/2011 9:24:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.11		0.0539	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-159-SA5A-SB-4.0-5.0 ***Collected:*** 3/18/2011 9:24:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	135		0.116	MDL	0.431	PQL	mg/Kg	J	A

Sample ID: SL-159-SA5A-SB-4.0-5.0 ***Collected:*** 3/18/2011 9:24:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	6.47		0.0698	MDL	0.423	PQL	mg/Kg	J	E

Sample ID: SL-159-SA5A-SB-4.0-5.0 ***Collected:*** 3/18/2011 9:24:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.129	J	0.0647	MDL	0.216	PQL	mg/Kg	J	Z, Q, E
ARSENIC	7.97		0.0863	MDL	0.431	PQL	mg/Kg	J	Q
BERYLLIUM	1.26		0.0173	MDL	0.108	PQL	mg/Kg	J	Q
CADMIUM	0.0854	J	0.0431	MDL	0.108	PQL	mg/Kg	J	Z, Q
CHROMIUM	26.5		0.129	MDL	0.431	PQL	mg/Kg	J	Q, A
LEAD	9.14		0.0112	MDL	0.216	PQL	mg/Kg	J	Q, A
NICKEL	14.5		0.108	MDL	0.431	PQL	mg/Kg	J	Q
SILVER	0.0778	J	0.0129	MDL	0.108	PQL	mg/Kg	J	Z, Q
VANADIUM	56.1		0.0237	MDL	0.108	PQL	mg/Kg	J	A
ZINC	62.3		0.604	MDL	3.24	PQL	mg/Kg	J	A

Sample ID: SL-160-SA5A-SB-4.0-5.0 ***Collected:*** 3/18/2011 3:14:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.141	J	0.0449	MDL	0.449	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: PrepDE108_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-160-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 3:14:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.792		0.0561	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: SL-160-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 3:14:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	116		0.121	MDL	0.449	PQL	mg/Kg	J	A

Sample ID: SL-160-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 3:14:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	8.58		0.0740	MDL	0.449	PQL	mg/Kg	J	E

Sample ID: SL-160-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 3:14:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.153	J	0.0673	MDL	0.224	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.66		0.0897	MDL	0.449	PQL	mg/Kg	J	Q
BERYLLIUM	0.924		0.0179	MDL	0.112	PQL	mg/Kg	J	Q
CADMIUM	0.0708	J	0.0449	MDL	0.112	PQL	mg/Kg	J	Z, Q
CHROMIUM	21.8		0.135	MDL	0.449	PQL	mg/Kg	J	Q, A
LEAD	6.79		0.0117	MDL	0.224	PQL	mg/Kg	J	Q, A
NICKEL	13.2		0.112	MDL	0.449	PQL	mg/Kg	J	Q
SILVER	0.0612	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z, Q
VANADIUM	44.2		0.0247	MDL	0.112	PQL	mg/Kg	J	A
ZINC	55.8		0.628	MDL	3.36	PQL	mg/Kg	J	A

Sample ID: SL-160-SA5A-SB-9.0-10 *Collected:* 3/18/2011 3:24:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.160	J	0.0426	MDL	0.426	PQL	mg/Kg	J	Z

Sample ID: SL-160-SA5A-SB-9.0-10 *Collected:* 3/18/2011 3:24:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.949		0.0532	MDL	0.106	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: PrepDE108_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-160-SA5A-SB-9.0-10 *Collected:* 3/18/2011 3:24:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	88.4		0.115	MDL	0.426	PQL	mg/Kg	J	A

Sample ID: SL-160-SA5A-SB-9.0-10 *Collected:* 3/18/2011 3:24:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	7.45		0.0696	MDL	0.422	PQL	mg/Kg	J	E

Sample ID: SL-160-SA5A-SB-9.0-10 *Collected:* 3/18/2011 3:24:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0741	J	0.0639	MDL	0.213	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.40		0.0852	MDL	0.426	PQL	mg/Kg	J	Q
BERYLLIUM	0.991		0.0170	MDL	0.106	PQL	mg/Kg	J	Q
CADMIUM	0.0527	J	0.0426	MDL	0.106	PQL	mg/Kg	J	Z, Q
CHROMIUM	22.9		0.128	MDL	0.426	PQL	mg/Kg	J	Q, A
LEAD	7.69		0.0111	MDL	0.213	PQL	mg/Kg	J	Q, A
NICKEL	11.2		0.106	MDL	0.426	PQL	mg/Kg	J	Q
SILVER	0.0839	J	0.0128	MDL	0.106	PQL	mg/Kg	J	Z, Q
VANADIUM	48.8		0.0234	MDL	0.106	PQL	mg/Kg	J	A
ZINC	59.8		0.596	MDL	3.19	PQL	mg/Kg	J	A

Sample ID: SL-168-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 12:49:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.128	J	0.0440	MDL	0.440	PQL	mg/Kg	J	Z

Sample ID: SL-168-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 12:49:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.570		0.0550	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: SL-168-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 12:49:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	81.8		0.119	MDL	0.440	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: PrepDE108_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-168-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 12:49:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	7.15		0.0726	MDL	0.440	PQL	mg/Kg	J	E

Sample ID: SL-168-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 12:49:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0905	J	0.0660	MDL	0.220	PQL	mg/Kg	J	Z, Q, E
ARSENIC	9.19		0.0880	MDL	0.440	PQL	mg/Kg	J	Q
BERYLLIUM	0.922		0.0176	MDL	0.110	PQL	mg/Kg	J	Q
CADMIUM	0.0615	J	0.0440	MDL	0.110	PQL	mg/Kg	J	Z, Q
CHROMIUM	22.8		0.132	MDL	0.440	PQL	mg/Kg	J	Q, A
LEAD	8.20		0.0114	MDL	0.220	PQL	mg/Kg	J	Q, A
NICKEL	8.90		0.110	MDL	0.440	PQL	mg/Kg	J	Q
SILVER	0.490		0.0132	MDL	0.110	PQL	mg/Kg	J	Q
VANADIUM	45.6		0.0242	MDL	0.110	PQL	mg/Kg	J	A
ZINC	56.2		0.616	MDL	3.30	PQL	mg/Kg	J	A

Sample ID: SL-169-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 10:47:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.222	J	0.0451	MDL	0.451	PQL	mg/Kg	J	Z

Sample ID: SL-169-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 10:47:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.521		0.0563	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: SL-169-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 10:47:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	136		0.122	MDL	0.451	PQL	mg/Kg	J	A

Sample ID: SL-169-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 10:47:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	8.56		0.0743	MDL	0.451	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: PrepDE108_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-169-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 10:47:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.199	J	0.0676	MDL	0.225	PQL	mg/Kg	J	Z, Q, E
ARSENIC	7.15		0.0901	MDL	0.451	PQL	mg/Kg	J	Q
BERYLLIUM	0.955		0.0180	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.0752	J	0.0451	MDL	0.113	PQL	mg/Kg	J	Z, Q
CHROMIUM	27.4		0.135	MDL	0.451	PQL	mg/Kg	J	Q, A
LEAD	8.10		0.0117	MDL	0.225	PQL	mg/Kg	J	Q, A
NICKEL	14.7		0.113	MDL	0.451	PQL	mg/Kg	J	Q
SILVER	0.0484	J	0.0135	MDL	0.113	PQL	mg/Kg	J	Z, Q
VANADIUM	51.7		0.0248	MDL	0.113	PQL	mg/Kg	J	A
ZINC	64.0		0.631	MDL	3.38	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-160-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 3:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.35	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-159-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 9:24:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0054	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-160-SA5A-SB-9.0-10 *Collected:* 3/18/2011 3:24:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0105	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: PrepDE108_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-169-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 10:47:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0116	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-159-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 9:24:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.73	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-160-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 3:14:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	0.58	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-160-SA5A-SB-9.0-10 *Collected:* 3/18/2011 3:24:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.84	J	0.43	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-168-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 12:49:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.70	J	0.45	MDL	1.3	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-159-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 9:24:00 *Analysis Type:* RES-ACID *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DIMETHYLPHENOL	36	U	36	MDL	180	PQL	ug/Kg	UJ	Q
4-CHLORO-3-METHYLPHENOL	36	U	36	MDL	180	PQL	ug/Kg	UJ	Q
BENZIDINE	1300	U	1300	MDL	3600	PQL	ug/Kg	UJ	Q
BIS(2-CHLOROETHOXY)METHANE	18	U	18	MDL	180	PQL	ug/Kg	UJ	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: PrepDE108_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-159-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 9:24:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
ISOPHORONE	18	U	18	MDL	180	PQL	ug/Kg	UJ	Q
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	Q, L

Sample ID: SL-160-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 3:14:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-160-SA5A-SB-9.0-10 *Collected:* 3/18/2011 3:24:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: SL-168-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 12:49:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-169-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 10:47:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-159-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 9:24:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.69	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: PrepDE108_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-159-SA5A-SB-4.0-5.0 ***Collected:*** 3/18/2011 9:24:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.1	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.0	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.3	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.81	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.95	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	1.1	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.72	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	1.4	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.84	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z, L
PHENANTHRENE	1.2	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	1.2	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-160-SA5A-SB-4.0-5.0 ***Collected:*** 3/18/2011 3:14:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	7.9	J	6.8	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-160-SA5A-SB-9.0-10 ***Collected:*** 3/18/2011 3:24:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHENANTHRENE	0.90	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-168-SA5A-SB-4.0-5.0 ***Collected:*** 3/18/2011 12:49:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.89	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.5	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.3	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.6	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.88	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	1.4	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.88	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z, L
PHENANTHRENE	1.6	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	1.7	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: PrepDE108_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-159-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 9:24:00 *Analysis Type:* RES *Dilution:* 0.86

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.71	J	0.22	MDL	3.7	PQL	ug/Kg	U	B

Sample ID: SL-160-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 3:14:00 *Analysis Type:* RES *Dilution:* 0.88

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.80	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: SL-160-SA5A-SB-9.0-10 *Collected:* 3/18/2011 3:24:00 *Analysis Type:* RES *Dilution:* 0.99

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.4	J	0.26	MDL	4.3	PQL	ug/Kg	U	B

Sample ID: SL-168-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 12:49:00 *Analysis Type:* RES *Dilution:* 0.88

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.06	J	0.06	MDL	4.0	PQL	ug/Kg	J	Z
m,p-Xylene	0.18	J	0.17	MDL	4.0	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.77	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: SL-169-SA5A-SB-4.0-5.0 *Collected:* 3/18/2011 10:47:00 *Analysis Type:* RES *Dilution:* 0.97

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.0	J	0.27	MDL	4.5	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: PrepDE108_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: PrepDE108_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: PrepDE108_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DE108

Method Blank Outlier Report

Lab Reporting Batch ID: DE108 Laboratory: LL

EDD Filename: DE108_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08008BB222027	3/22/2011 8:27:00 PM	PHOSPHORUS TIN	1.33 mg/Kg 1.57 mg/Kg	SL-159-SA5A-SB-4.0-5.0 SL-160-SA5A-SB-4.0-5.0 SL-160-SA5A-SB-9.0-10 SL-168-SA5A-SB-4.0-5.0 SL-169-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-159-SA5A-SB-4.0-5.0(RES)	TIN	3.11 mg/Kg	3.11U mg/Kg
SL-160-SA5A-SB-4.0-5.0(RES)	TIN	2.82 mg/Kg	2.82U mg/Kg
SL-160-SA5A-SB-9.0-10(RES)	TIN	2.98 mg/Kg	2.98U mg/Kg
SL-168-SA5A-SB-4.0-5.0(RES)	TIN	2.98 mg/Kg	2.98U mg/Kg
SL-169-SA5A-SB-4.0-5.0(RES)	TIN	3.11 mg/Kg	3.11U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08726AB220813A	3/29/2011 8:13:00 AM	COPPER	0.139 mg/Kg	SL-159-SA5A-SB-4.0-5.0 SL-160-SA5A-SB-4.0-5.0 SL-160-SA5A-SB-9.0-10 SL-168-SA5A-SB-4.0-5.0 SL-169-SA5A-SB-4.0-5.0

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P80800AB321720A	3/22/2011 5:20:00 PM	ETHYLENE GLYCOL	7.5 mg/Kg	SL-159-SA5A-SB-4.0-5.0 SL-160-SA5A-SB-4.0-5.0 SL-160-SA5A-SB-9.0-10 SL-168-SA5A-SB-4.0-5.0

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB00B211218A	3/22/2011 12:18:00 PM	METHYLENE CHLORIDE TOLUENE	1.2 ug/Kg 0.20 ug/Kg	SL-159-SA5A-SB-4.0-5.0 SL-160-SA5A-SB-4.0-5.0 SL-160-SA5A-SB-9.0-10 SL-168-SA5A-SB-4.0-5.0 SL-169-SA5A-SB-4.0-5.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: DE108_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-159-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.71 ug/Kg	3.7U ug/Kg
SL-160-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.80 ug/Kg	4.0U ug/Kg
SL-160-SA5A-SB-9.0-10(RES)	METHYLENE CHLORIDE	1.4 ug/Kg	4.3U ug/Kg
SL-168-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.77 ug/Kg	4.0U ug/Kg
SL-169-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.0 ug/Kg	4.5U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: DE108_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-159-SA5A-SB-4.0-5.0MS (SL-159-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-9.0-10 SL -168-SA5A-SB-4.0-5.0 SL -169-SA5A-SB-4.0-5.0)	FLUORIDE	54	-	80.00-120.00	-	FLUORIDE	J (all detects) UJ (all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-160-SA5A-SB-9.0-10MS SL-160-SA5A-SB-9.0-10MSD (SL-159-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-9.0-10 SL -168-SA5A-SB-4.0-5.0 SL -169-SA5A-SB-4.0-5.0)	ARSENIC	-	168	75.00-125.00	-	ARSENIC	
	BERYLLIUM	127	145	75.00-125.00	-	BERYLLIUM	
	CADMIUM	131	139	75.00-125.00	-	CADMIUM	J(all detects)
	CHROMIUM	130	145	75.00-125.00	-	CHROMIUM	
	LEAD	142	153	75.00-125.00	-	LEAD	V, Zn
	NICKEL	-	129	75.00-125.00	-	NICKEL	No Qual, >4x
	SILVER	129	137	75.00-125.00	-	SILVER	
	VANADIUM	-	160	75.00-125.00	-	VANADIUM	
	ZINC	-	129	75.00-125.00	-	ZINC	
SL-160-SA5A-SB-9.0-10MS SL-160-SA5A-SB-9.0-10MSD (SL-159-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-9.0-10 SL -168-SA5A-SB-4.0-5.0 SL -169-SA5A-SB-4.0-5.0)	ANTIMONY	49	30	75.00-125.00	44 (20.00)	ANTIMONY	J(all detects) UJ(all non-detects)
SL-160-SA5A-SB-9.0-10MSD (SL-159-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-9.0-10 SL -168-SA5A-SB-4.0-5.0 SL -169-SA5A-SB-4.0-5.0)	MOLYBDENUM	-	135	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-160-SA5A-SB-9.0-10MSD (SL-159-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-9.0-10 SL -168-SA5A-SB-4.0-5.0 SL -169-SA5A-SB-4.0-5.0)	BARIUM	-	165	75.00-125.00	-	BARIUM	No Qual, >4x

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-160-SA5A-SB-9.0-10MS SL-160-SA5A-SB-9.0-10MSD (SL-159-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-9.0-10 SL -168-SA5A-SB-4.0-5.0 SL -169-SA5A-SB-4.0-5.0)	ALUMINUM	1500	1202	75.00-125.00	-	ALUMINUM	
	MAGNESIUM	129	-	75.00-125.00	-	MAGNESIUM	
	TITANIUM	266	266	75.00-125.00	-	TITANIUM	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: DE108_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-160-SA5A-SB-9.0-10MS SL-160-SA5A-SB-9.0-10MSD (SL-159-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-9.0-10 SL -168-SA5A-SB-4.0-5.0 SL -169-SA5A-SB-4.0-5.0)	IRON MANGANESE	-1069 9	-1156 11	75.00-125.00 75.00-125.00	- -	IRON MANGANESE	J(all detects) R(all non-detects) Fe No Qual, >4x

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-159-SA5A-SB-4.0-5.0MS SL-159-SA5A-SB-4.0-5.0MSD (SL-159-SA5A-SB-4.0-5.0)	2,4-DIMETHYLPHENOL 4-CHLORO-3-METHYLPHENOL BENZIDINE BIS(2-CHLOROETHOXY)METHA ISOPHORONE NITROBENZENE	- - 23 - 71 67	76 75 20 73 69 64	78.00-110.00 76.00-110.00 35.00-141.00 75.00-104.00 73.00-102.00 72.00-106.00	- - - - - -	2,4-DIMETHYLPHENOL 4-CHLORO-3-METHYLPHENOL BENZIDINE BIS(2-CHLOROETHOXY)METH ISOPHORONE NITROBENZENE	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE108 | Laboratory: LL

EDD Filename: DE108_v1 | eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-160-SA5A-SB-9.0-10DUP (SL-159-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-9.0-10 SL -168-SA5A-SB-4.0-5.0 SL -169-SA5A-SB-4.0-5.0)	MANGANESE Zirconium	25 35	20.00 20.00	J (all detects) UJ (all non-detects) Zr No Qual OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-160-SA5A-SB-9.0-10DUP (SL-159-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-9.0-10 SL -168-SA5A-SB-4.0-5.0 SL -169-SA5A-SB-4.0-5.0)	CADMIUM COPPER	26 25	20.00 20.00	J(all detects) UJ(all non-detects) Cd No Qual OK by difference

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-160-SA5A-SB-9.0-10DUP (SL-159-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-4.0-5.0 SL -160-SA5A-SB-9.0-10 SL -168-SA5A-SB-4.0-5.0 SL -169-SA5A-SB-4.0-5.0)	MERCURY	65	20.00	No Qual OK by difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE108 Laboratory: LL

EDD Filename: DE108_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P1LBLCSQ260758 (SL-159-SA5A-SB-4.0-5.0 SL-160-SA5A-SB-4.0-5.0 SL-160-SA5A-SB-9.0-10 SL-168-SA5A-SB-4.0-5.0 SL-169-SA5A-SB-4.0-5.0)	INDENO(1,2,3-CD)PYRENE	135	-	56.00-134.00	-	INDENO(1,2,3-CD)PYRENE	J (all detects)

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P7LCLCSQ262223 (SL-159-SA5A-SB-4.0-5.0 SL-160-SA5A-SB-4.0-5.0 SL-160-SA5A-SB-9.0-10 SL-168-SA5A-SB-4.0-5.0 SL-169-SA5A-SB-4.0-5.0)	BIS(2-CHLOROISOPROPYL) ET	63	-	68.00-131.00	-	BIS(2-CHLOROISOPROPYL) E	J(all detects) UJ(all non-detects)
	NITROBENZENE	70	-	71.00-104.00	-	NITROBENZENE	

Reporting Limit Outliers

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: DE108_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-159-SA5A-SB-4.0-5.0	BORON	J	2.63	5.34	PQL	mg/Kg	J (all detects)
	TIN	J	3.11	10.7	PQL	mg/Kg	
	Zirconium	J	2.11	5.34	PQL	mg/Kg	
SL-160-SA5A-SB-4.0-5.0	BORON	J	2.71	5.44	PQL	mg/Kg	J (all detects)
	SODIUM	J	90.7	109	PQL	mg/Kg	
	TIN	J	2.82	10.9	PQL	mg/Kg	
	Zirconium	J	2.14	5.44	PQL	mg/Kg	
SL-160-SA5A-SB-9.0-10	BORON	J	2.28	5.22	PQL	mg/Kg	J (all detects)
	TIN	J	2.98	10.4	PQL	mg/Kg	
	Zirconium	J	1.91	5.22	PQL	mg/Kg	
SL-168-SA5A-SB-4.0-5.0	BORON	J	1.80	5.56	PQL	mg/Kg	J (all detects)
	TIN	J	2.98	11.1	PQL	mg/Kg	
	Zirconium	J	1.45	5.56	PQL	mg/Kg	
SL-169-SA5A-SB-4.0-5.0	BORON	J	1.99	5.63	PQL	mg/Kg	J (all detects)
	SODIUM	J	96.2	113	PQL	mg/Kg	
	TIN	J	3.11	11.3	PQL	mg/Kg	
	Zirconium	J	1.19	5.63	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-159-SA5A-SB-4.0-5.0	ANTIMONY	J	0.129	0.216	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0854	0.108	PQL	mg/Kg	
	SELENIUM	J	0.165	0.431	PQL	mg/Kg	
	SILVER	J	0.0778	0.108	PQL	mg/Kg	
SL-160-SA5A-SB-4.0-5.0	ANTIMONY	J	0.153	0.224	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0708	0.112	PQL	mg/Kg	
	SELENIUM	J	0.141	0.449	PQL	mg/Kg	
	SILVER	J	0.0612	0.112	PQL	mg/Kg	
SL-160-SA5A-SB-9.0-10	ANTIMONY	J	0.0741	0.213	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0527	0.106	PQL	mg/Kg	
	SELENIUM	J	0.160	0.426	PQL	mg/Kg	
	SILVER	J	0.0839	0.106	PQL	mg/Kg	
SL-168-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0905	0.220	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0615	0.110	PQL	mg/Kg	
	SELENIUM	J	0.128	0.440	PQL	mg/Kg	
SL-169-SA5A-SB-4.0-5.0	ANTIMONY	J	0.199	0.225	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0752	0.113	PQL	mg/Kg	
	SELENIUM	J	0.222	0.451	PQL	mg/Kg	
	SILVER	J	0.0484	0.113	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: DE108_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-160-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.35	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-159-SA5A-SB-4.0-5.0	MERCURY	J	0.0054	0.108	PQL	mg/Kg	J (all detects)
SL-160-SA5A-SB-9.0-10	MERCURY	J	0.0105	0.105	PQL	mg/Kg	J (all detects)
SL-169-SA5A-SB-4.0-5.0	MERCURY	J	0.0116	0.114	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-159-SA5A-SB-4.0-5.0	EFH (C30-C40)	J	0.73	1.3	PQL	mg/Kg	J (all detects)
SL-160-SA5A-SB-4.0-5.0	EFH (C21-C30)	J	0.58	1.4	PQL	mg/Kg	J (all detects)
SL-160-SA5A-SB-9.0-10	EFH (C30-C40)	J	0.84	1.3	PQL	mg/Kg	J (all detects)
SL-168-SA5A-SB-4.0-5.0	EFH (C30-C40)	J	0.70	1.3	PQL	mg/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-159-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.71	3.7	PQL	ug/Kg	J (all detects)
SL-160-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.80	4.0	PQL	ug/Kg	J (all detects)
SL-160-SA5A-SB-9.0-10	METHYLENE CHLORIDE	J	1.4	4.3	PQL	ug/Kg	J (all detects)
SL-168-SA5A-SB-4.0-5.0	ETHYLBENZENE m,p-Xylene METHYLENE CHLORIDE	J J J	0.06 0.18 0.77	4.0 4.0 4.0	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-169-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.0	4.5	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE108 **Laboratory: LL**

EDD Filename: DE108_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-159-SA5A-SB-4.0-5.0	ANTHRACENE	J	0.69	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	1.1	1.8	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.0	1.8	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.3	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.81	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.95	1.8	PQL	ug/Kg	
	CHRYSENE	J	1.1	1.8	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.72	1.8	PQL	ug/Kg	
	FLUORANTHENE	J	1.4	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.84	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	1.8	PQL	ug/Kg	
	PYRENE	J	1.2	1.8	PQL	ug/Kg	
SL-160-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.9	20	PQL	ug/Kg	J (all detects)
SL-160-SA5A-SB-9.0-10	PHENANTHRENE	J	0.90	1.8	PQL	ug/Kg	J (all detects)
SL-168-SA5A-SB-4.0-5.0	ANTHRACENE	J	0.89	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	1.5	1.8	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.3	1.8	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.6	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.88	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.1	1.8	PQL	ug/Kg	
	CHRYSENE	J	1.4	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.88	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.6	1.8	PQL	ug/Kg	
	PYRENE	J	1.7	1.8	PQL	ug/Kg	

LDC #: 25911Q4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-31
SDG #: DE108 ADR
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No Quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ba, Ca, Fe, Mg, Ti, V, Zn >4X)
VII.	Duplicate Sample Analysis	N	D.P (Cd, Hg, Zr <5xRL)
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	J/UJ
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: Soil

1	SL-159-SA5A-SB-4.0-5.0	11		21		31	
2	SL-169-SA5A-SB-4.0-5.0	12		22		32	
3	SL-168-SA5A-SB-4.0-5.0	13		23		33	
4	SL-160-SA5A-SB-4.0-5.0	14		24		34	
5	SL-160-SA5A-SB-9.0-10.0	15		25		35	
6	↓ MS	16		26		36	
7	MSD	17		27		37	
8	DUP	18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE108
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6234510BKG Serial Dilution Lab Sample ID: 6234510L
Batch ID(s): P08008B, P08026A, P08726A
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		209623.1500		208997.8000		0		P
Antimony	121	0.3481	B	1.5000	U	100		MS
Arsenic	75	30.0500		25.0550		17		MS
Barium	137	415.0000		318.5500		23	E	MS
Beryllium	9	4.6530		3.9225		16		MS
Boron		21.8700	B	44.5000	U	100		P
Cadmium	111	0.2473	B	1.0000	U	100		MS
Calcium		21366.8800		22646.5000		6		P
Chromium	52	107.7000		95.7000		11	E	MS
Cobalt	59	21.2400		19.4800		8		MS
Copper	63	35.3400		33.7400		5		MS
Iron		220957.1000		225309.5500		2		P
Lead	208	36.1300		29.5550		18	E	MS
Lithium		217.5800		224.7500		3		P
Magnesium		39275.3100		40427.0500		3		P
Manganese		1860.8000		1951.8000		5		P
Molybdenum	98	4.4560		3.8860		13		MS
Nickel	60	52.7200		50.4500		4		MS
Phosphorus		1591.2100		1606.3500		1		P
Potassium		13678.7200		14152.6000		3		P
Selenium	78	0.7504	B	1.0000	U	100		MS
Silver	107	0.3939	B	0.3000	U	100		MS
Sodium		1031.8400		1865.0000	U	100		P
Strontium		208.6800		213.9000		3		P
Thallium	203	1.5320		1.1180	B	27		MS
Tin		28.5600	B	50.0000	U	100		P
Titanium		10409.5200		11228.3500		8		P
Vanadium	51	229.2000		204.4500		11	E	MS
Zinc	66	280.9000		241.9000		14	E	MS
Zirconium		18.3200	B	44.1000	B	141		P

NOTE: An E in column Q indicates the presence of a chemical or physical interference in the matrix when the % difference is greater than 10%. This applies only when (I) is greater than or equal to 50x MDL for ICP, 100x MDL for ICP-MS (6020), 50x MDL for ICP-MS (200.8), or 25x MDL for GFAA.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ

FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

SAMPLE DELIVERY GROUP

DE109

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Mar-2011	TB-032111	6235706	TB	5030B	8015M	III
21-Mar-2011	TB-032111	6235706	TB	5030B	8260B	III
21-Mar-2011	TB-032111	6235706	TB	5030B	8260B SIM	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	3050B	6010B	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	3050B	6020	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	3060A	7199	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	3546	1625C	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	3550B	8015B	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	3550B	8015M	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	3550B	8082	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	3550B	8270C	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	3550B	8270C SIM	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	5035	8015M	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	5035	8260B	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	5035	8260B SIM	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	8330	8330A	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	Gen Prep	9045M	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	METHOD	300.0	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	METHOD	314.0	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	METHOD	7471A	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	METHOD	8015B	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	METHOD	8015M	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	METHOD	8315A	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0	6235702	N	METHOD	9012B	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0DUP	P235702D220857	DUP	METHOD	7471A	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0DUP	P235702D221006	DUP	3050B	6010B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0DUP	P235702D221232A	DUP	3050B	6020	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0DUP	P235702D221232B	DUP	3050B	6020	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0DUP	P235702D221232C	DUP	3050B	6020	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0DUP	P235702D221232D	DUP	3050B	6020	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0DUP	P235702D221316	DUP	3050B	6010B	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0DUP	P235702D271300A	DUP	METHOD	314.0	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0DUP	P235702D271621A	DUP	METHOD	300.0	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0DUP	P235702D290900A	DUP	Gen Prep	9045M	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MSD	P235702M220859	MSD	METHOD	7471A	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MSD	P235702M221014	MSD	3050B	6010B	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MSD	P235702M221239A	MSD	3050B	6020	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MSD	P235702M221239B	MSD	3050B	6020	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MSD	P235702M221239C	MSD	3050B	6020	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MSD	P235702M221239D	MSD	3050B	6020	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MSD	P235702M221323	MSD	3050B	6010B	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MSD	P235702M242051A	MSD	3550B	8082	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MSD	P235702M260331	MSD	3550B	8270C SIM	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MSD	P235702M321426A	MSD	3550B	8015M	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MSD	P235702M321657A	MSD	METHOD	8015M	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MS	P235702R220858	MS	METHOD	7471A	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MS	P235702R221010	MS	3050B	6010B	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MS	P235702R221235A	MS	3050B	6020	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MS	P235702R221235B	MS	3050B	6020	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MS	P235702R221235C	MS	3050B	6020	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MS	P235702R221235D	MS	3050B	6020	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MS	P235702R221319	MS	3050B	6010B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MS	P235702R242033A	MS	3550B	8082	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MS	P235702R260259	MS	3550B	8270C SIM	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MS	P235702R271323A	MS	METHOD	314.0	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MS	P235702R271635A	MS	METHOD	300.0	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MS	P235702R321400A	MS	3550B	8015M	III
21-Mar-2011	SL-161-SA5A-SB-4.0-5.0MS	P235702R321622A	MS	METHOD	8015M	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	3050B	6010B	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	3050B	6020	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	3060A	7199	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	3546	1625C	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	3550B	8015B	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	3550B	8015M	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	3550B	8082	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	3550B	8270C	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	3550B	8270C SIM	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	5035	8015M	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	5035	8260B	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	5035	8260B SIM	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	8330	8330A	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	Gen Prep	9045M	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	METHOD	300.0	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	METHOD	314.0	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	METHOD	7471A	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	METHOD	8015B	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	METHOD	8015M	III
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	METHOD	8315A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Mar-2011	SL-161-SA5A-SB-7.5-8.5	6235703	N	METHOD	9012B	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	3050B	6010B	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	3050B	6020	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	3060A	7199	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	3546	1625C	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	3550B	8015B	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	3550B	8015M	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	3550B	8082	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	3550B	8270C	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	3550B	8270C SIM	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	5035	8015M	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	5035	8260B	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	5035	8260B SIM	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	8330	8330A	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	Gen Prep	9045M	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	METHOD	300.0	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	METHOD	314.0	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	METHOD	6850	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	METHOD	7471A	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	METHOD	8015B	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	METHOD	8015M	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	METHOD	8315A	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0	6235704	N	METHOD	9012B	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0MSD	P235704M241520A	MSD	METHOD	6850	III
21-Mar-2011	SL-163-SA5A-SB-4.0-5.0MS	P235704R241514A	MS	METHOD	6850	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	3050B	6010B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	3050B	6020	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	3060A	7199	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	3546	1625C	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	3550B	8015B	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	3550B	8015M	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	3550B	8082	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	3550B	8270C	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	3550B	8270C SIM	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	5035	8015M	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	5035	8260B	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	5035	8260B SIM	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	8330	8330A	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	Gen Prep	9045M	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	METHOD	300.0	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	METHOD	314.0	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	METHOD	7471A	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	METHOD	8015B	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	METHOD	8015M	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	METHOD	8315A	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0	6235705	N	METHOD	9012B	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0MSD	P235705M320127A	MSD	METHOD	8015B	III
21-Mar-2011	SL-252-SA5A-SB-4.0-5.0MS	P235705R320112A	MS	METHOD	8015B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE109 Laboratory: LL

EDD Filename: PrepDE109_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-161-SA5A-SB-4.0-5.0 **Collected:** 3/21/2011 8:54:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-161-SA5A-SB-7.5-8.5 **Collected:** 3/21/2011 9:03:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.2		0.86	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.1	J	0.86	MDL	1.6	PQL	mg/Kg	J	Z

Sample ID: SL-163-SA5A-SB-4.0-5.0 **Collected:** 3/21/2011 11:49:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.93	U	0.93	MDL	1.2	PQL	mg/Kg	UJ	Q
Nitrate-NO3	1.3	J	0.93	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-252-SA5A-SB-4.0-5.0 **Collected:** 3/21/2011 3:35:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.91	U	0.91	MDL	1.1	PQL	mg/Kg	UJ	Q
Nitrate-NO3	1.4	J	0.91	MDL	1.7	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-161-SA5A-SB-4.0-5.0 **Collected:** 3/21/2011 8:54:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2630		19.6	MDL	54.5	PQL	mg/Kg	J	Q
SODIUM	81.5	J	40.7	MDL	109	PQL	mg/Kg	J	Z
TIN	3.30	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	3.29	J	0.916	MDL	5.45	PQL	mg/Kg	J	Z

Sample ID: SL-161-SA5A-SB-7.5-8.5 **Collected:** 3/21/2011 9:03:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1540		19.2	MDL	53.3	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE109 **Laboratory: LL**

EDD Filename: PrepDE109_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-161-SA5A-SB-7.5-8.5 *Collected:* 3/21/2011 9:03:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.44	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	4.32	J	0.895	MDL	5.33	PQL	mg/Kg	J	Z

Sample ID: SL-163-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 11:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1270		20.4	MDL	56.8	PQL	mg/Kg	J	Q
SODIUM	80.6	J	42.4	MDL	114	PQL	mg/Kg	J	Z
TIN	3.09	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	3.36	J	0.954	MDL	5.68	PQL	mg/Kg	J	Z

Sample ID: SL-252-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 3:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2530		20.1	MDL	56.0	PQL	mg/Kg	J	Q
SODIUM	83.0	J	41.7	MDL	112	PQL	mg/Kg	J	Z
TIN	3.28	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	3.14	J	0.940	MDL	5.60	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-161-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 8:54:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.117	J	0.0432	MDL	0.432	PQL	mg/Kg	J	Z

Sample ID: SL-161-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 8:54:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.653		0.0540	MDL	0.108	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE109 **Laboratory:** LL

EDD Filename: PrepDE109_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-161-SA5A-SB-4.0-5.0 **Collected:** 3/21/2011 8:54:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.195	J	0.0648	MDL	0.216	PQL	mg/Kg	J	Z, Q
ARSENIC	5.30		0.0864	MDL	0.432	PQL	mg/Kg	J	E
CADMIUM	0.0991	J	0.0432	MDL	0.108	PQL	mg/Kg	J	Z
CHROMIUM	19.3		0.130	MDL	0.432	PQL	mg/Kg	J	A
COBALT	6.65		0.0216	MDL	0.108	PQL	mg/Kg	J	A
COPPER	8.20		0.0713	MDL	0.432	PQL	mg/Kg	J	A
NICKEL	11.2		0.108	MDL	0.432	PQL	mg/Kg	J	A
SILVER	0.0302	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	39.1		0.0238	MDL	0.108	PQL	mg/Kg	J	Q, A

Sample ID: SL-161-SA5A-SB-7.5-8.5 **Collected:** 3/21/2011 9:03:00 **Analysis Type:** REA **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.120	J	0.0422	MDL	0.422	PQL	mg/Kg	J	Z

Sample ID: SL-161-SA5A-SB-7.5-8.5 **Collected:** 3/21/2011 9:03:00 **Analysis Type:** REA2 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.642		0.0528	MDL	0.106	PQL	mg/Kg	J	E

Sample ID: SL-161-SA5A-SB-7.5-8.5 **Collected:** 3/21/2011 9:03:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.118	J	0.0633	MDL	0.211	PQL	mg/Kg	J	Z, Q
ARSENIC	6.59		0.0844	MDL	0.422	PQL	mg/Kg	J	E
CHROMIUM	23.8		0.127	MDL	0.422	PQL	mg/Kg	J	A
COBALT	6.27		0.0211	MDL	0.106	PQL	mg/Kg	J	A
COPPER	7.79		0.0697	MDL	0.422	PQL	mg/Kg	J	A
NICKEL	10.4		0.106	MDL	0.422	PQL	mg/Kg	J	A
SILVER	0.0312	J	0.0127	MDL	0.106	PQL	mg/Kg	J	Z
VANADIUM	47.5		0.0232	MDL	0.106	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE109 **Laboratory: LL**

EDD Filename: PrepDE109_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-163-SA5A-SB-4.0-5.0 ***Collected:*** 3/21/2011 11:49:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.153	J	0.0463	MDL	0.463	PQL	mg/Kg	J	Z

Sample ID: SL-163-SA5A-SB-4.0-5.0 ***Collected:*** 3/21/2011 11:49:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.561		0.0579	MDL	0.116	PQL	mg/Kg	J	E

Sample ID: SL-163-SA5A-SB-4.0-5.0 ***Collected:*** 3/21/2011 11:49:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.143	J	0.0695	MDL	0.232	PQL	mg/Kg	J	Z, Q
ARSENIC	5.72		0.0927	MDL	0.463	PQL	mg/Kg	J	E
CHROMIUM	20.5		0.139	MDL	0.463	PQL	mg/Kg	J	A
COBALT	5.03		0.0232	MDL	0.116	PQL	mg/Kg	J	A
COPPER	6.03		0.0765	MDL	0.463	PQL	mg/Kg	J	A
NICKEL	9.38		0.116	MDL	0.463	PQL	mg/Kg	J	A
SILVER	0.0385	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z
VANADIUM	44.9		0.0255	MDL	0.116	PQL	mg/Kg	J	Q, A

Sample ID: SL-252-SA5A-SB-4.0-5.0 ***Collected:*** 3/21/2011 3:35:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.184	J	0.0439	MDL	0.439	PQL	mg/Kg	J	Z

Sample ID: SL-252-SA5A-SB-4.0-5.0 ***Collected:*** 3/21/2011 3:35:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.613		0.0549	MDL	0.110	PQL	mg/Kg	J	E

Sample ID: SL-252-SA5A-SB-4.0-5.0 ***Collected:*** 3/21/2011 3:35:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.123	J	0.0659	MDL	0.220	PQL	mg/Kg	J	Z, Q
ARSENIC	4.64		0.0878	MDL	0.439	PQL	mg/Kg	J	E
CHROMIUM	19.9		0.132	MDL	0.439	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE109 **Laboratory: LL**

EDD Filename: PrepDE109_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-252-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 3:35:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	5.90		0.0220	MDL	0.110	PQL	mg/Kg	J	A
COPPER	7.42		0.0724	MDL	0.439	PQL	mg/Kg	J	A
NICKEL	10.8		0.110	MDL	0.439	PQL	mg/Kg	J	A
SILVER	0.0292	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z
VANADIUM	40.2		0.0241	MDL	0.110	PQL	mg/Kg	J	Q, A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-161-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 8:54:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.48	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-161-SA5A-SB-7.5-8.5 *Collected:* 3/21/2011 9:03:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.45	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-163-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 11:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.49	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-252-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 3:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.49	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE109 **Laboratory: LL**

EDD Filename: PrepDE109_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-163-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 11:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0088	J	0.0031	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-252-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 3:35:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0061	J	0.0036	MDL	0.126	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-161-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 8:54:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	1.2	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z, L
EFH (C8-C11)	0.49	J	0.44	MDL	1.3	PQL	mg/Kg	UJ	Q, B

Sample ID: SL-161-SA5A-SB-7.5-8.5 *Collected:* 3/21/2011 9:03:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	5.6		0.43	MDL	1.3	PQL	mg/Kg	J	L
EFH (C8-C11)	0.51	J	0.43	MDL	1.3	PQL	mg/Kg	U	B

Sample ID: SL-163-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 11:49:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	1.0	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z, L
EFH (C8-C11)	0.49	J	0.46	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-252-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 3:35:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	1.0	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z, L
EFH (C8-C11)	0.51	J	0.46	MDL	1.4	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE109 **Laboratory: LL**

EDD Filename: PrepDE109_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-161-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 8:54:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: SL-161-SA5A-SB-7.5-8.5 *Collected:* 3/21/2011 9:03:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: SL-163-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 11:49:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-252-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 3:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-161-SA5A-SB-7.5-8.5 *Collected:* 3/21/2011 9:03:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	0.81	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-252-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 3:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	0.80	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE109 **Laboratory: LL**

EDD Filename: PrepDE109_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-161-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 8:54:00 *Analysis Type:* RES *Dilution:* 0.82

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.9	J	0.22	MDL	3.7	PQL	ug/Kg	U	B

Sample ID: SL-161-SA5A-SB-7.5-8.5 *Collected:* 3/21/2011 9:03:00 *Analysis Type:* RES *Dilution:* 1.05

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	3.9	J	0.27	MDL	4.5	PQL	ug/Kg	U	B
TOLUENE	0.10	J	0.09	MDL	4.5	PQL	ug/Kg	J	Z

Sample ID: SL-163-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 11:49:00 *Analysis Type:* RES *Dilution:* 0.82

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.8	J	0.23	MDL	3.8	PQL	ug/Kg	U	B

Sample ID: SL-252-SA5A-SB-4.0-5.0 *Collected:* 3/21/2011 3:35:00 *Analysis Type:* RES *Dilution:* 0.95

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.6	J	0.26	MDL	4.3	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE109 **Laboratory: LL**

EDD Filename: PrepDE109_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE109 **Laboratory: LL**

EDD Filename: PrepDE109_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE109 **Laboratory: LL**

EDD Filename: PrepDE109_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE109

Method Blank Outlier Report

Lab Reporting Batch ID: DE109 Laboratory: LL

EDD Filename: DE109_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08208BB220949	3/24/2011 9:49:00 AM	CALCIUM MAGNESIUM MANGANESE TIN	7.09 mg/Kg 4.17 mg/Kg 0.383 mg/Kg 1.58 mg/Kg	SL-161-SA5A-SB-4.0-5.0 SL-161-SA5A-SB-7.5-8.5 SL-163-SA5A-SB-4.0-5.0 SL-252-SA5A-SB-4.0-5.0
P08208BB221258	3/24/2011 12:58:00 PM	ALUMINUM IRON PHOSPHORUS	21.6 mg/Kg 17.0 mg/Kg 0.932 mg/Kg	SL-161-SA5A-SB-4.0-5.0 SL-161-SA5A-SB-7.5-8.5 SL-163-SA5A-SB-4.0-5.0 SL-252-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-161-SA5A-SB-4.0-5.0(RES)	TIN	3.30 mg/Kg	3.30U mg/Kg
SL-161-SA5A-SB-7.5-8.5(RES)	TIN	3.44 mg/Kg	3.44U mg/Kg
SL-163-SA5A-SB-4.0-5.0(RES)	TIN	3.09 mg/Kg	3.09U mg/Kg
SL-252-SA5A-SB-4.0-5.0(RES)	TIN	3.28 mg/Kg	3.28U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08226AB221220A	3/27/2011 12:20:00 PM	COPPER	0.0716 mg/Kg	SL-161-SA5A-SB-4.0-5.0 SL-161-SA5A-SB-7.5-8.5 SL-163-SA5A-SB-4.0-5.0 SL-252-SA5A-SB-4.0-5.0

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P88883AB321243A	3/31/2011 12:43:00 PM	EFH (C8-C11)	0.50 mg/Kg	SL-161-SA5A-SB-4.0-5.0 SL-161-SA5A-SB-7.5-8.5 SL-163-SA5A-SB-4.0-5.0 SL-252-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-161-SA5A-SB-4.0-5.0(REA2)	EFH (C8-C11)	0.49 mg/Kg	1.3U mg/Kg
SL-161-SA5A-SB-7.5-8.5(REA2)	EFH (C8-C11)	0.51 mg/Kg	1.3U mg/Kg
SL-163-SA5A-SB-4.0-5.0(REA2)	EFH (C8-C11)	0.49 mg/Kg	1.4U mg/Kg
SL-252-SA5A-SB-4.0-5.0(REA2)	EFH (C8-C11)	0.51 mg/Kg	1.4U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE109 **Laboratory: LL**

EDD Filename: DE109_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB01B211312A	3/23/2011 1:12:00 PM	METHYLENE CHLORIDE	0.68 ug/Kg	SL-161-SA5A-SB-4.0-5.0 SL-161-SA5A-SB-7.5-8.5 SL-163-SA5A-SB-4.0-5.0 SL-252-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-161-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.9 ug/Kg	3.7U ug/Kg
SL-161-SA5A-SB-7.5-8.5(RES)	METHYLENE CHLORIDE	3.9 ug/Kg	4.5U ug/Kg
SL-163-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.8 ug/Kg	3.8U ug/Kg
SL-252-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.6 ug/Kg	4.3U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE109 **Laboratory: LL**

EDD Filename: DE109_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-161-SA5A-SB-4.0-5.0MS (SL-161-SA5A-SB-4.0-5.0 SL -161-SA5A-SB-7.5-8.5 SL -163-SA5A-SB-4.0-5.0 SL -252-SA5A-SB-4.0-5.0)	VANADIUM	130	-	75.00-125.00	-	VANADIUM	J (all detects)
SL-161-SA5A-SB-4.0-5.0MS SL-161-SA5A-SB-4.0-5.0MSD (SL-161-SA5A-SB-4.0-5.0 SL -161-SA5A-SB-7.5-8.5 SL -163-SA5A-SB-4.0-5.0 SL -252-SA5A-SB-4.0-5.0)	ANTIMONY	48	42	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)
SL-161-SA5A-SB-4.0-5.0MSD (SL-161-SA5A-SB-4.0-5.0 SL -161-SA5A-SB-7.5-8.5 SL -163-SA5A-SB-4.0-5.0 SL -252-SA5A-SB-4.0-5.0)	BARIUM	-	63	75.00-125.00	-	BARIUM	No Qual, >4x

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-161-SA5A-SB-4.0-5.0MS	ALUMINUM	2023	2543	75.00-125.00	-	ALUMINUM	
SL-161-SA5A-SB-4.0-5.0MSD	CALCIUM	129	158	75.00-125.00	-	CALCIUM	J(all detects)
(SL-161-SA5A-SB-4.0-5.0	MAGNESIUM	138	244	75.00-125.00	-	MAGNESIUM	
SL -161-SA5A-SB-7.5-8.5	MANGANESE	157	195	75.00-125.00	-	MANGANESE	Al, Ca, Mg,
SL -163-SA5A-SB-4.0-5.0	POTASSIUM	-	128	75.00-125.00	-	POTASSIUM	Mn, Ti
SL -252-SA5A-SB-4.0-5.0)	TITANIUM	192	262	75.00-125.00	-	TITANIUM	No Qual, >4x
SL-161-SA5A-SB-4.0-5.0MS SL-161-SA5A-SB-4.0-5.0MSD (SL-161-SA5A-SB-4.0-5.0 SL -161-SA5A-SB-7.5-8.5 SL -163-SA5A-SB-4.0-5.0 SL -252-SA5A-SB-4.0-5.0)	IRON	-237	895	75.00-125.00	-	IRON	No Qual, >4x

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-161-SA5A-SB-4.0-5.0MS (SL-161-SA5A-SB-4.0-5.0 SL -161-SA5A-SB-7.5-8.5 SL -163-SA5A-SB-4.0-5.0 SL -252-SA5A-SB-4.0-5.0)	FLUORIDE	44	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE109 **Laboratory: LL**

EDD Filename: DE109_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-161-SA5A-SB-4.0-5.0MSD (SL-161-SA5A-SB-4.0-5.0)	2-METHYLNAPHTHALENE	-	104	64.00-103.00	-	2-METHYLNAPHTHALENE	J(all detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-161-SA5A-SB-4.0-5.0MS (SL-161-SA5A-SB-4.0-5.0)	EFH (C8-C11)	40	-	49.00-123.00	-	EFH (C8-C11)	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE109 Laboratory: LL

EDD Filename: DE109_v1 eQAPP Name: CDM_SSFL_110509

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-161-SA5A-SB-4.0-5.0DUP (SL-161-SA5A-SB-4.0-5.0 SL -161-SA5A-SB-7.5-8.5 SL -163-SA5A-SB-4.0-5.0 SL -252-SA5A-SB-4.0-5.0)	FLUORIDE	64	20.00	No Qual OK by difference
	Nitrate-NO3	32	20.00	

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-161-SA5A-SB-4.0-5.0DUP (SL-161-SA5A-SB-4.0-5.0 SL -161-SA5A-SB-7.5-8.5 SL -163-SA5A-SB-4.0-5.0 SL -252-SA5A-SB-4.0-5.0)	Zirconium	30	20.00	No Qual OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-161-SA5A-SB-4.0-5.0DUP (SL-161-SA5A-SB-4.0-5.0 SL -161-SA5A-SB-7.5-8.5 SL -163-SA5A-SB-4.0-5.0 SL -252-SA5A-SB-4.0-5.0)	ANTIMONY	200	20.00	J(all detects) UJ(all non-detects)
	ARSENIC	30	20.00	
	MOLYBDENUM	0.3015 mg/Kg	0.216 mg/Kg	
	SELENIUM	30	20.00	Sb, Se, Ag, Tl No Qual OK by difference
	SILVER	22	20.00	
	THALLIUM	22	20.00	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE109 **Laboratory: LL**

EDD Filename: DE109_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P7LCLCSQ262223 (SL-161-SA5A-SB-4.0-5.0 SL-161-SA5A-SB-7.5-8.5 SL-163-SA5A-SB-4.0-5.0 SL-252-SA5A-SB-4.0-5.0)	BIS(2-CHLOROISOPROPYL) ET NITROBENZENE	63 70	- -	68.00-131.00 71.00-104.00	- -	BIS(2-CHLOROISOPROPYL) E NITROBENZENE	J (all detects) UJ (all non-detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10883AQ321309A (SL-161-SA5A-SB-4.0-5.0 SL-161-SA5A-SB-7.5-8.5 SL-163-SA5A-SB-4.0-5.0 SL-252-SA5A-SB-4.0-5.0)	EFH (C30-C40)	121	-	66.00-113.00	-	EFH (C30-C40)	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE109 **Laboratory:** LL

EDD Filename: DE109_v1 **eQAPP Name:** CDM_SSFL_110509

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-161-SA5A-SB-7.5-8.5	Nitrate-NO3	J	1.1	1.6	PQL	mg/Kg	J (all detects)
SL-163-SA5A-SB-4.0-5.0	Nitrate-NO3	J	1.3	1.7	PQL	mg/Kg	J (all detects)
SL-252-SA5A-SB-4.0-5.0	Nitrate-NO3	J	1.4	1.7	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-161-SA5A-SB-4.0-5.0	SODIUM	J	81.5	109	PQL	mg/Kg	J (all detects)
	TIN	J	3.30	10.9	PQL	mg/Kg	
	Zirconium	J	3.29	5.45	PQL	mg/Kg	
SL-161-SA5A-SB-7.5-8.5	TIN	J	3.44	10.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.32	5.33	PQL	mg/Kg	
SL-163-SA5A-SB-4.0-5.0	SODIUM	J	80.6	114	PQL	mg/Kg	J (all detects)
	TIN	J	3.09	11.4	PQL	mg/Kg	
	Zirconium	J	3.36	5.68	PQL	mg/Kg	
SL-252-SA5A-SB-4.0-5.0	SODIUM	J	83.0	112	PQL	mg/Kg	J (all detects)
	TIN	J	3.28	11.2	PQL	mg/Kg	
	Zirconium	J	3.14	5.60	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-161-SA5A-SB-4.0-5.0	ANTIMONY	J	0.195	0.216	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0991	0.108	PQL	mg/Kg	
	SELENIUM	J	0.117	0.432	PQL	mg/Kg	
	SILVER	J	0.0302	0.108	PQL	mg/Kg	
SL-161-SA5A-SB-7.5-8.5	ANTIMONY	J	0.118	0.211	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.120	0.422	PQL	mg/Kg	
	SILVER	J	0.0312	0.106	PQL	mg/Kg	
SL-163-SA5A-SB-4.0-5.0	ANTIMONY	J	0.143	0.232	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.153	0.463	PQL	mg/Kg	
	SILVER	J	0.0385	0.116	PQL	mg/Kg	
SL-252-SA5A-SB-4.0-5.0	ANTIMONY	J	0.123	0.220	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.184	0.439	PQL	mg/Kg	
	SILVER	J	0.0292	0.110	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE109 **Laboratory: LL**

EDD Filename: DE109_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-161-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.48	1.1	PQL	mg/Kg	J (all detects)
SL-161-SA5A-SB-7.5-8.5	HEXAVALENT CHROMIUM	J	0.45	1.1	PQL	mg/Kg	J (all detects)
SL-163-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.49	1.2	PQL	mg/Kg	J (all detects)
SL-252-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.49	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-163-SA5A-SB-4.0-5.0	MERCURY	J	0.0088	0.110	PQL	mg/Kg	J (all detects)
SL-252-SA5A-SB-4.0-5.0	MERCURY	J	0.0061	0.126	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-161-SA5A-SB-4.0-5.0	EFH (C30-C40) EFH (C8-C11)	J J	1.2 0.49	1.3 1.3	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-161-SA5A-SB-7.5-8.5	EFH (C8-C11)	J	0.51	1.3	PQL	mg/Kg	J (all detects)
SL-163-SA5A-SB-4.0-5.0	EFH (C30-C40) EFH (C8-C11)	J J	1.0 0.49	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-252-SA5A-SB-4.0-5.0	EFH (C30-C40) EFH (C8-C11)	J J	1.0 0.51	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-161-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.9	3.7	PQL	ug/Kg	J (all detects)
SL-161-SA5A-SB-7.5-8.5	METHYLENE CHLORIDE TOLUENE	J J	3.9 0.10	4.5 4.5	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-163-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.8	3.8	PQL	ug/Kg	J (all detects)
SL-252-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.6	4.3	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE109 **Laboratory: LL**

EDD Filename: DE109_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-161-SA5A-SB-7.5-8.5	NAPHTHALENE	J	0.81	1.8	PQL	ug/Kg	J (all detects)
SL-252-SA5A-SB-4.0-5.0	NAPHTHALENE	J	0.80	1.9	PQL	ug/Kg	J (all detects)

LDC #: 25911R4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-11
SDG #: DE109 ADR
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer: 4

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No Quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ba, Ca, Fe, Mg, Mn, Ti, Zn > 4X)
VII.	Duplicate Sample Analysis	N	Dup (Sb, Se, Ag, Zn, Tl < 5x RL) Mo by Lifferman
VIII.	Laboratory Control Samples (LCS)	A	LCS ~~0.0315~~ 0.3015 mg/g (10x16)
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	J/UJ
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	SL-161-SA5A-SB-4.0-5.0	11		21		31	
2	SL-161-SA5A-SB-7.5-8.5	12		22		32	
3	SL-163-SA5A-SB-4.0-5.0	13		23		33	
4	SL-252-SA5A-SB-4.0-5.0	14		24		34	
5	(All) MS	15		25		35	
6	MSD	16		26		36	
7	Dup	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE109
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6235702BKG Serial Dilution Lab Sample ID: 6235702L
Batch ID(s): P08208B, P08226A
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		155070.2700		149431.5500		4		P
Antimony	121	0.9044	B	1.5000	U	100		MS
Arsenic	75	24.5600		28.6750		17		MS
Barium	137	425.8000		466.8500		10		MS
Beryllium	9	2.9080		3.3270		14		MS
Boron		8.9000	U	44.5000	U			P
Cadmium	111	0.4586	B	1.0000	U	100		MS
Calcium		20201.8500		19953.7000		1		P
Chromium	52	89.3800		99.6000		11	E	MS
Cobalt	59	30.7900		34.0750		11	E	MS
Copper	63	37.9500		44.2200		17	E	MS
Iron		200614.5000		182573.6000		9		P
Lead	208	25.3300		26.3200		4		MS
Lithium		189.3800		194.2500		3		P
Magnesium		39280.8000		38725.6000		1		P
Manganese		2504.4600		2347.8000		6		P
Molybdenum	98	3.0210		2.5720		15		MS
Nickel	60	51.9600		59.7500		15	E	MS
Phosphorus		2547.9700		2437.4000		4		P
Potassium		24140.3600		23235.6000		4		P
Selenium	78	0.5400	B	1.0160	B	88		MS
Silver	107	0.1398	B	0.3000	U	100		MS
Sodium		747.0500	B	1865.0000	U	100		P
Strontium		166.2900		156.9500		6		P
Thallium	203	1.3360		1.4095	B	6		MS
Tin		30.2300	B	50.0000	U	100		P
Titanium		10662.0800		10650.3500		0		P
Vanadium	51	181.2000		200.9500		11	E	MS
Zinc	66	230.6000		255.8500		11		MS
Zirconium		30.1600	B	42.0000	U	100		P

NOTE: An E in column Q indicates the presence of a chemical or physical interference in the matrix when the % difference is greater than 10%. This applies only when (I) is greater than or equal to 50x MDL for ICP, 100x MDL for ICP-MS (6020), 50x MDL for ICP-MS (200.8), or 25x MDL for GFAA.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ

FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

SAMPLE DELIVERY GROUP

DE110

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Mar-2011	TB-032211	6236857	TB	5030B	8015M	III
22-Mar-2011	TB-032211	6236857	TB	5030B	8260B	III
22-Mar-2011	TB-032211	6236857	TB	5030B	8260B SIM	III
22-Mar-2011	SL-231-SA5A-SB-2.0-3.0	6236853	N	3050B	6010B	III
22-Mar-2011	SL-231-SA5A-SB-2.0-3.0	6236853	N	3050B	6020	III
22-Mar-2011	SL-231-SA5A-SB-2.0-3.0	6236853	N	3060A	7199	III
22-Mar-2011	SL-231-SA5A-SB-2.0-3.0	6236853	N	3550B	8082	III
22-Mar-2011	SL-231-SA5A-SB-2.0-3.0	6236853	N	3550B	8270C	III
22-Mar-2011	SL-231-SA5A-SB-2.0-3.0	6236853	N	3550B	8270C SIM	III
22-Mar-2011	SL-231-SA5A-SB-2.0-3.0	6236853	N	5035	8260B	III
22-Mar-2011	SL-231-SA5A-SB-2.0-3.0	6236853	N	5035	8260B SIM	III
22-Mar-2011	SL-231-SA5A-SB-2.0-3.0	6236853	N	Gen Prep	9045M	III
22-Mar-2011	SL-231-SA5A-SB-2.0-3.0	6236853	N	METHOD	300.0	III
22-Mar-2011	SL-231-SA5A-SB-2.0-3.0	6236853	N	METHOD	314.0	III
22-Mar-2011	SL-231-SA5A-SB-2.0-3.0	6236853	N	METHOD	7471A	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	3050B	6010B	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	3050B	6020	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	3060A	7199	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	3546	1625C	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	3550B	8015B	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	3550B	8015M	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	3550B	8082	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	3550B	8270C	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	3550B	8270C SIM	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	5035	8015M	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	5035	8260B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	5035	8260B SIM	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	8330	8330A	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	Gen Prep	9045M	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	METHOD	300.0	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	METHOD	314.0	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	METHOD	7471A	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	METHOD	8015B	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	METHOD	8015M	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	METHOD	8315A	III
22-Mar-2011	SL-180-SA5A-SB-4.0-5.0	6236855	N	METHOD	9012B	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	3050B	6010B	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	3050B	6020	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	3060A	7199	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	3546	1625C	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	3550B	8015B	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	3550B	8015M	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	3550B	8082	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	3550B	8270C	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	3550B	8270C SIM	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	5035	8015M	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	5035	8260B	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	5035	8260B SIM	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	8330	8330A	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	Gen Prep	9045M	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	METHOD	300.0	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	METHOD	7471A	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	METHOD	8015B	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	METHOD	8015M	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	METHOD	8315A	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0	6236854	N	METHOD	9012B	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0DUP	P236854D271844A	DUP	3060A	7199	III
22-Mar-2011	SL-181-SA5A-SB-4.0-5.0MS	P236854R271758A	MS	3060A	7199	III
22-Mar-2011	EB08-SA5A-032211	6236856	EB	3005A	6010B	III
22-Mar-2011	EB08-SA5A-032211	6236856	EB	3020A	6020	III
22-Mar-2011	EB08-SA5A-032211	6236856	EB	3510C	8082	III
22-Mar-2011	EB08-SA5A-032211	6236856	EB	3510C	8270C	III
22-Mar-2011	EB08-SA5A-032211	6236856	EB	3510C	8270C SIM	III
22-Mar-2011	EB08-SA5A-032211	6236856	EB	5030B	8260B	III
22-Mar-2011	EB08-SA5A-032211	6236856	EB	5030B	8260B SIM	III
22-Mar-2011	EB08-SA5A-032211	6236856	EB	Gen Prep	300.0	III
22-Mar-2011	EB08-SA5A-032211	6236856	EB	Gen Prep	314.0	III
22-Mar-2011	EB08-SA5A-032211	6236856	EB	Gen Prep	7199	III
22-Mar-2011	EB08-SA5A-032211	6236856	EB	Gen Prep	9040B	III
22-Mar-2011	EB08-SA5A-032211	6236856	EB	METHOD	7470A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE110 Laboratory: LL

EDD Filename: PrepDE110_v1 eQAPP Name: CDM_SSFL_110509

Method Category: EM **Method:** 9040B **Matrix:** AQ

Sample ID: EB08-SA5A-032211 *Collected:* 3/22/2011 3:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PH	5.9		0.010	MDL	0.010	PQL	pH unit	J	H

Method Category: GENCHEM **Method:** 300.0 **Matrix:** SO

Sample ID: SL-180-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 1:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.5	J	0.93	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-181-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 3:13:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.6	J	0.98	MDL	1.8	PQL	mg/Kg	J	Z

Method Category: METALS **Method:** 6010B **Matrix:** AQ

Sample ID: EB08-SA5A-032211 *Collected:* 3/22/2011 3:30:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	0.0035	J	0.0024	MDL	0.0200	PQL	mg/L	U	B, B

Method Category: METALS **Method:** 6010B **Matrix:** SO

Sample ID: SL-180-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 1:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.05	J	1.01	MDL	5.70	PQL	mg/Kg	J	Z
POTASSIUM	1640		20.5	MDL	57.0	PQL	mg/Kg	J	Q
TIN	3.50	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	4.54	J	0.958	MDL	5.70	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE110 **Laboratory: LL**

EDD Filename: PrepDE110_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-181-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 3:13:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2440		21.6	MDL	60.0	PQL	mg/Kg	J	Q
TIN	3.23	J	1.20	MDL	12.0	PQL	mg/Kg	U	B
Zirconium	3.75	J	1.01	MDL	6.00	PQL	mg/Kg	J	Z

Sample ID: SL-231-SA5A-SB-2.0-3.0 *Collected:* 3/22/2011 11:03:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2890		20.4	MDL	56.6	PQL	mg/Kg	J	Q
TIN	3.42	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	3.54	J	0.951	MDL	5.66	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-180-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 1:49:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.198	J	0.0461	MDL	0.461	PQL	mg/Kg	J	Z

Sample ID: SL-180-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 1:49:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.524		0.0576	MDL	0.115	PQL	mg/Kg	J	E

Sample ID: SL-180-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 1:49:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.123	J	0.0691	MDL	0.230	PQL	mg/Kg	J	Z, Q
ARSENIC	5.46		0.0921	MDL	0.461	PQL	mg/Kg	J	E
CHROMIUM	28.8		0.138	MDL	0.461	PQL	mg/Kg	J	A
COBALT	8.52		0.0230	MDL	0.115	PQL	mg/Kg	J	A
COPPER	12.0		0.0760	MDL	0.461	PQL	mg/Kg	J	A
NICKEL	18.5		0.115	MDL	0.461	PQL	mg/Kg	J	A
SILVER	0.0820	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	53.6		0.0253	MDL	0.115	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE110 Laboratory: LL

EDD Filename: PrepDE110_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-181-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 3:13:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.128	J	0.0485	MDL	0.485	PQL	mg/Kg	J	Z

Sample ID: SL-181-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 3:13:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.497		0.0606	MDL	0.121	PQL	mg/Kg	J	E

Sample ID: SL-181-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 3:13:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0938	J	0.0727	MDL	0.242	PQL	mg/Kg	J	Z, Q
ARSENIC	4.60		0.0969	MDL	0.485	PQL	mg/Kg	J	E
CHROMIUM	23.6		0.145	MDL	0.485	PQL	mg/Kg	J	A
COBALT	7.31		0.0242	MDL	0.121	PQL	mg/Kg	J	A
COPPER	10.2		0.0800	MDL	0.485	PQL	mg/Kg	J	A
NICKEL	15.2		0.121	MDL	0.485	PQL	mg/Kg	J	A
SILVER	0.0710	J	0.0145	MDL	0.121	PQL	mg/Kg	J	Z
VANADIUM	42.5		0.0267	MDL	0.121	PQL	mg/Kg	J	Q, A

Sample ID: SL-231-SA5A-SB-2.0-3.0 *Collected:* 3/22/2011 11:03:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.117	J	0.0449	MDL	0.449	PQL	mg/Kg	J	Z

Sample ID: SL-231-SA5A-SB-2.0-3.0 *Collected:* 3/22/2011 11:03:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.619		0.0561	MDL	0.112	PQL	mg/Kg	J	E

Sample ID: SL-231-SA5A-SB-2.0-3.0 *Collected:* 3/22/2011 11:03:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.229		0.0673	MDL	0.224	PQL	mg/Kg	J	Q
ARSENIC	8.05		0.0897	MDL	0.449	PQL	mg/Kg	J	E
CADMIUM	0.104	J	0.0449	MDL	0.112	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE110 Laboratory: LL

EDD Filename: PrepDE110_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6020 **Matrix:** SO

Sample ID: SL-231-SA5A-SB-2.0-3.0 *Collected:* 3/22/2011 11:03:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	28.3		0.135	MDL	0.449	PQL	mg/Kg	J	A
COBALT	8.92		0.0224	MDL	0.112	PQL	mg/Kg	J	A
COPPER	15.6		0.0740	MDL	0.449	PQL	mg/Kg	J	A
NICKEL	16.8		0.112	MDL	0.449	PQL	mg/Kg	J	A
SILVER	0.0557	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z
VANADIUM	48.5		0.0247	MDL	0.112	PQL	mg/Kg	J	Q, A

Method Category: METALS **Method:** 7199 **Matrix:** SO

Sample ID: SL-181-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 3:13:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.42	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-231-SA5A-SB-2.0-3.0 *Collected:* 3/22/2011 11:03:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.33	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS **Method:** 7471A **Matrix:** SO

Sample ID: SL-180-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 1:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0092	J	0.0032	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-181-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 3:13:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0199	J	0.0034	MDL	0.117	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE110 **Laboratory: LL**

EDD Filename: PrepDE110_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-180-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 1:49:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.92	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C8-C11)	0.48	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-181-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 3:13:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.85	J	0.49	MDL	1.5	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix: AQ**

Sample ID: EB08-SA5A-032211 *Collected:* 3/22/2011 3:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NITROBENZENE	1	U	1	MDL	5	PQL	ug/L	UJ	L

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-180-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 1:49:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-181-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 3:13:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	20	U	20	MDL	200	PQL	ug/Kg	UJ	L
NITROBENZENE	20	U	20	MDL	200	PQL	ug/Kg	UJ	L

Sample ID: SL-231-SA5A-SB-2.0-3.0 *Collected:* 3/22/2011 11:03:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE110 **Laboratory:** LL

EDD Filename: PrepDE110_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-231-SA5A-SB-2.0-3.0 *Collected:* 3/22/2011 11:03:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	21	J	19	MDL	380	PQL	ug/Kg	J	Z
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Method Category: SVOA

Method: 8270C SIM **Matrix:** AQ

Sample ID: EB08-SA5A-032211 *Collected:* 3/22/2011 3:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	0.22	J	0.049	MDL	0.99	PQL	ug/L	J	Z
Diethylphthalate	0.071	J	0.049	MDL	0.99	PQL	ug/L	J	Z
Di-n-butylphthalate	0.60	J	0.049	MDL	0.99	PQL	ug/L	U	B
Di-n-octylphthalate	0.31	J	0.049	MDL	0.99	PQL	ug/L	U	B

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-180-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 1:49:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	0.80	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-181-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 3:13:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	1.1	J	0.41	MDL	2.0	PQL	ug/Kg	J	Z
ANTHRACENE	1.3	J	0.41	MDL	2.0	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.3	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-231-SA5A-SB-2.0-3.0 *Collected:* 3/22/2011 11:03:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.85	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE110 **Laboratory: LL**

EDD Filename: PrepDE110_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-180-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 1:49:00 *Analysis Type:* RES *Dilution:* 0.88

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.07	J	0.06	MDL	4.1	PQL	ug/Kg	J	Z
m,p-Xylene	0.21	J	0.17	MDL	4.1	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	2.3	J	0.24	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: SL-181-SA5A-SB-4.0-5.0 *Collected:* 3/22/2011 3:13:00 *Analysis Type:* RES *Dilution:* 0.92

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	4.1	J	0.27	MDL	4.5	PQL	ug/Kg	U	B

Sample ID: SL-231-SA5A-SB-2.0-3.0 *Collected:* 3/22/2011 11:03:00 *Analysis Type:* RES *Dilution:* 0.84

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	7.1		0.23	MDL	3.8	PQL	ug/Kg	U	B
TOLUENE	0.12	J	0.08	MDL	3.8	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE110 **Laboratory: LL**

EDD Filename: PrepDE110_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE110 **Laboratory: LL**

EDD Filename: PrepDE110_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE110 **Laboratory: LL**

EDD Filename: PrepDE110_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE110

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE110 **Laboratory: LL**
EDD Filename: DE110_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 9040B **Preparation Method: Gen Prep**
Matrix: AQ

Sample ID	*Type*	*Actual*	*Criteria*	*Units*	*Flag*
EB08-SA5A-032211 (RES)	Sampling To Analysis	77.00	48.00	HOURS	J (all detects) UJ (all non-detects)

Method Blank Outlier Report

Lab Reporting Batch ID: DE110 Laboratory: LL

EDD Filename: DE110_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08348CB222137	3/25/2011 9:37:00 PM	LITHIUM	0.0024 mg/L	EB08-SA5A-032211

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB08-SA5A-032211(REA2)	LITHIUM	0.0035 mg/L	0.0035U mg/L

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08208BB220949	3/24/2011 9:49:00 AM	CALCIUM MAGNESIUM MANGANESE TIN	7.09 mg/Kg 4.17 mg/Kg 0.383 mg/Kg 1.58 mg/Kg	SL-180-SA5A-SB-4.0-5.0 SL-181-SA5A-SB-4.0-5.0 SL-231-SA5A-SB-2.0-3.0
P08208BB221258	3/24/2011 12:58:00 PM	ALUMINUM IRON PHOSPHORUS	21.6 mg/Kg 17.0 mg/Kg 0.932 mg/Kg	SL-180-SA5A-SB-4.0-5.0 SL-181-SA5A-SB-4.0-5.0 SL-231-SA5A-SB-2.0-3.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-180-SA5A-SB-4.0-5.0(RES)	TIN	3.50 mg/Kg	3.50U mg/Kg
SL-181-SA5A-SB-4.0-5.0(RES)	TIN	3.23 mg/Kg	3.23U mg/Kg
SL-231-SA5A-SB-2.0-3.0(RES)	TIN	3.42 mg/Kg	3.42U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08226AB221220A	3/27/2011 12:20:00 PM	COPPER	0.0716 mg/Kg	SL-180-SA5A-SB-4.0-5.0 SL-181-SA5A-SB-4.0-5.0 SL-231-SA5A-SB-2.0-3.0

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB02B211241A	3/24/2011 12:41:00 PM	METHYLENE CHLORIDE TOLUENE	1.5 ug/Kg 0.11 ug/Kg	SL-180-SA5A-SB-4.0-5.0 SL-181-SA5A-SB-4.0-5.0 SL-231-SA5A-SB-2.0-3.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE110 **Laboratory: LL**

EDD Filename: DE110_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-180-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.3 ug/Kg	4.1U ug/Kg
SL-181-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	4.1 ug/Kg	4.5U ug/Kg
SL-231-SA5A-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	7.1 ug/Kg	7.1U ug/Kg
SL-231-SA5A-SB-2.0-3.0(RES)	TOLUENE	0.12 ug/Kg	3.8U ug/Kg

Method: **8270C SIM**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWC08B260754	3/28/2011 7:54:00 AM	Di-n-butylphthalate Di-n-octylphthalate	0.32 ug/L 0.30 ug/L	EB08-SA5A-032211

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB08-SA5A-032211(RES)	Di-n-butylphthalate	0.60 ug/L	0.99U ug/L
EB08-SA5A-032211(RES)	Di-n-octylphthalate	0.31 ug/L	0.99U ug/L

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE110 **Laboratory: LL**

EDD Filename: DE110_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-181-SA5A-SB-4.0-5.0DUP (SL-180-SA5A-SB-4.0-5.0 SL -181-SA5A-SB-4.0-5.0 SL -231-SA5A-SB-2.0-3.0)	HEXAVALENT CHROMIUM	67	20.00	No Qual OK by difference

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE110 Laboratory: LL

EDD Filename: DE110_v1 eQAPP Name: CDM_SSFL_110509

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P2WHLCSQ260046 P2WHLCSY260110 (EB08-SA5A-032211)	NITROBENZENE	73	74	75.00-109.00	-	NITROBENZENE	J (all detects) UJ (all non-detects)

Method: 7470A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P09013CY220928 (EB08-SA5A-032211)	MERCURY	-	87	90.00-115.00	-	MERCURY	No Qual SRM within QC limits

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P7LCLCSQ262223 (SL-180-SA5A-SB-4.0-5.0 SL-181-SA5A-SB-4.0-5.0 SL-231-SA5A-SB-2.0-3.0)	BIS(2-CHLOROISOPROPYL) ET NITROBENZENE	63 70	- -	68.00-131.00 71.00-104.00	- -	BIS(2-CHLOROISOPROPYL) E NITROBENZENE	J(all detects) UJ(all non-detects)

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSB02Q211344A (SL-180-SA5A-SB-4.0-5.0 SL-181-SA5A-SB-4.0-5.0 SL-231-SA5A-SB-2.0-3.0)	BROMOCHLOROMETHANE	125	-	79.00-124.00	-	BROMOCHLOROMETHANE	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE110 | Laboratory: LL

EDD Filename: DE110_v1 | eQAPP Name: CDM_SSFL_110509

Method: 6010B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB08-SA5A-032211	LITHIUM	J	0.0035	0.0200	PQL	mg/L	J (all detects)

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB08-SA5A-032211	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.22	0.99	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.071	0.99	PQL	ug/L	
	Di-n-butylphthalate	J	0.60	0.99	PQL	ug/L	
	Di-n-octylphthalate	J	0.31	0.99	PQL	ug/L	

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-180-SA5A-SB-4.0-5.0	Nitrate-NO3	J	1.5	1.7	PQL	mg/Kg	J (all detects)
SL-181-SA5A-SB-4.0-5.0	Nitrate-NO3	J	1.6	1.8	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-180-SA5A-SB-4.0-5.0	BORON	J	2.05	5.70	PQL	mg/Kg	J (all detects)
	TIN	J	3.50	11.4	PQL	mg/Kg	
	Zirconium	J	4.54	5.70	PQL	mg/Kg	
SL-181-SA5A-SB-4.0-5.0	TIN	J	3.23	12.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.75	6.00	PQL	mg/Kg	
SL-231-SA5A-SB-2.0-3.0	TIN	J	3.42	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.54	5.66	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-180-SA5A-SB-4.0-5.0	ANTIMONY	J	0.123	0.230	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.198	0.461	PQL	mg/Kg	
	SILVER	J	0.0820	0.115	PQL	mg/Kg	
SL-181-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0938	0.242	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.128	0.485	PQL	mg/Kg	
	SILVER	J	0.0710	0.121	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE110 Laboratory: LL

EDD Filename: DE110_v1 eQAPP Name: CDM_SSFL_110509

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-231-SA5A-SB-2.0-3.0	CADMIUM	J	0.104	0.112	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.117	0.449	PQL	mg/Kg	
	SILVER	J	0.0557	0.112	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-181-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.42	1.2	PQL	mg/Kg	J (all detects)
SL-231-SA5A-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.33	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-180-SA5A-SB-4.0-5.0	MERCURY	J	0.0092	0.110	PQL	mg/Kg	J (all detects)
SL-181-SA5A-SB-4.0-5.0	MERCURY	J	0.0199	0.117	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-180-SA5A-SB-4.0-5.0	EFH (C30-C40)	J	0.92	1.4	PQL	mg/Kg	J (all detects)
	EFH (C8-C11)	J	0.48	1.4	PQL	mg/Kg	
SL-181-SA5A-SB-4.0-5.0	EFH (C15-C20)	J	0.85	1.5	PQL	mg/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-180-SA5A-SB-4.0-5.0	ETHYLBENZENE	J	0.07	4.1	PQL	ug/Kg	J (all detects)
	m,p-Xylene	J	0.21	4.1	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	2.3	4.1	PQL	ug/Kg	
SL-181-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	4.1	4.5	PQL	ug/Kg	J (all detects)
SL-231-SA5A-SB-2.0-3.0	TOLUENE	J	0.12	3.8	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE110 **Laboratory: LL**

EDD Filename: DE110_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-231-SA5A-SB-2.0-3.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	21	380	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-180-SA5A-SB-4.0-5.0	NAPHTHALENE	J	0.80	1.9	PQL	ug/Kg	J (all detects)
SL-181-SA5A-SB-4.0-5.0	ACENAPHTHYLENE	J	1.1	2.0	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	1.3	2.0	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.3	2.0	PQL	ug/Kg	
SL-231-SA5A-SB-2.0-3.0	CHRYSENE	J	0.85	1.9	PQL	ug/Kg	J (all detects)

LDC #: 25911S4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-11
SDG #: DE110 ADR
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (SL06:DE109)
VII.	Duplicate Sample Analysis	N	DUP J
VIII.	Laboratory Control Samples (LCS)	NA	LCS/D
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	—	(SD6:DE109)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	SW	EB=4

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-231-SA5A-SB-2.0-3.0	11		21		31	
2	SL-181-SA5A-SB-4.0-5.0	12		22		32	
3	SL-180-SA5A-SB-4.0-5.0	13		23		33	
4	EB08-SA5A-032211	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 25911S4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: 100x x MS: 2xdil
Sample Concentration units, unless otherwise noted: ug/L
Associated Samples: All Water

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	4											
Li			3.6	18	3.5											

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 25911S4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: CR
2nd Reviewer: A

METHOD: Trace Metals (EPA SW846 6010B/7000)
Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target analytes detected in the field blanks?
Blank units: ug/L **Associated sample units:** mg/Kg
Sampling date: 3/22/11 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All Soil

Analyte	Blank ID	Sample Identification										
	4	Action Level	No Qualifiers									
Li	3.5	1.75										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

SAMPLE DELIVERY GROUP

DE111

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Mar-2011	TB-032311	6237975	TB	5030B	8260B	III
23-Mar-2011	TB-032311	6237975	TB	5030B	8260B SIM	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0	6237967	N	3050B	6010B	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0	6237967	N	3050B	6020	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0	6237967	N	3060A	7199	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0	6237967	N	3550B	8082	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0	6237967	N	3550B	8270C	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0	6237967	N	3550B	8270C SIM	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0	6237967	N	5035	8260B	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0	6237967	N	5035	8260B SIM	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0	6237967	N	Gen Prep	9045M	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0	6237967	N	METHOD	300.0	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0	6237967	N	METHOD	314.0	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0	6237967	N	METHOD	7471A	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0DUP	P237967D220617	DUP	3050B	6010B	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0DUP	P237967D220627	DUP	METHOD	7471A	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0DUP	P237967D220937A	DUP	3050B	6020	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0DUP	P237967D221426A	DUP	3050B	6020	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0DUP	P237967D221426B	DUP	3050B	6020	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0DUP	P237967D221426C	DUP	3050B	6020	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0DUP	P237967D221426D	DUP	3050B	6020	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0MSD	P237967M220625	MSD	3050B	6010B	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0MSD	P237967M220630	MSD	METHOD	7471A	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0MSD	P237967M220941A	MSD	3050B	6020	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0MSD	P237967M221432A	MSD	3050B	6020	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0MSD	P237967M221432B	MSD	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0MSD	P237967M221432C	MSD	3050B	6020	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0MSD	P237967M221432D	MSD	3050B	6020	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0MS	P237967R220621	MS	3050B	6010B	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0MS	P237967R220629	MS	METHOD	7471A	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0MS	P237967R220939A	MS	3050B	6020	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0MS	P237967R221429A	MS	3050B	6020	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0MS	P237967R221429B	MS	3050B	6020	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0MS	P237967R221429C	MS	3050B	6020	III
23-Mar-2011	SL-239-SA5A-SB-4.0-5.0MS	P237967R221429D	MS	3050B	6020	III
23-Mar-2011	SL-240-SA5A-SB-4.0-5.0	6237968	N	3050B	6010B	III
23-Mar-2011	SL-240-SA5A-SB-4.0-5.0	6237968	N	3050B	6020	III
23-Mar-2011	SL-240-SA5A-SB-4.0-5.0	6237968	N	3060A	7199	III
23-Mar-2011	SL-240-SA5A-SB-4.0-5.0	6237968	N	3550B	8082	III
23-Mar-2011	SL-240-SA5A-SB-4.0-5.0	6237968	N	3550B	8270C	III
23-Mar-2011	SL-240-SA5A-SB-4.0-5.0	6237968	N	3550B	8270C SIM	III
23-Mar-2011	SL-240-SA5A-SB-4.0-5.0	6237968	N	5035	8260B	III
23-Mar-2011	SL-240-SA5A-SB-4.0-5.0	6237968	N	5035	8260B SIM	III
23-Mar-2011	SL-240-SA5A-SB-4.0-5.0	6237968	N	Gen Prep	9045M	III
23-Mar-2011	SL-240-SA5A-SB-4.0-5.0	6237968	N	METHOD	300.0	III
23-Mar-2011	SL-240-SA5A-SB-4.0-5.0	6237968	N	METHOD	314.0	III
23-Mar-2011	SL-240-SA5A-SB-4.0-5.0	6237968	N	METHOD	7471A	III
23-Mar-2011	SL-240-SA5A-SB-9.0-10	6237969	N	3050B	6010B	III
23-Mar-2011	SL-240-SA5A-SB-9.0-10	6237969	N	3050B	6020	III
23-Mar-2011	SL-240-SA5A-SB-9.0-10	6237969	N	3060A	7199	III
23-Mar-2011	SL-240-SA5A-SB-9.0-10	6237969	N	3550B	8082	III
23-Mar-2011	SL-240-SA5A-SB-9.0-10	6237969	N	3550B	8270C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Mar-2011	SL-240-SA5A-SB-9.0-10	6237969	N	3550B	8270C SIM	III
23-Mar-2011	SL-240-SA5A-SB-9.0-10	6237969	N	Gen Prep	9045M	III
23-Mar-2011	SL-240-SA5A-SB-9.0-10	6237969	N	METHOD	300.0	III
23-Mar-2011	SL-240-SA5A-SB-9.0-10	6237969	N	METHOD	314.0	III
23-Mar-2011	SL-240-SA5A-SB-9.0-10	6237969	N	METHOD	7471A	III
23-Mar-2011	SL-197-SA5A-SB-4.0-5.0	6237970	N	3050B	6010B	III
23-Mar-2011	SL-197-SA5A-SB-4.0-5.0	6237970	N	3050B	6020	III
23-Mar-2011	SL-197-SA5A-SB-4.0-5.0	6237970	N	3060A	7199	III
23-Mar-2011	SL-197-SA5A-SB-4.0-5.0	6237970	N	3550B	8082	III
23-Mar-2011	SL-197-SA5A-SB-4.0-5.0	6237970	N	3550B	8270C	III
23-Mar-2011	SL-197-SA5A-SB-4.0-5.0	6237970	N	3550B	8270C SIM	III
23-Mar-2011	SL-197-SA5A-SB-4.0-5.0	6237970	N	5035	8260B	III
23-Mar-2011	SL-197-SA5A-SB-4.0-5.0	6237970	N	5035	8260B SIM	III
23-Mar-2011	SL-197-SA5A-SB-4.0-5.0	6237970	N	Gen Prep	9045M	III
23-Mar-2011	SL-197-SA5A-SB-4.0-5.0	6237970	N	METHOD	300.0	III
23-Mar-2011	SL-197-SA5A-SB-4.0-5.0	6237970	N	METHOD	314.0	III
23-Mar-2011	SL-197-SA5A-SB-4.0-5.0	6237970	N	METHOD	7471A	III
23-Mar-2011	SL-197-SA5A-SB-4.0-5.0DUP	P237970D271754B	DUP	METHOD	314.0	III
23-Mar-2011	SL-197-SA5A-SB-4.0-5.0DUP	P237970D271940B	DUP	METHOD	300.0	III
23-Mar-2011	SL-197-SA5A-SB-4.0-5.0MS	P237970R271816B	MS	METHOD	314.0	III
23-Mar-2011	SL-197-SA5A-SB-4.0-5.0MS	P237970R271954B	MS	METHOD	300.0	III
23-Mar-2011	SL-197-SA5A-SB-8.0-9.0	6237971	N	3050B	6010B	III
23-Mar-2011	SL-197-SA5A-SB-8.0-9.0	6237971	N	3050B	6020	III
23-Mar-2011	SL-197-SA5A-SB-8.0-9.0	6237971	N	3060A	7199	III
23-Mar-2011	SL-197-SA5A-SB-8.0-9.0	6237971	N	3550B	8082	III
23-Mar-2011	SL-197-SA5A-SB-8.0-9.0	6237971	N	3550B	8270C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Mar-2011	SL-197-SA5A-SB-8.0-9.0	6237971	N	3550B	8270C SIM	III
23-Mar-2011	SL-197-SA5A-SB-8.0-9.0	6237971	N	Gen Prep	9045M	III
23-Mar-2011	SL-197-SA5A-SB-8.0-9.0	6237971	N	METHOD	300.0	III
23-Mar-2011	SL-197-SA5A-SB-8.0-9.0	6237971	N	METHOD	314.0	III
23-Mar-2011	SL-197-SA5A-SB-8.0-9.0	6237971	N	METHOD	7471A	III
23-Mar-2011	SL-198-SA5A-SB-3.0-4.0	6237972	N	3050B	6010B	III
23-Mar-2011	SL-198-SA5A-SB-3.0-4.0	6237972	N	3050B	6020	III
23-Mar-2011	SL-198-SA5A-SB-3.0-4.0	6237972	N	3060A	7199	III
23-Mar-2011	SL-198-SA5A-SB-3.0-4.0	6237972	N	3550B	8082	III
23-Mar-2011	SL-198-SA5A-SB-3.0-4.0	6237972	N	3550B	8270C	III
23-Mar-2011	SL-198-SA5A-SB-3.0-4.0	6237972	N	3550B	8270C SIM	III
23-Mar-2011	SL-198-SA5A-SB-3.0-4.0	6237972	N	5035	8260B	III
23-Mar-2011	SL-198-SA5A-SB-3.0-4.0	6237972	N	5035	8260B SIM	III
23-Mar-2011	SL-198-SA5A-SB-3.0-4.0	6237972	N	Gen Prep	9045M	III
23-Mar-2011	SL-198-SA5A-SB-3.0-4.0	6237972	N	METHOD	300.0	III
23-Mar-2011	SL-198-SA5A-SB-3.0-4.0	6237972	N	METHOD	314.0	III
23-Mar-2011	SL-198-SA5A-SB-3.0-4.0	6237972	N	METHOD	7471A	III
23-Mar-2011	EB09-SA5A-032311	6237974	EB	3510C	8015B	III
23-Mar-2011	EB09-SA5A-032311	6237974	EB	3510C	8015M	III
23-Mar-2011	EB09-SA5A-032311	6237974	EB	3520C	1625C	III
23-Mar-2011	EB09-SA5A-032311	6237974	EB	5030B	8015M	III
23-Mar-2011	EB09-SA5A-032311	6237974	EB	8330	8330A	III
23-Mar-2011	EB09-SA5A-032311	6237974	EB	Gen Prep	300.0	III
23-Mar-2011	EB09-SA5A-032311	6237974	EB	Gen Prep	8015B	III
23-Mar-2011	EB09-SA5A-032311	6237974	EB	Gen Prep	8015M	III
23-Mar-2011	EB09-SA5A-032311	6237974	EB	METHOD	8315A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Mar-2011	EB09-SA5A-032311	6237974	EB	METHOD	9012B	III
23-Mar-2011	EB09-SA5A-032311MSD	P237974M321642A	MSD	Gen Prep	8015M	III
23-Mar-2011	EB09-SA5A-032311MS	P237974R321607A	MS	Gen Prep	8015M	III
23-Mar-2011	SL-200-SA5A-SB-4.0-5.0	6237973	N	3050B	6010B	III
23-Mar-2011	SL-200-SA5A-SB-4.0-5.0	6237973	N	3050B	6020	III
23-Mar-2011	SL-200-SA5A-SB-4.0-5.0	6237973	N	3060A	7199	III
23-Mar-2011	SL-200-SA5A-SB-4.0-5.0	6237973	N	3550B	8082	III
23-Mar-2011	SL-200-SA5A-SB-4.0-5.0	6237973	N	3550B	8270C	III
23-Mar-2011	SL-200-SA5A-SB-4.0-5.0	6237973	N	3550B	8270C SIM	III
23-Mar-2011	SL-200-SA5A-SB-4.0-5.0	6237973	N	5035	8260B	III
23-Mar-2011	SL-200-SA5A-SB-4.0-5.0	6237973	N	5035	8260B SIM	III
23-Mar-2011	SL-200-SA5A-SB-4.0-5.0	6237973	N	Gen Prep	9045M	III
23-Mar-2011	SL-200-SA5A-SB-4.0-5.0	6237973	N	METHOD	300.0	III
23-Mar-2011	SL-200-SA5A-SB-4.0-5.0	6237973	N	METHOD	314.0	III
23-Mar-2011	SL-200-SA5A-SB-4.0-5.0	6237973	N	METHOD	6850	III
23-Mar-2011	SL-200-SA5A-SB-4.0-5.0	6237973	N	METHOD	7471A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-197-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 12:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-197-SA5A-SB-8.0-9.0 *Collected:* 3/23/2011 12:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.3		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-198-SA5A-SB-3.0-4.0 *Collected:* 3/23/2011 2:24:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.8		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-200-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 3:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.1		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: GENCHEM

Method: 314.0 **Matrix: SO**

Sample ID: SL-197-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 12:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	10.0	U	10.0	MDL	33.4	PQL	ug/Kg	R	Q

Sample ID: SL-197-SA5A-SB-8.0-9.0 *Collected:* 3/23/2011 12:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	10.7	U	10.7	MDL	35.6	PQL	ug/Kg	R	Q

Sample ID: SL-198-SA5A-SB-3.0-4.0 *Collected:* 3/23/2011 2:24:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	10.1	U	10.1	MDL	33.7	PQL	ug/Kg	R	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 314.0 **Matrix: SO**

Sample ID: SL-200-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 3:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	9.9	U	9.9	MDL	33.0	PQL	ug/Kg	R	Q

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-197-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 12:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.17	J	0.962	MDL	5.41	PQL	mg/Kg	J	Z
MANGANESE	242		0.0843	MDL	0.541	PQL	mg/Kg	J	Q, E, E
PHOSPHORUS	184		0.605	MDL	10.8	PQL	mg/Kg	J	E
TIN	3.15	J	1.08	MDL	10.8	PQL	mg/Kg	U	B

Sample ID: SL-197-SA5A-SB-8.0-9.0 *Collected:* 3/23/2011 12:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.70	J	1.03	MDL	5.77	PQL	mg/Kg	J	Z
MANGANESE	306		0.0899	MDL	0.577	PQL	mg/Kg	J	Q, E, E
PHOSPHORUS	365		0.646	MDL	11.5	PQL	mg/Kg	J	E
TIN	3.69	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

Sample ID: SL-198-SA5A-SB-3.0-4.0 *Collected:* 3/23/2011 2:24:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	436		0.0850	MDL	0.545	PQL	mg/Kg	J	Q, E, E
PHOSPHORUS	245		0.610	MDL	10.9	PQL	mg/Kg	J	E
TIN	2.93	J	1.09	MDL	10.9	PQL	mg/Kg	U	B

Sample ID: SL-200-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 3:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.93	J	0.940	MDL	5.28	PQL	mg/Kg	J	Z
MANGANESE	87.4		0.0824	MDL	0.528	PQL	mg/Kg	J	Q, E, E
PHOSPHORUS	62.4		0.592	MDL	10.6	PQL	mg/Kg	J	E
TIN	2.93	J	1.06	MDL	10.6	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-239-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 9:34:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.96	J	0.928	MDL	5.21	PQL	mg/Kg	J	Z
MANGANESE	150		0.0813	MDL	0.521	PQL	mg/Kg	J	Q, E, E
PHOSPHORUS	132		0.584	MDL	10.4	PQL	mg/Kg	J	E
TIN	3.58	J	1.04	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	1.06	J	0.876	MDL	5.21	PQL	mg/Kg	J	Z

Sample ID: SL-240-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 10:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.79	J	0.973	MDL	5.46	PQL	mg/Kg	J	Z
MANGANESE	272		0.0853	MDL	0.546	PQL	mg/Kg	J	Q, E, E
PHOSPHORUS	197		0.612	MDL	10.9	PQL	mg/Kg	J	E
TIN	3.14	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.34	J	0.918	MDL	5.46	PQL	mg/Kg	J	Z

Sample ID: SL-240-SA5A-SB-9.0-10 *Collected:* 3/23/2011 11:03:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.48	J	1.02	MDL	5.74	PQL	mg/Kg	J	Z
MANGANESE	297		0.0896	MDL	0.574	PQL	mg/Kg	J	Q, E, E
PHOSPHORUS	217		0.643	MDL	11.5	PQL	mg/Kg	J	E
TIN	2.96	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-197-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 12:14:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.0755	J	0.0441	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-197-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 12:14:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.117	J	0.0441	MDL	0.441	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-197-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 12:14:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.151	J	0.0662	MDL	0.221	PQL	mg/Kg	J	Z, Q
ARSENIC	7.00		0.0882	MDL	0.441	PQL	mg/Kg	J	Q
COBALT	15.5		0.0221	MDL	0.110	PQL	mg/Kg	J	E, A
LEAD	9.74		0.0115	MDL	0.221	PQL	mg/Kg	J	Q, E
NICKEL	16.5		0.110	MDL	0.441	PQL	mg/Kg	J	A
SILVER	0.0695	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z
ZINC	46.2		0.617	MDL	3.31	PQL	mg/Kg	J	Q

Sample ID: SL-197-SA5A-SB-8.0-9.0 *Collected:* 3/23/2011 12:23:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.0776	J	0.0457	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-197-SA5A-SB-8.0-9.0 *Collected:* 3/23/2011 12:23:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.134	J	0.0457	MDL	0.457	PQL	mg/Kg	J	Z

Sample ID: SL-197-SA5A-SB-8.0-9.0 *Collected:* 3/23/2011 12:23:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.232		0.0685	MDL	0.228	PQL	mg/Kg	J	Q
ARSENIC	11.5		0.0914	MDL	0.457	PQL	mg/Kg	J	Q
COBALT	22.1		0.0228	MDL	0.114	PQL	mg/Kg	J	E, A
LEAD	19.1		0.0119	MDL	0.228	PQL	mg/Kg	J	Q, E
NICKEL	38.2		0.114	MDL	0.457	PQL	mg/Kg	J	A
ZINC	107		0.640	MDL	3.43	PQL	mg/Kg	J	Q

Sample ID: SL-198-SA5A-SB-3.0-4.0 *Collected:* 3/23/2011 2:24:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.0581	J	0.0444	MDL	0.111	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-198-SA5A-SB-3.0-4.0 *Collected:* 3/23/2011 2:24:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.156	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

Sample ID: SL-198-SA5A-SB-3.0-4.0 *Collected:* 3/23/2011 2:24:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0926	J	0.0667	MDL	0.222	PQL	mg/Kg	J	Z, Q
ARSENIC	6.27		0.0889	MDL	0.444	PQL	mg/Kg	J	Q
COBALT	9.52		0.0222	MDL	0.111	PQL	mg/Kg	J	E, A
LEAD	6.71		0.0116	MDL	0.222	PQL	mg/Kg	J	Q, E
NICKEL	24.3		0.111	MDL	0.444	PQL	mg/Kg	J	A
SILVER	0.0289	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z
ZINC	50.8		0.622	MDL	3.33	PQL	mg/Kg	J	Q

Sample ID: SL-200-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 3:49:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0974	J	0.0653	MDL	0.218	PQL	mg/Kg	J	Z, Q
ARSENIC	3.16		0.0870	MDL	0.435	PQL	mg/Kg	J	Q
COBALT	3.17		0.0218	MDL	0.109	PQL	mg/Kg	J	E, A
LEAD	5.12		0.0113	MDL	0.218	PQL	mg/Kg	J	Q, E
NICKEL	7.49		0.109	MDL	0.435	PQL	mg/Kg	J	A
SILVER	0.0408	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z
ZINC	28.4		0.609	MDL	3.26	PQL	mg/Kg	J	Q

Sample ID: SL-239-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 9:34:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.0525	J	0.0421	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: SL-239-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 9:34:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0890	J	0.0421	MDL	0.421	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE111 **Laboratory:** LL

EDD Filename: DE111_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-239-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 9:34:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.158	J	0.0632	MDL	0.211	PQL	mg/Kg	J	Z, Q
ARSENIC	6.09		0.0842	MDL	0.421	PQL	mg/Kg	J	Q
COBALT	6.53		0.0211	MDL	0.105	PQL	mg/Kg	J	E, A
LEAD	8.49		0.0110	MDL	0.211	PQL	mg/Kg	J	Q, E
NICKEL	11.3		0.105	MDL	0.421	PQL	mg/Kg	J	A
SILVER	0.0753	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z
ZINC	35.5		0.590	MDL	3.16	PQL	mg/Kg	J	Q

Sample ID: SL-240-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 10:55:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.109	J	0.0442	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-240-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 10:55:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0603	J	0.0442	MDL	0.442	PQL	mg/Kg	J	Z

Sample ID: SL-240-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 10:55:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.102	J	0.0662	MDL	0.221	PQL	mg/Kg	J	Z, Q
ARSENIC	5.34		0.0883	MDL	0.442	PQL	mg/Kg	J	Q
COBALT	5.45		0.0221	MDL	0.110	PQL	mg/Kg	J	E, A
LEAD	5.83		0.0115	MDL	0.221	PQL	mg/Kg	J	Q, E
NICKEL	13.9		0.110	MDL	0.442	PQL	mg/Kg	J	A
SILVER	0.0503	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z
ZINC	49.5		0.618	MDL	3.31	PQL	mg/Kg	J	Q

Sample ID: SL-240-SA5A-SB-9.0-10 *Collected:* 3/23/2011 11:03:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0580	J	0.0473	MDL	0.473	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-240-SA5A-SB-9.0-10 *Collected:* 3/23/2011 11:03:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.140	J	0.0710	MDL	0.237	PQL	mg/Kg	J	Z, Q
ARSENIC	6.04		0.0947	MDL	0.473	PQL	mg/Kg	J	Q
COBALT	9.31		0.0237	MDL	0.118	PQL	mg/Kg	J	E, A
LEAD	7.64		0.0123	MDL	0.237	PQL	mg/Kg	J	Q, E
NICKEL	16.5		0.118	MDL	0.473	PQL	mg/Kg	J	A
ZINC	53.8		0.663	MDL	3.55	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-197-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 12:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.30	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-197-SA5A-SB-8.0-9.0 *Collected:* 3/23/2011 12:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.62	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-198-SA5A-SB-3.0-4.0 *Collected:* 3/23/2011 2:24:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.48	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-200-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 3:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.34	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-240-SA5A-SB-9.0-10 *Collected:* 3/23/2011 11:03:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	1.1	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-197-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 12:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0072	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-197-SA5A-SB-8.0-9.0 *Collected:* 3/23/2011 12:23:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0337	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z

Sample ID: SL-198-SA5A-SB-3.0-4.0 *Collected:* 3/23/2011 2:24:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0049	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-239-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 9:34:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0034	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix: AQ**

Sample ID: EB09-SA5A-032311 *Collected:* 3/23/2011 2:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	0.879	J	0.497	MDL	0.993	PQL	ng/L	U	B

Method Category: SVOA

Method: 8015M **Matrix: AQ**

Sample ID: EB09-SA5A-032311 *Collected:* 3/23/2011 2:30:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	10	J	10	MDL	100	PQL	mg/L	J	Z
ETHYLENE GLYCOL	14	J	10	MDL	100	PQL	mg/L	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-197-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 12:14:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 100

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	170	J	43	MDL	190	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-197-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 12:14:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-197-SA5A-SB-8.0-9.0 *Collected:* 3/23/2011 12:23:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	20	U	20	MDL	200	PQL	ug/Kg	UJ	L
NITROBENZENE	20	U	20	MDL	200	PQL	ug/Kg	UJ	L

Sample ID: SL-198-SA5A-SB-3.0-4.0 *Collected:* 3/23/2011 2:24:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-200-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 3:49:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: SL-239-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 9:34:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE111 Laboratory: LL

EDD Filename: DE111_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 8270C **Matrix:** SO

Sample ID: SL-240-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 10:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-240-SA5A-SB-9.0-10 *Collected:* 3/23/2011 11:03:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	20	U	20	MDL	200	PQL	ug/Kg	UJ	L
NITROBENZENE	20	U	20	MDL	200	PQL	ug/Kg	UJ	L

Method Category: SVOA **Method:** 8270C SIM **Matrix:** SO

Sample ID: SL-197-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 12:14:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.92	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.98	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-197-SA5A-SB-8.0-9.0 *Collected:* 3/23/2011 12:23:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.1	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.99	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.7	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.1	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.88	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
FLUORANTHENE	1.6	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.82	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
PHENANTHRENE	0.92	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
PYRENE	1.8	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-198-SA5A-SB-3.0-4.0 *Collected:* 3/23/2011 2:24:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	8.6	J	6.7	MDL	20	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-200-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 3:49:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	7.9	J	6.6	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-240-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 10:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.1	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.95	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.6	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.1	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.0	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	1.5	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.87	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-197-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 12:14:00 *Analysis Type:* RES *Dilution:* 0.89

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.3	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: SL-198-SA5A-SB-3.0-4.0 *Collected:* 3/23/2011 2:24:00 *Analysis Type:* RES *Dilution:* 0.98

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.5	J	0.26	MDL	4.4	PQL	ug/Kg	U	B

Sample ID: SL-200-SA5A-SB-4.0-5.0 *Collected:* 3/23/2011 3:49:00 *Analysis Type:* RES *Dilution:* 0.96

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.7	J	0.25	MDL	4.2	PQL	ug/Kg	U	B
TOLUENE	0.09	J	0.08	MDL	4.2	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **VOA**

Method: **8260B** ***Matrix:*** **SO**

Sample ID: **SL-239-SA5A-SB-4.0-5.0** ***Collected:*** **3/23/2011 9:34:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.98**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
METHYLENE CHLORIDE	0.82	J	0.25	MDL	4.2	PQL	ug/Kg	U	B
TOLUENE	0.09	J	0.08	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: **SL-240-SA5A-SB-4.0-5.0** ***Collected:*** **3/23/2011 10:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.88**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
METHYLENE CHLORIDE	2.5	J	0.24	MDL	3.9	PQL	ug/Kg	U	B
TOLUENE	0.09	J	0.08	MDL	3.9	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE111

Method Blank Outlier Report

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWC08B261554	3/30/2011 3:54:00 PM	N-NITROSODIMETHYLAMINE	0.673 ng/L	EB09-SA5A-032311

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB09-SA5A-032311(RES)	N-NITROSODIMETHYLAMINE	0.879 ng/L	0.993U ng/L

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08308CB220558	3/25/2011 5:58:00 AM	PHOSPHORUS TIN	1.10 mg/Kg 1.50 mg/Kg	SL-197-SA5A-SB-4.0-5.0 SL-197-SA5A-SB-8.0-9.0 SL-198-SA5A-SB-3.0-4.0 SL-200-SA5A-SB-4.0-5.0 SL-239-SA5A-SB-4.0-5.0 SL-240-SA5A-SB-4.0-5.0 SL-240-SA5A-SB-9.0-10

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-197-SA5A-SB-4.0-5.0(RES)	TIN	3.15 mg/Kg	3.15U mg/Kg
SL-197-SA5A-SB-8.0-9.0(RES)	TIN	3.69 mg/Kg	3.69U mg/Kg
SL-198-SA5A-SB-3.0-4.0(RES)	TIN	2.93 mg/Kg	2.93U mg/Kg
SL-200-SA5A-SB-4.0-5.0(RES)	TIN	2.93 mg/Kg	2.93U mg/Kg
SL-239-SA5A-SB-4.0-5.0(RES)	TIN	3.58 mg/Kg	3.58U mg/Kg
SL-240-SA5A-SB-4.0-5.0(RES)	TIN	3.14 mg/Kg	3.14U mg/Kg
SL-240-SA5A-SB-9.0-10(RES)	TIN	2.96 mg/Kg	2.96U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08326AB221414A	3/27/2011 2:14:00 PM	COPPER	0.0944 mg/Kg	SL-197-SA5A-SB-4.0-5.0 SL-197-SA5A-SB-8.0-9.0 SL-198-SA5A-SB-3.0-4.0 SL-200-SA5A-SB-4.0-5.0 SL-239-SA5A-SB-4.0-5.0 SL-240-SA5A-SB-4.0-5.0 SL-240-SA5A-SB-9.0-10

Method Blank Outlier Report

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB06B210202A	3/28/2011 2:02:00 AM	ACETONE METHYLENE CHLORIDE TOLUENE	7.7 ug/Kg 0.95 ug/Kg 0.16 ug/Kg	SL-197-SA5A-SB-4.0-5.0 SL-198-SA5A-SB-3.0-4.0 SL-200-SA5A-SB-4.0-5.0 SL-239-SA5A-SB-4.0-5.0 SL-240-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-197-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.3 ug/Kg	4.0U ug/Kg
SL-198-SA5A-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	2.5 ug/Kg	4.4U ug/Kg
SL-200-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.7 ug/Kg	4.2U ug/Kg
SL-200-SA5A-SB-4.0-5.0(RES)	TOLUENE	0.09 ug/Kg	4.2U ug/Kg
SL-239-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.82 ug/Kg	4.2U ug/Kg
SL-239-SA5A-SB-4.0-5.0(RES)	TOLUENE	0.09 ug/Kg	4.2U ug/Kg
SL-240-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.5 ug/Kg	3.9U ug/Kg
SL-240-SA5A-SB-4.0-5.0(RES)	TOLUENE	0.09 ug/Kg	3.9U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-239-SA5A-SB-4.0-5.0MS SL-239-SA5A-SB-4.0-5.0MSD (SL-197-SA5A-SB-4.0-5.0 SL -197-SA5A-SB-8.0-9.0 SL -198-SA5A-SB-3.0-4.0 SL -200-SA5A-SB-4.0-5.0 SL -239-SA5A-SB-4.0-5.0 SL -240-SA5A-SB-4.0-5.0 SL -240-SA5A-SB-9.0-10)	ANTIMONY ARSENIC LEAD ZINC	40 - 43 73	42 69 50 -	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ANTIMONY ARSENIC LEAD ZINC	J (all detects) UJ (all non-detects)

Method: 314.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-197-SA5A-SB-4.0-5.0MS (SL-197-SA5A-SB-4.0-5.0 SL -197-SA5A-SB-8.0-9.0 SL -198-SA5A-SB-3.0-4.0 SL -200-SA5A-SB-4.0-5.0)	PERCHLORATE	0	-	80.00-120.00	-	PERCHLORATE	J(all detects) R(all non-detects)

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-239-SA5A-SB-4.0-5.0MS SL-239-SA5A-SB-4.0-5.0MSD (SL-197-SA5A-SB-4.0-5.0 SL -197-SA5A-SB-8.0-9.0 SL -198-SA5A-SB-3.0-4.0 SL -200-SA5A-SB-4.0-5.0 SL -239-SA5A-SB-4.0-5.0 SL -240-SA5A-SB-4.0-5.0 SL -240-SA5A-SB-9.0-10)	ALUMINUM CALCIUM IRON MAGNESIUM TITANIUM	2696 149 2352 279 269	2782 129 691 188 232	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	ALUMINUM CALCIUM IRON MAGNESIUM TITANIUM	No Qual, >4x
SL-239-SA5A-SB-4.0-5.0MS SL-239-SA5A-SB-4.0-5.0MSD (SL-197-SA5A-SB-4.0-5.0 SL -197-SA5A-SB-8.0-9.0 SL -198-SA5A-SB-3.0-4.0 SL -200-SA5A-SB-4.0-5.0 SL -239-SA5A-SB-4.0-5.0 SL -240-SA5A-SB-4.0-5.0 SL -240-SA5A-SB-9.0-10)	MANGANESE	187	-	75.00-125.00	21 (20.00)	MANGANESE	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **300.0**
Matrix: **SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-197-SA5A-SB-4.0-5.0MS (SL-197-SA5A-SB-4.0-5.0 SL -197-SA5A-SB-8.0-9.0 SL -198-SA5A-SB-3.0-4.0 SL -200-SA5A-SB-4.0-5.0)	FLUORIDE	27	-	80.00-120.00	-	FLUORIDE	J(all detects) R(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-239-SA5A-SB-4.0-5.0DUP	MANGANESE	38	20.00	
(SL-197-SA5A-SB-4.0-5.0	PHOSPHORUS	24	20.00	
SL -197-SA5A-SB-8.0-9.0	TIN	21	20.00	J (all detects)
SL -198-SA5A-SB-3.0-4.0	Zirconium	44	20.00	UJ (all non-detects)
SL -200-SA5A-SB-4.0-5.0				
SL -239-SA5A-SB-4.0-5.0				Sn, Zr No Qual
SL -240-SA5A-SB-4.0-5.0				OK by difference
SL -240-SA5A-SB-9.0-10)				

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-239-SA5A-SB-4.0-5.0DUP	ANTIMONY	28	20.00	
(SL-197-SA5A-SB-4.0-5.0	CADMIUM	200	20.00	
SL -197-SA5A-SB-8.0-9.0	COBALT	25	20.00	J(all detects)
SL -198-SA5A-SB-3.0-4.0	LEAD	25	20.00	UJ(all non-detects)
SL -200-SA5A-SB-4.0-5.0	MOLYBDENUM	26	20.00	
SL -239-SA5A-SB-4.0-5.0				Sb, Cd, Mo
SL -240-SA5A-SB-4.0-5.0				No Qual
SL -240-SA5A-SB-9.0-10)				OK by difference

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-239-SA5A-SB-4.0-5.0DUP	MERCURY	22	20.00	
(SL-197-SA5A-SB-4.0-5.0				
SL -197-SA5A-SB-8.0-9.0				
SL -198-SA5A-SB-3.0-4.0				No Qual
SL -200-SA5A-SB-4.0-5.0				OK by difference
SL -239-SA5A-SB-4.0-5.0				
SL -240-SA5A-SB-4.0-5.0				
SL -240-SA5A-SB-9.0-10)				

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-197-SA5A-SB-4.0-5.0DUP	FLUORIDE	200	20.00	
(SL-197-SA5A-SB-4.0-5.0				
SL -197-SA5A-SB-8.0-9.0				No Qual
SL -198-SA5A-SB-3.0-4.0				OK by difference
SL -200-SA5A-SB-4.0-5.0)				

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSY78Q211734A LCSY78Y211755A (TB-032311)	BROMOMETHANE TRICHLOROFLUOROMETHANE	- 137	123 131	44.00-120.00 64.00-129.00	- -	BROMOMETHANE TRICHLOROFLUOROMETHAN	J(all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P08326AQ221417A (SL-197-SA5A-SB-4.0-5.0 SL -197-SA5A-SB-8.0-9.0 SL -198-SA5A-SB-3.0-4.0 SL -200-SA5A-SB-4.0-5.0 SL -239-SA5A-SB-4.0-5.0 SL -240-SA5A-SB-4.0-5.0 SL -240-SA5A-SB-9.0-10)	SILVER	124	-	80.00-120.00	-	SILVER	No Qual SRM within QC limits

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P7LCLCSQ262223 (SL-197-SA5A-SB-4.0-5.0 SL -197-SA5A-SB-8.0-9.0 SL -198-SA5A-SB-3.0-4.0 SL -200-SA5A-SB-4.0-5.0 SL -239-SA5A-SB-4.0-5.0 SL -240-SA5A-SB-4.0-5.0 SL -240-SA5A-SB-9.0-10)	BIS(2-CHLOROISOPROPYL) ET NITROBENZENE	63 70	- -	68.00-131.00 71.00-104.00	- -	BIS(2-CHLOROISOPROPYL) E NITROBENZENE	J(all detects) UJ(all non-detects)

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P9LDLCSQ261926 (SL-197-SA5A-SB-4.0-5.0 SL -197-SA5A-SB-8.0-9.0 SL -198-SA5A-SB-3.0-4.0 SL -200-SA5A-SB-4.0-5.0 SL -239-SA5A-SB-4.0-5.0 SL -240-SA5A-SB-4.0-5.0 SL -240-SA5A-SB-9.0-10)	Dimethylphthalate	143	-	79.00-121.00	-	Dimethylphthalate	J(all detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

QC Sample ID (Associated Samples)	*Compound*	*LCS %R*	*LCSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
LCSB06Q210323A (SL-197-SA5A-SB-4.0-5.0 SL -198-SA5A-SB-3.0-4.0 SL -200-SA5A-SB-4.0-5.0 SL -239-SA5A-SB-4.0-5.0 SL -240-SA5A-SB-4.0-5.0)	BROMOCHLOROMETHANE	128	-	79.00-124.00	-	BROMOCHLOROMETHANE	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE111 Laboratory: LL

EDD Filename: DE111_v1 eQAPP Name: CDM_SSFL_110509

Method: 1625C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB09-SA5A-032311	N-NITROSODIMETHYLAMINE	J	0.879	0.993	PQL	ng/L	J (all detects)

Method: 8015M

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB09-SA5A-032311	DIETHYLENE GLYCOL	J	10	100	PQL	mg/L	J (all detects)
	ETHYLENE GLYCOL	J	14	100	PQL	mg/L	

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-197-SA5A-SB-4.0-5.0	BORON	J	3.17	5.41	PQL	mg/Kg	J (all detects)
	TIN	J	3.15	10.8	PQL	mg/Kg	
SL-197-SA5A-SB-8.0-9.0	BORON	J	3.70	5.77	PQL	mg/Kg	J (all detects)
	TIN	J	3.69	11.5	PQL	mg/Kg	
SL-198-SA5A-SB-3.0-4.0	TIN	J	2.93	10.9	PQL	mg/Kg	J (all detects)
SL-200-SA5A-SB-4.0-5.0	BORON	J	1.93	5.28	PQL	mg/Kg	J (all detects)
	TIN	J	2.93	10.6	PQL	mg/Kg	
SL-239-SA5A-SB-4.0-5.0	BORON	J	1.96	5.21	PQL	mg/Kg	J (all detects)
	TIN	J	3.58	10.4	PQL	mg/Kg	
	Zirconium	J	1.06	5.21	PQL	mg/Kg	
SL-240-SA5A-SB-4.0-5.0	BORON	J	2.79	5.46	PQL	mg/Kg	J (all detects)
	TIN	J	3.14	10.9	PQL	mg/Kg	
	Zirconium	J	1.34	5.46	PQL	mg/Kg	
SL-240-SA5A-SB-9.0-10	BORON	J	2.48	5.74	PQL	mg/Kg	J (all detects)
	TIN	J	2.96	11.5	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-197-SA5A-SB-4.0-5.0	ANTIMONY	J	0.151	0.221	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0755	0.110	PQL	mg/Kg	
	SELENIUM	J	0.117	0.441	PQL	mg/Kg	
	SILVER	J	0.0695	0.110	PQL	mg/Kg	
SL-197-SA5A-SB-8.0-9.0	CADMIUM	J	0.0776	0.114	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.134	0.457	PQL	mg/Kg	
SL-198-SA5A-SB-3.0-4.0	ANTIMONY	J	0.0926	0.222	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0581	0.111	PQL	mg/Kg	
	SELENIUM	J	0.156	0.444	PQL	mg/Kg	
	SILVER	J	0.0289	0.111	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-200-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0974	0.218	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0408	0.109	PQL	mg/Kg	
SL-239-SA5A-SB-4.0-5.0	ANTIMONY	J	0.158	0.211	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0525	0.105	PQL	mg/Kg	
	SELENIUM	J	0.0890	0.421	PQL	mg/Kg	
	SILVER	J	0.0753	0.105	PQL	mg/Kg	
SL-240-SA5A-SB-4.0-5.0	ANTIMONY	J	0.102	0.221	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.109	0.110	PQL	mg/Kg	
	SELENIUM	J	0.0603	0.442	PQL	mg/Kg	
	SILVER	J	0.0503	0.110	PQL	mg/Kg	
SL-240-SA5A-SB-9.0-10	ANTIMONY	J	0.140	0.237	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0580	0.473	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-197-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.30	1.1	PQL	mg/Kg	J (all detects)
SL-197-SA5A-SB-8.0-9.0	HEXAVALENT CHROMIUM	J	0.62	1.2	PQL	mg/Kg	J (all detects)
SL-198-SA5A-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.48	1.1	PQL	mg/Kg	J (all detects)
SL-200-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.34	1.1	PQL	mg/Kg	J (all detects)
SL-240-SA5A-SB-9.0-10	HEXAVALENT CHROMIUM	J	1.1	1.2	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-197-SA5A-SB-4.0-5.0	MERCURY	J	0.0072	0.108	PQL	mg/Kg	J (all detects)
SL-197-SA5A-SB-8.0-9.0	MERCURY	J	0.0337	0.115	PQL	mg/Kg	J (all detects)
SL-198-SA5A-SB-3.0-4.0	MERCURY	J	0.0049	0.108	PQL	mg/Kg	J (all detects)
SL-239-SA5A-SB-4.0-5.0	MERCURY	J	0.0034	0.107	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-197-SA5A-SB-4.0-5.0	AROCLOR 1260	J	170	190	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE111 **Laboratory: LL**

EDD Filename: DE111_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-197-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	2.3	4.0	PQL	ug/Kg	J (all detects)
SL-198-SA5A-SB-3.0-4.0	METHYLENE CHLORIDE	J	2.5	4.4	PQL	ug/Kg	J (all detects)
SL-200-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	2.7	4.2	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.09	4.2	PQL	ug/Kg	
SL-239-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.82	4.2	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.09	4.2	PQL	ug/Kg	
SL-240-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	2.5	3.9	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.09	3.9	PQL	ug/Kg	

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-197-SA5A-SB-4.0-5.0	BENZO(B)FLUORANTHENE	J	0.92	1.9	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.98	1.9	PQL	ug/Kg	
SL-197-SA5A-SB-8.0-9.0	BENZO(A)ANTHRACENE	J	1.1	2.0	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.99	2.0	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.7	2.0	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.1	2.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.88	2.0	PQL	ug/Kg	
	FLUORANTHENE	J	1.6	2.0	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.82	2.0	PQL	ug/Kg	
	PHENANTHRENE	J	0.92	2.0	PQL	ug/Kg	
	PYRENE	J	1.8	2.0	PQL	ug/Kg	
SL-198-SA5A-SB-3.0-4.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.6	20	PQL	ug/Kg	J (all detects)
SL-200-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.9	20	PQL	ug/Kg	J (all detects)
SL-240-SA5A-SB-4.0-5.0	BENZO(A)ANTHRACENE	J	1.1	1.9	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.95	1.9	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.6	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.1	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.0	1.9	PQL	ug/Kg	
	CHRYSENE	J	1.5	1.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.87	1.9	PQL	ug/Kg	

LDC #: 25911T4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-11
SDG #: DE111 ADR
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ba, Ca, Fe, Mg, Ti, >4X)
VII.	Duplicate Sample Analysis	N	D (Sb, Cd, Hg, Mo, Sn, Zr <5XRL)
VIII.	Laboratory Control Samples (LCS)	N	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Co: 14%, Ni: 11% (J/UJ)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-239-SA5A-SB-4.0-5.0	11		21		31	
2	SL-240-SA5A-SB-4.0-5.0	12		22		32	
3	SL-240-SA5A-SB-9.0-10.0	13		23		33	
4	SL-197-SA5A-SB-4.0-5.0	14		24		34	
5	SL-197-SA5A-SB-8.0-9.0	15		25		35	
6	SL-198-SA5A-SB-3.0-4.0	16		26		36	
7	SL-200-SA5A-SB-4.0-5.0	17		27		37	
8	(#1) MS	18		28		38	
9	MSD	19		29		39	
10	↓ DUP	20		30		40	

Notes:

SAMPLE DELIVERY GROUP

DE112

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Mar-2011	TB-032411	6239185	TB	5030B	8015M	IV
24-Mar-2011	TB-032411	6239185	TB	5030B	8260B	IV
24-Mar-2011	TB-032411	6239185	TB	5030B	8260B SIM	IV
24-Mar-2011	SL-199-SA5A-SB-2.5-3.5	6239175	N	3050B	6010B	IV
24-Mar-2011	SL-199-SA5A-SB-2.5-3.5	6239175	N	3050B	6020	IV
24-Mar-2011	SL-199-SA5A-SB-2.5-3.5	6239175	N	3060A	7199	IV
24-Mar-2011	SL-199-SA5A-SB-2.5-3.5	6239175	N	3550B	8082	IV
24-Mar-2011	SL-199-SA5A-SB-2.5-3.5	6239175	N	3550B	8270C	IV
24-Mar-2011	SL-199-SA5A-SB-2.5-3.5	6239175	N	3550B	8270C SIM	IV
24-Mar-2011	SL-199-SA5A-SB-2.5-3.5	6239175	N	5035	8260B	IV
24-Mar-2011	SL-199-SA5A-SB-2.5-3.5	6239175	N	5035	8260B SIM	IV
24-Mar-2011	SL-199-SA5A-SB-2.5-3.5	6239175	N	Gen Prep	9045M	IV
24-Mar-2011	SL-199-SA5A-SB-2.5-3.5	6239175	N	METHOD	300.0	IV
24-Mar-2011	SL-199-SA5A-SB-2.5-3.5	6239175	N	METHOD	314.0	IV
24-Mar-2011	SL-199-SA5A-SB-2.5-3.5	6239175	N	METHOD	7471A	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	3050B	6010B	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	3050B	6020	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	3060A	7199	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	3546	1625C	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	3550B	8015B	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	3550B	8015M	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	3550B	8082	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	3550B	8270C	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	3550B	8270C SIM	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	5035	8015M	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	5035	8260B	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	5035	8260B SIM	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	8330	8330A	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	Gen Prep	9045M	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	METHOD	300.0	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	METHOD	314.0	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	METHOD	7471A	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	METHOD	8015B	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	METHOD	8015M	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	METHOD	8315A	IV
24-Mar-2011	DUP10-SA5A-QC-032411	6239181	FD	METHOD	9012B	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	3050B	6010B	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	3050B	6020	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	3060A	7199	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	3546	1625C	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	3550B	8015B	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	3550B	8015M	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	3550B	8082	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	3550B	8270C	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	3550B	8270C SIM	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	5035	8015M	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	5035	8260B	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	5035	8260B SIM	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	8330	8330A	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	Gen Prep	9045M	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	METHOD	300.0	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	METHOD	314.0	IV

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	METHOD	7471A	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	METHOD	8015B	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	METHOD	8015M	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	METHOD	8315A	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5	6239180	N	METHOD	9012B	IV
24-Mar-2011	SL-223-SA5A-SB-8.5-9.5DUP	P239180D291330B	DUP	Gen Prep	9045M	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	3050B	6010B	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	3050B	6020	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	3060A	7199	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	3546	1625C	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	3550B	8015B	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	3550B	8015M	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	3550B	8082	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	3550B	8270C	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	3550B	8270C SIM	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	5035	8015M	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	5035	8260B	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	5035	8260B SIM	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	8330	8330A	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	Gen Prep	9045M	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	METHOD	300.0	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	METHOD	314.0	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	METHOD	7471A	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	METHOD	8015B	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	METHOD	8015M	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	METHOD	8315A	IV

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0	6239176	N	METHOD	9012B	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	3050B	6010B	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	3050B	6020	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	3060A	7199	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	3546	1625C	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	3550B	8015B	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	3550B	8015M	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	3550B	8082	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	3550B	8270C	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	3550B	8270C SIM	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	5035	8015M	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	5035	8260B	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	5035	8260B SIM	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	8330	8330A	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	METHOD	300.0	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	METHOD	314.0	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	METHOD	7471A	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	METHOD	8015B	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	METHOD	8015M	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	METHOD	8315A	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MS	6239177	MS	METHOD	9012B	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MSD	6239178	MSD	3050B	6010B	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MSD	6239178	MSD	3050B	6020	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MSD	6239178	MSD	3546	1625C	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MSD	6239178	MSD	3550B	8015B	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MSD	6239178	MSD	3550B	8015M	IV

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MSD	6239178	MSD	3550B	8082	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MSD	6239178	MSD	3550B	8270C	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MSD	6239178	MSD	3550B	8270C SIM	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MSD	6239178	MSD	5035	8015M	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MSD	6239178	MSD	5035	8260B	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MSD	6239178	MSD	5035	8260B SIM	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MSD	6239178	MSD	8330	8330A	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MSD	6239178	MSD	METHOD	7471A	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MSD	6239178	MSD	METHOD	8015B	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MSD	6239178	MSD	METHOD	8015M	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0MSD	6239178	MSD	METHOD	8315A	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0DUP	6239179	DUP	3050B	6010B	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0DUP	6239179	DUP	3050B	6020	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0DUP	6239179	DUP	3060A	7199	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0DUP	6239179	DUP	Gen Prep	9045M	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0DUP	6239179	DUP	METHOD	300.0	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0DUP	6239179	DUP	METHOD	314.0	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0DUP	6239179	DUP	METHOD	7471A	IV
24-Mar-2011	SL-223-SA5A-SB-4.0-5.0DUP	6239179	DUP	METHOD	9012B	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	3050B	6010B	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	3050B	6020	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	3060A	7199	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	3546	1625C	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	3550B	8015B	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	3550B	8015M	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	3550B	8082	IV

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	3550B	8270C	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	3550B	8270C SIM	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	5035	8015M	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	5035	8260B	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	5035	8260B SIM	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	8330	8330A	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	Gen Prep	9045M	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	METHOD	300.0	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	METHOD	314.0	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	METHOD	7471A	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	METHOD	8015B	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	METHOD	8015M	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	METHOD	8315A	IV
24-Mar-2011	SL-226-SA5A-SB-4.0-5.0	6239182	N	METHOD	9012B	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	3050B	6010B	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	3050B	6020	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	3060A	7199	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	3546	1625C	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	3550B	8015B	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	3550B	8015M	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	3550B	8082	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	3550B	8270C	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	3550B	8270C SIM	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	5035	8015M	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	5035	8260B	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	5035	8260B SIM	IV

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	8330	8330A	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	Gen Prep	9045M	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	METHOD	300.0	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	METHOD	314.0	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	METHOD	7471A	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	METHOD	8015B	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	METHOD	8015M	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	METHOD	8315A	IV
24-Mar-2011	SL-225-SA5A-SB-4.0-5.0	6239183	N	METHOD	9012B	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	3050B	6010B	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	3050B	6020	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	3060A	7199	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	3546	1625C	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	3550B	8015B	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	3550B	8015M	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	3550B	8082	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	3550B	8270C	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	3550B	8270C SIM	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	5035	8260B	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	5035	8260B SIM	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	8330	8330A	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	Gen Prep	9045M	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	M5035A	8015M	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	METHOD	300.0	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	METHOD	314.0	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	METHOD	7471A	IV

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	METHOD	8015B	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	METHOD	8015M	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	METHOD	8315A	IV
24-Mar-2011	SL-224-SA5A-SB-4.0-5.0	6239184	N	METHOD	9012B	IV

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE112 Laboratory: LL

EDD Filename: DE112_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: DUP10-SA5A-QC-032411 *Collected:* 3/24/2011 10:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.8		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-199-SA5A-SB-2.5-3.5 *Collected:* 3/24/2011 8:59:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.2		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-223-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 11:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.1		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-223-SA5A-SB-8.5-9.5 *Collected:* 3/24/2011 11:04:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.2		0.85	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-224-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 3:29:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.8		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-225-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 2:33:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.5		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-226-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 12:24:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.3		0.91	MDL	1.1	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE112 **Laboratory:** LL

EDD Filename: DE112_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: DUP10-SA5A-QC-032411 ***Collected:*** 3/24/2011 10:58:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	370		0.620	MDL	11.1	PQL	mg/Kg	J	Q
POTASSIUM	4120		19.9	MDL	55.4	PQL	mg/Kg	J	Q
TIN	3.25	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.03	J	0.930	MDL	5.54	PQL	mg/Kg	J	Z

Sample ID: SL-199-SA5A-SB-2.5-3.5 ***Collected:*** 3/24/2011 8:59:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	95.2		0.588	MDL	10.5	PQL	mg/Kg	J	Q
POTASSIUM	1780		18.9	MDL	52.5	PQL	mg/Kg	J	Q
TIN	3.49	J	1.05	MDL	10.5	PQL	mg/Kg	U	B

Sample ID: SL-223-SA5A-SB-4.0-5.0 ***Collected:*** 3/24/2011 11:14:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	345		0.624	MDL	11.1	PQL	mg/Kg	J	Q
POTASSIUM	3630		20.1	MDL	55.7	PQL	mg/Kg	J	Q
TIN	3.33	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.50	J	0.936	MDL	5.57	PQL	mg/Kg	J	Z

Sample ID: SL-223-SA5A-SB-8.5-9.5 ***Collected:*** 3/24/2011 11:04:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	207		0.590	MDL	10.5	PQL	mg/Kg	J	Q
POTASSIUM	2140		19.0	MDL	52.7	PQL	mg/Kg	J	Q
TIN	3.36	J	1.05	MDL	10.5	PQL	mg/Kg	U	B

Sample ID: SL-224-SA5A-SB-4.0-5.0 ***Collected:*** 3/24/2011 3:29:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	306		0.606	MDL	10.8	PQL	mg/Kg	J	Q
POTASSIUM	3100		19.5	MDL	54.1	PQL	mg/Kg	J	Q
SODIUM	107	J	40.4	MDL	108	PQL	mg/Kg	J	Z
TIN	3.21	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	1.34	J	0.909	MDL	5.41	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-225-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 2:33:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	384		0.636	MDL	11.4	PQL	mg/Kg	J	Q
POTASSIUM	3910		20.5	MDL	56.8	PQL	mg/Kg	J	Q
TIN	3.61	J	1.14	MDL	11.4	PQL	mg/Kg	U	B

Sample ID: SL-226-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 12:24:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	336		0.634	MDL	11.3	PQL	mg/Kg	J	Q
POTASSIUM	3130		20.4	MDL	56.6	PQL	mg/Kg	J	Q
TIN	3.53	J	1.13	MDL	11.3	PQL	mg/Kg	U	B

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: DUP10-SA5A-QC-032411 *Collected:* 3/24/2011 10:58:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0789	J	0.0651	MDL	0.217	PQL	mg/Kg	J	Z, Q
CADMIUM	0.0577	J	0.0434	MDL	0.109	PQL	mg/Kg	J	Z, FD
CHROMIUM	17.3		0.130	MDL	0.434	PQL	mg/Kg	J	Q, E
COBALT	6.02		0.0217	MDL	0.109	PQL	mg/Kg	J	E, A
COPPER	8.25		0.0717	MDL	0.434	PQL	mg/Kg	J	Q, E, A
NICKEL	13.1		0.109	MDL	0.434	PQL	mg/Kg	J	Q
SILVER	0.0443	J	0.0130	MDL	0.109	PQL	mg/Kg	J	Z, FD
ZINC	50.0		0.608	MDL	3.26	PQL	mg/Kg	J	E, FD

Sample ID: DUP10-SA5A-QC-032411 *Collected:* 3/24/2011 10:58:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.132	J	0.0434	MDL	0.434	PQL	mg/Kg	J	Z

Sample ID: DUP10-SA5A-QC-032411 *Collected:* 3/24/2011 10:58:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	100		0.117	MDL	0.434	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE112 **Laboratory:** LL

EDD Filename: DE112_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP10-SA5A-QC-032411 *Collected:* 3/24/2011 10:58:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	6.01		0.0113	MDL	0.217	PQL	mg/Kg	J	A

Sample ID: SL-199-SA5A-SB-2.5-3.5 *Collected:* 3/24/2011 8:59:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0920	J	0.0630	MDL	0.210	PQL	mg/Kg	J	Z, Q
CHROMIUM	15.9		0.126	MDL	0.420	PQL	mg/Kg	J	Q, E
COBALT	3.31		0.0210	MDL	0.105	PQL	mg/Kg	J	E, A
COPPER	5.42		0.0693	MDL	0.420	PQL	mg/Kg	J	Q, E, A
NICKEL	8.46		0.105	MDL	0.420	PQL	mg/Kg	J	Q
SILVER	0.0240	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z
ZINC	43.1		0.588	MDL	3.15	PQL	mg/Kg	J	E

Sample ID: SL-199-SA5A-SB-2.5-3.5 *Collected:* 3/24/2011 8:59:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.153	J	0.0420	MDL	0.420	PQL	mg/Kg	J	Z

Sample ID: SL-199-SA5A-SB-2.5-3.5 *Collected:* 3/24/2011 8:59:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	60.5		0.113	MDL	0.420	PQL	mg/Kg	J	E, A

Sample ID: SL-199-SA5A-SB-2.5-3.5 *Collected:* 3/24/2011 8:59:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	6.34		0.0109	MDL	0.210	PQL	mg/Kg	J	A

Sample ID: SL-223-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 11:14:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.105	J	0.0668	MDL	0.223	PQL	mg/Kg	J	Z, Q
CADMIUM	0.136		0.0446	MDL	0.111	PQL	mg/Kg	J	FD
CHROMIUM	16.8		0.134	MDL	0.446	PQL	mg/Kg	J	Q, E
COBALT	6.64		0.0223	MDL	0.111	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-223-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 11:14:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	9.86		0.0735	MDL	0.446	PQL	mg/Kg	J	Q, E, A
NICKEL	13.8		0.111	MDL	0.446	PQL	mg/Kg	J	Q
SILVER	0.0262	J	0.0134	MDL	0.111	PQL	mg/Kg	J	Z, FD
ZINC	92.5		0.624	MDL	3.34	PQL	mg/Kg	J	E, FD

Sample ID: SL-223-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 11:14:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.118	J	0.0446	MDL	0.446	PQL	mg/Kg	J	Z

Sample ID: SL-223-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 11:14:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	121		0.120	MDL	0.446	PQL	mg/Kg	J	E, A

Sample ID: SL-223-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 11:14:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	5.68		0.0116	MDL	0.223	PQL	mg/Kg	J	A

Sample ID: SL-223-SA5A-SB-8.5-9.5 *Collected:* 3/24/2011 11:04:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0710	J	0.0626	MDL	0.209	PQL	mg/Kg	J	Z, Q
CHROMIUM	16.9		0.125	MDL	0.417	PQL	mg/Kg	J	Q, E
COBALT	4.65		0.0209	MDL	0.104	PQL	mg/Kg	J	E, A
COPPER	6.36		0.0688	MDL	0.417	PQL	mg/Kg	J	Q, E, A
NICKEL	8.78		0.104	MDL	0.417	PQL	mg/Kg	J	Q
SILVER	0.0179	J	0.0125	MDL	0.104	PQL	mg/Kg	J	Z
ZINC	44.0		0.584	MDL	3.13	PQL	mg/Kg	J	E

Sample ID: SL-223-SA5A-SB-8.5-9.5 *Collected:* 3/24/2011 11:04:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0696	J	0.0417	MDL	0.417	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-223-SA5A-SB-8.5-9.5 *Collected:* 3/24/2011 11:04:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	70.1		0.113	MDL	0.417	PQL	mg/Kg	J	E, A

Sample ID: SL-223-SA5A-SB-8.5-9.5 *Collected:* 3/24/2011 11:04:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	5.49		0.0108	MDL	0.209	PQL	mg/Kg	J	A

Sample ID: SL-224-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 3:29:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0840	J	0.0656	MDL	0.219	PQL	mg/Kg	J	Z, Q
CADMIUM	0.104	J	0.0437	MDL	0.109	PQL	mg/Kg	J	Z
CHROMIUM	25.6		0.131	MDL	0.437	PQL	mg/Kg	J	Q, E
COBALT	7.65		0.0219	MDL	0.109	PQL	mg/Kg	J	E, A
COPPER	13.7		0.0721	MDL	0.437	PQL	mg/Kg	J	Q, E, A
NICKEL	17.9		0.109	MDL	0.437	PQL	mg/Kg	J	Q
SILVER	0.0303	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z
ZINC	70.8		0.612	MDL	3.28	PQL	mg/Kg	J	E

Sample ID: SL-224-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 3:29:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0897	J	0.0437	MDL	0.437	PQL	mg/Kg	J	Z

Sample ID: SL-224-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 3:29:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	131		0.118	MDL	0.437	PQL	mg/Kg	J	E, A

Sample ID: SL-224-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 3:29:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	5.75		0.0114	MDL	0.219	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-225-SA5A-SB-4.0-5.0 ***Collected:*** 3/24/2011 2:33:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0702	U	0.0702	MDL	0.234	PQL	mg/Kg	UJ	Q
CADMIUM	0.0855	J	0.0468	MDL	0.117	PQL	mg/Kg	J	Z
CHROMIUM	12.4		0.140	MDL	0.468	PQL	mg/Kg	J	Q, E
COBALT	4.88		0.0234	MDL	0.117	PQL	mg/Kg	J	E, A
COPPER	5.89		0.0772	MDL	0.468	PQL	mg/Kg	J	Q, E, A
NICKEL	8.10		0.117	MDL	0.468	PQL	mg/Kg	J	Q
ZINC	60.8		0.655	MDL	3.51	PQL	mg/Kg	J	E

Sample ID: SL-225-SA5A-SB-4.0-5.0 ***Collected:*** 3/24/2011 2:33:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.181	J	0.0468	MDL	0.468	PQL	mg/Kg	J	Z

Sample ID: SL-225-SA5A-SB-4.0-5.0 ***Collected:*** 3/24/2011 2:33:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	85.7		0.126	MDL	0.468	PQL	mg/Kg	J	E, A

Sample ID: SL-225-SA5A-SB-4.0-5.0 ***Collected:*** 3/24/2011 2:33:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	10.3		0.0122	MDL	0.234	PQL	mg/Kg	J	A

Sample ID: SL-226-SA5A-SB-4.0-5.0 ***Collected:*** 3/24/2011 12:24:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0680	U	0.0680	MDL	0.227	PQL	mg/Kg	UJ	Q
CHROMIUM	18.4		0.136	MDL	0.453	PQL	mg/Kg	J	Q, E
COBALT	6.47		0.0227	MDL	0.113	PQL	mg/Kg	J	E, A
COPPER	11.2		0.0747	MDL	0.453	PQL	mg/Kg	J	Q, E, A
NICKEL	13.8		0.113	MDL	0.453	PQL	mg/Kg	J	Q
ZINC	66.0		0.634	MDL	3.40	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE112 **Laboratory:** LL

EDD Filename: DE112_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-226-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 12:24:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0833	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

Sample ID: SL-226-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 12:24:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	130		0.122	MDL	0.453	PQL	mg/Kg	J	E, A

Sample ID: SL-226-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 12:24:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	4.36		0.0118	MDL	0.227	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: DUP10-SA5A-QC-032411 *Collected:* 3/24/2011 10:58:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.53	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z, FD

Sample ID: SL-199-SA5A-SB-2.5-3.5 *Collected:* 3/24/2011 8:59:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.38	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-223-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 11:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.23	U	0.23	MDL	1.1	PQL	mg/Kg	UJ	FD

Sample ID: SL-223-SA5A-SB-8.5-9.5 *Collected:* 3/24/2011 11:04:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.44	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE112 Laboratory: LL

EDD Filename: DE112_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 7199 **Matrix:** SO

Sample ID: SL-224-SA5A-SB-4.0-5.0 **Collected:** 3/24/2011 3:29:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.51	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-225-SA5A-SB-4.0-5.0 **Collected:** 3/24/2011 2:33:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.60	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: SVOA **Method:** 1625C **Matrix:** SO

Sample ID: DUP10-SA5A-QC-032411 **Collected:** 3/24/2011 10:58:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	47.7		18.5	MDL	36.9	PQL	ng/Kg	UJ	B, FD

Sample ID: SL-223-SA5A-SB-4.0-5.0 **Collected:** 3/24/2011 11:14:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	189	U	189	MDL	379	PQL	ng/Kg	UJ	FD

Sample ID: SL-224-SA5A-SB-4.0-5.0 **Collected:** 3/24/2011 3:29:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	80.2		18.6	MDL	37.2	PQL	ng/Kg	U	B

Sample ID: SL-225-SA5A-SB-4.0-5.0 **Collected:** 3/24/2011 2:33:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	61.2		19.7	MDL	39.4	PQL	ng/Kg	U	B

Sample ID: SL-226-SA5A-SB-4.0-5.0 **Collected:** 3/24/2011 12:24:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	54.7		18.9	MDL	37.8	PQL	ng/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE112 **Laboratory:** LL

EDD Filename: DE112_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8015M **Matrix:** SO

Sample ID: DUP10-SA5A-QC-032411 *Collected:* 3/24/2011 10:58:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.76	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z, FD
EFH (C21-C30)	12		0.44	MDL	1.3	PQL	mg/Kg	J	FD
EFH (C8-C11)	0.52	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-223-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 11:14:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.45	U	0.45	MDL	1.4	PQL	mg/Kg	UJ	FD
EFH (C21-C30)	6.8		0.45	MDL	1.4	PQL	mg/Kg	J	Q, Q, Q, FD
EFH (C8-C11)	0.48	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-223-SA5A-SB-8.5-9.5 *Collected:* 3/24/2011 11:04:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.45	J	0.43	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-224-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 3:29:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	0.62	J	0.45	MDL	1.3	PQL	mg/Kg	J	Z
EFH (C30-C40)	1.2	J	0.45	MDL	1.3	PQL	mg/Kg	J	Z
EFH (C8-C11)	0.53	J	0.45	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-225-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 2:33:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.73	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-226-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 12:24:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	1.0	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE112 **Laboratory:** LL

EDD Filename: DE112_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-226-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 12:24:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.2	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: DUP10-SA5A-QC-032411 *Collected:* 3/24/2011 10:58:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	31	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	26	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	30	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	25	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	23	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	24	J	18	MDL	370	PQL	ug/Kg	J	Z
CHRYSENE	31	J	18	MDL	180	PQL	ug/Kg	J	Z
FLUORANTHENE	28	J	18	MDL	180	PQL	ug/Kg	J	Z
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
N-NITROSO-DI-N-PROPYLAMINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	C
PYRENE	43	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-199-SA5A-SB-2.5-3.5 *Collected:* 3/24/2011 8:59:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
N-NITROSO-DI-N-PROPYLAMINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	C

Sample ID: SL-223-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 11:14:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
ISOPHORONE	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q, L
N-NITROSO-DI-N-PROPYLAMINE	19	U	19	MDL	190	PQL	ug/Kg	UJ	C

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-223-SA5A-SB-8.5-9.5 *Collected:* 3/24/2011 11:04:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
N-NITROSO-DI-N-PROPYLAMINE	18	U	18	MDL	180	PQL	ug/Kg	UJ	C

Sample ID: SL-224-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 3:29:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
N-NITROSO-DI-N-PROPYLAMINE	19	U	19	MDL	190	PQL	ug/Kg	UJ	C

Sample ID: SL-225-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 2:33:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	26	J	19	MDL	390	PQL	ug/Kg	J	Z
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
N-NITROSO-DI-N-PROPYLAMINE	19	U	19	MDL	190	PQL	ug/Kg	UJ	C

Sample ID: SL-226-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 12:24:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
N-NITROSO-DI-N-PROPYLAMINE	19	U	19	MDL	190	PQL	ug/Kg	UJ	C

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-226-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 12:24:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	1.4	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8015B **Matrix: SO**

Sample ID: SL-223-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 11:14:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m-Terphenyl	1.7	U	1.7	MDL	4.0	PQL	mg/Kg	UJ	Q
p-Terphenyl	1.7	U	1.7	MDL	4.0	PQL	mg/Kg	UJ	Q

Method Category: VOA

Method: 8260B **Matrix: AQ**

Sample ID: TB-032411 *Collected:* 3/24/2011 8:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLOROETHYL VINYL ETHER	2	U	2	MDL	10	PQL	ug/L	UJ	C
ACETONE	6	U	6	MDL	20	PQL	ug/L	UJ	C
DICHLORODIFLUOROMETHANE	2	U	2	MDL	5	PQL	ug/L	UJ	C
TRICHLOROFLUOROMETHANE	2	U	2	MDL	5	PQL	ug/L	UJ	C

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: DUP10-SA5A-QC-032411 *Collected:* 3/24/2011 10:58:00 *Analysis Type:* RES *Dilution:* 0.89

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOCHLOROMETHANE	0.32	U	0.32	MDL	3.9	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	2.9	J	0.24	MDL	3.9	PQL	ug/Kg	U	B
TOLUENE	0.08	U	0.08	MDL	3.9	PQL	ug/Kg	UJ	FD

Sample ID: SL-199-SA5A-SB-2.5-3.5 *Collected:* 3/24/2011 8:59:00 *Analysis Type:* RES *Dilution:* 1.01

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOCHLOROMETHANE	0.36	U	0.36	MDL	4.3	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	2.1	J	0.26	MDL	4.3	PQL	ug/Kg	U	B

Sample ID: SL-223-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 11:14:00 *Analysis Type:* RES *Dilution:* 0.81

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOCHLOROMETHANE	0.30	U	0.30	MDL	3.7	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	3.5	J	0.22	MDL	3.7	PQL	ug/Kg	UJ	Q, B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-223-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 11:14:00 *Analysis Type:* RES *Dilution:* 0.81

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOLUENE	0.08	J	0.07	MDL	3.7	PQL	ug/Kg	UJ	B, FD

Sample ID: SL-223-SA5A-SB-8.5-9.5 *Collected:* 3/24/2011 11:04:00 *Analysis Type:* RES *Dilution:* 0.99

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOCHLOROMETHANE	0.35	U	0.35	MDL	4.2	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	2.3	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: SL-224-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 3:29:00 *Analysis Type:* RES *Dilution:* 0.86

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOCHLOROMETHANE	0.32	U	0.32	MDL	3.8	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	5.4		0.23	MDL	3.8	PQL	ug/Kg	U	B

Sample ID: SL-225-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 2:33:00 *Analysis Type:* RES *Dilution:* 0.85

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOCHLOROMETHANE	0.33	U	0.33	MDL	4.0	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	2.7	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: SL-226-SA5A-SB-4.0-5.0 *Collected:* 3/24/2011 12:24:00 *Analysis Type:* RES *Dilution:* 0.84

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BROMOCHLOROMETHANE	0.32	U	0.32	MDL	3.8	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	3.0	J	0.23	MDL	3.8	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DE112

Method Blank Outlier Report

Lab Reporting Batch ID: DE112 Laboratory: LL

EDD Filename: DE112_v1 eQAPP Name: CDM_SSFL_110509

Method: 1625C
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLB09B261132	4/11/2011 11:32:00 AM	N-NITROSODIMETHYLAMINE	21.5 ng/Kg	DUP10-SA5A-QC-032411 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 SL-224-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-226-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP10-SA5A-QC-032411(RES)	N-NITROSODIMETHYLAMINE	47.7 ng/Kg	47.7U ng/Kg
SL-224-SA5A-SB-4.0-5.0(RES)	N-NITROSODIMETHYLAMINE	80.2 ng/Kg	80.2U ng/Kg
SL-225-SA5A-SB-4.0-5.0(RES)	N-NITROSODIMETHYLAMINE	61.2 ng/Kg	61.2U ng/Kg
SL-226-SA5A-SB-4.0-5.0(RES)	N-NITROSODIMETHYLAMINE	54.7 ng/Kg	54.7U ng/Kg

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08808DB221821	3/30/2011 6:21:00 PM	CALCIUM PHOSPHORUS TIN	6.36 mg/Kg 1.28 mg/Kg 1.86 mg/Kg	DUP10-SA5A-QC-032411 SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 SL-224-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-226-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP10-SA5A-QC-032411(RES)	TIN	3.25 mg/Kg	3.25U mg/Kg
SL-199-SA5A-SB-2.5-3.5(RES)	TIN	3.49 mg/Kg	3.49U mg/Kg
SL-223-SA5A-SB-4.0-5.0(RES)	TIN	3.33 mg/Kg	3.33U mg/Kg
SL-223-SA5A-SB-8.5-9.5(RES)	TIN	3.36 mg/Kg	3.36U mg/Kg
SL-224-SA5A-SB-4.0-5.0(RES)	TIN	3.21 mg/Kg	3.21U mg/Kg
SL-225-SA5A-SB-4.0-5.0(RES)	TIN	3.61 mg/Kg	3.61U mg/Kg
SL-226-SA5A-SB-4.0-5.0(RES)	TIN	3.53 mg/Kg	3.53U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08826BB221251A	4/1/2011 12:51:00 PM	COPPER NICKEL	0.195 mg/Kg 0.125 mg/Kg	DUP10-SA5A-QC-032411 SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 SL-224-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-226-SA5A-SB-4.0-5.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE112 Laboratory: LL

EDD Filename: DE112_v1 eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB06B210202A	3/28/2011 2:02:00 AM	ACETONE METHYLENE CHLORIDE TOLUENE	7.7 ug/Kg 0.95 ug/Kg 0.16 ug/Kg	DUP10-SA5A-QC-032411 SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 SL-224-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-226-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP10-SA5A-QC-032411(RES)	METHYLENE CHLORIDE	2.9 ug/Kg	3.9U ug/Kg
SL-199-SA5A-SB-2.5-3.5(RES)	METHYLENE CHLORIDE	2.1 ug/Kg	4.3U ug/Kg
SL-223-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	3.5 ug/Kg	3.7U ug/Kg
SL-223-SA5A-SB-4.0-5.0(RES)	TOLUENE	0.08 ug/Kg	3.7U ug/Kg
SL-223-SA5A-SB-8.5-9.5(RES)	METHYLENE CHLORIDE	2.3 ug/Kg	4.2U ug/Kg
SL-224-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	5.4 ug/Kg	5.4U ug/Kg
SL-225-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.7 ug/Kg	4.0U ug/Kg
SL-226-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	3.0 ug/Kg	3.8U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-223-SA5A-SB-4.0-5.0MS (DUP10-SA5A-QC-032411 SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 SL-224-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-226-SA5A-SB-4.0-5.0)	CHROMIUM COPPER NICKEL	129 133 138	- - -	75.00-125.00 75.00-125.00 75.00-125.00	- - -	CHROMIUM COPPER NICKEL	J (all detects)
SL-223-SA5A-SB-4.0-5.0MS SL-223-SA5A-SB-4.0-5.0MSD (DUP10-SA5A-QC-032411 SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 SL-224-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-226-SA5A-SB-4.0-5.0)	ANTIMONY ZINC	24 -70	30 -107	75.00-125.00 75.00-125.00	- -	ANTIMONY ZINC	J(all detects) UJ(all non-detects) Sb Post Spike = 106% Zn No Qual. >4x
SL-223-SA5A-SB-4.0-5.0MS SL-223-SA5A-SB-4.0-5.0MSD (DUP10-SA5A-QC-032411 SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 SL-224-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-226-SA5A-SB-4.0-5.0)	BARIUM	379	228	75.00-125.00	-	BARIUM	No Qual, >4x

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-223-SA5A-SB-4.0-5.0MS SL-223-SA5A-SB-4.0-5.0MSD (DUP10-SA5A-QC-032411 SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 SL-224-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-226-SA5A-SB-4.0-5.0)	ALUMINUM CALCIUM IRON MAGNESIUM MANGANESE PHOSPHORUS POTASSIUM TITANIUM	2355 151 3391 283 279 151 198 308	2579 171 2762 378 166 - 155 284	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - - - -	ALUMINUM CALCIUM IRON MAGNESIUM MANGANESE PHOSPHORUS POTASSIUM TITANIUM	J(all detects) Al, Ca, Fe, Mg, Mn, Ti No Qual, >4x

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-223-SA5A-SB-4.0-5.0MS (SL-223-SA5A-SB-4.0-5.0)	2-METHYLNAPHTHALENE	105	-	64.00-103.00	-	2-METHYLNAPHTHALENE	J(all detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-223-SA5A-SB-4.0-5.0MS SL-223-SA5A-SB-4.0-5.0MSD (SL-223-SA5A-SB-4.0-5.0)	ISOPHORONE NITROBENZENE	- 70	72 70	73.00-102.00 72.00-106.00	- -	ISOPHORONE NITROBENZENE	J(all detects) UJ(all non-detects)

Method: 1625C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-223-SA5A-SB-4.0-5.0MS SL-223-SA5A-SB-4.0-5.0MSD (SL-223-SA5A-SB-4.0-5.0)	N-NITROSODIMETHYLAMINE	132	140	70.00-130.00	-	N-NITROSODIMETHYLAMINE	J(all detects)

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-223-SA5A-SB-4.0-5.0MS (DUP10-SA5A-QC-032411 SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 SL-224-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-226-SA5A-SB-4.0-5.0)	FLUORIDE	61	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-223-SA5A-SB-4.0-5.0MS SL-223-SA5A-SB-4.0-5.0MSD (SL-223-SA5A-SB-4.0-5.0)	EFH (C15-C20)	234	-	49.00-123.00	69 (20.00)	EFH (C15-C20)	J(all detects)
SL-223-SA5A-SB-4.0-5.0MS SL-223-SA5A-SB-4.0-5.0MSD (SL-223-SA5A-SB-4.0-5.0)	EFH (C21-C30) EFH (C30-C40)	1671 2421	-112 -308	49.00-123.00 49.00-123.00	167 (20.00) 168 (20.00)	EFH (C21-C30) EFH (C30-C40)	J(all detects) R(all non-detects) EFH (C30-C40) No Qual >4x

Method: 8015B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-223-SA5A-SB-4.0-5.0MS (SL-223-SA5A-SB-4.0-5.0)	m-Terphenyl p-Terphenyl	72 71	- -	75.00-125.00 75.00-125.00	- -	m-Terphenyl p-Terphenyl	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**

Matrix: **SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-223-SA5A-SB-4.0-5.0MS	2-Chloro-1,1,1-trifluoroethane	133	-	61.00-131.00	-	2-Chloro-1,1,1-trifluoroethane	
SL-223-SA5A-SB-4.0-5.0MSD	ACETONE	211	-	15.00-210.00	-	ACETONE	J(all detects)
(SL-223-SA5A-SB-4.0-5.0)	METHYLENE CHLORIDE	-	142	61.00-141.00	-	METHYLENE CHLORIDE	

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-223-SA5A-SB-4.0-5.0DUP (DUP10-SA5A-QC-032411 SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 SL-224-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-226-SA5A-SB-4.0-5.0)	Zirconium	200	20.00	No Qual OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-223-SA5A-SB-4.0-5.0DUP (DUP10-SA5A-QC-032411 SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 SL-224-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-226-SA5A-SB-4.0-5.0)	ANTIMONY	39	20.00	J(all detects) UJ(all non-detects)
	BARIUM	27	20.00	
	CADMIUM	56	20.00	
	CHROMIUM	22	20.00	
	COBALT	24	20.00	
	COPPER	26	20.00	
	SELENIUM	35	20.00	Sb, Cd, Se, Ag
	SILVER	44	20.00	No Qual
	ZINC	24	20.00	OK by difference

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-223-SA5A-SB-4.0-5.0DUP (DUP10-SA5A-QC-032411 SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 SL-224-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-226-SA5A-SB-4.0-5.0)	HEXAVALENT CHROMIUM	200	20.00	No Qual OK by difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE112 Laboratory: LL

EDD Filename: DE112_v1 eQAPP Name: CDM_SSFL_110509

Method: 8260B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSY78Q211734A LCSY78Y211755A (TB-032411)	BROMOMETHANE TRICHLOROFLUOROMETHANE	- 137	123 131	44.00-120.00 64.00-129.00	- -	BROMOMETHANE TRICHLOROFLUOROMETHAN	J(all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P08826BQ221253A (DUP10 -SA5A -QC -032411 SL -199 -SA5A -SB -2.5 -3.5 SL -223 -SA5A -SB -4.0 -5.0 SL -223 -SA5A -SB -8.5 -9.5 SL -224 -SA5A -SB -4.0 -5.0 SL -225 -SA5A -SB -4.0 -5.0 SL -226 -SA5A -SB -4.0 -5.0)	ANTIMONY	60	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P9LDLCSQ261926 (DUP10 -SA5A -QC -032411 SL -199 -SA5A -SB -2.5 -3.5 SL -223 -SA5A -SB -4.0 -5.0 SL -223 -SA5A -SB -8.5 -9.5 SL -224 -SA5A -SB -4.0 -5.0 SL -225 -SA5A -SB -4.0 -5.0 SL -226 -SA5A -SB -4.0 -5.0)	Dimethylphthalate	143	-	79.00-121.00	-	Dimethylphthalate	J(all detects)

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P1LCLCSQ261146 (DUP10 -SA5A -QC -032411 SL -199 -SA5A -SB -2.5 -3.5 SL -223 -SA5A -SB -4.0 -5.0 SL -223 -SA5A -SB -8.5 -9.5 SL -224 -SA5A -SB -4.0 -5.0 SL -225 -SA5A -SB -4.0 -5.0 SL -226 -SA5A -SB -4.0 -5.0)	BIS(2-CHLOROISOPROPYL) ET NITROBENZENE	64 70	- -	68.00-131.00 71.00-104.00	- -	BIS(2-CHLOROISOPROPYL) E NITROBENZENE	J(all detects) UJ(all non-detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

QC Sample ID (Associated Samples)	*Compound*	*LCS %R*	*LCSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
LCSB06Q210323A (DUP10-SA5A-QC-032411 SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 SL-224-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-226-SA5A-SB-4.0-5.0)	BROMOCHLOROMETHANE	128	-	79.00-124.00	-	BROMOCHLOROMETHANE	J(all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
MOISTURE	12.0	9.7	21		No Qualifiers Applied

Method: 1625C
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
N-NITROSODIMETHYLAMINE	379 U	47.7	200	50.00	J(all detects) UJ(all non-detects)

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
FLUORIDE	3.1	2.8	10	50.00	No Qualifiers Applied
Nitrate-NO3	2.0	2.1	5	50.00	

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
ALUMINUM	14600	16300	11	50.00	No Qualifiers Applied
BORON	7.72	8.57	10	50.00	
CALCIUM	2830	2670	6	50.00	
IRON	18900	20000	6	50.00	
LITHIUM	22.5	21.2	6	50.00	
MAGNESIUM	4100	4310	5	50.00	
MANGANESE	282	345	20	50.00	
PHOSPHORUS	345	370	7	50.00	
POTASSIUM	3630	4120	13	50.00	
SODIUM	221	195	12	50.00	
STRONTIUM	17.7	21.3	18	50.00	
TIN	3.33	3.25	2	50.00	
TITANIUM	1130	1160	3	50.00	
Zirconium	1.50	1.03	37	50.00	

Field Duplicate RPD Report

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
ANTIMONY	0.105	0.0789	28	50.00	
ARSENIC	4.12	4.49	9	50.00	
BARIUM	121	100	19	50.00	
BERYLLIUM	0.463	0.636	31	50.00	
CHROMIUM	16.8	17.3	3	50.00	
COBALT	6.64	6.02	10	50.00	
COPPER	9.86	8.25	18	50.00	No Qualifiers Applied
LEAD	5.68	6.01	6	50.00	
MOLYBDENUM	0.482	0.445	8	50.00	
NICKEL	13.8	13.1	5	50.00	
SELENIUM	0.118	0.132	11	50.00	
THALLIUM	0.242	0.306	23	50.00	
VANADIUM	34.8	33.7	3	50.00	
CADMIUM	0.136	0.0577	81	50.00	J(all detects)
SILVER	0.0262	0.0443	51	50.00	
ZINC	92.5	50.0	60	50.00	

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
HEXAVALENT CHROMIUM	1.1 U	0.53	200	50.00	J(all detects) UJ(all non-detects)

Method: 8015M
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
EFH (C30-C40)	16	19	17	50.00	No Qualifiers Applied
EFH (C8-C11)	0.48	0.52	8	50.00	
EFH (C15-C20)	1.4 U	0.76	200	50.00	J(all detects)
EFH (C21-C30)	6.8	12	55	50.00	UJ(all non-detects)

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
AROCLOR 1260	4.0	5.2	26	50.00	No Qualifiers Applied

Method: 8260B
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
METHYLENE CHLORIDE	3.5	2.9	19	50.00	No Qualifiers Applied
TOLUENE	0.08	3.9 U	200	50.00	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
PH	8.28	8.41	2	50.00	No Qualifiers Applied

Method: ASTM D1498
Matrix: SO

Analyte	Concentration (mV)		Sample RPD	eQAPP RPD	Flag
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
Oxidation Reduction Potential	480	413	15		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA5A-QC-032411	TIN	J	3.25	11.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.03	5.54	PQL	mg/Kg	
SL-199-SA5A-SB-2.5-3.5	TIN	J	3.49	10.5	PQL	mg/Kg	J (all detects)
SL-223-SA5A-SB-4.0-5.0	TIN	J	3.33	11.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.50	5.57	PQL	mg/Kg	
SL-223-SA5A-SB-8.5-9.5	TIN	J	3.36	10.5	PQL	mg/Kg	J (all detects)
SL-224-SA5A-SB-4.0-5.0	SODIUM	J	107	108	PQL	mg/Kg	J (all detects)
	TIN	J	3.21	10.8	PQL	mg/Kg	
	Zirconium	J	1.34	5.41	PQL	mg/Kg	
SL-225-SA5A-SB-4.0-5.0	TIN	J	3.61	11.4	PQL	mg/Kg	J (all detects)
SL-226-SA5A-SB-4.0-5.0	TIN	J	3.53	11.3	PQL	mg/Kg	J (all detects)

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA5A-QC-032411	ANTIMONY	J	0.0789	0.217	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0577	0.109	PQL	mg/Kg	
	SELENIUM	J	0.132	0.434	PQL	mg/Kg	
	SILVER	J	0.0443	0.109	PQL	mg/Kg	
SL-199-SA5A-SB-2.5-3.5	ANTIMONY	J	0.0920	0.210	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.153	0.420	PQL	mg/Kg	
	SILVER	J	0.0240	0.105	PQL	mg/Kg	
SL-223-SA5A-SB-4.0-5.0	ANTIMONY	J	0.105	0.223	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.118	0.446	PQL	mg/Kg	
	SILVER	J	0.0262	0.111	PQL	mg/Kg	
SL-223-SA5A-SB-8.5-9.5	ANTIMONY	J	0.0710	0.209	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0696	0.417	PQL	mg/Kg	
	SILVER	J	0.0179	0.104	PQL	mg/Kg	
SL-224-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0840	0.219	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.104	0.109	PQL	mg/Kg	
	SELENIUM	J	0.0897	0.437	PQL	mg/Kg	
	SILVER	J	0.0303	0.109	PQL	mg/Kg	
SL-225-SA5A-SB-4.0-5.0	CADMIUM	J	0.0855	0.117	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.181	0.468	PQL	mg/Kg	
SL-226-SA5A-SB-4.0-5.0	SELENIUM	J	0.0833	0.453	PQL	mg/Kg	J (all detects)

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA5A-QC-032411	HEXAVALENT CHROMIUM	J	0.53	1.1	PQL	mg/Kg	J (all detects)
SL-199-SA5A-SB-2.5-3.5	HEXAVALENT CHROMIUM	J	0.38	1.1	PQL	mg/Kg	J (all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-223-SA5A-SB-8.5-9.5	HEXAVALENT CHROMIUM	J	0.44	1.1	PQL	mg/Kg	J (all detects)
SL-224-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.51	1.1	PQL	mg/Kg	J (all detects)
SL-225-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.60	1.2	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA5A-QC-032411	EFH (C15-C20) EFH (C8-C11)	J J	0.76 0.52	1.3 1.3	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-223-SA5A-SB-4.0-5.0	EFH (C8-C11)	J	0.48	1.4	PQL	mg/Kg	J (all detects)
SL-223-SA5A-SB-8.5-9.5	EFH (C30-C40)	J	0.45	1.3	PQL	mg/Kg	J (all detects)
SL-224-SA5A-SB-4.0-5.0	EFH (C21-C30) EFH (C30-C40) EFH (C8-C11)	J J J	0.62 1.2 0.53	1.3 1.3 1.3	PQL PQL PQL	mg/Kg mg/Kg mg/Kg	J (all detects)
SL-225-SA5A-SB-4.0-5.0	EFH (C30-C40)	J	0.73	1.4	PQL	mg/Kg	J (all detects)
SL-226-SA5A-SB-4.0-5.0	EFH (C30-C40)	J	1.0	1.4	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-226-SA5A-SB-4.0-5.0	AROCLOR 1260	J	1.2	1.9	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA5A-QC-032411	METHYLENE CHLORIDE	J	2.9	3.9	PQL	ug/Kg	J (all detects)
SL-199-SA5A-SB-2.5-3.5	METHYLENE CHLORIDE	J	2.1	4.3	PQL	ug/Kg	J (all detects)
SL-223-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE TOLUENE	J J	3.5 0.08	3.7 3.7	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-223-SA5A-SB-8.5-9.5	METHYLENE CHLORIDE	J	2.3	4.2	PQL	ug/Kg	J (all detects)
SL-225-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	2.7	4.0	PQL	ug/Kg	J (all detects)
SL-226-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	3.0	3.8	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE112 **Laboratory: LL**

EDD Filename: DE112_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA5A-QC-032411	BENZO(A)ANTHRACENE	J	31	180	PQL	ug/Kg	
	BENZO(A)PYRENE	J	26	180	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	30	180	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	25	180	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	23	180	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	370	PQL	ug/Kg	
	CHRYSENE	J	31	180	PQL	ug/Kg	
	FLUORANTHENE	J	28	180	PQL	ug/Kg	
	PYRENE	J	43	180	PQL	ug/Kg	
SL-225-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	26	390	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-226-SA5A-SB-4.0-5.0	NAPHTHALENE	J	1.4	1.9	PQL	ug/Kg	J (all detects)

Enclosure II

EPA Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 24, 2011

LDC Report Date: August 9, 2011

Matrix: Soil/Water

Parameters: Volatiles

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE112

Sample Identification

SL-199-SA5A-SB-2.5-3.5
SL-223-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-8.5-9.5
DUP10-SA5A-QC-032411
SL-226-SA5A-SB-4.0-5.0
SL-225-SA5A-SB-4.0-5.0
SL-224-SA5A-SB-4.0-5.0
TB-032411
SL-223-SA5A-SB-4.0-5.0MS
SL-223-SA5A-SB-4.0-5.0MSD

Introduction

This data review covers 9 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
3/29/11	Trichlorofluoromethane	27	All water samples in SDG DE112	J (all detects) UJ (all non-detects)	A
	2-Chloroethylvinyl ether	27		J (all detects) UJ (all non-detects)	

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
3/1/11	Bromochloromethane	36	All soil samples in SDG DE112	J (all detects) UJ (all non-detects)	A
2/10/11	Dichlorodifluoromethane Acetone	30 28	All water samples in SDG DE112	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
VBLKB06	3/28/11	Acetone Methylene chloride Toluene	7.7 ug/Kg 0.95 ug/Kg 0.16 ug/Kg	All soil samples in SDG DE112

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
SL-199-SA5A-SB-2.5-3.5	Methylene chloride	2.1 ug/Kg	4.3U ug/Kg
SL-223-SA5A-SB-4.0-5.0	Methylene chloride Toluene	3.5 ug/Kg 0.08 ug/Kg	3.7U ug/Kg 3.7U ug/Kg
SL-223-SA5A-SB-8.5-9.5	Methylene chloride	2.3 ug/Kg	4.2U ug/Kg
DUP10-SA5A-QC-032411	Methylene chloride	2.9 ug/Kg	3.9U ug/Kg
SL-226-SA5A-SB-4.0-5.0	Methylene chloride	3.0 ug/Kg	3.8U ug/Kg
SL-225-SA5A-SB-4.0-5.0	Methylene chloride	2.7 ug/Kg	4.0U ug/Kg
SL-224-SA5A-SB-4.0-5.0	Methylene chloride	5.4 ug/Kg	5.4U ug/Kg

Sample TB-032411 was identified as a trip blank. No volatile contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-223-SA5A-SB-4.0-5.0MS/MSD (SL-223-SA5A-SB-4.0-5.0)	Freon-133a Acetone Methylene chloride	133 (61-131) 211 (15-210) -	- - 142 (61-141)	- - -	J (all detects) J (all detects) J (all detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
LCSB06 (All soil samples in SDG DE112)	Bromochloromethane	128 (79-124)	-	-	J (all detects)	P
LCS/DY78 (All water samples in SDG DE112)	Bromomethane Trichlorofluoromethane	- 137 (64-129)	123 (44-120) 131 (64-129)	- -	J (all detects) J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE112	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples SL-223-SA5A-SB-4.0-5.0 and DUP10-SA5A-QC-032411 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
Methylene chloride	3.5	2.9	19 (≤50)	-	-
Toluene	0.08	3.9U	200 (≤50)	J (all detects) UJ (all non-detects)	A

Santa Susana Field Laboratory
Volatiles - Data Qualification Summary - SDG DE112

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE112	TB-032411	Trichlorofluoromethane 2-Chloroethylvinyl ether	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE112	SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	Bromochloromethane	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE112	TB-032411	Dichlorodifluoromethane Acetone	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE112	SL-223-SA5A-SB-4.0-5.0	Freon-133a Acetone Methylene chloride	J (all detects) J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE112	SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	Bromochloromethane	J (all detects)	P	Laboratory control samples (%R) (L)
DE112	TB-032411	Bromomethane Trichlorofluoromethane	J (all detects) J (all detects)	P	Laboratory control samples (%R) (L)
DE112	SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0 TB-032411	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)
DE112	SL-223-SA5A-SB-4.0-5.0 DUP10-SA5A-QC-032411	Toluene	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Volatiles - Laboratory Blank Data Qualification Summary - SDG DE112

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE112	SL-199-SA5A-SB-2.5-3.5	Methylene chloride	4.3U ug/Kg	A	B
DE112	SL-223-SA5A-SB-4.0-5.0	Methylene chloride Toluene	3.7U ug/Kg 3.7U ug/Kg	A	B
DE112	SL-223-SA5A-SB-8.5-9.5	Methylene chloride	4.2U ug/Kg	A	B
DE112	DUP10-SA5A-QC-032411	Methylene chloride	3.9U ug/Kg	A	B
DE112	SL-226-SA5A-SB-4.0-5.0	Methylene chloride	3.8U ug/Kg	A	B
DE112	SL-225-SA5A-SB-4.0-5.0	Methylene chloride	4.0U ug/Kg	A	B
DE112	SL-224-SA5A-SB-4.0-5.0	Methylene chloride	5.4U ug/Kg	A	B

Santa Susana Field Laboratory
Volatiles - Field Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

LDC #: 25911U1a **VALIDATION COMPLETENESS WORKSHEET** Date: 8/9/11
SDG #: DE112 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30, r2
IV.	Continuing calibration/ICV	SW	10%/CCV ≤ 25
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	SW	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 2, 4
XVII.	Field blanks	ND	TB = 8

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil + water

1	SL-199-SA5A-SB-2.5-3.5 S	11	VBLKB06	21		31	
2	SL-223-SA5A-SB-4.0-5.0	12	VBLKY78	22		32	
3	SL-223-SA5A-SB-8.5-9.5	13		23		33	
4	DUP10-SA5A-QC-032411	14		24		34	
5	SL-226-SA5A-SB-4.0-5.0	15		25		35	
6	SL-225-SA5A-SB-4.0-5.0	16		26		36	
7	SL-224-SA5A-SB-4.0-5.0	17		27		37	
8	TB-032411 W	18		28		38	
9	SL-223-SA5A-SB-4.0-5.0MS S	19		29		39	
10	SL-223-SA5A-SB-4.0-5.0MSD	20		30		40	

LDC #: 25911|4|a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: C

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of $\geq$ 0.990?	✓			
Were all percent relative standard deviations (%RSD) $\leq$ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) $\leq$ 25% and relative response factors (RRF) $\geq$ 0.05?		✓		
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 25911U1a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within + 30 seconds of the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN.
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

LDC #: 25911 4 1a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?
Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?
Y N N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: ≤25.0%)	Finding RRF (Limit: ≥0.05)	Associated Samples	Qualifications
	3/01/11	ICV	PP	36		all soils	J/UJ/A (c)
	2/10/11	ICV	JJ	30		all water	↓
			F	28		↓	
	3/29/11	CCV	KK	27		all water	↓
			II	27		↓	

CONCAL_8260B.1S

LDC #: 25911U1C

VALIDATION FINDINGS WORKSHEET
Blanks

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a method blank associated with every sample in this SDG?

Y N N/A Was a method blank analyzed at least once every 12 hours for each matrix and concentration?

Y N N/A Was there contamination in the method blanks? If yes, please see the qualifications below.

Blank analysis date: 3/28/11

Conc. units: ug/kg

Associated Samples: All 8015

Compound	Blank ID	Sample Identification								
	VBLKB06	1	2	3	4	5	6	7		
F	7.7	-	-	-	-	-	-			
E	0.95	2.1/4.34	3.5/3.74	2.3/4.24	2.9/3.94	3.0/3.84	2.7/4.04	5.4/U		
CC	0.16	-	0.08/3.7/U	-	-	-	-	-		
CRQL										

Blank analysis date: ~~3/29/11~~

Conc. units: ug/kg

Associated Samples:

Compound	Blank ID	Sample Identification								
	~~VBLRY78~~									
CRQL										

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 25911U1a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: FT
2nd Reviewer: [signature]

METHOD : GC/MS VOA (EPA SW 846 Method 8260)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	9 & 10	Freon 133a	133 (61-131)	( )	( )	2	J/A det (a)
		F	211 (15-210)	( )	( )	↓	↓ ↓
		E	( )	142 (61-141)	( )	↓	
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
H.	1,1-Dichloroethene	59-172%	≤ 22%	61-145%	≤ 14%
S.	Trichloroethene	62-137%	≤ 24%	71-120%	≤ 14%
V.	Benzene	66-142%	≤ 21%	76-127%	≤ 11%
CC.	Toluene	59-139%	≤ 21%	76-125%	≤ 13%
DD.	Chlorobenzene	60-133%	≤ 21%	75-130%	≤ 13%

LDC #: 25911U1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?
Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		LCSB06	PP	128 (79-124)	( )	( )	All soils	J/Pdet (L)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
		LCS/D478	B	( )	123 (44-120)	( )	All water	J/Pdet (L)
			KK	137 (64-129)	131 (64-129)	( )	↓	↓ ↓
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

LDC #: 25911 4 1a

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: EJ
2nd reviewer: E

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (ug/Kg)		≤ 50 RPD
	2	4	
E	3.5	2.9	19
CC	0.08	3.94	200 J/UJ/A (FD)

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

LDC #: 25911U1a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: C

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
$\%RSD = 100 * (S/X)$

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (50 std)	Recalculated RRF (50 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL 30IL	3/01/11	C (1st internal standard)	0.4158	0.4158	0.4296	0.4096	9	9
			EE (2nd internal standard)	1.6663	1.6663	1.5916	1.5916	10	10
			JJJ (3rd internal standard)	1.4144	1.4144	1.3506	1.3506	9	9
			(4th internal standard)						
2	ICAL water	2/10/11	C (1st internal standard)	0.3993	0.3993	0.4001	0.4001	7	7
			EE (2nd internal standard)	1.9698	1.9698	1.9465	1.9465	3	3
			JJJ (3rd internal standard)	1.6823	1.6823	1.6848	1.6848	4	4
			(4th internal standard)						
3			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
4			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911A1a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV 1:12	3/28/11	C (1st internal standard)	0.4296	0.4192	0.4192	2	2
			FE (2nd internal standard)	1.5916	1.5030	1.5030	6	6
			JJJ (3rd internal standard)	1.3506	1.2906	1.2906	4	4
			(4th internal standard)					
2	CCV 16:11	3/29/11	(1st internal standard)	0.4001	0.4012	0.4012	0	0
			(2nd internal standard)	1.9465	1.9930	1.9930	2	2
			(3rd internal standard)	1.6848	1.7159	1.7159	2	2
			(4th internal standard)					
3			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
4			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25914 1a

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: C

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane	50.0	49.780	100	100	0
1,2-Dichloroethane-d4	↓	51.618	103	103	↓
Toluene-d8		48.812	98	98	
Bromofluorobenzene	↓	47.195	94	94	↓

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

LDC #: 25911U1a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT
2nd Reviewer: C

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA

Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentration

RPD = | MSC - MSC | * 2/(MSC + MSDC)

MSC = Matrix spike concentration; MSDC = Matrix spike duplicate concentration

MS/MSD sample: 9 & 10

Compound	Spike Added (ug/Kg)		Sample Concentration (ug/Kg)	Spiked Sample Concentration (ug/Kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	---	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
1,1-Dichloroethene	17.09	17.09	ND	20.24	20.72	118	118	126	126	2	2
Trichloroethene			↓	18.71	18.88	109	109	114	114	1	1
Benzene			↓	19.16	19.47	112	112	118	118	2	2
Toluene			0.07	18.75	19.06	109	109	115	115	2	2
Chlorobenzene	↓	↓	ND	18.08	18.26	106	106	111	111	1	1

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 41774C

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Reviewer: FT
2nd Reviewer: C

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = | LCS - LCSD | * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: LCS 580

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene	20	NA	22.35	NA	112	112				
Trichloroethene			19.85		99	99				
Benzene			20.98		105	105				
Toluene			19.93		100	100				
Chlorobenzene			19.56		98	98	NA			

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25914/2

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer: A

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Y N N/A Were all reported results recalculated and verified for all level IV samples?

Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

RRF = Relative response factor of the calibration standard.

V_o = Volume or weight of sample pruged in milliliters (ml) or grams (g).

Df = Dilution factor.

%S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. #1 , E

Conc. = (11696)(50)(5) / (954152)( )(0.3108)(4.95)(0.93)

=

2.1 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 24, 2011

LDC Report Date: August 11, 2011

Matrix: Soil/Water

Parameters: 1,4-Dioxane

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE112

Sample Identification

SL-199-SA5A-SB-2.5-3.5
SL-223-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-8.5-9.5
DUP10-SA5A-QC-032411
SL-226-SA5A-SB-4.0-5.0
SL-225-SA5A-SB-4.0-5.0
SL-224-SA5A-SB-4.0-5.0
TB-032411
SL-223-SA5A-SB-4.0-5.0MS
SL-223-SA5A-SB-4.0-5.0MSD

Introduction

This data review covers 9 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B using Selected Ion Monitoring (SIM) for 1,4-Dioxane.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for 1,4-Dioxane.

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 25.0% for 1,4-Dioxane.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for 1,4-Dioxane.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No 1,4-dioxane was found in the method blanks.

Sample TB-032411 was identified as a trip blank. No 1,4-dioxane was found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE112	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples SL-223-SA5A-SB-4.0-5.0 and DUP10-SA5A-QC-032411 were identified as field duplicates. No 1,4-dioxane was detected in any of the samples.

Santa Susana Field Laboratory
1,4-Dioxane - Data Qualification Summary - SDG DE112

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE112	SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0 TB-032411	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
1,4-Dioxane - Laboratory Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
1,4-Dioxane - Field Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

LDC #: 25911U1b **VALIDATION COMPLETENESS WORKSHEET** Date: 8/9/11
SDG #: DE112 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS 1,4-Dioxane (EPA SW 846 Method 8260B-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤30
IV.	Continuing calibration/ICV	A	ICV/CCV ≤2X
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS 1D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	D = 2, 4
XVII.	Field blanks	ND	TB = 8

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil + water

1	SL-199-SA5A-SB-2.5-3.5	11	VBLKE70	21		31	
2	SL-223-SA5A-SB-4.0-5.0	12	VBLKE69	22		32	
3	SL-223-SA5A-SB-8.5-9.5	13		23		33	
4	DUP10-SA5A-QC-032411	14		24		34	
5	SL-226-SA5A-SB-4.0-5.0	15		25		35	
6	SL-225-SA5A-SB-4.0-5.0	16		26		36	
7	SL-224-SA5A-SB-4.0-5.0	17		27		37	
8	TB-032411	18		28		38	
9	SL-223-SA5A-SB-4.0-5.0MS	19		29		39	
10	SL-223-SA5A-SB-4.0-5.0MSD	20		30		40	

LDC #: 25911416

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: CA

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?			✓	
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within + 30 seconds of the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?			✓	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?			✓	
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?			✓	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?		✓		
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.		✓		
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN.
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

LDC #: 25911416

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (5 std)	Recalculated RRF (5 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	11/7/11	1,4-Dioxane (1st internal standard)	1.3539	1.3539	1.3396	1.3396	2	2
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
2	ICAL	11/01/11	↓ (1st internal standard)	1.3004	1.3004	1.3219	1.3219	1	1
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
3			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						
4			(1st internal standard)						
			(2nd internal standard)						
			(3rd internal standard)						
			(4th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911410

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV 19:30	3/28/11	1,4-Dioxane (1st internal standard)	1.3396	1.5065	1.5065	11	11
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
2	CCV 9:54	3/28/11	↓ (1st internal standard)	1.3219	1.4994	1.4994	13	13
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
3			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
4			(1st internal standard)					
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911A1b

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8	10	8.964	90	90	0
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

LDC #: 25911416

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT
2nd Reviewer: C

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentration

RPD = | MSC - MSC | * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD sample: 9 ± 10

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	---	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,4-Dioxane (1,1-Dichloroethene)	103.5	103.5	ND	123.02	118.58	119	119	113	113	4	4
Trichloroethene											
Benzene											
Toluene											
Chlorobenzene											

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: [illegible]

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Reviewer: FT
2nd Reviewer: [signature]

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = | LCS - LCSD | * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: LCS401

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
~~1,1-Dichloroethene~~ 1,4-Dioxane	125	NA	134.84	NA	108	108	NA			
Trichloroethene										
Benzene										
Toluene										
~~Chlorobenzene~~										

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911415

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260)

Y N N/A Were all reported results recalculated and verified for all level IV samples?

Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
RRF	=	Relative response factor of the calibration standard.
V_o	=	Volume or weight of sample pruged in milliliters (ml) or grams (g).
Df	=	Dilution factor.
%S	=	Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. _____, _____:

Conc. = ( ) ( ) ( ) / ( ) ( ) ( ) ( )

= ND

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	March 24, 2011
LDC Report Date:	August 11, 2011
Matrix:	Soil
Parameters:	Semivolatiles
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE112

Sample Identification

SL-199-SA5A-SB-2.5-3.5
SL-223-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-8.5-9.5
DUP10-SA5A-QC-032411
SL-226-SA5A-SB-4.0-5.0
SL-225-SA5A-SB-4.0-5.0
SL-224-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-4.0-5.0MS
SL-223-SA5A-SB-4.0-5.0MSD

Introduction

This data review covers 9 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
4/4/11	N-Nitroso-di-n-propylamine	29	All samples in SDG DE112	J (all detects) UJ (all non-detects)	A

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-223-SA5A-SB-4.0-5.0MS/MSD (SL-223-SA5A-SB-4.0-5.0)	Nitrobenzene	70 (72-106)	70 (72-106)	-	J (all detects) UJ (all non-detects)	A
	Isophorone	-	72 (73-102)	-	J (all detects) UJ (all non-detects)	

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
LCS	Bis(2-chloroisopropyl) ether	64 (68-131)	All samples in SDG DE112	J (all detects) UJ (all non-detects)	P
	Nitrobenzene	70 (71-104)		J (all detects) UJ (all non-detects)	

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE112	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples SL-223-SA5A-SB-4.0-5.0 and DUP10-SA5A-QC-032411 were identified as field duplicates. No semivolatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
Benzo(a)anthracene	Not reported*	31	-	-	-
Benzo(a)pyrene	Not reported*	26	-	-	-
Benzo(b)fluoranthene	Not reported*	30	-	-	-
Benzo(g,h,i)perylene	Not reported*	25	-	-	-
Benzo(k)fluoranthene	Not reported*	23	-	-	-
Chrysene	Not reported*	31	-	-	-

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
Bis(2-ethylhexyl)phthalate	Not reported*	24	-	-	-
Fluoranthene	Not reported*	28	-	-	-
Pyrene	Not reported*	43	-	-	-

*Result reported in 8270C-SIM analysis

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG DE112

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE112	SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	N-Nitroso-di-n-propylamine	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE112	SL-223-SA5A-SB-4.0-5.0	Nitrobenzene Isophorone	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE112	SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	Bis(2-chloroisopropyl) ether Nitrobenzene	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L)
DE112	SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

LDC #: 25911U2a **VALIDATION COMPLETENESS WORKSHEET** Date: 8/9/11
SDG #: DE112 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: PJ
2nd Reviewer:

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤ 30, r²
IV.	Continuing calibration/ICV	SW	ICV/CCV ≤ 25
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	SW	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 2, 4
XVII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: SOIL

1	SL-199-SA5A-SB-2.5-3.5	11	SBLKLC091	21		31	
2	SL-223-SA5A-SB-4.0-5.0	12		22		32	
3	SL-223-SA5A-SB-8.5-9.5	13		23		33	
4	DUP10-SA5A-QC-032411	14		24		34	
5	SL-226-SA5A-SB-4.0-5.0	15		25		35	
6	SL-225-SA5A-SB-4.0-5.0	16		26		36	
7	SL-224-SA5A-SB-4.0-5.0	17		27		37	
8	SL-223-SA5A-SB-4.0-5.0MS	18		28		38	
9	SL-223-SA5A-SB-4.0-5.0MSD	19		29		39	
10		20		30		40	

LDC #: 25911U2a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: C

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?		✓		
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogates				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/ Matrix spike duplicate				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 25911429

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?				
XII. Compound quantitation				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Reconstructed ion chromatograms				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. Overall assessment				
System performance was found to be acceptable.	✓			
XV. Field duplicates				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field blanks				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XVII. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 25911 42a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours of sample analysis for each instrument?
Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?
Y N N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: <25.0%)	Finding RRF (Limit: >0.05)	Associated Samples	Qualifications
	4/4/11	ccv	J	29		All	J/UJ/A(c)

LDC #: 25911 42a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		8+9	L	70 (72-106)	70 (72-106)	( )	2	J/UJ/A (8)
			M	( )	72 (73-102)	( )	↓	↓ ↓
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		

LDC #: 25911U2a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?

Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		LCS	MMM	64 (68-13)	( )	( )	All	J/UJ/P (L)
			L	70 (71-104)	( )	( )	↓	↓ ↓
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )	

LDC #: 25911429

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT
2nd reviewer: C

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds identified in the field duplicate pairs?

NR not reported

Compound	Concentration (ug/kg) 2 *	4	RPD
CCC	NR	31	-
III		* 26	-
GGG		30	-
LLL		25	-
HHH		23	-

Compound	Concentration (ug/kg) 2	4	RPD
DDD	NR	31	-
EEE		24	-
YY		28	-
ZZ		43	-

Compound	Concentration ( )		RPD
	* compounds were reported		
	in Method SVOA 8270C-SIM		

Compound	Concentration ( )		RPD

LDC #: 25911A 2S

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
$\%RSD = 100 * (S/X)$

A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard
S = Standard deviation of the RRFs, X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (50 std)	Recalculated RRF (50 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/18/11	Phenol (1st internal standard)	3.164	3.164	3.132	3.132	3	3
			Naphthalene (2nd internal standard)	1.175	1.175	1.156	1.156	3	3
			Fluorene (3rd internal standard)	1.508	1.508	1.481	1.481	4	4
			Pentachlorophenol (4th internal standard)	0.140	0.140	0.133	0.133	10	10
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.823	0.823	0.814	0.814	3	3
			Benzo(a)pyrene (6th internal standard)	1.141	1.141	1.116	1.116	4	4
2			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911429

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	ccv 4:39	4/4/11	Phenol (1st internal standard)	3.132	2.794	2.794	11	11
			Naphthalene (2nd internal standard)	1.156	1.142	1.142	1	1
			Fluorene (3rd internal standard)	1.481	1.420	1.420	4	4
			Pentachlorophenol (4th internal standard)	0.133	0.125	0.125	6	6
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.814	0.797	0.797	2	2
			Benzo(a)pyrene (6th internal standard)	1.116	1.142	1.142	2	2
2			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911429

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer: C

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	100	67.671	68	68	0
2-Fluorobiphenyl	↓	86.726	87	87	↓
Terphenyl-d14	↓	96.855	97	97	↓
Phenol-d5	200	155.875	78	78	↓
2-Fluorophenol	↓	167.106	84	84	↓
2,4,6-Tribromophenol	↓	159.382	80	80	↓
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 25911429

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = I MSC - MSC I * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 8 + 9

Compound	Spike Added (ug/Kg)		Sample Concentration (ug/Kg)	Spiked Sample Concentration (ug/Kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	-----	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
Phenol	1639.34	1639.34	ND	1276.3	1316.25	78	78	79	79	3	3
N-Nitroso-di-n-propylamine			ND	1075.82	1114.3	66	66	67	67	4	4
4-Chloro-3-methylphenol				1279.07	1263.57	78	78	76	76	1	1
Acenaphthene				1401.44	1424.39	85	85	86	86	2	2
Pentachlorophenol				1334.31	1323.89	81	81	80	80	1	1
Pyrene				1778.88	1816.11	109	109	109	109	2	2

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911029

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	1666.67	NA	1325.58	NA	80	80				
N-Nitroso-di-n-propylamine			1098.99		66	66				
4-Chloro-3-methylphenol			1329.75		80	80				
Acenaphthene			1426.58		86	86				
Pentachlorophenol			1263.03		76	76				
Pyrene			1753.51		105	105	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911429

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

V_t = Volume of extract injected in microliters (ul)

V_t = Volume of the concentrated extract in microliters (ul)

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

2.0 = Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #4, ~~22~~: III

Conc. = (9733)(40)(1000)( )( )( )
(484458)(1.116)(30)(0.90)

=

26.6 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	March 24, 2011
LDC Report Date:	August 11, 2011
Matrix:	Soil
Parameters:	Semivolatiles
Validation Level:	Level IV
Laboratory:	Lancaster laboratories
Sample Delivery Group (SDG):	DE112

Sample Identification

SL-199-SA5A-SB-2.5-3.5
SL-223-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-8.5-9.5
DUP10-SA5A-QC-032411
SL-226-SA5A-SB-4.0-5.0
SL-225-SA5A-SB-4.0-5.0
SL-224-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-4.0-5.0MS
SL-223-SA5A-SB-4.0-5.0MSD

Introduction

This data review covers 9 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C using Selected Ion Monitoring (SIM) for Semivolatiles.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-223-SA5A-SB-4.0-5.0MS/MSD (SL-223-SA5A-SB-4.0-5.0)	2-Methylnaphthalene	105 (64-103)	-	-	J (all detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
LCS	Dimethylphthalate	143 (79-121)	All samples in SDG DE112	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and RLs

All compound quantitation and RLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE112	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples SL-223-SA5A-SB-4.0-5.0 and DUP10-SA5A-QC-032411 were identified as field duplicates. No semivolatiles were detected in any of the samples.

Santa Susana Field Laboratory
Semivolatiles- Data Qualification Summary - SDG DE112

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE112	SL-223-SA5A-SB-4.0-5.0	2-Methylnaphthalene	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE112	SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	Dimethylphthalate	J (all detects)	P	Laboratory control samples (%R) (L)
DE112	SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Semivolatiles- Laboratory Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles- Field Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

LDC #: 25911U2b **VALIDATION COMPLETENESS WORKSHEET** Date: 8/9/11
SDG #: DE112 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories SVOA Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS ~~Polynuclear Aromatic Hydrocarbons~~ (EPA SW 846 Method 8270C-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30, r²
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ >5
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	SW	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	D = 2, 4
XVII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: SOIL

1	SL-199-SA5A-SB-2.5-3.5	11	SBLKLD089	21		31	
2	SL-223-SA5A-SB-4.0-5.0	12		22		32	
3	SL-223-SA5A-SB-8.5-9.5	13		23		33	
4	DUP10-SA5A-QC-032411	14		24		34	
5	SL-226-SA5A-SB-4.0-5.0	15		25		35	
6	SL-225-SA5A-SB-4.0-5.0	16		26		36	
7	SL-224-SA5A-SB-4.0-5.0	17		27		37	
8	SL-223-SA5A-SB-4.0-5.0MS	18		28		38	
9	SL-223-SA5A-SB-4.0-5.0MSD	19		29		39	
10		20		30		40	

LDC #: 25911426

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: C

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogates				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicate				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 25911428

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal Standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within + 30 seconds from the associated calibration standard?	✓			
XI. Target Compound Identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Quantitation				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively Identified Compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?				✓
XIV. System Performance				
System performance was found to be acceptable.		✓		
XV. Overall Assessment				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field Duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.				✓
XVII. Field Blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 25911425

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		8+9	W	105 (64-103)	( )	( )	2	J/A dit (a)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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LDC #: 25911426

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?
Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		LCS	CC	143 (79-121)	( )	( )	All	J/Pdet (L)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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LDC #: 259/426

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs,

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard
X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (/ std)	Recalculated RRF (/ std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/30/11	~~Phenol (1st internal standard)~~						
			Naphthalene (2nd internal standard)	1.083	1.083	1.042	1.042	4	4
			Fluorene (3rd internal standard)	1.328	1.328	1.293	1.293	8	8
			~~Pentachlorophenol~~ Anthracene (4th internal standard)	1.116	1.116	1.101	1.101	7	7
			~~Bis(2-ethylhexyl)phthalate~~ chrysene (5th internal standard)	1.278	1.278	1.293	1.293	2	2
			Benzo(a)pyrene (6th internal standard)	1.547	1.547	1.509	1.509	13	13
2			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911426

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV	4/2/11	~~Phenol (1st internal standard)~~					
	17:52		Naphthalene (2nd internal standard)	1.042	1.062	1.062	2.	2
			Fluorene (3rd internal standard)	1.293	1.341	1.341	4	4
			~~Pentachlorophenol~~ Anthracene (4th internal standard)	1.101	1.081	1.081	2	2
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)	1.293	1.192	1.192	8	8
			Benzo(a)pyrene (6th internal standard)	1.509	1.523	1.523	1	1
2			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911426

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer: A

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	1.0	0.701	70	70	0
2-Fluorobiphenyl	↓	0.657	66	66	↓
Terphenyl-d14	↓	0.749	75	75	↓
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 25911142b

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = I MSC - MSC I * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 8 + 9

Compound	Spike Added (ug/Kg)		Sample Concentration (ug/Kg)	Spiked Sample Concentration (ug/Kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	----	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol											
N-Nitroso-di-n-propylamine											
4-Chloro-3-methylphenol											
Acenaphthene	33.33	33.33	ND	30.8	27.49	92	92	82	82	11	11
Pentachlorophenol											
Pyrene	↓	↓	↓	30.88	28.15	93	93	84	84	9	9

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911406

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol										
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene	33.33	NA	32.28	NA	97	97				
Pentachlorophenol										
Pyrene	33.33	↓	33.17	↓	100	100	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911425

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

V_i = Volume of extract injected in microliters (ul)

V_t = Volume of the concentrated extract in microliters (ul)

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

2.0 = Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #5 , S :

Conc. = $\frac{7967 \times 1.0 \times 1000 \times \quad \times \quad}{202209 \times (1.042) \times (30) \times 0.88}$

=

1.43 ug/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 24, 2011

LDC Report Date: August 9, 2011

Matrix: Soil

Parameters: N-Nitrosodimethylamine

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE112

Sample Identification

SL-223-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-8.5-9.5
DUP10-SA5A-QC-032411
SL-226-SA5A-SB-4.0-5.0
SL-225-SA5A-SB-4.0-5.0
SL-224-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-4.0-5.0MS
SL-223-SA5A-SB-4.0-5.0MSD

Introduction

This data review covers 8 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 1625C for N-Nitrosodimethylamine.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance check is not required for by this method.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% .

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% .

The percent difference (%D) of the second source calibration standard were less than or equal to 30.0% .

V. Blanks

Method blanks were reviewed for each matrix as applicable. No N-nitrosodimethylamine was found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound	Concentration	Associated Samples
SBLKB092	4/4/11	N-Nitrosodimethylamine	22 ng/Kg	All samples in SDG DE112

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
DUP10-SA5A-QC-032411	N-Nitrosodimethylamine	47.7 ng/Kg	47.7U ng/Kg
SL-226-SA5A-SB-4.0-5.0	N-Nitrosodimethylamine	54.7 ng/Kg	54.7U ng/Kg

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-225-SA5A-SB-4.0-5.0	N-Nitrosodimethylamine	61.2 ng/Kg	61.2U ng/Kg
SL-224-SA5A-SB-4.0-5.0	N-Nitrosodimethylamine	80.2 ng/Kg	80.2U ng/Kg

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-223-SA5A-SB-4.0-5.0MS/MSD (SL-223-SA5A-SB-4.0-5.0)	N-Nitrosodimethylamine	132 (70-130)	140 (70-130)	-	J (all detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE112	All compounds reported below the RL.	J (all detects)	A

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples SL-223-SA5A-SB-4.0-5.0 and DUP10-SA5A-QC-032411 were identified as field duplicates. No N-nitrosodimethylamine were detected in any of the samples with the following exceptions:

Compound	Concentration (ng/Kg)		RPD (Limits)	Flags	A or P
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
N-Nitrosodimethylamine	379U	47.7	200 (≤50)	J (all detects) UJ (all non-detects)	A

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Data Qualification Summary - SDG DE112

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE112	SL-223-SA5A-SB-4.0-5.0	N-Nitrosodimethylamine	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE112	SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)
DE112	SL-223-SA5A-SB-4.0-5.0 DUP10-SA5A-QC-032411	N-Nitrosodimethylamine	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Laboratory Blank Data Qualification Summary - SDG DE112

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P
DE112	DUP10-SA5A-QC-032411	N-Nitrosodimethylamine	47.7U ng/Kg	A
DE112	SL-226-SA5A-SB-4.0-5.0	N-Nitrosodimethylamine	54.7U ng/Kg	A
DE112	SL-225-SA5A-SB-4.0-5.0	N-Nitrosodimethylamine	61.2U ng/Kg	A
DE112	SL-224-SA5A-SB-4.0-5.0	N-Nitrosodimethylamine	80.2U ng/Kg	A

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Field Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

LDC #: 25911U2c **VALIDATION COMPLETENESS WORKSHEET** Date: 8/9/11
SDG #: DE112 Level IV Page: 1 of 2
Laboratory: Lancaster Laboratories Reviewer:
2nd Reviewer:

METHOD: GC/MS N-Nitrosodimethylamine (EPA Method 1625C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤ 30
IV.	Continuing calibration/ICV	A	ICV ≤ 30 CCV ≤ 20
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 1,3
XVII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: SOIL

1	SL-223-SA5A-SB-4.0-5.0	11	SBLKLB092	21		31	
2	SL-223-SA5A-SB-8.5-9.5	12		22		32	
3	DUP10-SA5A-QC-032411	13		23		33	
4	SL-226-SA5A-SB-4.0-5.0	14		24		34	
5	SL-225-SA5A-SB-4.0-5.0	15		25		35	
6	SL-224-SA5A-SB-4.0-5.0	16		26		36	
7	SL-223-SA5A-SB-4.0-5.0MS	17		27		37	
8	SL-223-SA5A-SB-4.0-5.0MSD	18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 25911142C

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: A

Method: ~~Semivolatiles (EPA SW 846 Method 8270C)~~ 1625C

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?		NA	✓	
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were all percent relative standard deviations (%RSD) ~~≤ 30%~~ 20 and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ~~≤ 25%~~ 20 and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
VI. Surrogates				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicate				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 25911U2C

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
X. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
XI. Target Compound Identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound Quantitation				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Reconstructed Ion Chromatography				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System Performance				
System performance was found to be acceptable.	✓			
XV. Overall Assessment				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field Duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XVII. Field Blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA Method 8270)

A. Phenol	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol	III. Benzo(a)pyrene
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene	T. 4-Chloroaniline	II. 4-Nitrophenol	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene	JJ. Dibenzofuran	YY. Fluoranthene	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine	Y. 2,4,6-Trichlorophenol	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. 1-Methylnaphthalene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)	FFF. Di-n-octylphthalate	UUU.
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 25911 42C

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: FT
2nd Reviewer: A

METHOD: ~~GC/MS BNA (EPA SW 846 Method 8270)~~ 1625C

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a method blank analyzed for each matrix?
Y N N/A Was a method blank analyzed for each concentration preparation level?
Y N N/A Was a method blank associated with every sample?
Y N N/A Was the blank contaminated? If yes, please see qualification below.

(B)

Blank extraction date: 4/4/11 **Blank analysis date:** 4/11/11

Conc. units: ng/kg Associated Samples: All

Compound	Blank ID	SX							
	SBLKLB092	~~1~~	~~2~~	2	3	4	5	6	
N-Nitrosodimethylamine	22	~~110~~	~~11~~	(112)	47.7/4	54.7/4	61.2/4	80.2/4	

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Common contaminants such as the phthalates and TICs noted above that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 259/142C

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: FT
2nd Reviewer:

METHOD: GC/~~MS BNA (EPA SW 846 Method 8270)~~ 1656

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		7+8	*	132 (70-130)	140 (70-130)	( )	1	J/A det (Q)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
		* N-Nitrosodimethylamine		( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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LDC #: 25911420

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT
2nd reviewer: C

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds identified in the field duplicate pairs?

(Fd)

Compound	Concentration (ng/kg)		RPD ≤50
	1	3	
N. Nitrosodimethylamine	379 U	47.7	200 J/UJ/A

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

LDC #: 25911420

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: A

METHOD: ~~GC/MS BNA (EPA SW 846 Method 8270)~~ 1625C

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard
S = Standard deviation of the RRFs, X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (10 std)	Recalculated RRF (10 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/31/11	~~Phenol (1st internal standard)~~ NDMA	1.607	1.607	1.633	1.633	16	16
			~~Naphthalene (2nd internal standard)~~						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			~~Benzo(a)pyrene (6th internal standard)~~						
2	ICAL	4/14/11	~~Phenol (1st internal standard)~~ NDMA	1.605	1.605	1.705	1.705	19	19
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			~~Benzo(a)pyrene (6th internal standard)~~						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911420

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: ~~GC/MS BNA (EPA SW 846 Method 8270C)~~ 1625C

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV 10:59	4/11/11	~~Phenol~~ NDMA (1st internal standard)	0.69902	0.76319	0.76319	9.179	9.179
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
2	CCV 13:59	4/11/11	~~Phenol (1st internal standard)~~ NDMA	↓	0.83689	0.83689	19.72	19.72
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			~~Benzo(a)pyrene (6th internal standard)~~					
3	CCV 15:24	4/14/11	~~Phenol (1st internal standard)~~ NDMA	0.51358	0.47884	0.47884	6.7639	6.7639
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			~~Benzo(a)pyrene (6th internal standard)~~					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911420

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer: [illegible]

METHOD: ~~GC/MS Semivolatiles (EPA SW 846 Method 8270)~~ 1625C

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
~~Nitrobenzene-d5~~ N-Nitrosodimethylamine-d6	25	26.471	106	106	0
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 35911 42C

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: ~~GC/MS BNA (EPA SW 846 Method 8270)~~ 1625C

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = I MSC - MSC I * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 7+8

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	-----	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol											
N-Nitroso-di-n-propylamine											
4-Chloro-3-methylphenol											
Acenaphthene											
Pentachlorophenol											
Pyrene											
NDMA	833.33	833.33	ND	1101.77	1164.52	132	132	140	140	6	6

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911420

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: CA

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS

Compound	Spike Added (ug/Kg)		Spike Concentration (ug/Kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
~~Phenol~~ NDMA	833.33	NA	636.89	NA	76	76	NA			
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene										
Pentachlorophenol										
Pyrene										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911420

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #12 , NDMA

Conc. = $\frac{(1982)(25)(1000)(\quad)(\quad)(\quad)}{(96010)(1.633)(30)(0.94)}$

=

112 ng/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 24, 2011

LDC Report Date: August 9, 2011

Matrix: Soil

Parameters: Polychlorinated Biphenyls

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE112

Sample Identification

SL-199-SA5A-SB-2.5-3.5
SL-223-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-8.5-9.5
DUP10-SA5A-QC-032411
SL-226-SA5A-SB-4.0-5.0
SL-225-SA5A-SB-4.0-5.0
SL-224-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-4.0-5.0MS
SL-223-SA5A-SB-4.0-5.0MSD

Introduction

This data review covers 9 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

No field duplicates were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

All target compound identifications were within validation criteria.

XIII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE112	All compounds reported below the RL.	J (all detects)	A

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

Samples SL-223-SA5A-SB-4.0-5.0 and DUP10-SA5A-QC-032411 were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
PCB-1260	4.0	5.2	26 (≤50)	-	-

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Data Qualification Summary - SDG DE112

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE112	SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

LDC #: 25911U3b **VALIDATION COMPLETENESS WORKSHEET** Date: 8/9/11
SDG #: DE112 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: P
2nd Reviewer: A

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/11
II.	GC/ECD Instrument Performance Check	NA	
III.	Initial calibration	A	%D RSD ≤ 20
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	A	
XIII.	Compound quantitation and reported CRQLs	A	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	SW	ID = 2, 4
XVI.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: SOIL

1	SL-199-SA5A-SB-2.5-~~63.5~~ 3.5	11	PBLK 40090	21		31	
2	SL-223-SA5A-SB-4.0-5.0	12		22		32	
3	SL-223-SA5A-SB-8.5-9.5	13		23		33	
4	DUP10-SA5A-QC-032411	14		24		34	
5	SL-226-SA5A-SB-4.0-5.0	15		25		35	
6	SL-225-SA5A-SB-4.0-5.0	16		26		36	
7	SL-224-SA5A-SB-4.0-5.0	17		27		37	
8	SL-223-SA5A-SB-4.0-5.0MS	18		28		38	
9	SL-223-SA5A-SB-4.0-5.0MSD	19		29		39	
10		20		30		40	

Notes:

LDC #: 25911436
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FR
2nd Reviewer: [illegible]

Method: ✓ GC ____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 25911436
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: C

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓		✓	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.		✓		
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25911436

SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT

2nd reviewer:

METHOD: ✓ **GC** __ **HPLC**

Y N N/A Were field duplicate pairs identified in this SDG?

Y N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (ug/kg)		%RPD Limit 50	Qualification Parent only / All Samples
	2	4		
RPB-1260	4.0	5.2	26	

Compound	Concentration ( )		%RPD Limit _____	Qualification Parent only / All Samples

LDC #: 59114J1
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (200std)	Recalculated CF (200std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL ZBmulti R1	3/31/11	Aroclor 1260-1	18	18	19	19	3	3
	ZBmulti R2	3/31/11	↓	253	253	254	254	9.4	9.4
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: J59114b
SDG #: w cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer:

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV 13:28	4/6/11	Aroclor 1260	200.0	206.41	206.41	3.2	3.2
	ZBR1							
	ZBR2		↓	200.0	205.20	205.20	2.6	2.6
2	CCV 13:46	4/6/11	↓					
	ZBR1							
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25711437

SDG #: see cover

METHOD: ✓ GC __ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: A

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
TCMX	ZBmultiR2	1.04	0.830805	80	80	0
PCB	↓	1.04	0.872272	84	84	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 43716(51)
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: __ GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration
SA = Spike added
RPD =(((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 8 + 9

Compound	Spike Added ( )		Sample Conc. ( )	Spike Sample Concentration ( )		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	--	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
PCB-1260	16.64	16.64	3.26	16.09	19.02	75	75	93	93	17	17

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911436
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = I LCS - LCSD I * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
SC = Concentration
LCS = Laboratory control sample percent recovery
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
PCB - 1260	16.67	NA	15.9	NA	95	95	NA			

Comments: Refer to Labpratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911B6
SDG #: MW gone

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: E
2nd Reviewer: A

METHOD: ✓ GC ___ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. #1 Compound Name Aroclor 1260

Concentration = 3.545 / 0.88

= 4.02 ug/kg

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications
	#2 Aroclor 1260	1 = 2348.71997-1 (2000) / 19 (60.2)(1000) = 4.1		Aroclor 1260	1 = 4.1
					2 = 2.94
					3 = 1.59
					4 = 4.64
					5 = 4.28
					6 = 3.69
					3.545

Comments: _____

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 24, 2011

LDC Report Date: August 11, 2011

Matrix: Soil

Parameters: Metals

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE112

Sample Identification

SL-223-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-8.5-9.5
DUP10-SA5A-QC-032411
SL-226-SA5A-SB-4.0-5.0
SL-225-SA5A-SB-4.0-5.0
SL-224-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-4.0-5.0MS
SL-223-SA5A-SB-4.0-5.0MSD
SL-223-SA5A-SB-4.0-5.0DUP
SL-199-SA5A-SB-2.5-3.5

Introduction

This data review covers 10 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B, 6020, and 7000 for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, and Zirconium.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. ICPMS Tune

The mass calibration was within 0.1 AMU and the percent relative standard deviation (%RSD) was less than or equal to 5% .

III. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No metal contaminants were found in the initial, continuing and preparation blanks with the following exceptions:

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
PB (prep blank)	Calcium Copper Nickel Phosphorus Tin	6.360 mg/Kg 0.195 mg/Kg 0.125 mg/Kg 1.280 mg/Kg 1.864 mg/Kg	All samples in SDG DE112
ICB/CCB	Titanium	1.8 ug/L	SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 SL-199-SA5A-SB-2.5-3.5
ICB/CCB	Titanium	2.9 ug/L	DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-223-SA5A-SB-4.0-5.0	Tin	3.3 mg/Kg	3.3U mg/Kg
SL-223-SA5A-SB-8.5-9.5	Tin	3.4 mg/Kg	3.4U mg/Kg
DUP10-SA5A-QC-032411	Tin	3.3 mg/Kg	3.3U mg/Kg
SL-226-SA5A-SB-4.0-5.0	Tin	3.5 mg/Kg	3.5U mg/Kg
SL-225-SA5A-SB-4.0-5.0	Tin	3.6 mg/Kg	3.6U mg/Kg
SL-224-SA5A-SB-4.0-5.0	Tin	3.2 mg/Kg	3.2U mg/Kg
SL-199-SA5A-SB-2.5-3.5	Tin	3.5 mg/Kg	3.5U mg/Kg

No field blanks were identified in this SDG.

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VI. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-223-SA5A-SB-4.0-5.0MS/MSD (All samples in SDG DE112)	Antimony	24 (75-125)	30 (75-125)	-	J (all detects) UJ (all non-detects)	A
SL-223-SA5A-SB-4.0-5.0MS/MSD (All samples in SDG DE112)	Chromium Copper Nickel Phosphorus Potassium	129 (75-125) 133 (75-125) 138 (75-125) 151 (75-125) 198 (75-125)	- - - - 155 (75-125)	- - - - -	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	A

VII. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the following exceptions:

DUP ID (Associated Samples)	Analyte	RPD (Limits)	Difference (Limits)	Flag	A or P
SL-223-SA5A-SB-4.0-5.0DUP (All samples in SDG DE112)	Barium Chromium Cobalt Copper Zinc	27 (≤20) 22 (≤20) 24 (≤20) 26 (≤20) 24 (≤20)	- - - - -	J (all detects) UJ (all non-detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Internal Standards

All internal standard percent recoveries (%R) were within QC limits.

X. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met with the following exceptions:

Diluted Sample	Analyte	%D (Limits)	Associated Samples	Flag	A or P
SL-223-SA5A-SB-4.0-5.0	Barium Cobalt Copper Lead	14 (≤10) 13 (≤10) 13 (≤10) 25 (≤10)	All samples in SDG DE112	J (all detects) UJ (all non-detects)	A

XII. Sample Result Verification

All sample result verifications were acceptable.

All metals reported below the RL and above the MDL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG DE112	All analytes reported below the RL and above the MDL.	J (all detects)	A

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

Samples SL-223-SA5A-SB-4.0-5.0 and DUP10-SA5A-QC-032411 were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
Aluminum	14600	16300	11 (≤50)	-	-
Antimony	0.11	0.079	33 (≤50)	-	-
Arsenic	4.1	4.5	9 (≤50)	-	-
Barium	121	100	19 (≤50)	-	-
Beryllium	0.46	0.64	33 (≤50)	-	-
Boron	7.7	8.6	11 (≤50)	-	-
Cadmium	0.14	0.058	83 (≤50)	J (all detects)	A
Calcium	2830	2670	6 (≤50)	-	-
Chromium	16.8	17.3	3 (≤50)	-	-
Cobalt	6.6	6.0	10 (≤50)	-	-
Copper	9.9	8.2	19 (≤50)	-	-
Iron	18900	20000	6 (≤50)	-	-
Lead	5.7	6.0	5 (≤50)	-	-
Lithium	22.5	21.2	6 (≤50)	-	-
Magnesium	4100	4310	5 (≤50)	-	-
Manganese	282	345	20 (≤50)	-	-
Molybdenum	0.48	0.45	6 (≤50)	-	-
Nickel	13.8	13.1	5 (≤50)	-	-
Phosphorus	345	370	7 (≤50)	-	-

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
Potassium	3630	4120	13 (≤50)	-	-
Selenium	0.12	0.13	8 (≤50)	-	-
Silver	0.026	0.044	51 (≤50)	J (all detects)	A
Sodium	221	195	13 (≤50)	-	-
Strontium	17.7	21.3	18 (≤50)	-	-
Thallium	0.24	0.31	25 (≤50)	-	-
Tin	3.3	3.3	0 (≤50)	-	-
Titanium	1130	1160	3 (≤50)	-	-
Vanadium	34.8	33.7	3 (≤50)	-	-
Zinc	92.5	50.0	60 (≤50)	J (all detects)	A
Zirconium	1.5	1.0	40 (≤50)	-	-

Santa Susana Field Laboratory
Metals - Data Qualification Summary - SDG DE112

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE112	SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0 SL-199-SA5A-SB-2.5-3.5	Antimony	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE112	SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0 SL-199-SA5A-SB-2.5-3.5	Chromium Copper Nickel Phosphorus Potassium	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE112	SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0 SL-199-SA5A-SB-2.5-3.5	Barium Chromium Cobalt Copper Zinc	J (all detects) UJ (all non-detects)	A	Duplicate sample analysis (RPD) (E)
DE112	SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0 SL-199-SA5A-SB-2.5-3.5	Barium Cobalt Copper Lead	J (all detects) UJ (all non-detects)	A	ICP serial dilution (%D) (A)
DE112	SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0 SL-199-SA5A-SB-2.5-3.5	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)
DE112	SL-223-SA5A-SB-4.0-5.0 DUP10-SA5A-QC-032411	Cadmium Silver Zinc	J (all detects) J (all detects) J (all detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Metals - Laboratory Blank Data Qualification Summary - SDG DE112

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE112	SL-223-SA5A-SB-4.0-5.0	Tin	3.3U mg/Kg	A	B

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE112	SL-223-SA5A-SB-8.5-9.5	Tin	3.4U mg/Kg	A	B
DE112	DUP10-SA5A-QC-032411	Tin	3.3U mg/Kg	A	B
DE112	SL-226-SA5A-SB-4.0-5.0	Tin	3.5U mg/Kg	A	B
DE112	SL-225-SA5A-SB-4.0-5.0	Tin	3.6U mg/Kg	A	B
DE112	SL-224-SA5A-SB-4.0-5.0	Tin	3.2U mg/Kg	A	B
DE112	SL-199-SA5A-SB-2.5-3.5	Tin	3.5U mg/Kg	A	B

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

LDC #: 25911U4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-2-11
SDG #: DE112 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: AL
2nd Reviewer: W

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/11
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	SW	
VI.	Matrix Spike Analysis	SW	MS/D
VII.	Duplicate Sample Analysis	SW	DUP
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	A	
X.	Furnace Atomic Absorption QC	N	Not utilized
XI.	ICP Serial Dilution	SW	
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	SW	(1,3)
XV	Field Blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil

1	SL-223-SA5A-SB-4.0-5.0	11	RB5	21		31	
2	SL-223-SA5A-SB-8.5-9.5	12		22		32	
3	DUP10-SA5A-QC-032411	13		23		33	
4	SL-226-SA5A-SB-4.0-5.0	14		24		34	
5	SL-225-SA5A-SB-4.0-5.0	15		25		35	
6	SL-224-SA5A-SB-4.0-5.0	16		26		36	
7	SL-223-SA5A-SB-4.0-5.0MS	17		27		37	
8	SL-223-SA5A-SB-4.0-5.0MSD	18		28		38	
9	SL-223-SA5A-SB-4.0-5.0DUP	19		29		39	
10	SL-199-SA5A-SB-2.5-5.0	20		30		40	

Notes:

LDC #: 25911O4

VALIDATION FINDINGS CHECKLIST

Reviewer: CR
2nd Reviewer: IV

Method: Metals (EPA SW 846 Method 6010B/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. ICP/MS Tune				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	✓			
Were %RSD of isotopes in the tuning solution ≤5%?	✓			
III. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	✓			
Were all initial calibration correlation coefficients > 0.995?	✓			
IV. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
V. ICP Interference Check Sample				
Were ICP interference check samples performed daily?	✓			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	✓			
VI. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.		✓		
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of +/- RL(+/-2X RL for soil) was used for samples that were ≤ 5X the RL, including when only one of the duplicate sample values were < 5X the RL.		✓		
VII. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	✓			

SDC #: 25911104

VALIDATION FINDINGS CHECKLIST

Reviewer: AE
2nd Reviewer: MV

Validation Area	Yes	No	NA	Findings/Comments
VIII. Furnace Atomic Absorption QC				
If MSA was performed, was the correlation coefficients > 0.995?			✓	
Do all applicable analysies have duplicate injections? (Level IV only)			✓	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			✓	
Were analytical spike recoveries within the 85-115% QC limits?			✓	
IX. ICP Serial Dilution				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL(ICP/MS)?	✓			
Were all percent differences (%Ds) < 10%?		✓		
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.		✓		
X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)				
Were all the percent recoveries (%R) within the 30-120% (6020)/60-125% (200.8) of the intensity of the internal standard in the associated initial calibration?	✓			
If the %Rs were outside the criteria, was a reanalysis performed?		✓		
XI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
XII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
XV. Field blanks				
Field blanks were identified in this SDG.		✓	✓	
Target analytes were detected in the field blanks.			✓	

LDC #: 25911J4

VALIDATION FINDINGS WORKSHEET
Sample Specific Element Reference

Reviewer: CR
2nd reviewer:

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1-6,10		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr
QC: 7-9		Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mo, Mn, Hg, Ni, P, K, Se, Ag, Na, Sr, Tl, Sn, Ti, V, Zn, Zr

LDC #: 25911U4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Page: 1 of 1
Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x x (MS: 2xdil)
Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: All

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	1	2	3	4	5	6	10			
Ca	6.360			31.8										
Cu	0.195			0.975										
Ni	0.125			0.625										
P	1.280			6.4										
Sn	1.864			9.32	3.3	3.4	3.3	3.5	3.6	3.2	3.5			

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 1, 2, 10

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	No Qualifiers									
Ti			1.8	0.9										

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 3-6

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	No Qualifiers									
Ti			2.9	1.45										

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 25911104

VALIDATION FINDINGS WORKSHEET
ICP Interference Check Sample

Reviewer: CR
2nd Reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were ICP interference check samples performed as required?

Y N N/A Were the AB solution percent recoveries (%R) within the control limits of 80-120% ?

LEVEL IV ONLY:

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	ICS Identification	Analyte	Concentration (ug/L)	Limit (<MDL)	Associated Samples	Qualifications
	3/3/11	ICSA (18:05)	Mn	4	0.78	All	No Qual (> 10x)
	3/3/11	ICSA (20:07)	Mn	4	↓	↓	↓

Comments:

LDC #: 25911C4

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: OK
2nd Reviewer: [illegible]

METHOD: Trace metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y (N) N/A Were matrix spike percent recoveries (%R) within the control limits of 75-125? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

(Y) N N/A Were all duplicate sample relative percent differences (RPD) ≤ 20% for water samples and ≤35% for soil samples?

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	MS/MSD ID	Matrix	Analyte	MS %Recovery	MSD %Recovery	RPD (Limits)	Associated Samples	Qualifications
	7/8	S	Sb	24	30			J/UJ/A (Q) (R=106%)
			Cr	129				J/A (Q)
			Cu	133				
			Ni	138				
			P	151				
			K	198	155			

Comments:

LDC #: 25911104

VALIDATION FINDINGS WORKSHEET
Duplicate Analysis

Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a duplicate sample analyzed for each matrix in this SDG?

Y (N) N/A Were all duplicate sample relative percent differences (RPD) ≤ 20% for water samples and ≤ 35% for soil samples? If no, see qualifications below. A control limit of ±R.L. (±2X R.L. for soil) was used for sample values that were <5X the R.L., including the case when only one of the duplicate sample values was <5X R.L.. If field blanks were used for laboratory duplicates, note in the Overall Assessment.

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Duplicate ID	Matrix	Analyte	RPD (Limits)	Difference (Limits)	Associated Samples	Qualifications
		9	BS	Ba	27		All	J/UJ/A(E)
				Cr	22			
				Co	24			
				Cu	26			
				Zn	24			

Comments: _____

LDC #: 25911104

VALIDATION FINDINGS WORKSHEET
ICP Serial Dilution

Page: 1 of 1
Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A If analyte concentrations were > 50X the MDL (ICP) ,or >100X the MDL (ICP/MS), was a serial dilution analyzed?
(Y) N N/A Were ICP serial dilution percent differences (%D) ≤10%?
Y (N) N/A Is there evidence of negative interference? If yes, professional judgement will be used to qualify the data.
LEVEL IV ONLY:
(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Diluted Sample ID	Matrix	Analyte	%D (Limits)	Associated Samples	Qualifications
		1	S	Ba	14	All	J/UJ/A
				Co	13	↓	↓
				Cu	13		
				Pb	25		

Comments: _____

SDILICPMS.wpd

LDC#: 25911U4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of
Reviewer:
2nd Reviewer:

METHOD: Metals (EPA Method 6010B/7000)

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (mg/Kg)		RPD (≤50)	Qualifiers: (Parents Only)
	1	3		
Aluminum	14600	16300	11	
Antimony	0.11	0.079	33	
Arsenic	4.1	4.5	9	
Barium	121	100	19	
Beryllium	0.46	0.64	33	
Boron	7.7	8.6	11	
Cadmium	0.14	0.058	83	Jdet/A (FD)
Calcium	2830	2670	6	
Chromium	16.8	17.3	3	
Cobalt	6.6	6.0	10	
Copper	9.9	8.2	19	
Iron	18900	20000	6	
Lead	5.7	6.0	5	
Lithium	22.5	21.2	6	
Magnesium	4100	4310	5	
Manganese	282	345	20	
Molybdenum	0.48	0.45	6	
Nickel	13.8	13.1	5	
Phosphorus	345	370	7	

LDC#: 25911U4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 2 of 2
Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Metals (EPA Method 6010B/7000)

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (mg/Kg)		RPD (≤50)	Qualifiers: (Parents Only)
	1	3		
Potassium	3630	4120	13	
Selenium	0.12	0.13	8	
Silver	0.026	0.044	51	Jdet/A (FD)
Sodium	221	195	13	
Strontium	17.7	21.3	18	
Thallium	0.24	0.31	25	
Tin	3.3	3.3	0	
Titanium	1130	1160	3	
Vanadium	34.8	33.7	3	
Zinc	~~82.6~~ 92.5	50.0	~~49~~ 60	J det/A (FD)
Zirconium	1.5	1.0	40	

LDC #: 25911U4

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: CS
2nd Reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found / True x 100 Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution
True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated %R	Reported %R	Acceptable (Y/N)
ICV	ICP (Initial calibration)	Sr	589.27	600	98.2	98.2	Y
ICV	ICP/MS (Initial calibration)	Pb	51.21	50	102.4	102.4	
ICV	CVAA (Initial calibration)	Hg	2.42	2.5	96.8	96.8	
CCV (19:00)	ICP (Continuing calibration)	Zr	498.83	500	99.8	99.8	
CCV (04:58)	ICP/MS (Continuing calibration)	Se	24.89	25	99.6	99.6	
CCV	CVAA (Continuing calibration)	Hg	0.93	1	93	93	
	GFAA (Initial calibration)						
	GFAA (Continuing calibation)						

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911U4

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: CR
2nd Reviewer: L

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{Found}{True} \times 100$

Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$

Where, S = Original sample concentration
D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$\%D = \frac{|I-SDR|}{I} \times 100$

Where, I = Initial Sample Result (mg/L)
SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated %R / RPD / %D	Reported %R / RPD / %D	Acceptable (Y/N)
ICSAB	ICP interference check	Mo	206.6	200	103.3	103.3	Y
LCS	Laboratory control sample	Li	1003.6	1000	100	100	
7	Matrix spike	As	(SSR-SR) 2.7726	2.2502	123	123	
~~7DUP~~	Duplicate	V	34.8039	29.1740	18	18	
1	ICP serial dilution	Ti	10098.37	10706.05	6	6	J

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911V4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd reviewer: W

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
Y N N/A Are all detection limits below the CRDL?

Detected analyte results for Be were recalculated and verified using the following equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)}$

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation:

$$\frac{(100mL)(2)(3,698ug/L)}{0.934(1.02g)(1000)} = 0.78 mg/kg$$

#	Sample ID	Analyte	Reported Concentration mg/kg	Calculated Concentration mg/kg	Acceptable (Y/N)
	10	Al	22200	22200	Y
		Sb	0.092	0.092	
		As	4.8	4.8	
		Ba	60.5	60.5	
		Be	0.78	0.78	
		B	7.0	7.0	
		Ca	2250	2250	
		Cr	15.9	15.9	
		Co	3.3	3.3	
		Cu	5.4	5.4	
		Fe	23500	23500	
		Pb	6.3	6.3	
		Li	25.1	25.1	
		Mg	4190	4190	
		Mn	153	153	
		Mo	0.31	0.31	
		Ni	8.5	8.5	
		P	95.2	95.2	
		K	1780	1780	
		Se	0.15	0.15	
		Ag	0.024	0.024	
		Na	188	188	
		Tl	0.21	0.21	

LDC #: 2591104

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: CE
2nd reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
Y N N/A Are all detection limits below the CRDL?

Detected analyte results for _____ were recalculated and verified using the following equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)}$

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

Recalculation:

see previous page

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	10	Sn	3.5	3.5	Y
		Ti	1020	1020	
		V	32.0	32.0	
		Zn	43.1	43.1	

Note: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	March 24, 2011
LDC Report Date:	August 11, 2011
Matrix:	Soil
Parameters:	Wet Chemistry
Validation Level:	Level IV
Laboratory, Area IV:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE112

Sample Identification

SL-199-SA5A-SB-2.5-3.5
SL-223-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-8.5-9.5
DUP10-SA5A-QC-032411
SL-226-SA5A-SB-4.0-5.0
SL-225-SA5A-SB-4.0-5.0
SL-224-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-4.0-5.0MS
SL-223-SA5A-SB-4.0-5.0DUP

Introduction

This data review covers 9 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 9012B for Cyanide, EPA Method 300.0 for Nitrate and Fluoride, EPA SW 846 Method 7199 for Hexavalent Chromium, EPA SW 846 Method 9045C for pH, and EPA Method 314.0 for Perchlorate.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

All criteria for the initial calibration of each method were met.

III. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

No field blanks were identified in this SDG.

V. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	%R (Limits)	Flag	A or P
SL-223-SA5A-SB-4.0-5.0MS (All samples in SDG DE112)	Fluoride	61 (80-120)	J (all detects) UJ (all non-detects)	A

VI. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Sample Result Verification

All sample result verifications were acceptable.

All analytes reported below the RL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG DE112	All analytes reported below the RL and above the MDL.	J (all detects)	A

IX. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

X. Field Duplicates

Samples SL-223-SA5A-SB-4.0-5.0 and DUP10-SA5A-QC-032411 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration		RPD (Limits)	Flags	A or P
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
Fluoride	3.1 mg/Kg	2.8 mg/Kg	10 (≤50)	-	-
Nitrate	2.0 mg/Kg	2.1 mg/Kg	5 (≤50)	-	-
pH	8.28 units	8.41 units	2 (≤50)	-	-
Hexavalent chromium	1.1U mg/Kg	0.53 mg/Kg	200 (≤50)	J (all detects) UJ (all non-detects)	A

Santa Susana Field Laboratory
Wet Chemistry - Data Qualification Summary - SDG DE112

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE029	SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	Fluoride	J (all detects) UJ (all non-detects)	A	Matrix spike analysis (%R) (Q)
DE029	SL-199-SA5A-SB-2.5-3.5 SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)
DE029	SL-223-SA5A-SB-4.0-5.0 DUP10-SA5A-QC-032411	Hexavalent chromium	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Wet Chemistry – Laboratory Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Wet Chemistry - Field Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

LDC #: 25911U6 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-24
SDG #: DE112 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer: [signature]

METHOD: (Analyte) Cyanide (EPA SW846 Method 9012B), Nitrate-N, Fluoride (EPA Method 300.0), Hexavalent Chromium (EPA SW846 Method 7199), pH (~~EPA Method 150.1~~/EPA SW846 Method 9045C), Perchlorate (EPA Method 314.0)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/11
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	A	
IV	Matrix Spike/Matrix Spike Duplicates	SW	MS
V	Duplicates	A	DUP
VI.	Laboratory control samples	A	LCS
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	(2,4)
X.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-199-SA5A-SB-2.5-3.5	11		21		31	
2	SL-223-SA5A-SB-4.0-5.0	12		22		32	
3	SL-223-SA5A-SB-8.5-9.5	13		23		33	
4	DUP10-SA5A-QC-032411	14		24		34	
5	SL-226-SA5A-SB-4.0-5.0	15		25		35	
6	SL-225-SA5A-SB-4.0-5.0	16		26		36	
7	SL-224-SA5A-SB-4.0-5.0	17		27		37	
8	SL-223-SA5A-SB-4.0-5.0MS	18		28		38	
9	~~SL-223-SA5A-SB-4.0-5.0MSD~~	19		29		39	
10	SL-223-SA5A-SB-4.0-5.0DUP	20		30		40	

Notes:

LDC #: 25911U6

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: CF
2nd Reviewer: VW

Method: Inorganics (EPA Method See cover)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients > 0.995?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)			✓	
III. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
IV. Matrix spike/Matrix spike duplicates and Duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.		✓		
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of ≤ CRDL(≤ 2X CRDL for soil) was used for samples that were ≤ 5X the CRDL, including when only one of the duplicate sample values were < 5X the CRDL.	✓			
V. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
VI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓	✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

Validation Area	Yes	No	NA	Findings/Comments
VII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
VIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
IX. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
X. Field blanks				
Field blanks were identified in this SDG.		✓	✓	
Target analytes were detected in the field blanks.			✓	

LDC #: 25911U6

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Reviewer: CE
2nd reviewer: V

All circled methods are applicable to each sample.

Sample ID	Matrix	Parameter
1		(pH) TDS Cl (F) NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC (CR^{6+}) (ClO_4)
2-7		(pH) TDS Cl (F) (NO_3) NO_2 SO_4 PO_4 ALK (CN^-) NH_3 TKN TOC (CR^{6+}) (ClO_4)
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4
QC: 8,16		pH TDS Cl (F) (NO_3) NO_2 SO_4 PO_4 ALK (CN^-) NH_3 TKN TOC (CR^{6+}) (ClO_4)
		pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ClO_4

LDC #: 25911A6

VALIDATION FINDINGS WORKSHEET
Matrix Spike Analysis

Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Inorganics, Method SeCar

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y (N) N/A Were matrix spike percent recoveries (%R) within the control limits of ~~75-125~~ 80-120 (85-115% for Method 300.0)? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

LEVEL IV ONLY:

(Y) N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Matrix Spike ID	Matrix	Analyte	%R	Associated Samples	Qualifications
		8	S	F	61	All	J (UJ/A)

Comments: _____

LDC# 25911U6

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Inorganics, Method See Cover

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (mg/Kg)		RPD (≤50)	(Parents Only)
	2	4		
Fluoride	3.1	2.8	10	
Nitrate	2.0	2.1	5	
pH (units)	8.28	8.41	2	
Hexavalent Chromium	1.1U	0.53	200	J/UJ/A (FD)

V:\FIELD DUPLICATES\FD_inorganic\25911U6.wpd

LDC #: 25911U6

Validation Findings Worksheet
Initial and Continuing Calibration Calculation Verification

Reviewer: AC
2nd Reviewer: [illegible]

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of ClO4 was recalculated. Calibration date: 4/11/11

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found X 100 / True

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution
True = concentration of each analyte in the ICV or CCV source

Type of analysis	Analyte	Standard	Conc. (ug/L)	Response	Recalculated r or r^2	Reported r or r^2	Acceptable (Y/N)
Initial calibration	ClO4	s1	2	0.004	*0.9999*	0.9999	Y
		s2	4.00	0.01			
		s3	10.00	0.025			
		s4	25.00	0.072			
		s5	100.00	0.292			
Calibration verification	CN	CCV	0.3440	0.15	91	91	
Calibration verification	NO3		1.52	1.5	101	101	
Calibration verification	Cr6+		202.307	200	101	101	

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911O6

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: QR
2nd Reviewer: [illegible]

METHOD: Inorganics, Method See cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

%R = Found / True x 100 Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

RPD = |S-D| / (S+D)/2 x 100 Where, S = Original sample concentration
D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated %R / RPD	Reported %R / RPD	Acceptable (Y/N)
LCS	Laboratory control sample	NO3	9.9	10	99	—	Y
8	Matrix spike sample	NO3	(SSR-SR) 39.3	40	98	98	
10	Duplicate sample	F	2.8	2.8	0	0	Y

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911V6

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd reviewer:

METHOD: Inorganics, Method See cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments?
Y N N/A Are all detection limits below the CRQL?

Compound (analyte) results for NO_3 reported with a positive detect were recalculated and verified using the following equation:

Concentration =

Recalculation:

$y = 0.2859x - 0.0192$

$\frac{0.031 + 0.0192}{0.2859} \times 50mL = 1.97 mg/kg$

0.88 (5.06g)

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	2	F	3.1	3.1	Y
		NO_3	2.0	2.0	↓
		pH	8.28	8.28	↓

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 24, 2011

LDC Report Date: August 9, 2011

Matrix: Soil/Water

Parameters: Total Petroleum Hydrocarbons as Gasoline

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE112

Sample Identification

SL-223-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-8.5-9.5
DUP10-SA5A-QC-032411
SL-226-SA5A-SB-4.0-5.0
SL-225-SA5A-SB-4.0-5.0
SL-224-SA5A-SB-4.0-5.0
TB-032411
SL-223-SA5A-SB-4.0-5.0MS
SL-223-SA5A-SB-4.0-5.0MSD

Introduction

This data review covers 8 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

Sample TB-032411 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE112	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

Samples SL-223-SA5A-SB-4.0-5.0 and DUP10-SA5A-QC-032411 were identified as field duplicates. No total petroleum hydrocarbons as gasoline were detected in any of the samples.

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG DE112

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE112	SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0 TB-032411	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

LDC #: 25911U7 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/9/11
SDG #: DE112 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC TPH as Gasoline (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/11
II	Initial calibration	A	% RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS/D
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	ND	D = 1, 3
XIII.	Field blanks	ND	TB = 7

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: soil + water

1 1	SL-223-SA5A-SB-4.0-5.0 S	11 1	BLK1S	21		31	
2 1	SL-223-SA5A-SB-8.5-9.5	12 2	BLK3A	22		32	
3 1	DUP10-SA5A-QC-032411	13		23		33	
4 1	SL-226-SA5A-SB-4.0-5.0	14		24		34	
5 1	SL-225-SA5A-SB-4.0-5.0	15		25		35	
6 1	SL-224-SA5A-SB-4.0-5.0	16		26		36	
7 2	TB-032411 W	17		27		37	
8 1	SL-223-SA5A-SB-4.0-5.0MS S	18		28		38	
9 1	SL-223-SA5A-SB-4.0-5.0MSD	19		29		39	
10		20		30		40	

Notes: _____

LDC #: 59114J
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: [illegible]
2nd Reviewer: [illegible]

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 25914U7
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.		✓		
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC #: 25911A7
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

4

#	Standard ID	Calibration Date	Compound	Reported CF (55 std)	Recalculated CF (55 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL 110028	5/14/10	GRO	8420	8420	8050	8050	5.2	5.2
				(3270)	(3262)				
2	ICAL 053981F	11/29/10	GRO	35488	35488	37329	37329	12.7	12.7
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911A7
SDG #: w cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: EJ
2nd Reviewer: A

METHOD: GC ✓ HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = Initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV	4/4/11	GRO	550.0	568.18	568.18	3.3	3.3
	11:39							
	110024							
2	CCV	3/28/11	GRO	220.0	215.47	215.47	2.1	2.1
	18:24							
	05398F							
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25714 /
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: A

METHOD: ✓ GC ___ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
TFT	NS	619	457.8706	74	74	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 25911U1
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration
SA = Spike added
RPD =(({SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 8 9

Compound	Spike Added (mg/kg)		Sample Conc. (mg/kg)	Spike Sample Concentration (mg/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	--	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)	9.28	9.28	ND	6.42	6.36	69	69	70	70	1	1
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911A7
SDG #: pc cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: F
2nd Reviewer: C

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
SC = Concentration
LCS = Laboratory control sample percent recovery
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: las/D water

Compound	Spike Added (ug/L)		Spiked Sample Concentration (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)	1100	1100	1100	1200	100	100	109	109	9	9
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25914J7
SDG #: JJ9 series

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: EA
2nd Reviewer: A

METHOD: ✓ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration =_____

ND

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	March 24, 2011
LDC Report Date:	August 9, 2011
Matrix:	Soil
Parameters:	Total Petroleum Hydrocarbons as Extractables
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE112

Sample Identification

SL-223-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-8.5-9.5
DUP10-SA5A-QC-032411
SL-226-SA5A-SB-4.0-5.0
SL-225-SA5A-SB-4.0-5.0
SL-224-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-4.0-5.0MS
SL-223-SA5A-SB-4.0-5.0MSD

Introduction

This data review covers 8 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-223-SA5A-SB-4.0-5.0MS/MSD (SL-223-SA5A-SB-4.0-5.0)	EFH (C15-C20)	234 (49-123)	-	69 (≤20)	J (all detects)	A
SL-223-SA5A-SB-4.0-5.0MS/MSD (SL-223-SA5A-SB-4.0-5.0)	EFH (C21-C30)	1671 (49-123)	-112 (49-123)	167 (≤20)	J (all detects) R (all non-detects)	A

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE112	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

Samples SL-223-SA5A-SB-4.0-5.0 and DUP10-SA5A-QC-032411 were identified as field duplicates. No total petroleum hydrocarbons as extractables were detected in any of the samples with the following exceptions:

Compound	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-223-SA5A-SB-4.0-5.0	DUP10-SA5A-QC-032411			
EFH (C30-C40)	16	19	17 (≤50)	-	-
EFH (C21-C30)	6.8	12	55 (≤50)	J (all detects)	A
EFH (C8-C11)	0.48	0.52	8 (≤50)	-	-
EFH (C15-C20)	0.45U	0.76	200 (≤50)	J (all detects) UJ (all non-detects)	A

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG DE112

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE112	SL-223-SA5A-SB-4.0-5.0	EFH (C15-C20)	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q)
DE112	SL-223-SA5A-SB-4.0-5.0	EFH (C21-C30)	J (all detects) R (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q)
DE112	SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)
DE112	SL-223-SA5A-SB-4.0-5.0 DUP10-SA5A-QC-032411	EFH (C21-C30)	J (all detects)	A	Field duplicates (RPD) (FD)
DE112	SL-223-SA5A-SB-4.0-5.0 DUP10-SA5A-QC-032411	EFH (C15-C20)	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

LDC #: 25911U8 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/9/11
SDG #: DE112 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC TPH as Extractables (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/11
II	Initial calibration	A	%RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	SW	
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	SW	D = 1,3
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: SOIL

1†	SL-223-SA5A-SB-4.0-5.0	11	PBLK35090	21		31	
2†	SL-223-SA5A-SB-8.5-9.5	12		22		32	
3	DUP10-SA5A-QC-032411	13		23		33	
4	SL-226-SA5A-SB-4.0-5.0	14		24		34	
5	SL-225-SA5A-SB-4.0-5.0	15		25		35	
6	SL-224-SA5A-SB-4.0-5.0	16		26		36	
7	SL-223-SA5A-SB-4.0-5.0MS	17		27		37	
8	SL-223-SA5A-SB-4.0-5.0MSD	18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 29118 8
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FD
2nd Reviewer: CA

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 25911U8
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25911U8

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: ___ GC ___ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG?

Y N N/A Was an MS/MSD analyzed every 20 samples for each matrix or whenever a sample extraction was performed?

Y N N/A Were the MS/MSD percent recoveries (%R) and relative percent differences (RPD) within QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	~~7+8~~	~~EFH (C15-C20)~~	~~167 (49-123)~~	~~-112 (49-123)~~	~~167 (20)~~		
			( )	( )	( )		
			( )	( )	( )		
	7+8	EFH (C15-C20)	234 (49-123)	( )	69 (20)	#1 (Q)	J/A dit
		EFH (C21-C30)	167 (49-123)	-112 (49-123)	167 (↓)	(Q)	J/R/A
		EFH (C30-C40)	242 (↓)	-308 (↓)	168 (↓)	↓	no qual parent
			( )	( )	( )		74% spike Amt
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 25911148
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: FT
2nd reviewer:

METHOD: ✓ GC __ HPLC

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds detected in the field duplicate pairs?

(FD) (FD)

Compound	Concentration (mg/kg)		%RPD Limit ≤50	Qualification Parent only / All Samples
	1	3		
EFH (C_{30}-C_{40})	16	19	17	
EFH (C_{21}-C_{30})	6.8	12	55	J/A det
EFH (C_8-C_{11})	0.48	0.52	8	
EFH (C_{15}-C_{20})	0.45U	0.76	200	J/UJ/A

Compound	Concentration ( )		%RPD Limit _____	Qualification Parent only / All Samples

LDC #: 25911U8
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (std)	Recalculated CF (std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	1 CAL 285	3/25/11	CK-C40	22389	22389	22222	22222	0.7	0.7
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911U8
SDG #: w cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV 3:12	4/2/11	C8-C40	143.99	147.01	147.01	2.1	2.1
	CCV 10:27	4/2/11	↓	287.98	307.61	307.61	6.8	6.8
2								
	CCV 16:56	4/4/11	↓	~~287.98~~ 143.99	148.16	148.16	2.9	2.9
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25711A8
SDG #: see cover

METHOD: ✓ GC __ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: A

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
chlorobenzene	ZB-5	1.0	0.86707	87	87	0
orthoterphenyl	↓	↓	0.94695	95	95	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 45 11148
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: EZ
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration
SA = Spike added
RPD =(((SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 7+8

Compound	Spike Added (mg/kg)		Sample Conc. (mg/kg)	Spike Sample Concentration (mg/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	---	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
EFH (C8-C11)	0.84	0.84	0.42	1.06	0.90	79	79	67	67	10	10

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911A8
SDG #: MI cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: FO
2nd Reviewer: CT

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
EFH (C8-C11)	0.84	NA	0.71	NA	85	85	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911U8
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. #1 Compound Name C21-C30

Concentration = $\frac{7996269 \quad (1000)}{22222 \quad (60)\ (0.88)\ (1000)}$

6.8 mg/kg

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 24, 2011

LDC Report Date: August 11, 2011

Matrix: Soil

Parameters: Explosives

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE112

Sample Identification

SL-223-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-8.5-9.5
DUP10-SA5A-QC-032411
SL-226-SA5A-SB-4.0-5.0
SL-225-SA5A-SB-4.0-5.0
SL-224-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-4.0-5.0MS
SL-223-SA5A-SB-4.0-5.0MSD

Introduction

This data review covers 8 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8330A for Explosives.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed for the primary (quantitation) column and confirmation column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990 .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at the required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No explosive contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE112	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

Samples SL-223-SA5A-SB-4.0-5.0 and DUP10-SA5A-QC-032411 were identified as field duplicates. No explosives were detected in any of the samples.

Santa Susana Field Laboratory
Explosives - Data Qualification Summary - SDG DE112

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE112	SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Explosives - Laboratory Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Explosives - Field Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

LDC #: 25911U40 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/9/11
SDG #: DE112 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HPLC Explosives (EPA SW 846 Method 8330A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/11
II	Initial calibration	A	%D ≤ 20, r²
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	ND	D = 1,3
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: SOIL

1	SL-223-SA5A-SB-4.0-5.0	11	PBLK49090	21		31	
2	SL-223-SA5A-SB-8.5-9.5	12		22		32	
3	DUP10-SA5A-QC-032411	13		23		33	
4	SL-226-SA5A-SB-4.0-5.0	14		24		34	
5	SL-225-SA5A-SB-4.0-5.0	15		25		35	
6	SL-224-SA5A-SB-4.0-5.0	16		26		36	
7	SL-223-SA5A-SB-4.0-5.0MS	17		27		37	
8	SL-223-SA5A-SB-4.0-5.0MSD	18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 25911 U4U
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: A

Method: GC ✓ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #:
SDG #: per email

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: C

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification.				
Were the retention times of reported detects within the RT windows?			✓	
XI. Compound quantitation/CRQLs.				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance.				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data.				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates.				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.		✓		
XV. Field blanks.				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25911440
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC [illegible] HPLC [illegible]

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (std)	Recalculated CF (std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL X6329A chrompack	3/25/11	RDX	6.56×10^{1}	6.56×10^{1}	7.13×10^{1}	7.13×10^{1}	12.6	12.6
			1,3,5-TNB	1.94×10^{2}	1.94×10^{2}	1.98×10^{2}	1.98×10^{2}	2.1	2.1
				500/499.5	500/499.5				
2	ICAL X6329A chrompack Cap cell	~~3/4/11~~ 3/25/11	RDX HMX	8.95×10^{1}	8.95×10^{1}	9.24×10^{1}	9.24×10^{1}	4.7	4.7
			1,3,5-TNB Nitrobenzene	1.70×10^{2}	1.70×10^{2}	1.75×10^{2}	1.75×10^{2}	4.4	4.4
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 35911440
SDG #: w cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: [illegible]

METHOD: GC [illegible] HPLC [illegible]

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	ccv 22:21	4/4/11	RDX	98700	1105.05	1105.05	12.0	12.0
	chrompack		1,3,5-TNB	1001.00	1004.33	1004.33	0.3	0.3
2	ccv 6:49	4/5/11	↓	493.50	489.27	489.27	0.9	0.9
	chrompack		↓	502.50	491.97	491.97	1.7	1.7
3	ccv 22:21	4/4/11	HMX	1000.0	974.09	974.09	2.6	2.6
	Capcell CN		nitrobenzene	999.0	983.65	983.65	1.5	1.5
4	ccv 6:49	4/05/11	↓	500.0	486.35	486.35	2.7	2.7
	Capcell CN		↓	493.50	495.61	495.61	0.4	0.4

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25711440

SDG #: see cover

METHOD: ~~GC~~ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer:

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: # 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
2- Nitro-m-xylene	chrompack	2000	2222.02636	111	111	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 25711440

SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FZ

2nd Reviewer: [illegible]

METHOD: X GC / HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration

SA = Spike added

RPD =(((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 7+8

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	—	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
HMX	2000.25	2000.25	ND	1917.36	1875.75	96	96	94	94	2	2
RDX	2000	2000	ND	1978.5	1989.12	99	99	99	99	1	1

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911/4U
SDG #: all cores

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC ✓ HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = I LCS - LCSD I * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (ug/Kg)		Spiked Sample Concentration (ug/Kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
~~Gasoline (8015)~~ HMX	2000.25	NA	1939.04	NA	97	97				
~~Diesel~~ (8015) RDX	2000	↓	1913.14	↓	96	96	NA			
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911L4W
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: __ GC / HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration = _____

ND

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	March 24, 2011
LDC Report Date:	August 9, 2011
Matrix:	Soil
Parameters:	Terphenyls
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE112

Sample Identification

SL-223-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-8.5-9.5
DUP10-SA5A-QC-032411
SL-226-SA5A-SB-4.0-5.0
SL-225-SA5A-SB-4.0-5.0
SL-224-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-4.0-5.0MS
SL-223-SA5A-SB-4.0-5.0MSD

Introduction

This data review covers 8 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Terphenyls.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No terphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-223-SA5A-SB-4.0-5.0MS/MSD (SL-223-SA5A-SB-4.0-5.0)	m-Terphenyl	72 (75-125)	-	-	J (all detects) UJ (all non-detects)	A
	p-Terphenyl	71 (75-125)	-	-	J (all detects) UJ (all non-detects)	

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE112	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

Samples SL-223-SA5A-SB-4.0-5.0 and DUP10-SA5A-QC-032411 were identified as field duplicates. No terphenyls were detected in any of the samples.

Santa Susana Field Laboratory
Terphenyls - Data Qualification Summary - SDG DE112

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE112	SL-223-SA5A-SB-4.0-5.0	m-Terphenyl p-Terphenyl	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE112	SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Terphenyls - Laboratory Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Terphenyls - Field Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

LDC #: 25911U41 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/9/11
SDG #: DE112 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Terphenyls (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/11
II	Initial calibration	A	%RSD ≤ 20
III.	Calibration verification/[illegible]	A	CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	SW	
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	ND	D = 1,3
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

Soil

1	SL-223-SA5A-SB-4.0-5.0 D	11	PBLK03092	21		31	
2	SL-223-SA5A-SB-8.5-9.5	12		22		32	
3	DUP10-SA5A-QC-032411 D	13		23		33	
4	SL-226-SA5A-SB-4.0-5.0	14		24		34	
5	SL-225-SA5A-SB-4.0-5.0	15		25		35	
6	SL-224-SA5A-SB-4.0-5.0	16		26		36	
7	SL-223-SA5A-SB-4.0-5.0MS	17		27		37	
8	SL-223-SA5A-SB-4.0-5.0MSD	18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 25911H4\
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: EM
2nd Reviewer: A

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 35911141
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			✓	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.		✓		
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25911441

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: __ GC __ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG?

Y N N/A Was an MS/MSD analyzed every 20 samples for each matrix or whenever a sample extraction was performed?

Y N N/A Were the MS/MSD percent recoveries (%R) and relative percent differences (RPD) within QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	7+8	m-Terphenyl	72 (75-125)	( )	( )	#1	J/UJ/A (Q)
		p-Terphenyl	71 (75-125)	( )	( )	↓	↓ (Q)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 25911441
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: F
2nd Reviewer: C

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

level 3

#	Standard ID	Calibration Date	Compound	Reported 17-741 CF (std)	Recalculated 17-741 CF (std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1			o- Terphenyl	2.59×10^4	2.59×10^4	2.54×10^4	2.54×10^4	2.1	2.1
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911441
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: EJ
2nd Reviewer: C

METHOD: GC ✓ HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	ccv	4/4/11	o-Terphenyl	35.48	37.13	37.13	4.7	4.7
	16:46							
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911441

SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer:

METHOD: ✓ GC ___ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
n-Triacontane-d62	NS	0.33	0.236007	TR 71	TR 71	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference

LDC #: 53111441
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FZ
2nd Reviewer: A

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration
SA = Spike added
RPD =(({SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 7+8

Compound	Spike Added (mg/kg)		Sample Conc. (mg/kg)	Spike Sample Concentration (mg/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	--	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
m-Terphenyl	1.68	1.68	ND	1.21	1.34	72	72	80	80	10	10

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911441
SDG #: all cores

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = I LCS - LCSD I * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
m-Terphenyl	1.68	NA	1.37	NA	82	82	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911447
SDG #: pu water

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: / GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration =_____

AP

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	March 24, 2011
LDC Report Date:	August 9, 2011
Matrix:	Soil
Parameters:	Alcohols
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE112

Sample Identification

SL-223-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-8.5-9.5
DUP10-SA5A-QC-032411
SL-226-SA5A-SB-4.0-5.0
SL-225-SA5A-SB-4.0-5.0
SL-224-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-4.0-5.0MS
SL-223-SA5A-SB-4.0-5.0MSD

Introduction

This data review covers 8 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Alcohols.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No alcohol contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE112	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

Samples SL-223-SA5A-SB-4.0-5.0 and DUP10-SA5A-QC-032411 were identified as field duplicates. No alcohols were detected in any of the samples.

Santa Susana Field Laboratory
Alcohols - Data Qualification Summary - SDG DE112

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE112	SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Alcohols - Laboratory Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Alcohols - Field Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

LDC #: 25911U43 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/9/11
SDG #: DE112 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: PD
2nd Reviewer:

METHOD: GC Alcohols (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/11
II	Initial calibration	A	% RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	ND	D= 1,3
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:
SOIL

1	SL-223-SA5A-SB-4.0-5.0	11	PBLK 310885	21		31	
2	SL-223-SA5A-SB-8.5-9.5	12		22		32	
3	DUP10-SA5A-QC-032411	13		23		33	
4	SL-226-SA5A-SB-4.0-5.0	14		24		34	
5	SL-225-SA5A-SB-4.0-5.0	15		25		35	
6	SL-224-SA5A-SB-4.0-5.0	16		26		36	
7	SL-223-SA5A-SB-4.0-5.0MS	17		27		37	
8	SL-223-SA5A-SB-4.0-5.0MSD	18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 35911443
SDG #: all waters

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: C

Method: ✓ GC ____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 59111443
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			✓	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.		✓		
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25911443
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC _____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (500.0 std)	Recalculated CF (500.0 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/18/11	methane	3.05	3.05	3.27	3.27	9.3	9.3
2	ICAL	2/23/11	methane	8.50	8.50	8.50	8.50	3.0	3.0
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25 911443
SDG #: fw comm

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: FD
2nd Reviewer: CA

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	ccv 19:33	3/29/11	methanol	5000.0	4824.03	4824.03	3.5	3.5
	ccv 22:30	3/29/11	methanol	5000.0	4961.24	4961.24	0.8	0.8
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 45711493
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer:

METHOD: ✓ GC ___ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Acetone	NS	2500	1894.6376	76	76	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 51111497
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FZ
2nd Reviewer: A

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration
SA = Spike added
RPD =(((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 7+8

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	--	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
Methane	2500	2500	ND	1945.87	2020.81	78	78	81	81	4	4

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25971143
SDG #: all cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: FO
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = I LCS - LCSD I * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
Methane	2500	NA	2311.28	NA	92	92	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911443
SDG #: pu grave

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: F
2nd Reviewer: A

METHOD: ✓ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration =_____

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 24, 2011

LDC Report Date: August 9, 2011

Matrix: Soil

Parameters: Glycols

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE112

Sample Identification

SL-223-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-8.5-9.5
DUP10-SA5A-QC-032411
SL-226-SA5A-SB-4.0-5.0
SL-225-SA5A-SB-4.0-5.0
SL-224-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-4.0-5.0MS
SL-223-SA5A-SB-4.0-5.0MSD

Introduction

This data review covers 8 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Glycols.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0%.

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No glycol contaminants were found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE112	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

Samples SL-223-SA5A-SB-4.0-5.0 and DUP10-SA5A-QC-032411 were identified as field duplicates. No glycols were detected in any of the samples.

Santa Susana Field Laboratory
Glycols - Data Qualification Summary - SDG DE112

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE112	SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Glycols - Laboratory Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Glycols - Field Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

LDC #: 25911U45 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/8/11
SDG #: DE112 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: JT
2nd Reviewer: [illegible]

METHOD: GC Glycols (EPA SW 846 Method 8015B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/11
II	Initial calibration	A	%RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	NP	D = 1, 3
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

soil

1	SL-223-SA5A-SB-4.0-5.0 D	11	PBLK01087	21		31	
2	SL-223-SA5A-SB-8.5-9.5	12		22		32	
3	DUP10-SA5A-QC-032411 D	13		23		33	
4	SL-226-SA5A-SB-4.0-5.0	14		24		34	
5	SL-225-SA5A-SB-4.0-5.0	15		25		35	
6	SL-224-SA5A-SB-4.0-5.0	16		26		36	
7	SL-223-SA5A-SB-4.0-5.0MS	17		27		37	
8	SL-223-SA5A-SB-4.0-5.0MSD	18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 25911U45
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 35911145
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓	-		
Target compounds were detected in the field duplicates.		✓		
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25911445
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

level 4

#	Standard ID	Calibration Date	Compound	Reported 2.025164 CF (std)	Recalculated 2.025164 CF (std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/28/11	Propylene Glycol	5.94×10^2	5.94×10^2	5.65×10^2	5.65×10^2	17.6	17.6
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911145
SDG #: w Conn

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: EJ
2nd Reviewer: A

METHOD: GC / HPLC

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = Initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	F087.0013	3/28/11	Propylene Glycol	302.97	323.59	323.59	6.8	6.8
2	F087.0024	3/28/11	↓	100.26	93.90	93.90	6.3	6.3
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 57/1443
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer:

METHOD: ✓ GC ___ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetramethylene glycol	NS	197	157.484	80	80	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 57114S
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration
SA = Spike added
RPD =(({SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 7+8

Compound	Spike Added (mg/kg)		Sample Conc. (mg/kg)	Spike Sample Concentration (mg/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	--	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
Ethylene glycol	198.16	198.16	ND	161.46	176.26	81	81	89	89	9	9

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911445
SDG #: all cases

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: F2
2nd Reviewer: [illegible]

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = I LCS - LCSD I * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
Ethylene Glycol	198.16	NA	230.84	NA	116	116	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911145
SDG #: pu gaues

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration =_____

ND

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: March 24, 2011

LDC Report Date: August 9, 2011

Matrix: Soil

Parameters: Formaldehyde

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE112

Sample Identification

SL-223-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-8.5-9.5
DUP10-SA5A-QC-032411
SL-226-SA5A-SB-4.0-5.0
SL-225-SA5A-SB-4.0-5.0
SL-224-SA5A-SB-4.0-5.0
SL-223-SA5A-SB-4.0-5.0MS
SL-223-SA5A-SB-4.0-5.0MSD

Introduction

This data review covers 8 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8315A for Formaldehyde.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No formaldehyde was found in the method blanks.

No field blanks were identified in this SDG.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE112	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

Samples SL-223-SA5A-SB-4.0-5.0 and DUP10-SA5A-QC-032411 were identified as field duplicates. No formaldehyde was detected in any of the samples.

Santa Susana Field Laboratory
Formaldehyde - Data Qualification Summary - SDG DE112

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE112	SL-223-SA5A-SB-4.0-5.0 SL-223-SA5A-SB-8.5-9.5 DUP10-SA5A-QC-032411 SL-226-SA5A-SB-4.0-5.0 SL-225-SA5A-SB-4.0-5.0 SL-224-SA5A-SB-4.0-5.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Formaldehyde - Laboratory Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Formaldehyde - Field Blank Data Qualification Summary - SDG DE112

No Sample Data Qualified in this SDG

LDC #: 25911U71 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/9/11
SDG #: DE112 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: PM
2nd Reviewer: A

METHOD: HPLC Formaldehyde (EPA SW 846 Method 8315A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/24/11
II	Initial calibration	A	%D RSD ≤20
III.	Calibration verification/ICV	A	CCV ≤20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound Quantitation and CRQLs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	ND	D = 1, 3
XIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: SOIL

1	SL-223-SA5A-SB-4.0-5.0	11	PBLK04087	21		31	
2	SL-223-SA5A-SB-8.5-9.5	12		22		32	
3	DUP10-SA5A-QC-032411	13		23		33	
4	SL-226-SA5A-SB-4.0-5.0	14		24		34	
5	SL-225-SA5A-SB-4.0-5.0	15		25		35	
6	SL-224-SA5A-SB-4.0-5.0	16		26		36	
7	SL-223-SA5A-SB-4.0-5.0MS	17		27		37	
8	SL-223-SA5A-SB-4.0-5.0MSD	18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 25911471
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FM
2nd Reviewer: [illegible]

Method: ✓ GC _____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation?		✓		
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?			✓	
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 25911471
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: C

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			✓	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.		✓		
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

LDC #: 25911471
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

level 3

#	Standard ID	Calibration Date	Compound	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
				2002 CF (std)	2502 CF (std)	Average CF (initial)	Average CF (initial)	%RSD	%RSD
1	1CAL F6259A	3/30/11	Formaldehyde	5.97×10^1	5.97×10^1	5.97×10^1	5.97×10^1	1.9	1.9
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911471
SDG #: w conn

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: EJ
2nd Reviewer: C

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = Initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	CCV	3/30/11	formaldehyde	2002.00	1993.02	1993.02	0.4	0.4
	21:49							
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25711A1
SDG #: see cover

METHOD: ✓ GC ___ HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: [illegible]

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Butyraldehyde	NS	3958.12	3839.37793	97	97	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 25711A11
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: EJ
2nd Reviewer: A

METHOD: ✓ GC __ HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration
SA = Spike added
RPD =(((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 7+8

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	---	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
Formaldehyde	5010	5010	ND	4914.96	5293.68	98	98	106	106	7	7

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911471
SDG #: all cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: FO
2nd Reviewer:

METHOD: ✓ GC __HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA
RPD = | LCS - LCSD | * 2/(LCS + LCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS

Compound	Spike Added (ug/Kg)		Spiked Sample Concentration (ug/Kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
Formaldehyde	5010	NA	4874.16	NA	97	97	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 25911A7/
SDG #: pu ganey

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound in the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration =_____

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALew.wpd

SAMPLE DELIVERY GROUP

DE113

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Mar-2011	TB-032811	6241852	TB	5030B	8015M	III
28-Mar-2011	TB-032811	6241852	TB	5030B	8260B	III
28-Mar-2011	TB-032811	6241852	TB	5030B	8260B SIM	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	3050B	6010B	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	3050B	6020	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	3060A	7199	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	3546	1625C	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	3550B	8015B	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	3550B	8015M	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	3550B	8082	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	3550B	8270C	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	3550B	8270C SIM	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	5035	8015M	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	5035	8260B	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	5035	8260B SIM	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	8330	8330A	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	Gen Prep	300.0	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	Gen Prep	9045M	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	METHOD	314.0	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	METHOD	7471A	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	METHOD	8015B	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	METHOD	8015M	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	METHOD	8315A	III
28-Mar-2011	SL-211-SA5A-SB-2.5-3.5	6241847	N	METHOD	9012B	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	3050B	6010B	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	3060A	7199	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	3546	1625C	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	3550B	8015B	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	3550B	8015M	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	3550B	8082	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	3550B	8270C	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	3550B	8270C SIM	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	5035	8015M	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	5035	8260B	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	5035	8260B SIM	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	8330	8330A	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	Gen Prep	300.0	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	Gen Prep	9045M	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	METHOD	314.0	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	METHOD	7471A	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	METHOD	8015B	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	METHOD	8015M	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	METHOD	8315A	III
28-Mar-2011	SL-216-SA5A-SB-4.0-5.0	6241851	N	METHOD	9012B	III
28-Mar-2011	SL-214-SA5A-SB-4.0-5.0	6241848	N	3050B	6010B	III
28-Mar-2011	SL-214-SA5A-SB-4.0-5.0	6241848	N	3050B	6020	III
28-Mar-2011	SL-214-SA5A-SB-4.0-5.0	6241848	N	3060A	7199	III
28-Mar-2011	SL-214-SA5A-SB-4.0-5.0	6241848	N	3550B	8082	III
28-Mar-2011	SL-214-SA5A-SB-4.0-5.0	6241848	N	3550B	8270C	III
28-Mar-2011	SL-214-SA5A-SB-4.0-5.0	6241848	N	3550B	8270C SIM	III
28-Mar-2011	SL-214-SA5A-SB-4.0-5.0	6241848	N	5035	8260B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Mar-2011	SL-214-SA5A-SB-4.0-5.0	6241848	N	5035	8260B SIM	III
28-Mar-2011	SL-214-SA5A-SB-4.0-5.0	6241848	N	Gen Prep	300.0	III
28-Mar-2011	SL-214-SA5A-SB-4.0-5.0	6241848	N	Gen Prep	9045M	III
28-Mar-2011	SL-214-SA5A-SB-4.0-5.0	6241848	N	METHOD	314.0	III
28-Mar-2011	SL-214-SA5A-SB-4.0-5.0	6241848	N	METHOD	6850	III
28-Mar-2011	SL-214-SA5A-SB-4.0-5.0	6241848	N	METHOD	7471A	III
28-Mar-2011	SL-214-SA5A-SB-8.5-9.5	6241849	N	3050B	6010B	III
28-Mar-2011	SL-214-SA5A-SB-8.5-9.5	6241849	N	3050B	6020	III
28-Mar-2011	SL-214-SA5A-SB-8.5-9.5	6241849	N	3060A	7199	III
28-Mar-2011	SL-214-SA5A-SB-8.5-9.5	6241849	N	3550B	8082	III
28-Mar-2011	SL-214-SA5A-SB-8.5-9.5	6241849	N	3550B	8270C	III
28-Mar-2011	SL-214-SA5A-SB-8.5-9.5	6241849	N	3550B	8270C SIM	III
28-Mar-2011	SL-214-SA5A-SB-8.5-9.5	6241849	N	Gen Prep	9045M	III
28-Mar-2011	SL-214-SA5A-SB-8.5-9.5	6241849	N	METHOD	300.0	III
28-Mar-2011	SL-214-SA5A-SB-8.5-9.5	6241849	N	METHOD	314.0	III
28-Mar-2011	SL-214-SA5A-SB-8.5-9.5	6241849	N	METHOD	6850	III
28-Mar-2011	SL-214-SA5A-SB-8.5-9.5	6241849	N	METHOD	7471A	III
28-Mar-2011	SL-215-SA5A-SB-4.0-5.0	6241850	N	3050B	6010B	III
28-Mar-2011	SL-215-SA5A-SB-4.0-5.0	6241850	N	3050B	6020	III
28-Mar-2011	SL-215-SA5A-SB-4.0-5.0	6241850	N	3060A	7199	III
28-Mar-2011	SL-215-SA5A-SB-4.0-5.0	6241850	N	3550B	8082	III
28-Mar-2011	SL-215-SA5A-SB-4.0-5.0	6241850	N	3550B	8270C	III
28-Mar-2011	SL-215-SA5A-SB-4.0-5.0	6241850	N	3550B	8270C SIM	III
28-Mar-2011	SL-215-SA5A-SB-4.0-5.0	6241850	N	5035	8260B	III
28-Mar-2011	SL-215-SA5A-SB-4.0-5.0	6241850	N	5035	8260B SIM	III
28-Mar-2011	SL-215-SA5A-SB-4.0-5.0	6241850	N	Gen Prep	300.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Mar-2011	SL-215-SA5A-SB-4.0-5.0	6241850	N	Gen Prep	9045M	III
28-Mar-2011	SL-215-SA5A-SB-4.0-5.0	6241850	N	METHOD	314.0	III
28-Mar-2011	SL-215-SA5A-SB-4.0-5.0	6241850	N	METHOD	6850	III
28-Mar-2011	SL-215-SA5A-SB-4.0-5.0	6241850	N	METHOD	7471A	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	3050B	6010B	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	3050B	6020	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	3060A	7199	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	3546	1625C	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	3550B	8015B	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	3550B	8015M	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	3550B	8082	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	3550B	8270C	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	3550B	8270C SIM	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	5035	8015M	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	5035	8260B	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	5035	8260B SIM	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	8330	8330A	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	Gen Prep	300.0	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	Gen Prep	9045M	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	METHOD	314.0	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	METHOD	7471A	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	METHOD	8015B	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	METHOD	8015M	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	METHOD	8315A	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0	6241846	N	METHOD	9012B	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0DUP	P241846D271759A	DUP	Gen Prep	300.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0MSD	P241846M242014A	MSD	METHOD	8315A	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0MSD	P241846M321902A	MSD	METHOD	8015M	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0MS	P241846R242004A	MS	METHOD	8315A	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0MS	P241846R271813A	MS	Gen Prep	300.0	III
28-Mar-2011	SL-209-SA5A-SB-4.0-5.0MS	P241846R321845A	MS	METHOD	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE113 **Laboratory:** LL

EDD Filename: DE113_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-209-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 3:48:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.90	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.2	J	0.90	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-211-SA5A-SB-2.5-3.5 *Collected:* 3/28/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.6		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-214-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 12:03:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.89	U	0.89	MDL	1.1	PQL	mg/Kg	UJ	Q

Sample ID: SL-215-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 2:52:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-216-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 11:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.90	U	0.90	MDL	1.1	PQL	mg/Kg	UJ	Q
Nitrate-NO3	1.6	J	0.90	MDL	1.7	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-209-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 3:48:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	319		0.616	MDL	11.0	PQL	mg/Kg	J	E
SODIUM	108	J	41.0	MDL	110	PQL	mg/Kg	J	Z
TIN	4.05	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	2.12	J	0.924	MDL	5.50	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE113 **Laboratory:** LL

EDD Filename: DE113_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-211-SA5A-SB-2.5-3.5 ***Collected:*** 3/28/2011 9:50:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	285		0.611	MDL	10.9	PQL	mg/Kg	J	E
TIN	4.41	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.14	J	0.916	MDL	5.45	PQL	mg/Kg	J	Z

Sample ID: SL-214-SA5A-SB-4.0-5.0 ***Collected:*** 3/28/2011 12:03:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	276		0.616	MDL	11.0	PQL	mg/Kg	J	E
TIN	3.34	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	2.07	J	0.924	MDL	5.50	PQL	mg/Kg	J	Z

Sample ID: SL-214-SA5A-SB-8.5-9.5 ***Collected:*** 3/28/2011 12:05:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	125		0.614	MDL	11.0	PQL	mg/Kg	J	E
TIN	3.85	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.85	J	0.921	MDL	5.48	PQL	mg/Kg	J	Z

Sample ID: SL-215-SA5A-SB-4.0-5.0 ***Collected:*** 3/28/2011 2:52:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	561		0.622	MDL	11.1	PQL	mg/Kg	J	E
TIN	3.13	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	2.18	J	0.932	MDL	5.55	PQL	mg/Kg	J	Z

Sample ID: SL-216-SA5A-SB-4.0-5.0 ***Collected:*** 3/28/2011 11:30:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	309		0.618	MDL	11.0	PQL	mg/Kg	J	E
SODIUM	93.5	J	41.2	MDL	110	PQL	mg/Kg	J	Z
TIN	3.28	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	2.08	J	0.927	MDL	5.52	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-209-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 3:48:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0926	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

Sample ID: SL-209-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 3:48:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.592		0.0556	MDL	0.111	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-209-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 3:48:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	127		0.120	MDL	0.444	PQL	mg/Kg	J	E, A

Sample ID: SL-209-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 3:48:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0883	J	0.0667	MDL	0.222	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.95		0.0889	MDL	0.444	PQL	mg/Kg	J	A
BERYLLIUM	0.947		0.0178	MDL	0.111	PQL	mg/Kg	J	Q
CADMIUM	0.118		0.0444	MDL	0.111	PQL	mg/Kg	J	E, E, A
CHROMIUM	26.5		0.133	MDL	0.444	PQL	mg/Kg	J	E, E, A
COBALT	8.29		0.0222	MDL	0.111	PQL	mg/Kg	J	E, E, A
COPPER	11.9		0.0733	MDL	0.444	PQL	mg/Kg	J	E
LEAD	8.94		0.0116	MDL	0.222	PQL	mg/Kg	J	E, E
NICKEL	19.6		0.111	MDL	0.444	PQL	mg/Kg	J	E, A
SILVER	0.0535	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z, Q, E, A
THALLIUM	0.333		0.0333	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	49.5		0.0244	MDL	0.111	PQL	mg/Kg	J	Q, A
ZINC	59.9		0.622	MDL	3.33	PQL	mg/Kg	J	E

Sample ID: SL-211-SA5A-SB-2.5-3.5 *Collected:* 3/28/2011 9:50:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0725	J	0.0432	MDL	0.432	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-211-SA5A-SB-2.5-3.5 *Collected:* 3/28/2011 9:50:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.436		0.0540	MDL	0.108	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-211-SA5A-SB-2.5-3.5 *Collected:* 3/28/2011 9:50:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	116		0.117	MDL	0.432	PQL	mg/Kg	J	E, A

Sample ID: SL-211-SA5A-SB-2.5-3.5 *Collected:* 3/28/2011 9:50:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0648	U	0.0648	MDL	0.216	PQL	mg/Kg	UJ	E
ARSENIC	7.56		0.0864	MDL	0.432	PQL	mg/Kg	J	A
BERYLLIUM	0.885		0.0173	MDL	0.108	PQL	mg/Kg	J	Q
CADMIUM	0.0766	J	0.0432	MDL	0.108	PQL	mg/Kg	J	Z, E, E, A
CHROMIUM	25.5		0.130	MDL	0.432	PQL	mg/Kg	J	E, E, A
COBALT	6.18		0.0216	MDL	0.108	PQL	mg/Kg	J	E, E, A
COPPER	12.8		0.0713	MDL	0.432	PQL	mg/Kg	J	E
LEAD	7.46		0.0112	MDL	0.216	PQL	mg/Kg	J	E, E
NICKEL	20.6		0.108	MDL	0.432	PQL	mg/Kg	J	E, A
SILVER	0.0237	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z, Q, E, A
THALLIUM	0.329		0.0324	MDL	0.108	PQL	mg/Kg	J	Q
VANADIUM	46.6		0.0238	MDL	0.108	PQL	mg/Kg	J	Q, A
ZINC	58.5		0.605	MDL	3.24	PQL	mg/Kg	J	E

Sample ID: SL-214-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 12:03:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.167	J	0.0436	MDL	0.436	PQL	mg/Kg	J	Z

Sample ID: SL-214-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 12:03:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.551		0.0545	MDL	0.109	PQL	mg/Kg	J	Q, E, A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-214-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 12:03:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	130		0.118	MDL	0.436	PQL	mg/Kg	J	E, A

Sample ID: SL-214-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 12:03:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0654	U	0.0654	MDL	0.218	PQL	mg/Kg	UJ	E
ARSENIC	4.48		0.0871	MDL	0.436	PQL	mg/Kg	J	A
BERYLLIUM	0.699		0.0174	MDL	0.109	PQL	mg/Kg	J	Q
CADMIUM	0.211		0.0436	MDL	0.109	PQL	mg/Kg	J	E, E, A
CHROMIUM	20.9		0.131	MDL	0.436	PQL	mg/Kg	J	E, E, A
COBALT	5.79		0.0218	MDL	0.109	PQL	mg/Kg	J	E, E, A
COPPER	11.2		0.0719	MDL	0.436	PQL	mg/Kg	J	E
LEAD	6.02		0.0113	MDL	0.218	PQL	mg/Kg	J	E, E
NICKEL	15.5		0.109	MDL	0.436	PQL	mg/Kg	J	E, A
SILVER	0.0354	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z, Q, E, A
THALLIUM	0.299		0.0327	MDL	0.109	PQL	mg/Kg	J	Q
VANADIUM	38.7		0.0240	MDL	0.109	PQL	mg/Kg	J	Q, A
ZINC	58.8		0.610	MDL	3.27	PQL	mg/Kg	J	E

Sample ID: SL-214-SA5A-SB-8.5-9.5 *Collected:* 3/28/2011 12:05:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.141	J	0.0430	MDL	0.430	PQL	mg/Kg	J	Z

Sample ID: SL-214-SA5A-SB-8.5-9.5 *Collected:* 3/28/2011 12:05:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.552		0.0538	MDL	0.108	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-214-SA5A-SB-8.5-9.5 *Collected:* 3/28/2011 12:05:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	98.4		0.116	MDL	0.430	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: **SL-214-SA5A-SB-8.5-9.5** ***Collected:*** **3/28/2011 12:05:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0859	J	0.0645	MDL	0.215	PQL	mg/Kg	J	Z, Q, E
ARSENIC	9.45		0.0860	MDL	0.430	PQL	mg/Kg	J	A
BERYLLIUM	1.19		0.0172	MDL	0.108	PQL	mg/Kg	J	Q
CADMIUM	0.0430	U	0.0430	MDL	0.108	PQL	mg/Kg	UJ	E, E
CHROMIUM	28.0		0.129	MDL	0.430	PQL	mg/Kg	J	E, E, A
COBALT	6.79		0.0215	MDL	0.108	PQL	mg/Kg	J	E, E, A
COPPER	13.0		0.0710	MDL	0.430	PQL	mg/Kg	J	E
LEAD	10.6		0.0112	MDL	0.215	PQL	mg/Kg	J	E, E
NICKEL	15.5		0.108	MDL	0.430	PQL	mg/Kg	J	E, A
SILVER	0.0333	J	0.0129	MDL	0.108	PQL	mg/Kg	J	Z, Q, E, A
THALLIUM	0.357		0.0323	MDL	0.108	PQL	mg/Kg	J	Q
VANADIUM	56.8		0.0237	MDL	0.108	PQL	mg/Kg	J	Q, A
ZINC	55.4		0.602	MDL	3.23	PQL	mg/Kg	J	E

Sample ID: **SL-215-SA5A-SB-4.0-5.0** ***Collected:*** **3/28/2011 2:52:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.183	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

Sample ID: **SL-215-SA5A-SB-4.0-5.0** ***Collected:*** **3/28/2011 2:52:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.728		0.0555	MDL	0.111	PQL	mg/Kg	J	Q, E, A

Sample ID: **SL-215-SA5A-SB-4.0-5.0** ***Collected:*** **3/28/2011 2:52:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	138		0.120	MDL	0.444	PQL	mg/Kg	J	E, A

Sample ID: **SL-215-SA5A-SB-4.0-5.0** ***Collected:*** **3/28/2011 2:52:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0967	J	0.0666	MDL	0.222	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.68		0.0888	MDL	0.444	PQL	mg/Kg	J	A
BERYLLIUM	0.770		0.0178	MDL	0.111	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE113 Laboratory: LL

EDD Filename: DE113_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-215-SA5A-SB-4.0-5.0 **Collected:** 3/28/2011 2:52:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.262		0.0444	MDL	0.111	PQL	mg/Kg	J	E, E, A
CHROMIUM	23.5		0.133	MDL	0.444	PQL	mg/Kg	J	E, E, A
COBALT	6.32		0.0222	MDL	0.111	PQL	mg/Kg	J	E, E, A
COPPER	75.1		0.0733	MDL	0.444	PQL	mg/Kg	J	E
LEAD	9.16		0.0115	MDL	0.222	PQL	mg/Kg	J	E, E
NICKEL	17.7		0.111	MDL	0.444	PQL	mg/Kg	J	E, A
SILVER	0.0416	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z, Q, E, A
THALLIUM	0.362		0.0333	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	42.3		0.0244	MDL	0.111	PQL	mg/Kg	J	Q, A
ZINC	104		0.622	MDL	3.33	PQL	mg/Kg	J	E

Sample ID: SL-216-SA5A-SB-4.0-5.0 **Collected:** 3/28/2011 11:30:00 **Analysis Type:** REA **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.150	J	0.0446	MDL	0.446	PQL	mg/Kg	J	Z

Sample ID: SL-216-SA5A-SB-4.0-5.0 **Collected:** 3/28/2011 11:30:00 **Analysis Type:** REA2 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.702		0.0557	MDL	0.111	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-216-SA5A-SB-4.0-5.0 **Collected:** 3/28/2011 11:30:00 **Analysis Type:** REA3 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	162		0.120	MDL	0.446	PQL	mg/Kg	J	E, A

Sample ID: SL-216-SA5A-SB-4.0-5.0 **Collected:** 3/28/2011 11:30:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0669	U	0.0669	MDL	0.223	PQL	mg/Kg	UJ	E
ARSENIC	4.98		0.0892	MDL	0.446	PQL	mg/Kg	J	A
BERYLLIUM	0.784		0.0178	MDL	0.111	PQL	mg/Kg	J	Q
CADMIUM	0.282		0.0446	MDL	0.111	PQL	mg/Kg	J	E, E, A
CHROMIUM	22.4		0.134	MDL	0.446	PQL	mg/Kg	J	E, E, A
COBALT	6.53		0.0223	MDL	0.111	PQL	mg/Kg	J	E, E, A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-216-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 11:30:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	12.9		0.0736	MDL	0.446	PQL	mg/Kg	J	E
LEAD	6.34		0.0116	MDL	0.223	PQL	mg/Kg	J	E, E
NICKEL	17.1		0.111	MDL	0.446	PQL	mg/Kg	J	E, A
SILVER	0.0221	J	0.0134	MDL	0.111	PQL	mg/Kg	J	Z, Q, E, A
THALLIUM	0.315		0.0334	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	42.3		0.0245	MDL	0.111	PQL	mg/Kg	J	Q, A
ZINC	63.8		0.624	MDL	3.34	PQL	mg/Kg	J	E

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-209-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 3:48:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.84	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-211-SA5A-SB-2.5-3.5 *Collected:* 3/28/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.87	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-214-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 12:03:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.42	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-215-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 2:52:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.46	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-216-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 11:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.50	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-209-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 3:48:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0030	U	0.0030	MDL	0.106	PQL	mg/Kg	R	Q

Sample ID: SL-211-SA5A-SB-2.5-3.5 *Collected:* 3/28/2011 9:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0112	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z, Q, Q

Sample ID: SL-214-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 12:03:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0031	U	0.0031	MDL	0.107	PQL	mg/Kg	R	Q

Sample ID: SL-214-SA5A-SB-8.5-9.5 *Collected:* 3/28/2011 12:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0052	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z, Q, Q

Sample ID: SL-215-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 2:52:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0036	J	0.0030	MDL	0.103	PQL	mg/Kg	J	Z, Q, Q

Sample ID: SL-216-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 11:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0030	U	0.0030	MDL	0.104	PQL	mg/Kg	R	Q

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-211-SA5A-SB-2.5-3.5 *Collected:* 3/28/2011 9:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	46.4		18.2	MDL	36.4	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE113 **Laboratory:** LL

EDD Filename: DE113_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1625C **Matrix:** SO

Sample ID: SL-216-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 11:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	76.1		18.8	MDL	37.5	PQL	ng/Kg	U	B

Method Category: SVOA

Method: 8015M **Matrix:** SO

Sample ID: SL-209-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 3:48:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.6	U	5.6	MDL	14	PQL	mg/Kg	UJ	Q

Sample ID: SL-209-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 3:48:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.52	J	0.45	MDL	1.3	PQL	mg/Kg	J	Z
EFH (C8-C11)	0.46	J	0.45	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-211-SA5A-SB-2.5-3.5 *Collected:* 3/28/2011 9:50:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.53	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z
EFH (C30-C40)	0.60	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-216-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 11:30:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.52	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C8-C11)	0.46	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-209-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 3:48:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-209-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 3:48:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: SL-211-SA5A-SB-2.5-3.5 *Collected:* 3/28/2011 9:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: SL-214-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 12:03:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: SL-214-SA5A-SB-8.5-9.5 *Collected:* 3/28/2011 12:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: SL-215-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 2:52:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
NITROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: SL-216-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 11:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-CHLOROISOPROPYL) ETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-211-SA5A-SB-2.5-3.5 *Collected:* 3/28/2011 9:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	11	J	6.5	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-214-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 12:03:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	1.2	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
Di-n-octylphthalate	12	J	6.6	MDL	20	PQL	ug/Kg	J	Z
NAPHTHALENE	0.84	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-214-SA5A-SB-8.5-9.5 *Collected:* 3/28/2011 12:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	11	J	6.7	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-215-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 2:52:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.57	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
Di-n-octylphthalate	11	J	6.6	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-216-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 11:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	11	J	6.7	MDL	20	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-209-SA5A-SB-4.0-5.0 *Collected:* 3/28/2011 3:48:00 *Analysis Type:* RES *Dilution:* 0.91

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.7	J	0.25	MDL	4.1	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **VOA**

Method: **8260B** ***Matrix:*** **SO**

Sample ID: **SL-211-SA5A-SB-2.5-3.5** ***Collected:*** **3/28/2011 9:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1.03**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.5	J	0.27	MDL	4.5	PQL	ug/Kg	U	B

Sample ID: **SL-214-SA5A-SB-4.0-5.0** ***Collected:*** **3/28/2011 12:03:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.96**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.6	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: **SL-215-SA5A-SB-4.0-5.0** ***Collected:*** **3/28/2011 2:52:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.88**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.6	J	0.23	MDL	3.9	PQL	ug/Kg	U	B

Sample ID: **SL-216-SA5A-SB-4.0-5.0** ***Collected:*** **3/28/2011 11:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.87**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	3.4	J	0.23	MDL	3.9	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE113

Method Blank Outlier Report

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1625C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLB09B261132	4/11/2011 11:32:00 AM	N-NITROSODIMETHYLAMINE	21.5 ng/Kg	SL-209-SA5A-SB-4.0-5.0 SL-211-SA5A-SB-2.5-3.5 SL-216-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-211-SA5A-SB-2.5-3.5(RES)	N-NITROSODIMETHYLAMINE	46.4 ng/Kg	46.4U ng/Kg
SL-216-SA5A-SB-4.0-5.0(RES)	N-NITROSODIMETHYLAMINE	76.1 ng/Kg	76.1U ng/Kg

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08908CB220126	4/7/2011 1:26:00 AM	PHOSPHORUS TIN	1.48 mg/Kg 2.21 mg/Kg	SL-209-SA5A-SB-4.0-5.0 SL-211-SA5A-SB-2.5-3.5 SL-214-SA5A-SB-4.0-5.0 SL-214-SA5A-SB-8.5-9.5 SL-215-SA5A-SB-4.0-5.0 SL-216-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-209-SA5A-SB-4.0-5.0(RES)	TIN	4.05 mg/Kg	4.05U mg/Kg
SL-211-SA5A-SB-2.5-3.5(RES)	TIN	4.41 mg/Kg	4.41U mg/Kg
SL-214-SA5A-SB-4.0-5.0(RES)	TIN	3.34 mg/Kg	3.34U mg/Kg
SL-214-SA5A-SB-8.5-9.5(RES)	TIN	3.85 mg/Kg	3.85U mg/Kg
SL-215-SA5A-SB-4.0-5.0(RES)	TIN	3.13 mg/Kg	3.13U mg/Kg
SL-216-SA5A-SB-4.0-5.0(RES)	TIN	3.28 mg/Kg	3.28U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08926CB221237A	4/4/2011 12:37:00 PM	COPPER	0.218 mg/Kg	SL-209-SA5A-SB-4.0-5.0 SL-211-SA5A-SB-2.5-3.5 SL-214-SA5A-SB-4.0-5.0 SL-214-SA5A-SB-8.5-9.5 SL-215-SA5A-SB-4.0-5.0 SL-216-SA5A-SB-4.0-5.0
P08926CB222315A	4/5/2011 11:15:00 PM	LEAD	0.0131 mg/Kg	SL-209-SA5A-SB-4.0-5.0 SL-211-SA5A-SB-2.5-3.5 SL-214-SA5A-SB-4.0-5.0 SL-214-SA5A-SB-8.5-9.5 SL-215-SA5A-SB-4.0-5.0 SL-216-SA5A-SB-4.0-5.0

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB09B211346A	3/31/2011 1:46:00 PM	METHYLENE CHLORIDE	0.55 ug/Kg	SL-209-SA5A-SB-4.0-5.0
VBLKB10B210308A	4/1/2011 3:08:00 AM	METHYLENE CHLORIDE	0.83 ug/Kg	SL-211-SA5A-SB-2.5-3.5 SL-214-SA5A-SB-4.0-5.0 SL-215-SA5A-SB-4.0-5.0 SL-216-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-209-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.7 ug/Kg	4.1U ug/Kg
SL-211-SA5A-SB-2.5-3.5(RES)	METHYLENE CHLORIDE	2.5 ug/Kg	4.5U ug/Kg
SL-214-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.6 ug/Kg	4.2U ug/Kg
SL-215-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.6 ug/Kg	3.9U ug/Kg
SL-216-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	3.4 ug/Kg	3.9U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

***Method:* 300.0**
***Matrix:* SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-209-SA5A-SB-4.0-5.0MS (SL-209-SA5A-SB-4.0-5.0 SL-211-SA5A-SB-2.5-3.5 SL-214-SA5A-SB-4.0-5.0 SL-215-SA5A-SB-4.0-5.0 SL-216-SA5A-SB-4.0-5.0)	FLUORIDE	57	-	80.00-120.00	-	FLUORIDE	J (all detects) UJ (all non-detects)

***Method:* 8015M**
***Matrix:* SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-209-SA5A-SB-4.0-5.0MS SL-209-SA5A-SB-4.0-5.0MSD (SL-209-SA5A-SB-4.0-5.0)	DIETHYLENE GLYCOL	46	-	59.00-109.00	47 (20.00)	DIETHYLENE GLYCOL	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-209-SA5A-SB-4.0-5.0DUP (SL-209-SA5A-SB-4.0-5.0 SL -211-SA5A-SB-2.5-3.5 SL -214-SA5A-SB-4.0-5.0 SL -215-SA5A-SB-4.0-5.0 SL -216-SA5A-SB-4.0-5.0)	FLUORIDE	32	20.00	No Qual OK by difference

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSY76Q211734A LCSY76Y211755A (TB-032811)	BROMOMETHANE TRICHLOROFLUOROMETHANE	- 137	123 131	44.00-120.00 64.00-129.00	- -	BROMOMETHANE TRICHLOROFLUOROMETHAN	J(all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P08926CQ221240A (SL-209-SA5A-SB-4.0-5.0 SL -211-SA5A-SB-2.5-3.5 SL -214-SA5A-SB-4.0-5.0 SL -214-SA5A-SB-8.5-9.5 SL -215-SA5A-SB-4.0-5.0 SL -216-SA5A-SB-4.0-5.0)	ANTIMONY	60	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P1LCLCSQ261146 (SL-209-SA5A-SB-4.0-5.0 SL -211-SA5A-SB-2.5-3.5 SL -214-SA5A-SB-4.0-5.0 SL -214-SA5A-SB-8.5-9.5 SL -215-SA5A-SB-4.0-5.0 SL -216-SA5A-SB-4.0-5.0)	BIS(2-CHLOROISOPROPYL) ET NITROBENZENE	64 70	- -	68.00-131.00 71.00-104.00	- -	BIS(2-CHLOROISOPROPYL) E NITROBENZENE	J(all detects) UJ(all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-209-SA5A-SB-4.0-5.0	Nitrate-NO3	J	1.2	1.7	PQL	mg/Kg	J (all detects)
SL-216-SA5A-SB-4.0-5.0	Nitrate-NO3	J	1.6	1.7	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-209-SA5A-SB-4.0-5.0	SODIUM	J	108	110	PQL	mg/Kg	J (all detects)
	TIN	J	4.05	11.0	PQL	mg/Kg	
	Zirconium	J	2.12	5.50	PQL	mg/Kg	
SL-211-SA5A-SB-2.5-3.5	TIN	J	4.41	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.14	5.45	PQL	mg/Kg	
SL-214-SA5A-SB-4.0-5.0	TIN	J	3.34	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.07	5.50	PQL	mg/Kg	
SL-214-SA5A-SB-8.5-9.5	TIN	J	3.85	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.85	5.48	PQL	mg/Kg	
SL-215-SA5A-SB-4.0-5.0	TIN	J	3.13	11.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.18	5.55	PQL	mg/Kg	
SL-216-SA5A-SB-4.0-5.0	SODIUM	J	93.5	110	PQL	mg/Kg	J (all detects)
	TIN	J	3.28	11.0	PQL	mg/Kg	
	Zirconium	J	2.08	5.52	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-209-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0883	0.222	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0926	0.444	PQL	mg/Kg	
	SILVER	J	0.0535	0.111	PQL	mg/Kg	
SL-211-SA5A-SB-2.5-3.5	CADMIUM	J	0.0766	0.108	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0725	0.432	PQL	mg/Kg	
	SILVER	J	0.0237	0.108	PQL	mg/Kg	
SL-214-SA5A-SB-4.0-5.0	SELENIUM	J	0.167	0.436	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0354	0.109	PQL	mg/Kg	
SL-214-SA5A-SB-8.5-9.5	ANTIMONY	J	0.0859	0.215	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.141	0.430	PQL	mg/Kg	
	SILVER	J	0.0333	0.108	PQL	mg/Kg	
SL-215-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0967	0.222	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.183	0.444	PQL	mg/Kg	
	SILVER	J	0.0416	0.111	PQL	mg/Kg	
SL-216-SA5A-SB-4.0-5.0	SELENIUM	J	0.150	0.446	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0221	0.111	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-209-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.84	1.1	PQL	mg/Kg	J (all detects)
SL-211-SA5A-SB-2.5-3.5	HEXAVALENT CHROMIUM	J	0.87	1.1	PQL	mg/Kg	J (all detects)
SL-214-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.42	1.1	PQL	mg/Kg	J (all detects)
SL-215-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.46	1.1	PQL	mg/Kg	J (all detects)
SL-216-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.50	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-211-SA5A-SB-2.5-3.5	MERCURY	J	0.0112	0.105	PQL	mg/Kg	J (all detects)
SL-214-SA5A-SB-8.5-9.5	MERCURY	J	0.0052	0.107	PQL	mg/Kg	J (all detects)
SL-215-SA5A-SB-4.0-5.0	MERCURY	J	0.0036	0.103	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-209-SA5A-SB-4.0-5.0	EFH (C30-C40) EFH (C8-C11)	J J	0.52 0.46	1.3 1.3	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-211-SA5A-SB-2.5-3.5	EFH (C15-C20) EFH (C30-C40)	J J	0.53 0.60	1.3 1.3	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-216-SA5A-SB-4.0-5.0	EFH (C30-C40) EFH (C8-C11)	J J	0.52 0.46	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-209-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	2.7	4.1	PQL	ug/Kg	J (all detects)
SL-211-SA5A-SB-2.5-3.5	METHYLENE CHLORIDE	J	2.5	4.5	PQL	ug/Kg	J (all detects)
SL-214-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	2.6	4.2	PQL	ug/Kg	J (all detects)
SL-215-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	2.6	3.9	PQL	ug/Kg	J (all detects)
SL-216-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	3.4	3.9	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE113 **Laboratory: LL**

EDD Filename: DE113_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-211-SA5A-SB-2.5-3.5	Di-n-octylphthalate	J	11	20	PQL	ug/Kg	J (all detects)
SL-214-SA5A-SB-4.0-5.0	CHRYSENE Di-n-octylphthalate NAPHTHALENE	J J J	1.2 12 0.84	1.8 20 1.8	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-214-SA5A-SB-8.5-9.5	Di-n-octylphthalate	J	11	20	PQL	ug/Kg	J (all detects)
SL-215-SA5A-SB-4.0-5.0	CHRYSENE Di-n-octylphthalate	J J	0.57 11	1.8 20	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-216-SA5A-SB-4.0-5.0	Di-n-octylphthalate	J	11	20	PQL	ug/Kg	J (all detects)

LDC #: 25911V4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-11

SDG #: DE113 ADR

Laboratory: Lancaster Laboratories

Reviewer: CR

2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	✓	
IV.	Blanks	A	No Quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (SDG: DE114)
VII.	Duplicate Sample Analysis	N	DUP ↓
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	—	(SDG: DE114)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	✓	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	SL-209-SA5A-SB-4.0-5.0	11		21		31	
2	SL-211-SA5A-SB-2.5-3.5	12		22		32	
3	SL-214-SA5A-SB-4.0-5.0	13		23		33	
4	SL-214-SA5A-SB-8.5-9.5	14		24		34	
5	SL-215-SA5A-SB-4.0-5.0	15		25		35	
6	SL-215-SA5A-SB-4.0-5.0	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

SAMPLE DELIVERY GROUP

DE114

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
29-Mar-2011	TB-032911	6242772	TB	5030B	8015M	III
29-Mar-2011	TB-032911	6242772	TB	5030B	8260B	III
29-Mar-2011	TB-032911	6242772	TB	5030B	8260B SIM	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	3050B	6010B	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	3050B	6020	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	3060A	7199	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	3546	1625C	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	3550B	8015B	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	3550B	8015M	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	3550B	8082	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	3550B	8270C	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	3550B	8270C SIM	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	5035	8015M	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	5035	8260B	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	5035	8260B SIM	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	8330	8330A	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	Gen Prep	300.0	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	Gen Prep	9045M	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	METHOD	314.0	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	METHOD	7471A	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	METHOD	8015B	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	METHOD	8015M	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	METHOD	8315A	III
29-Mar-2011	SL-208-SA5A-SB-4.0-5.0	6242768	N	METHOD	9012B	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	3050B	6010B	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	3060A	7199	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	3546	1625C	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	3550B	8015B	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	3550B	8015M	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	3550B	8082	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	3550B	8270C	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	3550B	8270C SIM	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	5035	8015M	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	5035	8260B	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	5035	8260B SIM	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	8330	8330A	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	Gen Prep	300.0	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	Gen Prep	9045M	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	METHOD	314.0	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	METHOD	7471A	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	METHOD	8015B	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	METHOD	8015M	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	METHOD	8315A	III
29-Mar-2011	SL-208-SA5A-SB-7.5-8.5	6242769	N	METHOD	9012B	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	3005A	6010B	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	3020A	6020	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	3510C	8015B	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	3510C	8015M	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	3510C	8082	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	3510C	8270C	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	3510C	8270C SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
29-Mar-2011	EB10-SA5A-032911	6242771	EB	3520C	1625C	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	5030B	8015M	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	5030B	8260B	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	5030B	8260B SIM	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	8330	8330A	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	Gen Prep	300.0	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	Gen Prep	314.0	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	Gen Prep	7199	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	Gen Prep	8015B	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	Gen Prep	8015M	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	Gen Prep	9040B	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	METHOD	7470A	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	METHOD	8315A	III
29-Mar-2011	EB10-SA5A-032911	6242771	EB	METHOD	9012B	III
29-Mar-2011	EB10-SA5A-032911MSD	P242771M321724A	MSD	Gen Prep	8015M	III
29-Mar-2011	EB10-SA5A-032911MS	P242771R321706A	MS	Gen Prep	8015M	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	3050B	6010B	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	3050B	6020	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	3060A	7199	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	3546	1625C	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	3550B	8015B	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	3550B	8015M	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	3550B	8082	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	3550B	8270C	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	3550B	8270C SIM	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	5035	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	5035	8260B	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	5035	8260B SIM	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	8330	8330A	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	Gen Prep	300.0	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	Gen Prep	9045M	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	METHOD	314.0	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	METHOD	7471A	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	METHOD	8015B	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	METHOD	8015M	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	METHOD	8315A	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0	6242767	N	METHOD	9012B	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0DUP	P242767D270308A	DUP	METHOD	314.0	III
29-Mar-2011	SL-091-SA5A-SB-3.0-4.0MS	P242767R270330A	MS	METHOD	314.0	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	3050B	6010B	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	3050B	6020	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	3060A	7199	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	3546	1625C	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	3550B	8015B	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	3550B	8015M	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	3550B	8082	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	3550B	8270C	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	3550B	8270C SIM	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	5035	8015M	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	5035	8260B	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	5035	8260B SIM	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	8330	8330A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	Gen Prep	300.0	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	Gen Prep	9045M	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	METHOD	314.0	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	METHOD	7471A	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	METHOD	8015B	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	METHOD	8015M	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	METHOD	8315A	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0	6242770	N	METHOD	9012B	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0DUP	P242770D220146	DUP	3050B	6010B	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0DUP	P242770D220841	DUP	METHOD	7471A	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0DUP	P242770D221249A	DUP	3050B	6020	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0DUP	P242770D221249B	DUP	3050B	6020	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0DUP	P242770D221249C	DUP	3050B	6020	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0DUP	P242770D221249D	DUP	3050B	6020	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0DUP	P242770D221410A	DUP	3050B	6020	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0DUP	P242770D221434A	DUP	3050B	6020	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0DUP	P242770D221806	DUP	3050B	6010B	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0DUP	P242770D222142	DUP	3050B	6010B	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0DUP	P242770D271919B	DUP	METHOD	9012B	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MSD	P242770M220154	MSD	3050B	6010B	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MSD	P242770M220844	MSD	METHOD	7471A	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MSD	P242770M221255A	MSD	3050B	6020	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MSD	P242770M221255B	MSD	3050B	6020	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MSD	P242770M221255C	MSD	3050B	6020	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MSD	P242770M221255D	MSD	3050B	6020	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MSD	P242770M221416A	MSD	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MSD	P242770M221814	MSD	3050B	6010B	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MSD	P242770M222149	MSD	3050B	6010B	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MS	P242770R220150	MS	3050B	6010B	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MS	P242770R220842	MS	METHOD	7471A	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MS	P242770R221252A	MS	3050B	6020	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MS	P242770R221252B	MS	3050B	6020	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MS	P242770R221252C	MS	3050B	6020	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MS	P242770R221252D	MS	3050B	6020	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MS	P242770R221413A	MS	3050B	6020	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MS	P242770R221810	MS	3050B	6010B	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MS	P242770R222145	MS	3050B	6010B	III
29-Mar-2011	SL-221-SA5A-SB-3.0-4.0MS	P242770R271920B	MS	METHOD	9012B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE114 **Laboratory:** LL

EDD Filename: DE114_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-091-SA5A-SB-3.0-4.0 *Collected:* 3/29/2011 10:59:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.1	J	0.89	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-208-SA5A-SB-7.5-8.5 *Collected:* 3/29/2011 9:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.2	J	0.92	MDL	1.7	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-091-SA5A-SB-3.0-4.0 *Collected:* 3/29/2011 10:59:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	353		0.609	MDL	10.9	PQL	mg/Kg	J	E
SODIUM	91.1	J	40.6	MDL	109	PQL	mg/Kg	J	Z
TIN	3.29	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.30	J	0.914	MDL	5.44	PQL	mg/Kg	J	Z

Sample ID: SL-208-SA5A-SB-4.0-5.0 *Collected:* 3/29/2011 8:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	206		0.627	MDL	11.2	PQL	mg/Kg	J	E
SODIUM	85.3	J	41.8	MDL	112	PQL	mg/Kg	J	Z
TIN	3.76	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	1.99	J	0.941	MDL	5.60	PQL	mg/Kg	J	Z

Sample ID: SL-208-SA5A-SB-7.5-8.5 *Collected:* 3/29/2011 9:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	129		0.646	MDL	11.5	PQL	mg/Kg	J	E
TIN	3.82	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	2.42	J	0.969	MDL	5.77	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE114 **Laboratory: LL**

EDD Filename: DE114_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-221-SA5A-SB-3.0-4.0 *Collected:* 3/29/2011 2:19:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	677		0.647	MDL	11.6	PQL	mg/Kg	J	E
Zirconium	3.50	J	0.971	MDL	5.78	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-091-SA5A-SB-3.0-4.0 *Collected:* 3/29/2011 10:59:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.236	J	0.0440	MDL	0.440	PQL	mg/Kg	J	Z

Sample ID: SL-091-SA5A-SB-3.0-4.0 *Collected:* 3/29/2011 10:59:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.512		0.0549	MDL	0.110	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-091-SA5A-SB-3.0-4.0 *Collected:* 3/29/2011 10:59:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	108		0.119	MDL	0.440	PQL	mg/Kg	J	E, A

Sample ID: SL-091-SA5A-SB-3.0-4.0 *Collected:* 3/29/2011 10:59:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0828	J	0.0659	MDL	0.220	PQL	mg/Kg	J	Z, Q, E
ARSENIC	4.52		0.0879	MDL	0.440	PQL	mg/Kg	J	A
BERYLLIUM	0.649		0.0176	MDL	0.110	PQL	mg/Kg	J	Q
CADMIUM	0.195		0.0440	MDL	0.110	PQL	mg/Kg	J	E, E, A
CHROMIUM	20.1		0.132	MDL	0.440	PQL	mg/Kg	J	E, E, A
COBALT	6.50		0.0220	MDL	0.110	PQL	mg/Kg	J	E, E, A
COPPER	8.71		0.0725	MDL	0.440	PQL	mg/Kg	J	E
LEAD	5.42		0.0114	MDL	0.220	PQL	mg/Kg	J	E, E
NICKEL	13.8		0.110	MDL	0.440	PQL	mg/Kg	J	E, A
SILVER	0.0413	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z, Q, E, A
THALLIUM	0.291		0.0330	MDL	0.110	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE114 **Laboratory:** LL

EDD Filename: DE114_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-091-SA5A-SB-3.0-4.0 ***Collected:*** 3/29/2011 10:59:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	39.7		0.0242	MDL	0.110	PQL	mg/Kg	J	Q, A
ZINC	57.7		0.615	MDL	3.30	PQL	mg/Kg	J	E

Sample ID: SL-208-SA5A-SB-4.0-5.0 ***Collected:*** 3/29/2011 8:50:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.221	J	0.0440	MDL	0.440	PQL	mg/Kg	J	Z

Sample ID: SL-208-SA5A-SB-4.0-5.0 ***Collected:*** 3/29/2011 8:50:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.761		0.0549	MDL	0.110	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-208-SA5A-SB-4.0-5.0 ***Collected:*** 3/29/2011 8:50:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	144		0.119	MDL	0.440	PQL	mg/Kg	J	E, A

Sample ID: SL-208-SA5A-SB-4.0-5.0 ***Collected:*** 3/29/2011 8:50:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.105	J	0.0659	MDL	0.220	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.64		0.0879	MDL	0.440	PQL	mg/Kg	J	A
BERYLLIUM	1.06		0.0176	MDL	0.110	PQL	mg/Kg	J	Q
CADMIUM	0.173		0.0440	MDL	0.110	PQL	mg/Kg	J	E, E, A
CHROMIUM	29.0		0.132	MDL	0.440	PQL	mg/Kg	J	E, E, A
COBALT	9.85		0.0220	MDL	0.110	PQL	mg/Kg	J	E, E, A
COPPER	11.8		0.0725	MDL	0.440	PQL	mg/Kg	J	E
LEAD	8.91		0.0114	MDL	0.220	PQL	mg/Kg	J	E, E
NICKEL	22.2		0.110	MDL	0.440	PQL	mg/Kg	J	E, A
SILVER	0.0461	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z, Q, E, A
THALLIUM	0.401		0.0330	MDL	0.110	PQL	mg/Kg	J	Q
VANADIUM	55.3		0.0242	MDL	0.110	PQL	mg/Kg	J	Q, A
ZINC	72.6		0.615	MDL	3.30	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE114 **Laboratory:** LL

EDD Filename: DE114_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-208-SA5A-SB-7.5-8.5 ***Collected:*** 3/29/2011 9:00:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.113	J	0.0457	MDL	0.457	PQL	mg/Kg	J	Z

Sample ID: SL-208-SA5A-SB-7.5-8.5 ***Collected:*** 3/29/2011 9:00:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.663		0.0571	MDL	0.114	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-208-SA5A-SB-7.5-8.5 ***Collected:*** 3/29/2011 9:00:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	94.4		0.123	MDL	0.457	PQL	mg/Kg	J	E, A

Sample ID: SL-208-SA5A-SB-7.5-8.5 ***Collected:*** 3/29/2011 9:00:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0760	J	0.0685	MDL	0.228	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.93		0.0914	MDL	0.457	PQL	mg/Kg	J	A
BERYLLIUM	0.918		0.0183	MDL	0.114	PQL	mg/Kg	J	Q
CADMIUM	0.0967	J	0.0457	MDL	0.114	PQL	mg/Kg	J	Z, E, E, A
CHROMIUM	25.2		0.137	MDL	0.457	PQL	mg/Kg	J	E, E, A
COBALT	4.38		0.0228	MDL	0.114	PQL	mg/Kg	J	E, E, A
COPPER	11.6		0.0754	MDL	0.457	PQL	mg/Kg	J	E
LEAD	6.63		0.0119	MDL	0.228	PQL	mg/Kg	J	E, E
NICKEL	15.9		0.114	MDL	0.457	PQL	mg/Kg	J	E, A
SILVER	0.0568	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z, Q, E, A
THALLIUM	0.293		0.0343	MDL	0.114	PQL	mg/Kg	J	Q
VANADIUM	48.4		0.0251	MDL	0.114	PQL	mg/Kg	J	Q, A
ZINC	48.7		0.640	MDL	3.43	PQL	mg/Kg	J	E

Sample ID: SL-221-SA5A-SB-3.0-4.0 ***Collected:*** 3/29/2011 2:19:00 ***Analysis Type:*** REA ***Dilution:*** 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	693		0.687	MDL	2.29	PQL	mg/Kg	J	E, E, A
COPPER	699		0.378	MDL	2.29	PQL	mg/Kg	J	E
NICKEL	538		0.572	MDL	2.29	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE114 **Laboratory:** LL

EDD Filename: DE114_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-221-SA5A-SB-3.0-4.0 ***Collected:*** 3/29/2011 2:19:00 ***Analysis Type:*** REA ***Dilution:*** 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	616		3.21	MDL	17.2	PQL	mg/Kg	J	E

Sample ID: SL-221-SA5A-SB-3.0-4.0 ***Collected:*** 3/29/2011 2:19:00 ***Analysis Type:*** REA2 ***Dilution:*** 100

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	2890		0.595	MDL	11.4	PQL	mg/Kg	J	E, E

Sample ID: SL-221-SA5A-SB-3.0-4.0 ***Collected:*** 3/29/2011 2:19:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.327	J	0.0458	MDL	0.458	PQL	mg/Kg	J	Z

Sample ID: SL-221-SA5A-SB-3.0-4.0 ***Collected:*** 3/29/2011 2:19:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	19.5		0.0572	MDL	0.114	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-221-SA5A-SB-3.0-4.0 ***Collected:*** 3/29/2011 2:19:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	90.4		0.124	MDL	0.458	PQL	mg/Kg	J	E, A

Sample ID: SL-221-SA5A-SB-3.0-4.0 ***Collected:*** 3/29/2011 2:19:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.78		0.0687	MDL	0.229	PQL	mg/Kg	J	Q, E
ARSENIC	12.4		0.0916	MDL	0.458	PQL	mg/Kg	J	A
BERYLLIUM	0.440		0.0183	MDL	0.114	PQL	mg/Kg	J	Q
CADMIUM	18.6		0.0458	MDL	0.114	PQL	mg/Kg	J	E, E, A
COBALT	19.5		0.0229	MDL	0.114	PQL	mg/Kg	J	E, E, A
SILVER	4.45		0.0137	MDL	0.114	PQL	mg/Kg	J	Q, E, A
VANADIUM	34.3		0.0252	MDL	0.114	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE114 **Laboratory: LL**

EDD Filename: DE114_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: AQ**

Sample ID: EB10-SA5A-032911 *Collected:* 3/29/2011 9:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	5.0	U	5.0	MDL	10.0	PQL	ug/L	UJ	H

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-091-SA5A-SB-3.0-4.0 *Collected:* 3/29/2011 10:59:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.40	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-208-SA5A-SB-4.0-5.0 *Collected:* 3/29/2011 8:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.36	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-091-SA5A-SB-3.0-4.0 *Collected:* 3/29/2011 10:59:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0031	U	0.0031	MDL	0.106	PQL	mg/Kg	R	Q

Sample ID: SL-208-SA5A-SB-4.0-5.0 *Collected:* 3/29/2011 8:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0032	U	0.0032	MDL	0.112	PQL	mg/Kg	R	Q

Sample ID: SL-208-SA5A-SB-7.5-8.5 *Collected:* 3/29/2011 9:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0050	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z, Q, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE114 **Laboratory:** LL

EDD Filename: DE114_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS **Method:** 7471A **Matrix:** SO

Sample ID: SL-221-SA5A-SB-3.0-4.0 *Collected:* 3/29/2011 2:19:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.377		0.0033	MDL	0.116	PQL	mg/Kg	J	Q, Q

Method Category: SVOA **Method:** 1625C **Matrix:** AQ

Sample ID: EB10-SA5A-032911 *Collected:* 3/29/2011 9:30:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	1.81		0.505	MDL	1.01	PQL	ng/L	U	B

Method Category: SVOA **Method:** 1625C **Matrix:** SO

Sample ID: SL-208-SA5A-SB-7.5-8.5 *Collected:* 3/29/2011 9:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	45.1		19.2	MDL	38.4	PQL	ng/Kg	U	B

Method Category: SVOA **Method:** 8015M **Matrix:** SO

Sample ID: SL-091-SA5A-SB-3.0-4.0 *Collected:* 3/29/2011 10:59:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	0.51	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z
EFH (C30-C40)	0.87	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z
EFH (C8-C11)	0.44	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-208-SA5A-SB-4.0-5.0 *Collected:* 3/29/2011 8:50:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.86	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE114 **Laboratory:** LL

EDD Filename: DE114_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8015M **Matrix:** SO

Sample ID: SL-208-SA5A-SB-7.5-8.5 **Collected:** 3/29/2011 9:00:00 **Analysis Type:** REA2 **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	1.1	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C8-C11)	0.49	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-221-SA5A-SB-3.0-4.0 **Collected:** 3/29/2011 2:19:00 **Analysis Type:** REA2 **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.54	J	0.48	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C8-C11)	0.58	J	0.48	MDL	1.4	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-221-SA5A-SB-3.0-4.0 **Collected:** 3/29/2011 2:19:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	22	J	20	MDL	200	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	64	J	20	MDL	390	PQL	ug/Kg	U	B

Method Category: SVOA

Method: 8270C SIM **Matrix:** AQ

Sample ID: EB10-SA5A-032911 **Collected:** 3/29/2011 9:30:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	0.23	J	0.053	MDL	1.1	PQL	ug/L	U	B
Diethylphthalate	0.091	J	0.053	MDL	1.1	PQL	ug/L	J	Z
Di-n-butylphthalate	0.44	J	0.053	MDL	1.1	PQL	ug/L	U	B
Di-n-octylphthalate	0.12	J	0.053	MDL	1.1	PQL	ug/L	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE114 **Laboratory: LL**

EDD Filename: DE114_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-221-SA5A-SB-3.0-4.0 *Collected:* 3/29/2011 2:19:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.0	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.2	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.95	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
ANTHRACENE	0.77	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.5	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-butylphthalate	20	J	7.0	MDL	21	PQL	ug/Kg	U	B

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-091-SA5A-SB-3.0-4.0 *Collected:* 3/29/2011 10:59:00 *Analysis Type:* RES *Dilution:* 0.94

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	3.2	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: SL-208-SA5A-SB-4.0-5.0 *Collected:* 3/29/2011 8:50:00 *Analysis Type:* RES *Dilution:* 0.92

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	3.2	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: SL-208-SA5A-SB-7.5-8.5 *Collected:* 3/29/2011 9:00:00 *Analysis Type:* RES *Dilution:* 0.96

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.7	J	0.27	MDL	4.4	PQL	ug/Kg	U	B

Sample ID: SL-221-SA5A-SB-3.0-4.0 *Collected:* 3/29/2011 2:19:00 *Analysis Type:* RES *Dilution:* 0.95

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.7	J	0.27	MDL	4.5	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE114 **Laboratory: LL**

EDD Filename: DE114_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE114 **Laboratory: LL**

EDD Filename: DE114_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE114 **Laboratory: LL**

EDD Filename: DE114_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE114

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE114
EDD Filename: DE114_v1

Laboratory: LL
eQAPP Name: CDM_SSFL_110509

Method: 7199 **Preparation Method: Gen Prep**
Matrix: AQ

Sample ID	*Type*	*Actual*	*Criteria*	*Units*	*Flag*
EB10-SA5A-032911 (RES)	Sampling To Analysis	25.00	24.00	HOURS	J (all detects) UJ (all non-detects)

Method Blank Outlier Report

Lab Reporting Batch ID: DE114 | Laboratory: LL

EDD Filename: DE114_v1 | eQAPP Name: CDM_SSFL_110509

Method: 1625C
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWD09B260818	4/6/2011 8:18:00 AM	N-NITROSODIMETHYLAMINE	2.09 ng/L	EB10-SA5A-032911

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB10-SA5A-032911(RES)	N-NITROSODIMETHYLAMINE	1.81 ng/L	1.81U ng/L

Method: 1625C
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLB09B261132	4/11/2011 11:32:00 AM	N-NITROSODIMETHYLAMINE	21.5 ng/Kg	SL-091-SA5A-SB-3.0-4.0 SL-208-SA5A-SB-4.0-5.0 SL-208-SA5A-SB-7.5-8.5 SL-221-SA5A-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-208-SA5A-SB-7.5-8.5(RES)	N-NITROSODIMETHYLAMINE	45.1 ng/Kg	45.1U ng/Kg

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08908CB220126	4/7/2011 1:26:00 AM	PHOSPHORUS TIN	1.48 mg/Kg 2.21 mg/Kg	SL-091-SA5A-SB-3.0-4.0 SL-208-SA5A-SB-4.0-5.0 SL-208-SA5A-SB-7.5-8.5 SL-221-SA5A-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-091-SA5A-SB-3.0-4.0(RES)	TIN	3.29 mg/Kg	3.29U mg/Kg
SL-208-SA5A-SB-4.0-5.0(RES)	TIN	3.76 mg/Kg	3.76U mg/Kg
SL-208-SA5A-SB-7.5-8.5(RES)	TIN	3.82 mg/Kg	3.82U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE114 **Laboratory: LL**

EDD Filename: DE114_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P08926CB221237A	4/4/2011 12:37:00 PM	COPPER	0.218 mg/Kg	SL-091-SA5A-SB-3.0-4.0 SL-208-SA5A-SB-4.0-5.0 SL-208-SA5A-SB-7.5-8.5 SL-221-SA5A-SB-3.0-4.0
P08926CB222315A	4/5/2011 11:15:00 PM	LEAD	0.0131 mg/Kg	SL-091-SA5A-SB-3.0-4.0 SL-208-SA5A-SB-4.0-5.0 SL-208-SA5A-SB-7.5-8.5 SL-221-SA5A-SB-3.0-4.0

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB10B210308A	4/1/2011 3:08:00 AM	METHYLENE CHLORIDE	0.83 ug/Kg	SL-091-SA5A-SB-3.0-4.0 SL-208-SA5A-SB-4.0-5.0 SL-208-SA5A-SB-7.5-8.5 SL-221-SA5A-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-091-SA5A-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	3.2 ug/Kg	4.2U ug/Kg
SL-208-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	3.2 ug/Kg	4.2U ug/Kg
SL-208-SA5A-SB-7.5-8.5(RES)	METHYLENE CHLORIDE	2.7 ug/Kg	4.4U ug/Kg
SL-221-SA5A-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	2.7 ug/Kg	4.5U ug/Kg

Method: 8270C
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLA09B262257	4/7/2011 10:57:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	17 ug/Kg	SL-091-SA5A-SB-3.0-4.0 SL-208-SA5A-SB-4.0-5.0 SL-208-SA5A-SB-7.5-8.5 SL-221-SA5A-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-221-SA5A-SB-3.0-4.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	64 ug/Kg	390U ug/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE114 **Laboratory: LL**

EDD Filename: DE114_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWG09B261901	4/3/2011 7:01:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE Di-n-butylphthalate	0.074 ug/L 0.12 ug/L	EB10-SA5A-032911

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB10-SA5A-032911(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.23 ug/L	1.1U ug/L
EB10-SA5A-032911(RES)	Di-n-butylphthalate	0.44 ug/L	1.1U ug/L

Method: **8270C SIM**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLC09B261905	4/5/2011 7:05:00 PM	Di-n-butylphthalate	11 ug/Kg	SL-091-SA5A-SB-3.0-4.0 SL-208-SA5A-SB-4.0-5.0 SL-208-SA5A-SB-7.5-8.5 SL-221-SA5A-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-221-SA5A-SB-3.0-4.0(RES)	Di-n-butylphthalate	20 ug/Kg	21U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE114 | Laboratory: LL

EDD Filename: DE114_v1 | eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-221-SA5A-SB-3.0-4.0MS SL-221-SA5A-SB-3.0-4.0MSD (SL-091-SA5A-SB-3.0-4.0 SL -208-SA5A-SB-4.0-5.0 SL -208-SA5A-SB-7.5-8.5 SL -221-SA5A-SB-3.0-4.0)	ANTIMONY ARSENIC BERYLLIUM COPPER SILVER THALLIUM VANADIUM	197 251 137 408 168 146 134	252 414 173 321 162 132 201	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - - -	ANTIMONY ARSENIC BERYLLIUM COPPER SILVER THALLIUM VANADIUM	J (all detects) As, Cu No Qual, >4x
SL-221-SA5A-SB-3.0-4.0MS SL-221-SA5A-SB-3.0-4.0MSD (SL-091-SA5A-SB-3.0-4.0 SL -208-SA5A-SB-4.0-5.0 SL -208-SA5A-SB-7.5-8.5 SL -221-SA5A-SB-3.0-4.0)	CADMIUM CHROMIUM LEAD NICKEL ZINC	-555 -4689 -72455 -2148 -188	-83 -4474 -68079 -2361 382	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	38 (20.00) 24 (20.00) 51 (20.00) - -	CADMIUM CHROMIUM LEAD NICKEL ZINC	J(all detects) UJ(all non-detects) No Qual %R, >4x
SL-221-SA5A-SB-3.0-4.0MSD (SL-091-SA5A-SB-3.0-4.0 SL -208-SA5A-SB-4.0-5.0 SL -208-SA5A-SB-7.5-8.5 SL -221-SA5A-SB-3.0-4.0)	COBALT	-	-	75.00-125.00	22 (20.00)	COBALT	J(all detects) UJ(all non-detects)
SL-221-SA5A-SB-3.0-4.0MS SL-221-SA5A-SB-3.0-4.0MSD (SL-091-SA5A-SB-3.0-4.0 SL -208-SA5A-SB-4.0-5.0 SL -208-SA5A-SB-7.5-8.5 SL -221-SA5A-SB-3.0-4.0)	MOLYBDENUM	160	373	75.00-125.00	48 (20.00)	MOLYBDENUM	J(all detects) UJ(all non-detects)
SL-221-SA5A-SB-3.0-4.0MS SL-221-SA5A-SB-3.0-4.0MSD (SL-091-SA5A-SB-3.0-4.0 SL -208-SA5A-SB-4.0-5.0 SL -208-SA5A-SB-7.5-8.5 SL -221-SA5A-SB-3.0-4.0)	BARIUM	558	761	75.00-125.00	-	BARIUM	No Qual, >4x

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-221-SA5A-SB-3.0-4.0MS SL-221-SA5A-SB-3.0-4.0MSD (SL-091-SA5A-SB-3.0-4.0 SL -208-SA5A-SB-4.0-5.0 SL -208-SA5A-SB-7.5-8.5 SL -221-SA5A-SB-3.0-4.0)	ALUMINUM IRON MAGNESIUM MANGANESE TITANIUM	1238 11127 1343 150 126	890 10148 572 145 262	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	ALUMINUM IRON MAGNESIUM MANGANESE TITANIUM	No Qual, >4x
SL-221-SA5A-SB-3.0-4.0MS SL-221-SA5A-SB-3.0-4.0MSD (SL-091-SA5A-SB-3.0-4.0 SL -208-SA5A-SB-4.0-5.0 SL -208-SA5A-SB-7.5-8.5 SL -221-SA5A-SB-3.0-4.0)	CALCIUM PHOSPHORUS	-188 -57	365 -22	75.00-125.00 75.00-125.00	- -	CALCIUM PHOSPHORUS	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE114 **Laboratory: LL**

EDD Filename: DE114_v1 **eQAPP Name: CDM_SSFL_110509**

***Method:* 7471A**
***Matrix:* SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-221-SA5A-SB-3.0-4.0MS **SL-221-SA5A-SB-3.0-4.0MSD** (SL-091-SA5A-SB-3.0-4.0 SL -208-SA5A-SB-4.0-5.0 SL -208-SA5A-SB-7.5-8.5 SL -221-SA5A-SB-3.0-4.0)	MERCURY	39	21	65.00-135.00	-	MERCURY	J(all detects) R(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE114 | Laboratory: LL

EDD Filename: DE114_v1 | eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-221-SA5A-SB-3.0-4.0DUP (SL-091-SA5A-SB-3.0-4.0 SL -208-SA5A-SB-4.0-5.0 SL -208-SA5A-SB-7.5-8.5 SL -221-SA5A-SB-3.0-4.0)	PHOSPHORUS	34	20.00	J (all detects)
	Zirconium	55	20.00	UJ (all non-detects) Zr No Qual OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-221-SA5A-SB-3.0-4.0DUP (SL-091-SA5A-SB-3.0-4.0 SL -208-SA5A-SB-4.0-5.0 SL -208-SA5A-SB-7.5-8.5 SL -221-SA5A-SB-3.0-4.0)	ANTIMONY	57	20.00	J(all detects) UJ(all non-detects)
	BARIUM	27	20.00	
	CADMIUM	23	20.00	
	CHROMIUM	151	20.00	
	COBALT	30	20.00	
	COPPER	135	20.00	
	LEAD	141	20.00	
	NICKEL	91	20.00	
	SILVER	48	20.00	
	ZINC	24	20.00	

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-221-SA5A-SB-3.0-4.0DUP (SL-091-SA5A-SB-3.0-4.0 SL -208-SA5A-SB-4.0-5.0 SL -208-SA5A-SB-7.5-8.5 SL -221-SA5A-SB-3.0-4.0)	MERCURY	40	20.00	No Qual OK by difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE114 Laboratory: LL

EDD Filename: DE114_v1 eQAPP Name: CDM_SSFL_110509

Method: 7470A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P09013CY220928 (EB10-SA5A-032911)	MERCURY	-	87	90.00-115.00	-	MERCURY	No Qual SRM within QC limits

Method: 8260B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSY86Q211425A (EB10-SA5A-032911 TB-032911)	TRICHLOROFLUOROMETHANE	134	-	64.00-129.00	-	TRICHLOROFLUOROMETHAN	J(all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P08926CQ221240A (SL-091-SA5A-SB-3.0-4.0 SL-208-SA5A-SB-4.0-5.0 SL-208-SA5A-SB-7.5-8.5 SL-221-SA5A-SB-3.0-4.0)	ANTIMONY	60	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Reporting Limit Outliers

Lab Reporting Batch ID: DE114 | Laboratory: LL

EDD Filename: DE114_v1 | eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB10-SA5A-032911	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.23	1.1	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.091	1.1	PQL	ug/L	
	Di-n-butylphthalate	J	0.44	1.1	PQL	ug/L	
	Di-n-octylphthalate	J	0.12	1.1	PQL	ug/L	

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-091-SA5A-SB-3.0-4.0	Nitrate-NO3	J	1.1	1.7	PQL	mg/Kg	J (all detects)
SL-208-SA5A-SB-7.5-8.5	Nitrate-NO3	J	1.2	1.7	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-091-SA5A-SB-3.0-4.0	SODIUM	J	91.1	109	PQL	mg/Kg	J (all detects)
	TIN	J	3.29	10.9	PQL	mg/Kg	
	Zirconium	J	1.30	5.44	PQL	mg/Kg	
SL-208-SA5A-SB-4.0-5.0	SODIUM	J	85.3	112	PQL	mg/Kg	J (all detects)
	TIN	J	3.76	11.2	PQL	mg/Kg	
	Zirconium	J	1.99	5.60	PQL	mg/Kg	
SL-208-SA5A-SB-7.5-8.5	TIN	J	3.82	11.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.42	5.77	PQL	mg/Kg	
SL-221-SA5A-SB-3.0-4.0	Zirconium	J	3.50	5.78	PQL	mg/Kg	J (all detects)

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-091-SA5A-SB-3.0-4.0	ANTIMONY	J	0.0828	0.220	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.236	0.440	PQL	mg/Kg	
	SILVER	J	0.0413	0.110	PQL	mg/Kg	
SL-208-SA5A-SB-4.0-5.0	ANTIMONY	J	0.105	0.220	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.221	0.440	PQL	mg/Kg	
	SILVER	J	0.0461	0.110	PQL	mg/Kg	
SL-208-SA5A-SB-7.5-8.5	ANTIMONY	J	0.0760	0.228	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0967	0.114	PQL	mg/Kg	
	SELENIUM	J	0.113	0.457	PQL	mg/Kg	
	SILVER	J	0.0568	0.114	PQL	mg/Kg	
SL-221-SA5A-SB-3.0-4.0	SELENIUM	J	0.327	0.458	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE114 **Laboratory: LL**

EDD Filename: DE114_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-091-SA5A-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.40	1.1	PQL	mg/Kg	J (all detects)
SL-208-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.36	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-208-SA5A-SB-7.5-8.5	MERCURY	J	0.0050	0.107	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-091-SA5A-SB-3.0-4.0	EFH (C21-C30) EFH (C30-C40) EFH (C8-C11)	J J J	0.51 0.87 0.44	1.3 1.3 1.3	PQL PQL PQL	mg/Kg mg/Kg mg/Kg	J (all detects)
SL-208-SA5A-SB-4.0-5.0	EFH (C30-C40)	J	0.86	1.4	PQL	mg/Kg	J (all detects)
SL-208-SA5A-SB-7.5-8.5	EFH (C30-C40) EFH (C8-C11)	J J	1.1 0.49	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-221-SA5A-SB-3.0-4.0	EFH (C15-C20) EFH (C8-C11)	J J	0.54 0.58	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-091-SA5A-SB-3.0-4.0	METHYLENE CHLORIDE	J	3.2	4.2	PQL	ug/Kg	J (all detects)
SL-208-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	3.2	4.2	PQL	ug/Kg	J (all detects)
SL-208-SA5A-SB-7.5-8.5	METHYLENE CHLORIDE	J	2.7	4.4	PQL	ug/Kg	J (all detects)
SL-221-SA5A-SB-3.0-4.0	METHYLENE CHLORIDE	J	2.7	4.5	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-221-SA5A-SB-3.0-4.0	BENZO(G,H,I)PERYLENE BIS(2-ETHYLHEXYL)PHTHALATE	J J	22 64	200 390	PQL PQL	ug/Kg ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE114 | Laboratory: LL

EDD Filename: DE114_v1 | eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-221-SA5A-SB-3.0-4.0	1-METHYLNAPHTHALENE	J	1.0	2.0	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.2	2.0	PQL	ug/Kg	
	ACENAPHTHYLENE	J	0.95	2.0	PQL	ug/Kg	
	ANTHRACENE	J	0.77	2.0	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.5	2.0	PQL	ug/Kg	
	Di-n-butylphthalate	J	20	21	PQL	ug/Kg	

LDC #: 25911W4 **VALIDATION COMPLETENESS WORKSHEET** Date: 5-3-11
SDG #: DE114 ADR
Laboratory: Lancaster Laboratories Reviewer: UR
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No Quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, As, Ba, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Ni, K, Ti, Zn, >4X)
VII.	Duplicate Sample Analysis	N	Dup (Hg, Zr <5x RL)
VIII.	Laboratory Control Samples (LCS)	~~N~~ A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	J/UJ
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates		
XV	Field Blanks	ND	EB=5

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	SL-091-SA5A-SB-3.0-4.0	11		21		31	
2	SL-208-SA5A-SB-4.0-5.0	12		22		32	
3	SL-208-SA5A-SB-7.5-8.5	13		23		33	
4	SL-221-SA5A-SB-3.0-4.0	14		24		34	
5	EB10-SA5A-032911	15		25		35	
6	(ALL) MS	16		26		36	
7	MSD	17		27		37	
8	✓ DUP	18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE114
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6242770BKG Serial Dilution Lab Sample ID: 6242770L
Batch ID(s): P08908C, P08926C
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		84442.5200		80123.5000		5		P
Antimony	121	7.7930		12.3550		59		MS
Arsenic	75	54.0000		76.1500		41	E	MS
Barium	137	394.7000		557.5000		41	E	MS
Beryllium	9	1.9220		2.2445	B	17		MS
Boron		239.5600		268.4500		12		P
Cadmium	111	81.3800		115.4000		42	E	MS
Calcium		529135.4900		532327.6500		1		P
Chromium	52	605.3000		502.5000		17	E	MS
Cobalt	59	85.0800		106.2000		25	E	MS
Copper	63	610.4000		550.0000		10		MS
Iron		75337.4000		77592.9500		3		P
Lead	208	252.3000		245.8500		3		MS
Lithium		168.6800		182.5500		8		P
Magnesium		60040.4900		59845.7500		0		P
Manganese		4973.7600		5369.7000		8		P
Molybdenum	98	85.0100		122.1500		44	E	MS
Nickel	60	470.2000		411.1000		13	E	MS
Phosphorus		5855.8900		5809.0000		1		P
Potassium		20882.8400		20537.3000		2		P
Selenium	78	1.4300	B	1.8155	B	27		MS
Silver	107	19.4300		28.9100		49	E	MS
Sodium		3130.0100		2967.7500	B	5		P
Strontium		851.7300		895.8500		5		P
Thallium	203	0.1500	U	0.7500	U			MS
Tin		370.2200		401.4000	B	8		P
Titanium		6976.2100		7359.0500		5		P
Vanadium	51	149.7000		181.2000		21	E	MS
Zinc	66	538.0000		485.8000		10		MS
Zirconium		30.2600	B	42.0000	U	100		P

NOTE: An E in column Q indicates the presence of a chemical or physical interference in the matrix when the % difference is greater than 10%. This applies only when (I) is greater than or equal to 50x MDL for ICP, 100x MDL for ICP-MS (6020), 50x MDL for ICP-MS (200.8), or 25x MDL for GFAA.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ
FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

SAMPLE DELIVERY GROUP

DE115

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
30-Mar-2011	TB-033011	6244301	TB	5030B	8015M	III
30-Mar-2011	TB-033011	6244301	TB	5030B	8260B	III
30-Mar-2011	TB-033011	6244301	TB	5030B	8260B SIM	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	3050B	6010B	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	3050B	6020	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	3060A	7199	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	3546	1625C	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	3550B	8015B	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	3550B	8015M	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	3550B	8082	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	3550B	8270C	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	3550B	8270C SIM	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	5035	8015M	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	5035	8260B	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	5035	8260B SIM	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	8330	8330A	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	Gen Prep	9045M	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	METHOD	300.0	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	METHOD	314.0	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	METHOD	7471A	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	METHOD	8015B	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	METHOD	8015M	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	METHOD	8315A	III
30-Mar-2011	SL-257-SA5A-SB-2.5-3.5	6244300	N	METHOD	9012B	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	3050B	6010B	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	3060A	7199	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	3546	1625C	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	3550B	8015B	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	3550B	8015M	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	3550B	8082	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	3550B	8270C	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	3550B	8270C SIM	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	5035	8015M	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	5035	8260B	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	5035	8260B SIM	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	8330	8330A	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	Gen Prep	9045M	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	METHOD	300.0	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	METHOD	314.0	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	METHOD	7471A	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	METHOD	8015B	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	METHOD	8015M	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	METHOD	8315A	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5	6244296	N	METHOD	9012B	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	3050B	6010B	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	3050B	6020	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	3060A	7199	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	3546	1625C	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	3550B	8015B	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	3550B	8015M	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	3550B	8082	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	3550B	8270C	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	3550B	8270C SIM	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	5035	8015M	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	5035	8260B	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	5035	8260B SIM	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	8330	8330A	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	METHOD	300.0	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	METHOD	314.0	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	METHOD	7471A	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	METHOD	8015B	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	METHOD	8015M	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	METHOD	8315A	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MS	6244297	MS	METHOD	9012B	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MSD	6244298	MSD	3050B	6010B	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MSD	6244298	MSD	3050B	6020	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MSD	6244298	MSD	3546	1625C	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MSD	6244298	MSD	3550B	8015B	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MSD	6244298	MSD	3550B	8015M	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MSD	6244298	MSD	3550B	8082	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MSD	6244298	MSD	3550B	8270C	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MSD	6244298	MSD	3550B	8270C SIM	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MSD	6244298	MSD	5035	8015M	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MSD	6244298	MSD	5035	8260B	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MSD	6244298	MSD	5035	8260B SIM	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MSD	6244298	MSD	8330	8330A	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MSD	6244298	MSD	METHOD	7471A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MSD	6244298	MSD	METHOD	8015B	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MSD	6244298	MSD	METHOD	8015M	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5MSD	6244298	MSD	METHOD	8315A	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5DUP	6244299	DUP	3050B	6010B	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5DUP	6244299	DUP	3050B	6020	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5DUP	6244299	DUP	3060A	7199	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5DUP	6244299	DUP	Gen Prep	9045M	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5DUP	6244299	DUP	METHOD	300.0	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5DUP	6244299	DUP	METHOD	314.0	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5DUP	6244299	DUP	METHOD	7471A	III
30-Mar-2011	SL-222-SA5A-SB-3.5-4.5DUP	6244299	DUP	METHOD	9012B	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	3050B	6010B	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	3050B	6020	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	3060A	7199	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	3546	1625C	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	3550B	8015B	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	3550B	8015M	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	3550B	8082	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	3550B	8270C	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	3550B	8270C SIM	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	5035	8015M	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	5035	8260B	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	5035	8260B SIM	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	8330	8330A	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	Gen Prep	9045M	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	METHOD	300.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	METHOD	314.0	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	METHOD	7471A	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	METHOD	8015B	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	METHOD	8015M	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	METHOD	8315A	III
30-Mar-2011	DUP-11-SA5A-QC-033011	6244289	FD	METHOD	9012B	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	3050B	6010B	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	3050B	6020	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	3060A	7199	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	3546	1625C	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	3550B	8015B	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	3550B	8015M	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	3550B	8082	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	3550B	8270C	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	3550B	8270C SIM	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	5035	8015M	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	5035	8260B	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	5035	8260B SIM	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	8330	8330A	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	Gen Prep	9045M	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	METHOD	300.0	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	METHOD	314.0	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	METHOD	7471A	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	METHOD	8015B	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	METHOD	8015M	III
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	METHOD	8315A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
30-Mar-2011	SL-090-SA5A-SB-4.0-5.0	6244294	N	METHOD	9012B	III
30-Mar-2011	DUP-12-SA5A-QC-033011	6244290	FD	3050B	6010B	III
30-Mar-2011	DUP-12-SA5A-QC-033011	6244290	FD	3050B	6020	III
30-Mar-2011	DUP-12-SA5A-QC-033011	6244290	FD	3060A	7199	III
30-Mar-2011	DUP-12-SA5A-QC-033011	6244290	FD	3550B	8082	III
30-Mar-2011	DUP-12-SA5A-QC-033011	6244290	FD	3550B	8270C	III
30-Mar-2011	DUP-12-SA5A-QC-033011	6244290	FD	3550B	8270C SIM	III
30-Mar-2011	DUP-12-SA5A-QC-033011	6244290	FD	5035	8260B	III
30-Mar-2011	DUP-12-SA5A-QC-033011	6244290	FD	5035	8260B SIM	III
30-Mar-2011	DUP-12-SA5A-QC-033011	6244290	FD	Gen Prep	9045M	III
30-Mar-2011	DUP-12-SA5A-QC-033011	6244290	FD	METHOD	300.0	III
30-Mar-2011	DUP-12-SA5A-QC-033011	6244290	FD	METHOD	314.0	III
30-Mar-2011	DUP-12-SA5A-QC-033011	6244290	FD	METHOD	6850	III
30-Mar-2011	DUP-12-SA5A-QC-033011	6244290	FD	METHOD	7471A	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	3050B	6010B	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	3050B	6020	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	3060A	7199	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	3546	1625C	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	3550B	8015B	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	3550B	8015M	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	3550B	8082	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	3550B	8270C	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	3550B	8270C SIM	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	5035	8015M	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	5035	8260B	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	5035	8260B SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	8330	8330A	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	Gen Prep	9045M	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	METHOD	300.0	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	METHOD	314.0	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	METHOD	7471A	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	METHOD	8015B	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	METHOD	8015M	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	METHOD	8315A	III
30-Mar-2011	SL-093-SA5A-SB-3.5-4.5	6244295	N	METHOD	9012B	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	3050B	6010B	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	3050B	6020	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	3060A	7199	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	3546	1625C	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	3550B	8015B	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	3550B	8015M	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	3550B	8082	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	3550B	8270C	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	3550B	8270C SIM	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	5035	8015M	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	5035	8260B	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	5035	8260B SIM	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	8330	8330A	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	Gen Prep	9045M	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	METHOD	300.0	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	METHOD	314.0	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	METHOD	7471A	III

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	METHOD	8015B	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	METHOD	8015M	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	METHOD	8315A	III
30-Mar-2011	SL-083-SA5A-SB-4.0-5.0	6244292	N	METHOD	9012B	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	3050B	6010B	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	3050B	6020	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	3060A	7199	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	3546	1625C	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	3550B	8015B	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	3550B	8015M	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	3550B	8082	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	3550B	8270C	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	3550B	8270C SIM	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	5035	8015M	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	5035	8260B	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	5035	8260B SIM	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	8330	8330A	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	Gen Prep	9045M	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	METHOD	300.0	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	METHOD	314.0	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	METHOD	7471A	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	METHOD	8015B	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	METHOD	8015M	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	METHOD	8315A	III
30-Mar-2011	SL-083-SA5A-SB-9.0-10.0	6244293	N	METHOD	9012B	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	3050B	6010B	III

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IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	3050B	6020	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	3060A	7199	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	3546	1625C	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	3550B	8015B	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	3550B	8015M	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	3550B	8082	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	3550B	8270C	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	3550B	8270C SIM	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	5035	8015M	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	5035	8260B	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	5035	8260B SIM	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	8330	8330A	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	Gen Prep	9045M	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	METHOD	300.0	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	METHOD	314.0	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	METHOD	7471A	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	METHOD	8015B	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	METHOD	8015M	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	METHOD	8315A	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0	6244291	N	METHOD	9012B	III
30-Mar-2011	SL-082-SA5A-SB-4.0-5.0DUP	P244291D291115A	DUP	Gen Prep	9045M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory:** LL

EDD Filename: PrepDE115_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: DUP-11-SA5A-QC-033011 *Collected:* 3/30/2011 10:02:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.3	J	0.89	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-082-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 4:03:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.0	J	0.90	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-083-SA5A-SB-9.0-10.0 *Collected:* 3/30/2011 3:13:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.0	J	0.83	MDL	1.6	PQL	mg/Kg	J	Z

Sample ID: SL-090-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.2	J	0.89	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-222-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 9:57:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.5	J	0.87	MDL	1.6	PQL	mg/Kg	J	Z

Sample ID: SL-257-SA5A-SB-2.5-3.5 *Collected:* 3/30/2011 8:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.1	J	0.86	MDL	1.6	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: DUP-11-SA5A-QC-033011 *Collected:* 3/30/2011 10:02:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.56	J	0.959	MDL	5.39	PQL	mg/Kg	J	Z
CALCIUM	3590		6.61	MDL	21.6	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: PrepDE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6010B** ***Matrix:*** **SO**

Sample ID: DUP-11-SA5A-QC-033011 ***Collected:*** 3/30/2011 10:02:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	328		0.0840	MDL	0.539	PQL	mg/Kg	J	E
SODIUM	88.4	J	40.2	MDL	108	PQL	mg/Kg	J	Z
TIN	3.29	J	1.08	MDL	10.8	PQL	mg/Kg	UJ	B, E
Zirconium	3.65	J	0.905	MDL	5.39	PQL	mg/Kg	J	Z

Sample ID: DUP-12-SA5A-QC-033011 ***Collected:*** 3/30/2011 11:11:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.01	J	0.990	MDL	5.56	PQL	mg/Kg	J	Z
CALCIUM	3290		6.82	MDL	22.2	PQL	mg/Kg	J	E
MANGANESE	283		0.0868	MDL	0.556	PQL	mg/Kg	J	E
SODIUM	97.4	J	41.5	MDL	111	PQL	mg/Kg	J	Z
TIN	3.19	J	1.11	MDL	11.1	PQL	mg/Kg	UJ	B, E
Zirconium	3.25	J	0.934	MDL	5.56	PQL	mg/Kg	J	Z

Sample ID: SL-082-SA5A-SB-4.0-5.0 ***Collected:*** 3/30/2011 4:03:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.62	J	0.978	MDL	5.50	PQL	mg/Kg	J	Z
CALCIUM	5900		6.74	MDL	22.0	PQL	mg/Kg	J	E
MANGANESE	305		0.0857	MDL	0.550	PQL	mg/Kg	J	E
SODIUM	106	J	41.0	MDL	110	PQL	mg/Kg	J	Z
TIN	3.24	J	1.10	MDL	11.0	PQL	mg/Kg	UJ	B, E
Zirconium	3.13	J	0.923	MDL	5.50	PQL	mg/Kg	J	Z

Sample ID: SL-083-SA5A-SB-4.0-5.0 ***Collected:*** 3/30/2011 3:08:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.76	J	0.938	MDL	5.27	PQL	mg/Kg	J	Z
CALCIUM	6480		6.46	MDL	21.1	PQL	mg/Kg	J	E
MANGANESE	275		0.0822	MDL	0.527	PQL	mg/Kg	J	E
TIN	3.08	J	1.05	MDL	10.5	PQL	mg/Kg	UJ	B, E
Zirconium	2.90	J	0.886	MDL	5.27	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: PrepDE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-083-SA5A-SB-9.0-10.0 *Collected:* 3/30/2011 3:13:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3530		6.32	MDL	20.6	PQL	mg/Kg	J	E
MANGANESE	320		0.0804	MDL	0.516	PQL	mg/Kg	J	E
TIN	3.37	J	1.03	MDL	10.3	PQL	mg/Kg	UJ	B, E
Zirconium	3.37	J	0.866	MDL	5.16	PQL	mg/Kg	J	Z

Sample ID: SL-090-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.32	J	0.967	MDL	5.43	PQL	mg/Kg	J	Z
CALCIUM	4050		6.66	MDL	21.7	PQL	mg/Kg	J	E
MANGANESE	300		0.0848	MDL	0.543	PQL	mg/Kg	J	E
SODIUM	77.1	J	40.5	MDL	109	PQL	mg/Kg	J	Z
TIN	3.19	J	1.09	MDL	10.9	PQL	mg/Kg	UJ	B, E
Zirconium	3.74	J	0.913	MDL	5.43	PQL	mg/Kg	J	Z

Sample ID: SL-093-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 12:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	22700		6.77	MDL	22.1	PQL	mg/Kg	J	E
MANGANESE	333		0.0862	MDL	0.552	PQL	mg/Kg	J	E
TIN	6.89	J	1.10	MDL	11.0	PQL	mg/Kg	UJ	B, E
Zirconium	3.38	J	0.928	MDL	5.52	PQL	mg/Kg	J	Z

Sample ID: SL-222-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 9:57:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	4580		6.43	MDL	21.0	PQL	mg/Kg	J	E
MANGANESE	432		0.0819	MDL	0.525	PQL	mg/Kg	J	E
SODIUM	104	J	39.2	MDL	105	PQL	mg/Kg	J	Z
TIN	3.95	J	1.05	MDL	10.5	PQL	mg/Kg	UJ	B, E
Zirconium	4.51	J	0.882	MDL	5.25	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory:** LL

EDD Filename: PrepDE115_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-257-SA5A-SB-2.5-3.5 *Collected:* 3/30/2011 8:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.43	J	0.915	MDL	5.14	PQL	mg/Kg	J	Z
CALCIUM	3220		6.30	MDL	20.6	PQL	mg/Kg	J	E
MANGANESE	281		0.0802	MDL	0.514	PQL	mg/Kg	J	E
TIN	3.23	J	1.03	MDL	10.3	PQL	mg/Kg	UJ	B, E
Zirconium	1.40	J	0.864	MDL	5.14	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP-11-SA5A-QC-033011 *Collected:* 3/30/2011 10:02:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.105	J	0.0431	MDL	0.431	PQL	mg/Kg	J	Z, FD

Sample ID: DUP-11-SA5A-QC-033011 *Collected:* 3/30/2011 10:02:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.379		0.0539	MDL	0.108	PQL	mg/Kg	J	Q, FD

Sample ID: DUP-11-SA5A-QC-033011 *Collected:* 3/30/2011 10:02:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	74.0		0.116	MDL	0.431	PQL	mg/Kg	J	FD

Sample ID: DUP-11-SA5A-QC-033011 *Collected:* 3/30/2011 10:02:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	34.3		0.0237	MDL	0.108	PQL	mg/Kg	J	Q, A

Sample ID: DUP-11-SA5A-QC-033011 *Collected:* 3/30/2011 10:02:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.112	J	0.0647	MDL	0.216	PQL	mg/Kg	J	Z, Q, Q, E, FD
ARSENIC	4.68		0.0862	MDL	0.431	PQL	mg/Kg	J	Q
CADMIUM	0.145		0.0431	MDL	0.108	PQL	mg/Kg	J	FD

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory:** LL

EDD Filename: PrepDE115_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP-11-SA5A-QC-033011 ***Collected:*** 3/30/2011 10:02:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	14.4		0.129	MDL	0.431	PQL	mg/Kg	J	Q, Q, E, FD, A
COPPER	8.97		0.0711	MDL	0.431	PQL	mg/Kg	J	E, FD
LEAD	4.65		0.0112	MDL	0.216	PQL	mg/Kg	J	FD
NICKEL	8.94		0.108	MDL	0.431	PQL	mg/Kg	J	FD
SILVER	0.0313	J	0.0129	MDL	0.108	PQL	mg/Kg	J	Z, E, FD
ZINC	57.2		0.603	MDL	3.23	PQL	mg/Kg	J	FD

Sample ID: DUP-12-SA5A-QC-033011 ***Collected:*** 3/30/2011 11:11:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0916	J	0.0432	MDL	0.432	PQL	mg/Kg	J	Z

Sample ID: DUP-12-SA5A-QC-033011 ***Collected:*** 3/30/2011 11:11:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.436		0.0540	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: DUP-12-SA5A-QC-033011 ***Collected:*** 3/30/2011 11:11:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	33.7		0.0242	MDL	0.110	PQL	mg/Kg	J	Q, A

Sample ID: DUP-12-SA5A-QC-033011 ***Collected:*** 3/30/2011 11:11:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.190	J	0.0648	MDL	0.216	PQL	mg/Kg	J	Z, Q, Q, E
ARSENIC	4.09		0.0864	MDL	0.432	PQL	mg/Kg	J	Q
CHROMIUM	15.1		0.130	MDL	0.432	PQL	mg/Kg	J	Q, Q, E, A
COPPER	10.7		0.0713	MDL	0.432	PQL	mg/Kg	J	E
SILVER	0.0262	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z, E

Sample ID: SL-082-SA5A-SB-4.0-5.0 ***Collected:*** 3/30/2011 4:03:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.111	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE115 Laboratory: LL

EDD Filename: PrepDE115_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-082-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 4:03:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.568		0.0555	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: SL-082-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 4:03:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	34.0		0.0244	MDL	0.111	PQL	mg/Kg	J	Q, A

Sample ID: SL-082-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 4:03:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.297		0.0666	MDL	0.222	PQL	mg/Kg	J	Q, Q, E
ARSENIC	5.34		0.0888	MDL	0.444	PQL	mg/Kg	J	Q
CHROMIUM	19.2		0.133	MDL	0.444	PQL	mg/Kg	J	Q, Q, E, A
COPPER	10.9		0.0733	MDL	0.444	PQL	mg/Kg	J	E
SILVER	0.0464	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z, E

Sample ID: SL-083-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 3:08:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.114	J	0.0422	MDL	0.422	PQL	mg/Kg	J	Z

Sample ID: SL-083-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 3:08:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	2.03		0.0527	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-083-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 3:08:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	37.1		0.0234	MDL	0.106	PQL	mg/Kg	J	Q, A

Sample ID: SL-083-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 3:08:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.114	J	0.0633	MDL	0.211	PQL	mg/Kg	J	Z, Q, Q, E
ARSENIC	5.57		0.0843	MDL	0.422	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: PrepDE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-083-SA5A-SB-4.0-5.0 ***Collected:*** 3/30/2011 3:08:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	18.0		0.127	MDL	0.422	PQL	mg/Kg	J	Q, Q, E, A
COPPER	7.90		0.0696	MDL	0.422	PQL	mg/Kg	J	E
SILVER	0.0398	J	0.0127	MDL	0.105	PQL	mg/Kg	J	Z, E

Sample ID: SL-083-SA5A-SB-9.0-10.0 ***Collected:*** 3/30/2011 3:13:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.130	J	0.0413	MDL	0.413	PQL	mg/Kg	J	Z

Sample ID: SL-083-SA5A-SB-9.0-10.0 ***Collected:*** 3/30/2011 3:13:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.516		0.0516	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-083-SA5A-SB-9.0-10.0 ***Collected:*** 3/30/2011 3:13:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	34.4		0.0222	MDL	0.101	PQL	mg/Kg	J	Q, A

Sample ID: SL-083-SA5A-SB-9.0-10.0 ***Collected:*** 3/30/2011 3:13:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.159	J	0.0619	MDL	0.206	PQL	mg/Kg	J	Z, Q, Q, E
ARSENIC	6.37		0.0825	MDL	0.413	PQL	mg/Kg	J	Q
CHROMIUM	21.9		0.124	MDL	0.413	PQL	mg/Kg	J	Q, Q, E, A
COPPER	10.8		0.0681	MDL	0.413	PQL	mg/Kg	J	E
SILVER	0.0422	J	0.0124	MDL	0.103	PQL	mg/Kg	J	Z, E

Sample ID: SL-090-SA5A-SB-4.0-5.0 ***Collected:*** 3/30/2011 11:05:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.108	J	0.0439	MDL	0.439	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: PrepDE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-090-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 11:05:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.548		0.0549	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: SL-090-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 11:05:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	33.8		0.0239	MDL	0.109	PQL	mg/Kg	J	Q, A

Sample ID: SL-090-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 11:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.212	J	0.0659	MDL	0.220	PQL	mg/Kg	J	Z, Q, Q, E
ARSENIC	5.19		0.0878	MDL	0.439	PQL	mg/Kg	J	Q
CHROMIUM	16.5		0.132	MDL	0.439	PQL	mg/Kg	J	Q, Q, E, A
COPPER	9.72		0.0724	MDL	0.439	PQL	mg/Kg	J	E
SILVER	0.0322	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z, E

Sample ID: SL-093-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 12:20:00 *Analysis Type:* REA *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	204		0.186	MDL	1.13	PQL	mg/Kg	J	E

Sample ID: SL-093-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 12:20:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.151	J	0.0451	MDL	0.451	PQL	mg/Kg	J	Z

Sample ID: SL-093-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 12:20:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.38		0.0563	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: SL-093-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 12:20:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	38.2		0.0243	MDL	0.110	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory:** LL

EDD Filename: PrepDE115_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-093-SA5A-SB-3.5-4.5 ***Collected:*** 3/30/2011 12:20:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	2.45		0.0676	MDL	0.225	PQL	mg/Kg	J	Q, Q, E
ARSENIC	8.83		0.0901	MDL	0.451	PQL	mg/Kg	J	Q
CHROMIUM	27.1		0.135	MDL	0.451	PQL	mg/Kg	J	Q, Q, E, A
SILVER	1.48		0.0135	MDL	0.113	PQL	mg/Kg	J	E

Sample ID: SL-222-SA5A-SB-3.5-4.5 ***Collected:*** 3/30/2011 9:57:00 ***Analysis Type:*** REA ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	82.9		0.0278	MDL	0.535	PQL	mg/Kg	J	FD
ZINC	151		1.50	MDL	8.03	PQL	mg/Kg	J	FD

Sample ID: SL-222-SA5A-SB-3.5-4.5 ***Collected:*** 3/30/2011 9:57:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.185	J	0.0428	MDL	0.428	PQL	mg/Kg	J	Z, FD

Sample ID: SL-222-SA5A-SB-3.5-4.5 ***Collected:*** 3/30/2011 9:57:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.35		0.0535	MDL	0.107	PQL	mg/Kg	J	Q, FD

Sample ID: SL-222-SA5A-SB-3.5-4.5 ***Collected:*** 3/30/2011 9:57:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	140		0.116	MDL	0.428	PQL	mg/Kg	J	FD

Sample ID: SL-222-SA5A-SB-3.5-4.5 ***Collected:*** 3/30/2011 9:57:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	31.7		0.0238	MDL	0.108	PQL	mg/Kg	J	Q, A

Sample ID: SL-222-SA5A-SB-3.5-4.5 ***Collected:*** 3/30/2011 9:57:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.52		0.0642	MDL	0.214	PQL	mg/Kg	J	Q, Q, E, FD
ARSENIC	4.83		0.0856	MDL	0.428	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: PrepDE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-222-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 9:57:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.742		0.0428	MDL	0.107	PQL	mg/Kg	J	FD
CHROMIUM	29.9		0.128	MDL	0.428	PQL	mg/Kg	J	Q, Q, E, FD, A
COPPER	44.7		0.0706	MDL	0.428	PQL	mg/Kg	J	E, FD
NICKEL	21.4		0.107	MDL	0.428	PQL	mg/Kg	J	FD
SILVER	1.70		0.0128	MDL	0.107	PQL	mg/Kg	J	E, FD

Sample ID: SL-257-SA5A-SB-2.5-3.5 *Collected:* 3/30/2011 8:45:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.103	J	0.0411	MDL	0.411	PQL	mg/Kg	J	Z

Sample ID: SL-257-SA5A-SB-2.5-3.5 *Collected:* 3/30/2011 8:45:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.739		0.0514	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-257-SA5A-SB-2.5-3.5 *Collected:* 3/30/2011 8:45:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	38.0		0.0231	MDL	0.105	PQL	mg/Kg	J	Q, A

Sample ID: SL-257-SA5A-SB-2.5-3.5 *Collected:* 3/30/2011 8:45:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.221		0.0617	MDL	0.206	PQL	mg/Kg	J	Q, Q, E
ARSENIC	7.46		0.0823	MDL	0.411	PQL	mg/Kg	J	Q
CADMIUM	0.0806	J	0.0411	MDL	0.103	PQL	mg/Kg	J	Z
CHROMIUM	32.3		0.123	MDL	0.411	PQL	mg/Kg	J	Q, Q, E, A
COPPER	8.81		0.0679	MDL	0.411	PQL	mg/Kg	J	E
SILVER	0.0426	J	0.0123	MDL	0.103	PQL	mg/Kg	J	Z, E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: PrepDE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: DUP-11-SA5A-QC-033011 ***Collected:*** 3/30/2011 10:02:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0030	U	0.0030	MDL	0.103	PQL	mg/Kg	UJ	FD

Sample ID: DUP-12-SA5A-QC-033011 ***Collected:*** 3/30/2011 11:11:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0197	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z, FD

Sample ID: SL-082-SA5A-SB-4.0-5.0 ***Collected:*** 3/30/2011 4:03:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0041	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-083-SA5A-SB-9.0-10.0 ***Collected:*** 3/30/2011 3:13:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0040	J	0.0029	MDL	0.100	PQL	mg/Kg	J	Z

Sample ID: SL-090-SA5A-SB-4.0-5.0 ***Collected:*** 3/30/2011 11:05:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0556	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z, FD

Sample ID: SL-093-SA5A-SB-3.5-4.5 ***Collected:*** 3/30/2011 12:20:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0142	J	0.0032	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-222-SA5A-SB-3.5-4.5 ***Collected:*** 3/30/2011 9:57:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0057	J	0.0030	MDL	0.104	PQL	mg/Kg	J	Z, FD

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory:** LL

EDD Filename: PrepDE115_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1625C **Matrix:** SO

Sample ID: SL-093-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 12:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	25.8	J	18.8	MDL	37.5	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix:** SO

Sample ID: DUP-11-SA5A-QC-033011 *Collected:* 3/30/2011 10:02:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.44	U	0.44	MDL	1.3	PQL	mg/Kg	UJ	FD
EFH (C21-C30)	3.4		0.44	MDL	1.3	PQL	mg/Kg	J	FD
EFH (C30-C40)	13		0.44	MDL	1.3	PQL	mg/Kg	J	FD
EFH (C8-C11)	0.73	J	0.44	MDL	1.3	PQL	mg/Kg	UJ	B, FD

Sample ID: SL-082-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 4:03:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	0.54	J	0.45	MDL	1.3	PQL	mg/Kg	U	B

Sample ID: SL-083-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 3:08:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	0.54	J	0.43	MDL	1.3	PQL	mg/Kg	U	B

Sample ID: SL-083-SA5A-SB-9.0-10.0 *Collected:* 3/30/2011 3:13:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	1.6		0.42	MDL	1.3	PQL	mg/Kg	U	B
EFH (C8-C11)	0.73	J	0.42	MDL	1.3	PQL	mg/Kg	U	B

Sample ID: SL-090-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 11:05:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	0.82	J	0.44	MDL	1.3	PQL	mg/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory:** LL

EDD Filename: PrepDE115_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8015M **Matrix:** SO

Sample ID: SL-222-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 9:57:00 *Analysis Type:* REA2 *Dilution:* 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	9.4	J	8.7	MDL	26	PQL	mg/Kg	J	Z, FD
EFH (C21-C30)	190		8.7	MDL	26	PQL	mg/Kg	J	FD
EFH (C30-C40)	710		8.7	MDL	26	PQL	mg/Kg	J	FD
EFH (C8-C11)	8.7	U	8.7	MDL	26	PQL	mg/Kg	UJ	FD

Sample ID: SL-257-SA5A-SB-2.5-3.5 *Collected:* 3/30/2011 8:45:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	1.1	J	0.43	MDL	1.3	PQL	mg/Kg	U	B
EFH (C8-C11)	0.61	J	0.43	MDL	1.3	PQL	mg/Kg	U	B

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: DUP-11-SA5A-QC-033011 *Collected:* 3/30/2011 10:02:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.43	U	0.43	MDL	1.9	PQL	ug/Kg	UJ	FD
Aroclor 5460	32		1.1	MDL	3.7	PQL	ug/Kg	J	FD

Sample ID: DUP-12-SA5A-QC-033011 *Collected:* 3/30/2011 11:11:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.7	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z, FD
Aroclor 5460	1.7	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z

Sample ID: SL-082-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 4:03:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	14	J	4.4	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-090-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 11:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.36	U	0.36	MDL	1.9	PQL	ug/Kg	UJ	FD

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory:** LL

EDD Filename: PrepDE115_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-090-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 11:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.2	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5460	2.2	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

Sample ID: SL-093-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 12:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.3	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-222-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 9:57:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.90	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z, FD
Aroclor 5460	3.9		1.1	MDL	3.6	PQL	ug/Kg	J	FD

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: DUP-11-SA5A-QC-033011 *Collected:* 3/30/2011 10:02:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	30	J	18	MDL	360	PQL	ug/Kg	U	B

Sample ID: DUP-12-SA5A-QC-033011 *Collected:* 3/30/2011 11:11:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	31	J	19	MDL	370	PQL	ug/Kg	U	B

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: DUP-11-SA5A-QC-033011 *Collected:* 3/30/2011 10:02:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	11	J	6.6	MDL	20	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	0.89	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory:** LL

EDD Filename: PrepDE115_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: DUP-11-SA5A-QC-033011 ***Collected:*** 3/30/2011 10:02:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	1.4	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	1.3	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD

Sample ID: DUP-12-SA5A-QC-033011 ***Collected:*** 3/30/2011 11:11:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.37	U	0.37	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(A)ANTHRACENE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(A)PYRENE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(B)FLUORANTHENE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(G,H,I)PERYLENE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(K)FLUORANTHENE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	FD
CHRYSENE	0.37	U	0.37	MDL	1.8	PQL	ug/Kg	UJ	FD
DIBENZO(A,H)ANTHRACENE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	FD
Di-n-octylphthalate	6.7	U	6.7	MDL	20	PQL	ug/Kg	UJ	FD
FLUORANTHENE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	FD
FLUORENE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	FD
INDENO(1,2,3-CD)PYRENE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	FD
PHENANTHRENE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	FD
PYRENE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	FD

Sample ID: SL-082-SA5A-SB-4.0-5.0 ***Collected:*** 3/30/2011 4:03:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.85	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.4	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.2	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.4	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.94	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.6	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	14	J	6.6	MDL	20	PQL	ug/Kg	J	Z
CHRYSENE	1.6	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
Di-n-octylphthalate	11	J	6.6	MDL	20	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.76	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: PrepDE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-082-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 4:03:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PYRENE	1.4	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-083-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 3:08:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.43	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
Di-n-octylphthalate	13	J	6.4	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-083-SA5A-SB-9.0-10.0 *Collected:* 3/30/2011 3:13:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	10	J	6.2	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-090-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 11:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	1.9		0.36	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(A)ANTHRACENE	2.1		0.73	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(A)PYRENE	1.7	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
BENZO(B)FLUORANTHENE	2.0		0.73	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	1.4	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
BENZO(K)FLUORANTHENE	1.8	J	0.73	MDL	1.8	PQL	ug/Kg	J	FD
BIS(2-ETHYLHEXYL)PHTHALATE	11	J	6.6	MDL	20	PQL	ug/Kg	J	Z
CHRYSENE	2.1		0.36	MDL	1.8	PQL	ug/Kg	J	FD
DIBENZO(A,H)ANTHRACENE	1.2	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
Di-n-octylphthalate	25		6.6	MDL	20	PQL	ug/Kg	J	FD
FLUORANTHENE	2.8		0.73	MDL	1.8	PQL	ug/Kg	J	FD
FLUORENE	1.1	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
INDENO(1,2,3-CD)PYRENE	1.2	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	2.3		0.73	MDL	1.8	PQL	ug/Kg	J	FD
PYRENE	2.1		0.73	MDL	1.8	PQL	ug/Kg	J	FD

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: PrepDE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-093-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 12:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.0	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.77	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.93	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	6.8	MDL	20	PQL	ug/Kg	J	Z
PYRENE	1.7	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-222-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 9:57:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	6.5	U	6.5	MDL	20	PQL	ug/Kg	UJ	FD
FLUORANTHENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
NAPHTHALENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
PHENANTHRENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD

Sample ID: SL-257-SA5A-SB-2.5-3.5 *Collected:* 3/30/2011 8:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	16	J	6.4	MDL	19	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8315A **Matrix: SO**

Sample ID: SL-093-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 12:20:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	1200	J	680	MDL	1700	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8015B **Matrix: SO**

Sample ID: SL-222-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 9:57:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m-Terphenyl	1.6	U	1.6	MDL	3.8	PQL	mg/Kg	UJ	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: PrepDE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: DUP-11-SA5A-QC-033011 *Collected:* 3/30/2011 10:02:00 *Analysis Type:* RES *Dilution:* 0.89

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.7	J	0.24	MDL	4.0	PQL	ug/Kg	U	B
TOLUENE	0.09	J	0.08	MDL	4.0	PQL	ug/Kg	J	Z, FD

Sample ID: DUP-12-SA5A-QC-033011 *Collected:* 3/30/2011 11:11:00 *Analysis Type:* RES *Dilution:* 0.98

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	3.2	J	0.27	MDL	4.4	PQL	ug/Kg	U	B

Sample ID: SL-082-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 4:03:00 *Analysis Type:* RES *Dilution:* 0.88

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.9	J	0.24	MDL	3.9	PQL	ug/Kg	U	B
TOLUENE	0.11	J	0.08	MDL	3.9	PQL	ug/Kg	J	Z

Sample ID: SL-083-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 3:08:00 *Analysis Type:* RES *Dilution:* 0.98

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.9	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: SL-083-SA5A-SB-9.0-10.0 *Collected:* 3/30/2011 3:13:00 *Analysis Type:* RES *Dilution:* 0.98

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.7	J	0.24	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: SL-090-SA5A-SB-4.0-5.0 *Collected:* 3/30/2011 11:05:00 *Analysis Type:* RES *Dilution:* 0.9

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.8	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: SL-093-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 12:20:00 *Analysis Type:* RES *Dilution:* 1.05

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZENE	0.12	J	0.12	MDL	4.8	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	3.0	J	0.29	MDL	4.8	PQL	ug/Kg	U	B
TOLUENE	0.11	J	0.1	MDL	4.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: PrepDE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-222-SA5A-SB-3.5-4.5 *Collected:* 3/30/2011 9:57:00 *Analysis Type:* RES *Dilution:* 0.84

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.6	J	0.22	MDL	3.7	PQL	ug/Kg	U	B
TOLUENE	0.07	U	0.07	MDL	3.7	PQL	ug/Kg	UJ	FD

Sample ID: SL-257-SA5A-SB-2.5-3.5 *Collected:* 3/30/2011 8:45:00 *Analysis Type:* RES *Dilution:* 0.95

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.2	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: PrepDE115_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: PrepDE115_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: PrepDE115_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE115

Method Blank Outlier Report

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: DE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P09408BB220330	4/13/2011 3:30:00 AM	IRON PHOSPHORUS TIN	4.95 mg/Kg 1.16 mg/Kg 1.99 mg/Kg	DUP-11-SA5A-QC-033011 DUP-12-SA5A-QC-033011 SL-082-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-9.0-10.0 SL-090-SA5A-SB-4.0-5.0 SL-093-SA5A-SB-3.5-4.5 SL-222-SA5A-SB-3.5-4.5 SL-257-SA5A-SB-2.5-3.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-11-SA5A-QC-033011(RES)	TIN	3.29 mg/Kg	3.29U mg/Kg
DUP-12-SA5A-QC-033011(RES)	TIN	3.19 mg/Kg	3.19U mg/Kg
SL-082-SA5A-SB-4.0-5.0(RES)	TIN	3.24 mg/Kg	3.24U mg/Kg
SL-083-SA5A-SB-4.0-5.0(RES)	TIN	3.08 mg/Kg	3.08U mg/Kg
SL-083-SA5A-SB-9.0-10.0(RES)	TIN	3.37 mg/Kg	3.37U mg/Kg
SL-090-SA5A-SB-4.0-5.0(RES)	TIN	3.19 mg/Kg	3.19U mg/Kg
SL-093-SA5A-SB-3.5-4.5(RES)	TIN	6.89 mg/Kg	6.89U mg/Kg
SL-222-SA5A-SB-3.5-4.5(RES)	TIN	3.95 mg/Kg	3.95U mg/Kg
SL-257-SA5A-SB-2.5-3.5(RES)	TIN	3.23 mg/Kg	3.23U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P09426AB221050A	4/5/2011 10:50:00 AM	COPPER	0.124 mg/Kg	DUP-11-SA5A-QC-033011 DUP-12-SA5A-QC-033011 SL-082-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-9.0-10.0 SL-090-SA5A-SB-4.0-5.0 SL-093-SA5A-SB-3.5-4.5 SL-222-SA5A-SB-3.5-4.5 SL-257-SA5A-SB-2.5-3.5

Method Blank Outlier Report

Lab Reporting Batch ID: DE115 | Laboratory: LL

EDD Filename: DE115_v1 | eQAPP Name: CDM_SSFL_110509

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P92923AB322323A	4/5/2011 11:23:00 PM	EFH (C30-C40) EFH (C8-C11)	0.57 mg/Kg 0.48 mg/Kg	DUP-11-SA5A-QC-033011 SL-082-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-9.0-10.0 SL-090-SA5A-SB-4.0-5.0 SL-093-SA5A-SB-3.5-4.5 SL-222-SA5A-SB-3.5-4.5 SL-257-SA5A-SB-2.5-3.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-11-SA5A-QC-033011(REA2)	EFH (C8-C11)	0.73 mg/Kg	1.3U mg/Kg
SL-082-SA5A-SB-4.0-5.0(REA2)	EFH (C8-C11)	0.54 mg/Kg	1.3U mg/Kg
SL-083-SA5A-SB-4.0-5.0(REA2)	EFH (C8-C11)	0.54 mg/Kg	1.3U mg/Kg
SL-083-SA5A-SB-9.0-10.0(REA2)	EFH (C30-C40)	1.6 mg/Kg	1.6U mg/Kg
SL-083-SA5A-SB-9.0-10.0(REA2)	EFH (C8-C11)	0.73 mg/Kg	1.3U mg/Kg
SL-090-SA5A-SB-4.0-5.0(REA2)	EFH (C8-C11)	0.82 mg/Kg	1.3U mg/Kg
SL-257-SA5A-SB-2.5-3.5(REA2)	EFH (C30-C40)	1.1 mg/Kg	1.3U mg/Kg
SL-257-SA5A-SB-2.5-3.5(REA2)	EFH (C8-C11)	0.61 mg/Kg	1.3U mg/Kg

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB11B211510A	4/1/2011 3:10:00 PM	METHYLENE CHLORIDE	0.40 ug/Kg	DUP-11-SA5A-QC-033011 DUP-12-SA5A-QC-033011 SL-082-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-9.0-10.0 SL-090-SA5A-SB-4.0-5.0 SL-093-SA5A-SB-3.5-4.5 SL-222-SA5A-SB-3.5-4.5 SL-257-SA5A-SB-2.5-3.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-11-SA5A-QC-033011(RES)	METHYLENE CHLORIDE	2.7 ug/Kg	4.0U ug/Kg
DUP-12-SA5A-QC-033011(RES)	METHYLENE CHLORIDE	3.2 ug/Kg	4.4U ug/Kg
SL-082-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.9 ug/Kg	3.9U ug/Kg
SL-083-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.9 ug/Kg	4.2U ug/Kg
SL-083-SA5A-SB-9.0-10.0(RES)	METHYLENE CHLORIDE	2.7 ug/Kg	4.1U ug/Kg
SL-090-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.8 ug/Kg	4.0U ug/Kg
SL-093-SA5A-SB-3.5-4.5(RES)	METHYLENE CHLORIDE	3.0 ug/Kg	4.8U ug/Kg
SL-222-SA5A-SB-3.5-4.5(RES)	METHYLENE CHLORIDE	2.6 ug/Kg	3.7U ug/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: DE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-257-SA5A-SB-2.5-3.5(RES)	METHYLENE CHLORIDE	1.2 ug/Kg	4.0U ug/Kg

Method: **8270C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLA09B262257	4/7/2011 10:57:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	17 ug/Kg	DUP-11-SA5A-QC-033011 DUP-12-SA5A-QC-033011 SL-082-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-9.0-10.0 SL-090-SA5A-SB-4.0-5.0 SL-093-SA5A-SB-3.5-4.5 SL-222-SA5A-SB-3.5-4.5 SL-257-SA5A-SB-2.5-3.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-11-SA5A-QC-033011(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	30 ug/Kg	360U ug/Kg
DUP-12-SA5A-QC-033011(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	31 ug/Kg	370U ug/Kg

Method: **8270C SIM**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLC09B261905	4/5/2011 7:05:00 PM	Di-n-butylphthalate	11 ug/Kg	DUP-11-SA5A-QC-033011 DUP-12-SA5A-QC-033011 SL-082-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-9.0-10.0 SL-090-SA5A-SB-4.0-5.0 SL-093-SA5A-SB-3.5-4.5 SL-222-SA5A-SB-3.5-4.5 SL-257-SA5A-SB-2.5-3.5

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: DE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-222-SA5A-SB-3.5-4.5MS **SL-222-SA5A-SB-3.5-4.5MSD** (DUP-11-SA5A-QC-033011 DUP -12-SA5A-QC-033011 SL -082-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-9.0-10.0 SL -090-SA5A-SB-4.0-5.0 SL -093-SA5A-SB-3.5-4.5 SL -222-SA5A-SB-3.5-4.5 SL -257-SA5A-SB-2.5-3.5)	ARSENIC	150	140	75.00-125.00	-	ARSENIC	J (all detects)
SL-222-SA5A-SB-3.5-4.5MS **SL-222-SA5A-SB-3.5-4.5MSD** (DUP-11-SA5A-QC-033011 DUP -12-SA5A-QC-033011 SL -082-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-9.0-10.0 SL -090-SA5A-SB-4.0-5.0 SL -093-SA5A-SB-3.5-4.5 SL -222-SA5A-SB-3.5-4.5 SL -257-SA5A-SB-2.5-3.5)	ANTIMONY COPPER LEAD ZINC	17 -10 -109 -4	47 228 136 243	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- 45 (20.00) - -	ANTIMONY COPPER LEAD ZINC	J(all detects) R(all non-detects) Cu No Qual %R, >4x J(all detects) UJ (all non-detects) Pb, Zn No Qual, >4x
SL-222-SA5A-SB-3.5-4.5MS **SL-222-SA5A-SB-3.5-4.5MSD** (DUP-11-SA5A-QC-033011 DUP -12-SA5A-QC-033011 SL -082-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-9.0-10.0 SL -090-SA5A-SB-4.0-5.0 SL -093-SA5A-SB-3.5-4.5 SL -222-SA5A-SB-3.5-4.5 SL -257-SA5A-SB-2.5-3.5)	CHROMIUM	65	170	75.00-125.00	26 (20.00)	CHROMIUM	J(all detects) UJ(all non-detects)
SL-222-SA5A-SB-3.5-4.5MS **SL-222-SA5A-SB-3.5-4.5MSD** (DUP-11-SA5A-QC-033011 DUP -12-SA5A-QC-033011 SL -082-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-9.0-10.0 SL -090-SA5A-SB-4.0-5.0 SL -093-SA5A-SB-3.5-4.5 SL -222-SA5A-SB-3.5-4.5 SL -257-SA5A-SB-2.5-3.5)	MOLYBDENUM	129	132	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-222-SA5A-SB-3.5-4.5MS **SL-222-SA5A-SB-3.5-4.5MSD** (DUP-11-SA5A-QC-033011 DUP -12-SA5A-QC-033011 SL -082-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-9.0-10.0 SL -090-SA5A-SB-4.0-5.0 SL -093-SA5A-SB-3.5-4.5 SL -222-SA5A-SB-3.5-4.5 SL -257-SA5A-SB-2.5-3.5)	BARIUM	5	8	75.00-125.00	-	BARIUM	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: DE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-222-SA5A-SB-3.5-4.5MS **SL-222-SA5A-SB-3.5-4.5MSD** (DUP-11-SA5A-QC-033011 DUP -12-SA5A-QC-033011 SL -082-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-9.0-10.0 SL -090-SA5A-SB-4.0-5.0 SL -093-SA5A-SB-3.5-4.5 SL -222-SA5A-SB-3.5-4.5 SL -257-SA5A-SB-2.5-3.5)	ALUMINUM IRON MAGNESIUM TITANIUM	1171 181 - 209	941 2560 175 176	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINUM IRON MAGNESIUM TITANIUM	No Qual, >4x
SL-222-SA5A-SB-3.5-4.5MS **SL-222-SA5A-SB-3.5-4.5MSD** (DUP-11-SA5A-QC-033011 DUP -12-SA5A-QC-033011 SL -082-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-9.0-10.0 SL -090-SA5A-SB-4.0-5.0 SL -093-SA5A-SB-3.5-4.5 SL -222-SA5A-SB-3.5-4.5 SL -257-SA5A-SB-2.5-3.5)	MANGANESE	28	-80	75.00-125.00	-	MANGANESE	No Qual, >4x
SL-222-SA5A-SB-3.5-4.5MS **SL-222-SA5A-SB-3.5-4.5MSD** (DUP-11-SA5A-QC-033011 DUP -12-SA5A-QC-033011 SL -082-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-9.0-10.0 SL -090-SA5A-SB-4.0-5.0 SL -093-SA5A-SB-3.5-4.5 SL -222-SA5A-SB-3.5-4.5 SL -257-SA5A-SB-2.5-3.5)	CALCIUM	52	1050	75.00-125.00	62 (20.00)	CALCIUM	J(all detects) UJ(all non-detects) No Qual %R, >4x

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-222-SA5A-SB-3.5-4.5MS **SL-222-SA5A-SB-3.5-4.5MSD** (DUP-11-SA5A-QC-033011 DUP -12-SA5A-QC-033011 SL -082-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-9.0-10.0 SL -090-SA5A-SB-4.0-5.0 SL -093-SA5A-SB-3.5-4.5 SL -222-SA5A-SB-3.5-4.5 SL -257-SA5A-SB-2.5-3.5)	VANADIUM	149	166	75.00-125.00	-	VANADIUM	J(all detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: DE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-222-SA5A-SB-3.5-4.5MS SL-222-SA5A-SB-3.5-4.5MSD (SL-222-SA5A-SB-3.5-4.5)	EFH (C8-C11)	127	135	49.00-123.00	-	EFH (C8-C11)	No Qual, Diluted Out
SL-222-SA5A-SB-3.5-4.5MS SL-222-SA5A-SB-3.5-4.5MSD (SL-222-SA5A-SB-3.5-4.5)	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	-568 -7904 -25284	-558 -8067 -25600	49.00-123.00 49.00-123.00 49.00-123.00	- 64 (20.00) 78 (20.00)	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	No Qual Diluted Out

Method: 8015B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-222-SA5A-SB-3.5-4.5MS (SL-222-SA5A-SB-3.5-4.5)	m-Terphenyl	73	-	75.00-125.00	-	m-Terphenyl	J(all detects) UJ(all non-detects)

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-222-SA5A-SB-3.5-4.5MS SL-222-SA5A-SB-3.5-4.5MSD (SL-222-SA5A-SB-3.5-4.5)	1,1,2,2-TETRACHLOROETHANE	160	-	40.00-152.00	48 (30.00)	1,1,2,2-TETRACHLOROETHAN	J(all detects)
	1,2,3-TRICHLOROBENZENE	-	-	10.00-140.00	57 (30.00)	1,2,3-TRICHLOROBENZENE	
	1,2,3-TRICHLOROPROPANE	-	-	45.00-154.00	46 (30.00)	1,2,3-TRICHLOROPROPANE	
	1,2,4-TRICHLOROBENZENE	-	-	10.00-136.00	58 (30.00)	1,2,4-TRICHLOROBENZENE	
	2-Chloro-1,1,1-trifluoroethane	141	-	70.00-130.00	35 (30.00)	2-Chloro-1,1,1-trifluoroethane	
	Chlorotrifluoroethylene	143	-	70.00-130.00	45 (30.00)	Chlorotrifluoroethylene	
	STYRENE	-	-	35.00-134.00	38 (30.00)	STYRENE	
	TERT-BUTYLBENZENE	-	-	41.00-152.00	38 (30.00)	TERT-BUTYLBENZENE	

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: DE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-222-SA5A-SB-3.5-4.5DUP (DUP-11-SA5A-QC-033011 DUP -12-SA5A-QC-033011 SL-082-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-9.0-10.0 SL-090-SA5A-SB-4.0-5.0 SL-093-SA5A-SB-3.5-4.5 SL-222-SA5A-SB-3.5-4.5 SL-257-SA5A-SB-2.5-3.5)	FLUORIDE	27	20.00	No Qual OK by difference

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-222-SA5A-SB-3.5-4.5DUP (DUP-11-SA5A-QC-033011 DUP -12-SA5A-QC-033011 SL-082-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-9.0-10.0 SL-090-SA5A-SB-4.0-5.0 SL-093-SA5A-SB-3.5-4.5 SL-222-SA5A-SB-3.5-4.5 SL-257-SA5A-SB-2.5-3.5)	MANGANESE TIN	27 150.3301 mg/Kg	20.00 21.0 mg/Kg	J(all detects) UJ(all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-222-SA5A-SB-3.5-4.5DUP (DUP-11-SA5A-QC-033011 DUP -12-SA5A-QC-033011 SL-082-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-4.0-5.0 SL-083-SA5A-SB-9.0-10.0 SL-090-SA5A-SB-4.0-5.0 SL-093-SA5A-SB-3.5-4.5 SL-222-SA5A-SB-3.5-4.5 SL-257-SA5A-SB-2.5-3.5)	ANTIMONY SILVER	23 35	20.00 20.00	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE115 Laboratory: LL

EDD Filename: DE115_v1 eQAPP Name: CDM_SSFL_110509

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-222-SA5A-SB-3.5-4.5DUP (DUP-11-SA5A-QC-033011 DUP -12-SA5A-QC-033011 SL -082-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-9.0-10.0 SL -090-SA5A-SB-4.0-5.0 SL -093-SA5A-SB-3.5-4.5 SL -222-SA5A-SB-3.5-4.5 SL -257-SA5A-SB-2.5-3.5)	HEXAVALENT CHROMIUM	200	20.00	No Qual OK by difference

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-222-SA5A-SB-3.5-4.5DUP (DUP-11-SA5A-QC-033011 DUP -12-SA5A-QC-033011 SL -082-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-9.0-10.0 SL -090-SA5A-SB-4.0-5.0 SL -093-SA5A-SB-3.5-4.5 SL -222-SA5A-SB-3.5-4.5 SL -257-SA5A-SB-2.5-3.5)	MERCURY	200	20.00	No Qual OK by difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE115 Laboratory: LL

EDD Filename: DE115_v1 eQAPP Name: CDM_SSFL_110509

Method: 8260B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSY90Q211607A (TB-033011)	TRICHLOROFLUOROMETHANE	135	-	64.00-129.00	-	TRICHLOROFLUOROMETHAN	J(all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P09426AQ221053A (DUP-11-SA5A-QC-033011 DUP -12-SA5A-QC-033011 SL -082-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-4.0-5.0 SL -083-SA5A-SB-9.0-10.0 SL -090-SA5A-SB-4.0-5.0 SL -093-SA5A-SB-3.5-4.5 SL -222-SA5A-SB-3.5-4.5 SL -257-SA5A-SB-2.5-3.5)	ANTIMONY	141	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Surrogate Outlier Report

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: DE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8082**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-082-SA5A-SB-4.0-5.0	DECACHLOROBIPHENYL	128	45.00-120.00	All Target Analytes	No Qual, Diluted Out

Field Duplicate RPD Report

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: DE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-222-SA5A-SB-3.5-4.5	DUP-11-SA5A-QC-033011			
MOISTURE	8.4	9.9	16		No Qualifiers Applied

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-090-SA5A-SB-4.0-5.0	DUP-12-SA5A-QC-033011			
MOISTURE	9.8	11.0	12		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-222-SA5A-SB-3.5-4.5	DUP-11-SA5A-QC-033011			
FLUORIDE	1.5	1.5	0	50.00	No Qualifiers Applied
Nitrate-NO3	1.5	1.3	14	50.00	

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-090-SA5A-SB-4.0-5.0	DUP-12-SA5A-QC-033011			
FLUORIDE	2.1	1.9	10	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-222-SA5A-SB-3.5-4.5	DUP-11-SA5A-QC-033011			
ALUMINUM	14700	13300	10	50.00	No Qualifiers Applied
BORON	5.72	4.56	23	50.00	
CALCIUM	4580	3590	24	50.00	
IRON	23600	22200	6	50.00	
LITHIUM	24.3	27.9	14	50.00	
MAGNESIUM	4700	5500	16	50.00	
MANGANESE	432	328	27	50.00	
PHOSPHORUS	390	405	4	50.00	
POTASSIUM	3480	3100	12	50.00	
SODIUM	104	88.4	16	50.00	
STRONTIUM	20.4	13.6	40	50.00	
TIN	3.95	3.29	18	50.00	
TITANIUM	1330	1290	3	50.00	
Zirconium	4.51	3.65	21	50.00	

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-090-SA5A-SB-4.0-5.0	DUP-12-SA5A-QC-033011			

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: DE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

ALUMINUM	12000	12600	5	50.00	
BORON	3.32	4.01	19	50.00	
CALCIUM	4050	3290	21	50.00	
IRON	19800	20600	4	50.00	
LITHIUM	24.5	23.9	2	50.00	
MAGNESIUM	4630	4730	2	50.00	
MANGANESE	300	283	6	50.00	No Qualifiers Applied
PHOSPHORUS	371	403	8	50.00	
POTASSIUM	2910	3280	12	50.00	
SODIUM	77.1	97.4	23	50.00	
STRONTIUM	16.1	16.8	4	50.00	
TIN	3.19	3.19	0	50.00	
TITANIUM	1180	1280	8	50.00	
Zirconium	3.74	3.25	14	50.00	

Method: 6020
Matrix: SO

Analyte	*Concentration (mg/Kg)*		*Sample RPD*	*eQAPP RPD*	*Flag*
	SL-222-SA5A-SB-3.5-4.5	DUP-11-SA5A-QC-033011			
ARSENIC	4.83	4.68	3	50.00	
BERYLLIUM	0.562	0.456	21	50.00	
COBALT	6.40	5.53	15	50.00	No Qualifiers Applied
THALLIUM	0.259	0.229	12	50.00	
VANADIUM	31.7	34.3	8	50.00	
ANTIMONY	1.52	0.112	173	50.00	
BARIUM	140	74.0	62	50.00	
CADMIUM	0.742	0.145	135	50.00	
CHROMIUM	29.9	14.4	70	50.00	
COPPER	44.7	8.97	133	50.00	
LEAD	82.9	4.65	179	50.00	J(all detects)
MOLYBDENUM	1.35	0.379	112	50.00	
NICKEL	21.4	8.94	82	50.00	
SELENIUM	0.185	0.105	55	50.00	
SILVER	1.70	0.0313	193	50.00	
ZINC	151	57.2	90	50.00	

Analyte	*Concentration (mg/Kg)*		*Sample RPD*	*eQAPP RPD*	*Flag*
	SL-090-SA5A-SB-4.0-5.0	DUP-12-SA5A-QC-033011			
ANTIMONY	0.212	0.190	11	50.00	
ARSENIC	5.19	4.09	24	50.00	
BARIUM	101	77.6	26	50.00	
BERYLLIUM	0.564	0.463	20	50.00	
CADMIUM	0.219	0.150	37	50.00	
CHROMIUM	16.5	15.1	9	50.00	
COBALT	6.20	5.06	20	50.00	
COPPER	9.72	10.7	10	50.00	
LEAD	8.70	6.69	26	50.00	No Qualifiers Applied
MOLYBDENUM	0.548	0.436	23	50.00	
NICKEL	10.7	9.30	14	50.00	
SELENIUM	0.108	0.0916	16	50.00	
SILVER	0.0322	0.0262	21	50.00	
THALLIUM	0.263	0.220	18	50.00	
VANADIUM	33.8	33.7	0	50.00	
ZINC	81.3	64.2	24	50.00	

Field Duplicate RPD Report

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: DE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-222-SA5A-SB-3.5-4.5	DUP-11-SA5A-QC-033011			
MERCURY	0.0057	0.103 U	200	50.00	J(all detects) UJ(all non-detects)

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-090-SA5A-SB-4.0-5.0	DUP-12-SA5A-QC-033011			
MERCURY	0.0556	0.0197	95	50.00	J(all detects)

Method: 8015M
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-222-SA5A-SB-3.5-4.5	DUP-11-SA5A-QC-033011			
EFH (C15-C20)	9.4	1.3 U	200	50.00	
EFH (C21-C30)	190	3.4	193	50.00	J(all detects)
EFH (C30-C40)	710	13	193	50.00	UJ(all non-detects)
EFH (C8-C11)	26 U	0.73	200	50.00	

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-222-SA5A-SB-3.5-4.5	DUP-11-SA5A-QC-033011			
AROCLOR 1260	0.90	1.9 U	200	50.00	J(all detects)
Aroclor 5460	3.9	32	157	50.00	UJ(all non-detects)

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-090-SA5A-SB-4.0-5.0	DUP-12-SA5A-QC-033011			
AROCLOR 1260	1.2	1.9	45	50.00	No Qualifiers Applied
Aroclor 5460	2.2	1.7	26	50.00	
AROCLOR 1254	1.9 U	1.7	200	50.00	J(all detects) UJ(all non-detects)

Method: 8260B
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-222-SA5A-SB-3.5-4.5	DUP-11-SA5A-QC-033011			
METHYLENE CHLORIDE	2.6	2.7	4	50.00	No Qualifiers Applied
TOLUENE	3.7 U	0.09	200	50.00	J(all detects) UJ(all non-detects)

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-090-SA5A-SB-4.0-5.0	DUP-12-SA5A-QC-033011			
METHYLENE CHLORIDE	2.8	3.2	13	50.00	No Qualifiers Applied

Field Duplicate RPD Report

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: DE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg) SL-222-SA5A-SB-3.5-4.5	Concentration (ug/Kg) DUP-11-SA5A-QC-033011	Sample RPD	eQAPP RPD	Flag
Di-n-octylphthalate	20 U	11	200	50.00	
FLUORANTHENE	1.8 U	0.89	200	50.00	J(all detects)
NAPHTHALENE	1.8 U	1.4	200	50.00	UJ(all non-detects)
PHENANTHRENE	1.8 U	1.3	200	50.00	

Analyte	Concentration (ug/Kg) SL-090-SA5A-SB-4.0-5.0	Concentration (ug/Kg) DUP-12-SA5A-QC-033011	Sample RPD	eQAPP RPD	Flag
ANTHRACENE	1.9	1.8 U	200	50.00	
BENZO(A)ANTHRACENE	2.1	1.8 U	200	50.00	
BENZO(A)PYRENE	1.7	1.8 U	200	50.00	
BENZO(B)FLUORANTHENE	2.0	1.8 U	200	50.00	
BENZO(G,H,I)PERYLENE	1.4	1.8 U	200	50.00	
BENZO(K)FLUORANTHENE	1.8	1.8 U	200	50.00	
CHRYSENE	2.1	1.8 U	200	50.00	J(all detects)
DIBENZO(A,H)ANTHRACENE	1.2	1.8 U	200	50.00	UJ(all non-detects)
Di-n-octylphthalate	25	20 U	200	50.00	
FLUORANTHENE	2.8	1.8 U	200	50.00	
FLUORENE	1.1	1.8 U	200	50.00	
INDENO(1,2,3-CD)PYRENE	1.2	1.8 U	200	50.00	
PHENANTHRENE	2.3	1.8 U	200	50.00	
PYRENE	2.1	1.8 U	200	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit) SL-222-SA5A-SB-3.5-4.5	Concentration (pH unit) DUP-11-SA5A-QC-033011	Sample RPD	eQAPP RPD	Flag
PH	7.95	7.90	1	50.00	No Qualifiers Applied

Analyte	Concentration (pH unit) SL-090-SA5A-SB-4.0-5.0	Concentration (pH unit) DUP-12-SA5A-QC-033011	Sample RPD	eQAPP RPD	Flag
PH	8.26	8.26	0	50.00	No Qualifiers Applied

Method: ASTM D1498
Matrix: SO

Analyte	Concentration (mV) SL-222-SA5A-SB-3.5-4.5	Concentration (mV) DUP-11-SA5A-QC-033011	Sample RPD	eQAPP RPD	Flag
Oxidation Reduction Potential	405	380	6		No Qualifiers Applied

Analyte	Concentration (mV) SL-090-SA5A-SB-4.0-5.0	Concentration (mV) DUP-12-SA5A-QC-033011	Sample RPD	eQAPP RPD	Flag
Oxidation Reduction Potential	396	384	3		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: DE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-093-SA5A-SB-3.5-4.5	N-NITROSODIMETHYLAMINE	J	25.8	37.5	PQL	ng/Kg	J (all detects)

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-11-SA5A-QC-033011	Nitrate-NO3	J	1.3	1.7	PQL	mg/Kg	J (all detects)
SL-082-SA5A-SB-4.0-5.0	Nitrate-NO3	J	1.0	1.7	PQL	mg/Kg	J (all detects)
SL-083-SA5A-SB-9.0-10.0	Nitrate-NO3	J	1.0	1.6	PQL	mg/Kg	J (all detects)
SL-090-SA5A-SB-4.0-5.0	Nitrate-NO3	J	1.2	1.7	PQL	mg/Kg	J (all detects)
SL-222-SA5A-SB-3.5-4.5	Nitrate-NO3	J	1.5	1.6	PQL	mg/Kg	J (all detects)
SL-257-SA5A-SB-2.5-3.5	Nitrate-NO3	J	1.1	1.6	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-11-SA5A-QC-033011	BORON	J	4.56	5.39	PQL	mg/Kg	J (all detects)
	SODIUM	J	88.4	108	PQL	mg/Kg	
	TIN	J	3.29	10.8	PQL	mg/Kg	
	Zirconium	J	3.65	5.39	PQL	mg/Kg	
DUP-12-SA5A-QC-033011	BORON	J	4.01	5.56	PQL	mg/Kg	J (all detects)
	SODIUM	J	97.4	111	PQL	mg/Kg	
	TIN	J	3.19	11.1	PQL	mg/Kg	
	Zirconium	J	3.25	5.56	PQL	mg/Kg	
SL-082-SA5A-SB-4.0-5.0	BORON	J	2.62	5.50	PQL	mg/Kg	J (all detects)
	SODIUM	J	106	110	PQL	mg/Kg	
	TIN	J	3.24	11.0	PQL	mg/Kg	
	Zirconium	J	3.13	5.50	PQL	mg/Kg	
SL-083-SA5A-SB-4.0-5.0	BORON	J	2.76	5.27	PQL	mg/Kg	J (all detects)
	TIN	J	3.08	10.5	PQL	mg/Kg	
	Zirconium	J	2.90	5.27	PQL	mg/Kg	
SL-083-SA5A-SB-9.0-10.0	TIN	J	3.37	10.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.37	5.16	PQL	mg/Kg	
SL-090-SA5A-SB-4.0-5.0	BORON	J	3.32	5.43	PQL	mg/Kg	J (all detects)
	SODIUM	J	77.1	109	PQL	mg/Kg	
	TIN	J	3.19	10.9	PQL	mg/Kg	
	Zirconium	J	3.74	5.43	PQL	mg/Kg	
SL-093-SA5A-SB-3.5-4.5	TIN	J	6.89	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.38	5.52	PQL	mg/Kg	
SL-222-SA5A-SB-3.5-4.5	SODIUM	J	104	105	PQL	mg/Kg	J (all detects)
	TIN	J	3.95	10.5	PQL	mg/Kg	
	Zirconium	J	4.51	5.25	PQL	mg/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: DE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-257-SA5A-SB-2.5-3.5	BORON	J	1.43	5.14	PQL	mg/Kg	J (all detects)
	TIN	J	3.23	10.3	PQL	mg/Kg	
	Zirconium	J	1.40	5.14	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-11-SA5A-QC-033011	ANTIMONY	J	0.112	0.216	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.105	0.431	PQL	mg/Kg	
	SILVER	J	0.0313	0.108	PQL	mg/Kg	
DUP-12-SA5A-QC-033011	ANTIMONY	J	0.190	0.216	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0916	0.432	PQL	mg/Kg	
	SILVER	J	0.0262	0.108	PQL	mg/Kg	
SL-082-SA5A-SB-4.0-5.0	SELENIUM	J	0.111	0.444	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0464	0.111	PQL	mg/Kg	
SL-083-SA5A-SB-4.0-5.0	ANTIMONY	J	0.114	0.211	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.114	0.422	PQL	mg/Kg	
	SILVER	J	0.0398	0.105	PQL	mg/Kg	
SL-083-SA5A-SB-9.0-10.0	ANTIMONY	J	0.159	0.206	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.130	0.413	PQL	mg/Kg	
	SILVER	J	0.0422	0.103	PQL	mg/Kg	
SL-090-SA5A-SB-4.0-5.0	ANTIMONY	J	0.212	0.220	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.108	0.439	PQL	mg/Kg	
	SILVER	J	0.0322	0.110	PQL	mg/Kg	
SL-093-SA5A-SB-3.5-4.5	SELENIUM	J	0.151	0.451	PQL	mg/Kg	J (all detects)
SL-222-SA5A-SB-3.5-4.5	SELENIUM	J	0.185	0.428	PQL	mg/Kg	J (all detects)
SL-257-SA5A-SB-2.5-3.5	CADMIUM	J	0.0806	0.103	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.103	0.411	PQL	mg/Kg	
	SILVER	J	0.0426	0.103	PQL	mg/Kg	

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-12-SA5A-QC-033011	MERCURY	J	0.0197	0.108	PQL	mg/Kg	J (all detects)
SL-082-SA5A-SB-4.0-5.0	MERCURY	J	0.0041	0.107	PQL	mg/Kg	J (all detects)
SL-083-SA5A-SB-9.0-10.0	MERCURY	J	0.0040	0.100	PQL	mg/Kg	J (all detects)
SL-090-SA5A-SB-4.0-5.0	MERCURY	J	0.0556	0.107	PQL	mg/Kg	J (all detects)
SL-093-SA5A-SB-3.5-4.5	MERCURY	J	0.0142	0.110	PQL	mg/Kg	J (all detects)
SL-222-SA5A-SB-3.5-4.5	MERCURY	J	0.0057	0.104	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: DE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-11-SA5A-QC-033011	EFH (C8-C11)	J	0.73	1.3	PQL	mg/Kg	J (all detects)
SL-082-SA5A-SB-4.0-5.0	EFH (C8-C11)	J	0.54	1.3	PQL	mg/Kg	J (all detects)
SL-083-SA5A-SB-4.0-5.0	EFH (C8-C11)	J	0.54	1.3	PQL	mg/Kg	J (all detects)
SL-083-SA5A-SB-9.0-10.0	EFH (C8-C11)	J	0.73	1.3	PQL	mg/Kg	J (all detects)
SL-090-SA5A-SB-4.0-5.0	EFH (C8-C11)	J	0.82	1.3	PQL	mg/Kg	J (all detects)
SL-222-SA5A-SB-3.5-4.5	EFH (C15-C20)	J	9.4	26	PQL	mg/Kg	J (all detects)
SL-257-SA5A-SB-2.5-3.5	EFH (C30-C40) EFH (C8-C11)	J J	1.1 0.61	1.3 1.3	PQL PQL	mg/Kg mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-12-SA5A-QC-033011	AROCLOR 1254 Aroclor 5460	J J	1.7 1.7	1.9 3.7	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-082-SA5A-SB-4.0-5.0	AROCLOR 1260	J	14	19	PQL	ug/Kg	J (all detects)
SL-090-SA5A-SB-4.0-5.0	AROCLOR 1260 Aroclor 5460	J J	1.2 2.2	1.9 3.6	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-093-SA5A-SB-3.5-4.5	AROCLOR 1260	J	1.3	1.9	PQL	ug/Kg	J (all detects)
SL-222-SA5A-SB-3.5-4.5	AROCLOR 1260	J	0.90	1.9	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-11-SA5A-QC-033011	METHYLENE CHLORIDE TOLUENE	J J	2.7 0.09	4.0 4.0	PQL PQL	ug/Kg ug/Kg	J (all detects)
DUP-12-SA5A-QC-033011	METHYLENE CHLORIDE	J	3.2	4.4	PQL	ug/Kg	J (all detects)
SL-082-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE TOLUENE	J J	2.9 0.11	3.9 3.9	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-083-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	2.9	4.2	PQL	ug/Kg	J (all detects)
SL-083-SA5A-SB-9.0-10.0	METHYLENE CHLORIDE	J	2.7	4.1	PQL	ug/Kg	J (all detects)
SL-090-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	2.8	4.0	PQL	ug/Kg	J (all detects)
SL-093-SA5A-SB-3.5-4.5	BENZENE METHYLENE CHLORIDE TOLUENE	J J J	0.12 3.0 0.11	4.8 4.8 4.8	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-222-SA5A-SB-3.5-4.5	METHYLENE CHLORIDE	J	2.6	3.7	PQL	ug/Kg	J (all detects)
SL-257-SA5A-SB-2.5-3.5	METHYLENE CHLORIDE	J	1.2	4.0	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE115 **Laboratory: LL**

EDD Filename: DE115_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-11-SA5A-QC-033011	BIS(2-ETHYLHEXYL)PHTHALATE	J	30	360	PQL	ug/Kg	J (all detects)
DUP-12-SA5A-QC-033011	BIS(2-ETHYLHEXYL)PHTHALATE	J	31	370	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-11-SA5A-QC-033011	Di-n-octylphthalate	J	11	20	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	0.89	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	1.4	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.3	1.8	PQL	ug/Kg	
SL-082-SA5A-SB-4.0-5.0	ANTHRACENE	J	0.85	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	1.4	1.8	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.2	1.8	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.4	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.94	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.6	1.8	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	14	20	PQL	ug/Kg	
	CHRYSENE	J	1.6	1.8	PQL	ug/Kg	
	Di-n-octylphthalate	J	11	20	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.76	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.8	PQL	ug/Kg	
	PYRENE	J	1.4	1.8	PQL	ug/Kg	
SL-083-SA5A-SB-4.0-5.0	CHRYSENE	J	0.43	1.8	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	13	19	PQL	ug/Kg	
SL-083-SA5A-SB-9.0-10.0	Di-n-octylphthalate	J	10	19	PQL	ug/Kg	J (all detects)
SL-090-SA5A-SB-4.0-5.0	BENZO(A)PYRENE	J	1.7	1.8	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.4	1.8	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	11	20	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.2	1.8	PQL	ug/Kg	
	FLUORENE	J	1.1	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.2	1.8	PQL	ug/Kg	
SL-093-SA5A-SB-3.5-4.5	BENZO(A)ANTHRACENE	J	1.0	1.9	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.77	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.93	1.9	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	20	PQL	ug/Kg	
	PYRENE	J	1.7	1.9	PQL	ug/Kg	
SL-257-SA5A-SB-2.5-3.5	Di-n-octylphthalate	J	16	19	PQL	ug/Kg	J (all detects)

Method: 8315A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-093-SA5A-SB-3.5-4.5	FORMALDEHYDE	J	1200	1700	PQL	ug/Kg	J (all detects)

LDC #: 25911X4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-11
SDG #: DE115 ADR
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No Quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (Al, Ba, Ca, Cu, Fe, Pb, Mg, Mn, Ti, Zn >4x)
VII.	Duplicate Sample Analysis	N	D (Hg, Sn <5xRL) Sn difference 150, 33.1 mg/kg (<4x10 mg/kg)
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Cr: 12%, V: 18% (J/UJ)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	DUP-11-SA5A-QC-033011 D1	11	SL-222-SA5A-SB-3.5-4.5MSD	21		31	
2	DUP-12-SA5A-QC-033011 D2	12	SL-222-SA5A-SB-3.5-4.5DUP	22		32	
3	SL-082-SA5A-SB-4.0-5.0	13		23		33	
4	SL-083-SA5A-SB-4.0-5.0	14		24		34	
5	SL-083-SA5A-SB-9.0-10.0	15		25		35	
6	SL-090-SA5A-SB-4.0-5.0 D2	16		26		36	
7	SL-093-SA5A-SB-3.5-4.5	17		27		37	
8	SL-222-SA5A-SB-3.5-4.5 D1	18		28		38	
9	SL-257-SA5A-SB-2.5-3.5	19		29		39	
10	SL-222-SA5A-SB-3.5-4.5MS	20		30		40	

Notes:

SAMPLE DELIVERY GROUP

DE116

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-Mar-2011	TB-033111	6245571	TB	5030B	8015M	III
31-Mar-2011	TB-033111	6245571	TB	5030B	8260B	III
31-Mar-2011	TB-033111	6245571	TB	5030B	8260B SIM	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	3050B	6010B	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	3050B	6020	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	3060A	7199	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	3546	1625C	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	3550B	8015B	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	3550B	8015M	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	3550B	8082	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	3550B	8270C	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	3550B	8270C SIM	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	5035	8015M	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	5035	8260B	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	5035	8260B SIM	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	8330	8330A	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	Gen Prep	9045M	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	METHOD	300.0	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	METHOD	314.0	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	METHOD	7471A	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	METHOD	8015B	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	METHOD	8015M	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	METHOD	8315A	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0	6245566	N	METHOD	9012B	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0DUP	P245566D270907A	DUP	METHOD	300.0	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0MSD	P245566M240328A	MSD	3550B	8082	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0MSD	P245566M241228A	MSD	8330	8330A	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0MSD	P245566M260323	MSD	3550B	8270C	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0MSD	P245566M261440	MSD	3550B	8270C SIM	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0MSD	P245566M321955A	MSD	METHOD	8015M	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0MS	P245566R240310A	MS	3550B	8082	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0MS	P245566R241145A	MS	8330	8330A	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0MS	P245566R260258	MS	3550B	8270C	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0MS	P245566R261409	MS	3550B	8270C SIM	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0MS	P245566R270921A	MS	METHOD	300.0	III
31-Mar-2011	SL-094-SA5A-SB-4.0-5.0MS	P245566R321919A	MS	METHOD	8015M	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	3050B	6010B	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	3050B	6020	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	3060A	7199	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	3546	1625C	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	3550B	8015B	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	3550B	8015M	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	3550B	8082	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	3550B	8270C	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	3550B	8270C SIM	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	5035	8015M	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	5035	8260B	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	5035	8260B SIM	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	8330	8330A	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	Gen Prep	9045M	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	METHOD	300.0	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	METHOD	7471A	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	METHOD	8015B	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	METHOD	8015M	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	METHOD	8315A	III
31-Mar-2011	SL-094-SA5A-SB-9.0-10.0	6245567	N	METHOD	9012B	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0	6245568	N	3050B	6010B	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0	6245568	N	3050B	6020	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0	6245568	N	3060A	7199	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0	6245568	N	3550B	8082	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0	6245568	N	3550B	8270C	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0	6245568	N	3550B	8270C SIM	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0	6245568	N	5035	8260B	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0	6245568	N	5035	8260B SIM	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0	6245568	N	Gen Prep	9045M	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0	6245568	N	METHOD	300.0	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0	6245568	N	METHOD	314.0	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0	6245568	N	METHOD	6850	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0	6245568	N	METHOD	7471A	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0DUP	P245568D270216A	DUP	3060A	7199	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0MSD	P245568M241701A	MSD	METHOD	6850	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0MS	P245568R241655A	MS	METHOD	6850	III
31-Mar-2011	SL-089-SA5A-SB-4.0-5.0MS	P245568R270140A	MS	3060A	7199	III
31-Mar-2011	SL-089-SA5A-SB-9.0-10.0	6245569	N	3050B	6010B	III
31-Mar-2011	SL-089-SA5A-SB-9.0-10.0	6245569	N	3050B	6020	III
31-Mar-2011	SL-089-SA5A-SB-9.0-10.0	6245569	N	3060A	7199	III
31-Mar-2011	SL-089-SA5A-SB-9.0-10.0	6245569	N	3550B	8082	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-Mar-2011	SL-089-SA5A-SB-9.0-10.0	6245569	N	3550B	8270C	III
31-Mar-2011	SL-089-SA5A-SB-9.0-10.0	6245569	N	3550B	8270C SIM	III
31-Mar-2011	SL-089-SA5A-SB-9.0-10.0	6245569	N	Gen Prep	9045M	III
31-Mar-2011	SL-089-SA5A-SB-9.0-10.0	6245569	N	METHOD	300.0	III
31-Mar-2011	SL-089-SA5A-SB-9.0-10.0	6245569	N	METHOD	314.0	III
31-Mar-2011	SL-089-SA5A-SB-9.0-10.0	6245569	N	METHOD	6850	III
31-Mar-2011	SL-089-SA5A-SB-9.0-10.0	6245569	N	METHOD	7471A	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	3050B	6010B	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	3050B	6020	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	3060A	7199	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	3546	1625C	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	3550B	8015B	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	3550B	8015M	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	3550B	8082	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	3550B	8270C	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	3550B	8270C SIM	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	5035	8015M	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	5035	8260B	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	5035	8260B SIM	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	8330	8330A	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	Gen Prep	9045M	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	METHOD	300.0	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	METHOD	314.0	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	METHOD	7471A	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	METHOD	8015B	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	METHOD	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	METHOD	8315A	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5	6245570	N	METHOD	9012B	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5DUP	P245570D272055B	DUP	METHOD	9012B	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5MSD	P245570M321713A	MSD	METHOD	8015M	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5MS	P245570R272056B	MS	METHOD	9012B	III
31-Mar-2011	SL-075-SA5A-SB-2.5-3.5MS	P245570R321637A	MS	METHOD	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE116 Laboratory: LL

EDD Filename: PrepDE116_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 Matrix: SO

Sample ID: SL-075-SA5A-SB-2.5-3.5 *Collected:* 3/31/2011 2:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.3	J	0.91	MDL	1.7	PQL	mg/Kg	J	Z, Q

Sample ID: SL-089-SA5A-SB-9.0-10.0 *Collected:* 3/31/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.1	J	1.0	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-094-SA5A-SB-4.0-5.0 *Collected:* 3/31/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	12.0		0.87	MDL	1.6	PQL	mg/Kg	J	Q

Sample ID: SL-094-SA5A-SB-9.0-10.0 *Collected:* 3/31/2011 9:33:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	12.4		0.85	MDL	1.6	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B Matrix: SO

Sample ID: SL-075-SA5A-SB-2.5-3.5 *Collected:* 3/31/2011 2:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3090		6.91	MDL	22.6	PQL	mg/Kg	J	E
MANGANESE	430		0.0880	MDL	0.564	PQL	mg/Kg	J	E
TIN	3.66	J	1.13	MDL	11.3	PQL	mg/Kg	UJ	B, E
Zirconium	5.30	J	0.947	MDL	5.64	PQL	mg/Kg	J	Z

Sample ID: SL-089-SA5A-SB-4.0-5.0 *Collected:* 3/31/2011 10:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.62	J	0.946	MDL	5.32	PQL	mg/Kg	J	Z
CALCIUM	2350		6.52	MDL	21.3	PQL	mg/Kg	J	E
MANGANESE	310		0.0829	MDL	0.532	PQL	mg/Kg	J	E
TIN	3.21	J	1.06	MDL	10.6	PQL	mg/Kg	UJ	B, E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE116 **Laboratory:** LL

EDD Filename: PrepDE116_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-089-SA5A-SB-4.0-5.0 *Collected:* 3/31/2011 10:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	2.68	J	0.893	MDL	5.32	PQL	mg/Kg	J	Z

Sample ID: SL-089-SA5A-SB-9.0-10.0 *Collected:* 3/31/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	2930		7.98	MDL	26.0	PQL	mg/Kg	J	E
MANGANESE	333		0.102	MDL	0.651	PQL	mg/Kg	J	E
SODIUM	116	J	48.6	MDL	130	PQL	mg/Kg	J	Z
TIN	3.53	J	1.30	MDL	13.0	PQL	mg/Kg	UJ	B, E
Zirconium	4.04	J	1.09	MDL	6.51	PQL	mg/Kg	J	Z

Sample ID: SL-094-SA5A-SB-4.0-5.0 *Collected:* 3/31/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.73	J	0.967	MDL	5.43	PQL	mg/Kg	J	Z
CALCIUM	6190		6.66	MDL	21.7	PQL	mg/Kg	J	E
MANGANESE	299		0.0848	MDL	0.543	PQL	mg/Kg	J	E
TIN	3.39	J	1.09	MDL	10.9	PQL	mg/Kg	UJ	B, E
Zirconium	3.23	J	0.913	MDL	5.43	PQL	mg/Kg	J	Z

Sample ID: SL-094-SA5A-SB-9.0-10.0 *Collected:* 3/31/2011 9:33:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.96	J	0.920	MDL	5.17	PQL	mg/Kg	J	Z
CALCIUM	2610		6.34	MDL	20.7	PQL	mg/Kg	J	E
MANGANESE	326		0.0806	MDL	0.517	PQL	mg/Kg	J	E
TIN	2.85	J	1.03	MDL	10.3	PQL	mg/Kg	UJ	B, E
Zirconium	4.01	J	0.869	MDL	5.17	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE116 **Laboratory: LL**

EDD Filename: PrepDE116_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-075-SA5A-SB-2.5-3.5 ***Collected:*** 3/31/2011 2:55:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.214	J	0.0451	MDL	0.451	PQL	mg/Kg	J	Z

Sample ID: SL-075-SA5A-SB-2.5-3.5 ***Collected:*** 3/31/2011 2:55:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.05		0.0564	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: SL-075-SA5A-SB-2.5-3.5 ***Collected:*** 3/31/2011 2:55:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	47.5		0.0248	MDL	0.113	PQL	mg/Kg	J	Q, A

Sample ID: SL-075-SA5A-SB-2.5-3.5 ***Collected:*** 3/31/2011 2:55:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.257		0.0677	MDL	0.226	PQL	mg/Kg	J	Q, Q, E
ARSENIC	9.31		0.0902	MDL	0.451	PQL	mg/Kg	J	Q
CHROMIUM	32.5		0.135	MDL	0.451	PQL	mg/Kg	J	E, Q, Q, A
COPPER	19.7		0.0744	MDL	0.451	PQL	mg/Kg	J	E
SILVER	0.0689	J	0.0135	MDL	0.113	PQL	mg/Kg	J	Z, E

Sample ID: SL-089-SA5A-SB-4.0-5.0 ***Collected:*** 3/31/2011 10:50:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0758	J	0.0421	MDL	0.421	PQL	mg/Kg	J	Z

Sample ID: SL-089-SA5A-SB-4.0-5.0 ***Collected:*** 3/31/2011 10:50:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.382		0.0527	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-089-SA5A-SB-4.0-5.0 ***Collected:*** 3/31/2011 10:50:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	42.1		0.0232	MDL	0.105	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE116 **Laboratory: LL**

EDD Filename: PrepDE116_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-089-SA5A-SB-4.0-5.0 ***Collected:*** 3/31/2011 10:50:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0980	J	0.0632	MDL	0.211	PQL	mg/Kg	J	Z, Q, Q, E
ARSENIC	5.07		0.0842	MDL	0.421	PQL	mg/Kg	J	Q
CHROMIUM	18.4		0.126	MDL	0.421	PQL	mg/Kg	J	E, Q, Q, A
COPPER	8.03		0.0695	MDL	0.421	PQL	mg/Kg	J	E
SILVER	0.0176	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z, E

Sample ID: SL-089-SA5A-SB-9.0-10.0 ***Collected:*** 3/31/2011 11:05:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.188	J	0.0516	MDL	0.516	PQL	mg/Kg	J	Z

Sample ID: SL-089-SA5A-SB-9.0-10.0 ***Collected:*** 3/31/2011 11:05:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.828		0.0645	MDL	0.129	PQL	mg/Kg	J	Q

Sample ID: SL-089-SA5A-SB-9.0-10.0 ***Collected:*** 3/31/2011 11:05:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	39.9		0.0278	MDL	0.126	PQL	mg/Kg	J	Q, A

Sample ID: SL-089-SA5A-SB-9.0-10.0 ***Collected:*** 3/31/2011 11:05:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.174	J	0.0774	MDL	0.258	PQL	mg/Kg	J	Z, Q, Q, E
ARSENIC	5.67		0.103	MDL	0.516	PQL	mg/Kg	J	Q
CHROMIUM	22.1		0.155	MDL	0.516	PQL	mg/Kg	J	E, Q, Q, A
COPPER	12.9		0.0851	MDL	0.516	PQL	mg/Kg	J	E
SILVER	0.0646	J	0.0155	MDL	0.129	PQL	mg/Kg	J	Z, E

Sample ID: SL-094-SA5A-SB-4.0-5.0 ***Collected:*** 3/31/2011 9:15:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.167	J	0.0422	MDL	0.422	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE116 **Laboratory: LL**

EDD Filename: PrepDE116_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-094-SA5A-SB-4.0-5.0 *Collected:* 3/31/2011 9:15:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.839		0.0528	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-094-SA5A-SB-4.0-5.0 *Collected:* 3/31/2011 9:15:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	34.2		0.0237	MDL	0.108	PQL	mg/Kg	J	Q, A

Sample ID: SL-094-SA5A-SB-4.0-5.0 *Collected:* 3/31/2011 9:15:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.371		0.0633	MDL	0.211	PQL	mg/Kg	J	Q, Q, E
ARSENIC	7.13		0.0844	MDL	0.422	PQL	mg/Kg	J	Q
CHROMIUM	21.7		0.127	MDL	0.422	PQL	mg/Kg	J	E, Q, Q, A
COPPER	61.0		0.0696	MDL	0.422	PQL	mg/Kg	J	E
SILVER	0.225		0.0127	MDL	0.106	PQL	mg/Kg	J	E

Sample ID: SL-094-SA5A-SB-9.0-10.0 *Collected:* 3/31/2011 9:33:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.163	J	0.0414	MDL	0.414	PQL	mg/Kg	J	Z

Sample ID: SL-094-SA5A-SB-9.0-10.0 *Collected:* 3/31/2011 9:33:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.494		0.0517	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-094-SA5A-SB-9.0-10.0 *Collected:* 3/31/2011 9:33:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	40.2		0.0232	MDL	0.105	PQL	mg/Kg	J	Q, A

Sample ID: SL-094-SA5A-SB-9.0-10.0 *Collected:* 3/31/2011 9:33:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.151	J	0.0620	MDL	0.207	PQL	mg/Kg	J	Z, Q, Q, E
ARSENIC	5.28		0.0827	MDL	0.414	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE116 Laboratory: LL

EDD Filename: PrepDE116_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6020 **Matrix:** SO

Sample ID: SL-094-SA5A-SB-9.0-10.0 *Collected:* 3/31/2011 9:33:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	19.1		0.124	MDL	0.414	PQL	mg/Kg	J	E, Q, Q, A
COPPER	9.19		0.0682	MDL	0.414	PQL	mg/Kg	J	E
SILVER	0.0388	J	0.0124	MDL	0.103	PQL	mg/Kg	J	Z, E

Method Category: METALS **Method:** 7199 **Matrix:** SO

Sample ID: SL-075-SA5A-SB-2.5-3.5 *Collected:* 3/31/2011 2:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.38	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-089-SA5A-SB-9.0-10.0 *Collected:* 3/31/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.47	J	0.26	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-094-SA5A-SB-4.0-5.0 *Collected:* 3/31/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.32	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS **Method:** 7471A **Matrix:** SO

Sample ID: SL-089-SA5A-SB-9.0-10.0 *Collected:* 3/31/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0043	J	0.0037	MDL	0.128	PQL	mg/Kg	J	Z

Sample ID: SL-094-SA5A-SB-4.0-5.0 *Collected:* 3/31/2011 9:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0061	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE116 **Laboratory: LL**

EDD Filename: PrepDE116_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-075-SA5A-SB-2.5-3.5 *Collected:* 3/31/2011 2:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	30.6	J	18.7	MDL	37.5	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-075-SA5A-SB-2.5-3.5 *Collected:* 3/31/2011 2:55:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	1.3	J	0.46	MDL	1.4	PQL	mg/Kg	U	B
EFH (C8-C11)	0.59	J	0.46	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-094-SA5A-SB-9.0-10.0 *Collected:* 3/31/2011 9:33:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	1.1	J	0.43	MDL	1.3	PQL	mg/Kg	U	B
EFH (C8-C11)	0.54	J	0.43	MDL	1.3	PQL	mg/Kg	U	B

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-094-SA5A-SB-4.0-5.0 *Collected:* 3/31/2011 9:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.4	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
AROCLOR 1260	1.4	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-075-SA5A-SB-2.5-3.5 *Collected:* 3/31/2011 2:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	19	J	19	MDL	380	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE116 **Laboratory:** LL

EDD Filename: PrepDE116_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA **Method:** 8270C **Matrix:** SO

Sample ID: SL-089-SA5A-SB-4.0-5.0 *Collected:* 3/31/2011 10:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	20	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-089-SA5A-SB-9.0-10.0 *Collected:* 3/31/2011 11:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	23	J	22	MDL	430	PQL	ug/Kg	J	Z

Sample ID: SL-094-SA5A-SB-4.0-5.0 *Collected:* 3/31/2011 9:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	1300	U	1300	MDL	3600	PQL	ug/Kg	UJ	Q
BENZO(A)PYRENE	42	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	22	J	18	MDL	360	PQL	ug/Kg	J	Z

Method Category: SVOA **Method:** 8270C SIM **Matrix:** SO

Sample ID: SL-075-SA5A-SB-2.5-3.5 *Collected:* 3/31/2011 2:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	1.2	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-butylphthalate	12	J	6.8	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-089-SA5A-SB-4.0-5.0 *Collected:* 3/31/2011 10:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.84	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
Di-n-butylphthalate	12	J	6.5	MDL	20	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.4	J	6.5	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-089-SA5A-SB-9.0-10.0 *Collected:* 3/31/2011 11:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-butylphthalate	13	J	7.8	MDL	23	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE116 **Laboratory: LL**

EDD Filename: PrepDE116_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-094-SA5A-SB-4.0-5.0 *Collected:* 3/31/2011 9:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	0.90	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.81	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
Diethylphthalate	7.0	J	6.5	MDL	20	PQL	ug/Kg	J	Z
Di-n-butylphthalate	11	J	6.5	MDL	20	PQL	ug/Kg	J	Z
PYRENE	0.87	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-094-SA5A-SB-9.0-10.0 *Collected:* 3/31/2011 9:33:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-butylphthalate	11	J	6.4	MDL	19	PQL	ug/Kg	J	Z
Di-n-octylphthalate	8.9	J	6.4	MDL	19	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-075-SA5A-SB-2.5-3.5 *Collected:* 3/31/2011 2:55:00 *Analysis Type:* RES *Dilution:* 0.86

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.65	J	0.24	MDL	3.9	PQL	ug/Kg	U	B

Sample ID: SL-089-SA5A-SB-4.0-5.0 *Collected:* 3/31/2011 10:50:00 *Analysis Type:* RES *Dilution:* 1.05

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.1	J	0.27	MDL	4.6	PQL	ug/Kg	U	B

Sample ID: SL-094-SA5A-SB-4.0-5.0 *Collected:* 3/31/2011 9:15:00 *Analysis Type:* RES *Dilution:* 0.91

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZENE	0.11	J	0.1	MDL	4.0	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.68	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: SL-094-SA5A-SB-9.0-10.0 *Collected:* 3/31/2011 9:33:00 *Analysis Type:* RES *Dilution:* 1.01

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DICHLOROETHANE	2.3	J	0.16	MDL	4.3	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE116 **Laboratory: LL**

EDD Filename: PrepDE116_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **VOA**

Method: **8260B** ***Matrix:*** **SO**

Sample ID: **SL-094-SA5A-SB-9.0-10.0** ***Collected:*** **3/31/2011 9:33:00** ***Analysis Type:*** **RES** ***Dilution:*** **1.01**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
METHYLENE CHLORIDE	0.67	J	0.26	MDL	4.3	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE116 **Laboratory: LL**

EDD Filename: PrepDE116_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE116 **Laboratory: LL**

EDD Filename: PrepDE116_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE116 **Laboratory: LL**

EDD Filename: PrepDE116_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE116

Method Blank Outlier Report

Lab Reporting Batch ID: DE116 **Laboratory: LL**

EDD Filename: DE116_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P09408BB220330	4/13/2011 3:30:00 AM	IRON PHOSPHORUS TIN	4.95 mg/Kg 1.16 mg/Kg 1.99 mg/Kg	SL-075-SA5A-SB-2.5-3.5 SL-089-SA5A-SB-4.0-5.0 SL-089-SA5A-SB-9.0-10.0 SL-094-SA5A-SB-4.0-5.0 SL-094-SA5A-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-075-SA5A-SB-2.5-3.5(RES)	TIN	3.66 mg/Kg	3.66U mg/Kg
SL-089-SA5A-SB-4.0-5.0(RES)	TIN	3.21 mg/Kg	3.21U mg/Kg
SL-089-SA5A-SB-9.0-10.0(RES)	TIN	3.53 mg/Kg	3.53U mg/Kg
SL-094-SA5A-SB-4.0-5.0(RES)	TIN	3.39 mg/Kg	3.39U mg/Kg
SL-094-SA5A-SB-9.0-10.0(RES)	TIN	2.85 mg/Kg	2.85U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P09426AB221050A	4/5/2011 10:50:00 AM	COPPER	0.124 mg/Kg	SL-075-SA5A-SB-2.5-3.5 SL-089-SA5A-SB-4.0-5.0 SL-089-SA5A-SB-9.0-10.0 SL-094-SA5A-SB-4.0-5.0 SL-094-SA5A-SB-9.0-10.0

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P92923AB322323A	4/5/2011 11:23:00 PM	EFH (C30-C40) EFH (C8-C11)	0.57 mg/Kg 0.48 mg/Kg	SL-075-SA5A-SB-2.5-3.5 SL-094-SA5A-SB-4.0-5.0 SL-094-SA5A-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-075-SA5A-SB-2.5-3.5(REA2)	EFH (C30-C40)	1.3 mg/Kg	1.4U mg/Kg
SL-075-SA5A-SB-2.5-3.5(REA2)	EFH (C8-C11)	0.59 mg/Kg	1.4U mg/Kg
SL-094-SA5A-SB-9.0-10.0(REA2)	EFH (C30-C40)	1.1 mg/Kg	1.3U mg/Kg
SL-094-SA5A-SB-9.0-10.0(REA2)	EFH (C8-C11)	0.54 mg/Kg	1.3U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE116 **Laboratory: LL**

EDD Filename: DE116_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB11B211510A	4/1/2011 3:10:00 PM	METHYLENE CHLORIDE	0.40 ug/Kg	SL-075-SA5A-SB-2.5-3.5 SL-089-SA5A-SB-4.0-5.0 SL-094-SA5A-SB-4.0-5.0 SL-094-SA5A-SB-9.0-10.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-075-SA5A-SB-2.5-3.5(RES)	METHYLENE CHLORIDE	0.65 ug/Kg	3.9U ug/Kg
SL-089-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.1 ug/Kg	4.6U ug/Kg
SL-094-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.68 ug/Kg	4.0U ug/Kg
SL-094-SA5A-SB-9.0-10.0(RES)	METHYLENE CHLORIDE	0.67 ug/Kg	4.3U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE116 **Laboratory: LL**

EDD Filename: DE116_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-094-SA5A-SB-4.0-5.0MSD (SL-094-SA5A-SB-4.0-5.0)	2,4-DINITROPHENOL HEXACHLOROCYCLOPENTADI	- -	- -	20.00-143.00 10.00-153.00	36 (30.00) 40 (30.00)	2,4-DINITROPHENOL HEXACHLOROCYCLOPENTAD	J (all detects)
SL-094-SA5A-SB-4.0-5.0MS SL-094-SA5A-SB-4.0-5.0MSD (SL-094-SA5A-SB-4.0-5.0)	BENZIDINE	27	21	35.00-141.00	-	BENZIDINE	J(all detects) UJ(all non-detects)

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-094-SA5A-SB-4.0-5.0MS (SL-075-SA5A-SB-2.5-3.5 SL-089-SA5A-SB-4.0-5.0 SL-089-SA5A-SB-9.0-10.0 SL-094-SA5A-SB-4.0-5.0 SL-094-SA5A-SB-9.0-10.0)	Nitrate-NO3	121	-	80.00-120.00	-	Nitrate-NO3	J(all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE116 Laboratory: LL

EDD Filename: DE116_v1 eQAPP Name: CDM_SSFL_110509

Method: 8260B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSY90Q211607A (TB-033111)	TRICHLOROFLUOROMETHANE	135	-	64.00-129.00	-	TRICHLOROFLUOROMETHAN	J(all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P09426AQ221053A (SL-075-SA5A-SB-2.5-3.5 SL -089-SA5A-SB-4.0-5.0 SL -089-SA5A-SB-9.0-10.0 SL -094-SA5A-SB-4.0-5.0 SL -094-SA5A-SB-9.0-10.0)	ANTIMONY	141	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11021AQ321510A (SL-075-SA5A-SB-2.5-3.5)	DIETHYLENE GLYCOL	160	-	75.00-125.00	-	DIETHYLENE GLYCOL	J(all detects)
	ETHYLENE GLYCOL	159	-	65.00-122.00	-	ETHYLENE GLYCOL	
	Propylene glycol	187	-	75.00-125.00	-	Propylene glycol	

Reporting Limit Outliers

Lab Reporting Batch ID: DE116 **Laboratory: LL**

EDD Filename: DE116_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-075-SA5A-SB-2.5-3.5	N-NITROSODIMETHYLAMINE	J	30.6	37.5	PQL	ng/Kg	J (all detects)

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-075-SA5A-SB-2.5-3.5	Nitrate-NO3	J	1.3	1.7	PQL	mg/Kg	J (all detects)
SL-089-SA5A-SB-9.0-10.0	FLUORIDE	J	1.1	1.3	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-075-SA5A-SB-2.5-3.5	TIN	J	3.66	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	5.30	5.64	PQL	mg/Kg	
SL-089-SA5A-SB-4.0-5.0	BORON	J	1.62	5.32	PQL	mg/Kg	J (all detects)
	TIN	J	3.21	10.6	PQL	mg/Kg	
	Zirconium	J	2.68	5.32	PQL	mg/Kg	
SL-089-SA5A-SB-9.0-10.0	SODIUM	J	116	130	PQL	mg/Kg	J (all detects)
	TIN	J	3.53	13.0	PQL	mg/Kg	
	Zirconium	J	4.04	6.51	PQL	mg/Kg	
SL-094-SA5A-SB-4.0-5.0	BORON	J	3.73	5.43	PQL	mg/Kg	J (all detects)
	TIN	J	3.39	10.9	PQL	mg/Kg	
	Zirconium	J	3.23	5.43	PQL	mg/Kg	
SL-094-SA5A-SB-9.0-10.0	BORON	J	2.96	5.17	PQL	mg/Kg	J (all detects)
	TIN	J	2.85	10.3	PQL	mg/Kg	
	Zirconium	J	4.01	5.17	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-075-SA5A-SB-2.5-3.5	SELENIUM	J	0.214	0.451	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0689	0.113	PQL	mg/Kg	
SL-089-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0980	0.211	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0758	0.421	PQL	mg/Kg	
	SILVER	J	0.0176	0.105	PQL	mg/Kg	
SL-089-SA5A-SB-9.0-10.0	ANTIMONY	J	0.174	0.258	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.188	0.516	PQL	mg/Kg	
	SILVER	J	0.0646	0.129	PQL	mg/Kg	
SL-094-SA5A-SB-4.0-5.0	SELENIUM	J	0.167	0.422	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE116 **Laboratory: LL**

EDD Filename: DE116_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-094-SA5A-SB-9.0-10.0	ANTIMONY	J	0.151	0.207	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.163	0.414	PQL	mg/Kg	
	SILVER	J	0.0388	0.103	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-075-SA5A-SB-2.5-3.5	HEXAVALENT CHROMIUM	J	0.38	1.1	PQL	mg/Kg	J (all detects)
SL-089-SA5A-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.47	1.3	PQL	mg/Kg	J (all detects)
SL-094-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.32	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-089-SA5A-SB-9.0-10.0	MERCURY	J	0.0043	0.128	PQL	mg/Kg	J (all detects)
SL-094-SA5A-SB-4.0-5.0	MERCURY	J	0.0061	0.108	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-075-SA5A-SB-2.5-3.5	EFH (C30-C40)	J	1.3	1.4	PQL	mg/Kg	J (all detects)
	EFH (C8-C11)	J	0.59	1.4	PQL	mg/Kg	
SL-094-SA5A-SB-9.0-10.0	EFH (C30-C40)	J	1.1	1.3	PQL	mg/Kg	J (all detects)
	EFH (C8-C11)	J	0.54	1.3	PQL	mg/Kg	

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-094-SA5A-SB-4.0-5.0	AROCLOR 1254	J	1.4	1.8	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	1.4	1.8	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE116 **Laboratory: LL**

EDD Filename: DE116_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-075-SA5A-SB-2.5-3.5	METHYLENE CHLORIDE	J	0.65	3.9	PQL	ug/Kg	J (all detects)
SL-089-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.1	4.6	PQL	ug/Kg	J (all detects)
SL-094-SA5A-SB-4.0-5.0	BENZENE METHYLENE CHLORIDE	J J	0.11 0.68	4.0 4.0	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-094-SA5A-SB-9.0-10.0	1,2-DICHLOROETHANE METHYLENE CHLORIDE	J J	2.3 0.67	4.3 4.3	PQL PQL	ug/Kg ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-075-SA5A-SB-2.5-3.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	19	380	PQL	ug/Kg	J (all detects)
SL-089-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	360	PQL	ug/Kg	J (all detects)
SL-089-SA5A-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	23	430	PQL	ug/Kg	J (all detects)
SL-094-SA5A-SB-4.0-5.0	BENZO(A)PYRENE BIS(2-ETHYLHEXYL)PHTHALATE	J J	42 22	180 360	PQL PQL	ug/Kg ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-075-SA5A-SB-2.5-3.5	CHRYSENE Di-n-butylphthalate	J J	1.2 12	1.9 21	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-089-SA5A-SB-4.0-5.0	CHRYSENE Di-n-butylphthalate Di-n-octylphthalate	J J J	0.84 12 9.4	1.8 20 20	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-089-SA5A-SB-9.0-10.0	Di-n-butylphthalate	J	13	23	PQL	ug/Kg	J (all detects)
SL-094-SA5A-SB-4.0-5.0	BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE Diethylphthalate Di-n-butylphthalate PYRENE	J J J J J	0.90 0.81 7.0 11 0.87	1.8 1.8 20 20 1.8	PQL PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)
SL-094-SA5A-SB-9.0-10.0	Di-n-butylphthalate Di-n-octylphthalate	J J	11 8.9	19 19	PQL PQL	ug/Kg ug/Kg	J (all detects)

LDC #: 25911Y4 **VALIDATION COMPLETENESS WORKSHEET** Date 5-3-11
SDG #: DE116 ADR
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No Quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (SD6: DE115)
VII.	Duplicate Sample Analysis	N	D,D J
VIII.	Laboratory Control Samples (LCS)	NA	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	—	(SD6: DE115)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-094-SA5A-SB-4.0-5.0	11		21		31	
2	SL-094-SA5A-SB-9.0-10.0	12		22		32	
3	SL-089-SA5A-SB-4.0-5.0	13		23		33	
4	SL-089-SA5A-SB-9.0-10.0	14		24		34	
5	SL-075-SA5A-SB-2.5-3.5	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

SAMPLE DELIVERY GROUP

DE117

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Apr-2011	TB-040111	6247209	TB	5030B	8015M	III
01-Apr-2011	TB-040111	6247209	TB	5030B	8260B	III
01-Apr-2011	TB-040111	6247209	TB	5030B	8260B SIM	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	3050B	6010B	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	3050B	6020	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	3060A	7199	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	3546	1625C	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	3550B	8015B	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	3550B	8015M	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	3550B	8082	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	3550B	8270C	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	3550B	8270C SIM	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	5035	8015M	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	5035	8260B	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	5035	8260B SIM	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	8330	8330A	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	Gen Prep	9045M	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	METHOD	300.0	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	METHOD	314.0	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	METHOD	7471A	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	METHOD	8015B	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	METHOD	8015M	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	METHOD	8315A	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0	6247206	N	METHOD	9012B	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0DUP	P247206D271841A	DUP	METHOD	314.0	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0MSD	P247206M322111A	MSD	METHOD	8015B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0MS	P247206R271903A	MS	METHOD	314.0	III
01-Apr-2011	SL-076-SA5A-SB-4.0-5.0MS	P247206R322056A	MS	METHOD	8015B	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	3050B	6010B	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	3050B	6020	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	3060A	7199	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	3546	1625C	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	3550B	8015B	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	3550B	8015M	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	3550B	8082	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	3550B	8270C	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	3550B	8270C SIM	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	5035	8015M	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	5035	8260B	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	5035	8260B SIM	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	8330	8330A	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	Gen Prep	9045M	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	METHOD	300.0	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	METHOD	314.0	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	METHOD	7471A	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	METHOD	8015B	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	METHOD	8015M	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	METHOD	8315A	III
01-Apr-2011	SL-072-SA5A-SB-4.0-5.0	6247207	N	METHOD	9012B	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	3050B	6010B	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	3050B	6020	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	3060A	7199	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	3546	1625C	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	3550B	8015B	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	3550B	8015M	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	3550B	8082	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	3550B	8270C	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	3550B	8270C SIM	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	5035	8015M	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	5035	8260B	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	5035	8260B SIM	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	8330	8330A	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	Gen Prep	9045M	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	METHOD	300.0	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	METHOD	314.0	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	METHOD	7471A	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	METHOD	8015B	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	METHOD	8015M	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	METHOD	8315A	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0	6247208	N	METHOD	9012B	III
01-Apr-2011	SL-071-SA5A-SB-4.0-5.0DUP	P247208D291325A	DUP	Gen Prep	9045M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE117 Laboratory: LL

EDD Filename: PrepDE117_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-071-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 12:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.4	J	0.88	MDL	1.6	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-071-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 12:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	1960		6.58	MDL	21.5	PQL	mg/Kg	J	E
MANGANESE	164		0.0837	MDL	0.536	PQL	mg/Kg	J	E
TIN	3.50	J	1.07	MDL	10.7	PQL	mg/Kg	UJ	B, E
Zirconium	4.42	J	0.901	MDL	5.36	PQL	mg/Kg	J	Z

Sample ID: SL-072-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 11:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.41	J	0.993	MDL	5.58	PQL	mg/Kg	J	Z
CALCIUM	2970		6.84	MDL	22.3	PQL	mg/Kg	J	E
MANGANESE	382		0.0870	MDL	0.558	PQL	mg/Kg	J	E
SODIUM	84.4	J	41.6	MDL	112	PQL	mg/Kg	J	Z
TIN	3.36	J	1.12	MDL	11.2	PQL	mg/Kg	UJ	B, E
Zirconium	4.27	J	0.937	MDL	5.58	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 10:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.83	J	0.918	MDL	5.15	PQL	mg/Kg	J	Z
CALCIUM	2330		6.32	MDL	20.6	PQL	mg/Kg	J	E
MANGANESE	245		0.0804	MDL	0.515	PQL	mg/Kg	J	E
TIN	3.41	J	1.03	MDL	10.3	PQL	mg/Kg	UJ	B, E
Zirconium	4.02	J	0.866	MDL	5.15	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE117 **Laboratory:** LL

EDD Filename: PrepDE117_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-071-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 12:55:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.245	J	0.0429	MDL	0.429	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 12:55:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.939		0.0536	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-071-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 12:55:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	57.3		0.0238	MDL	0.108	PQL	mg/Kg	J	A, Q

Sample ID: SL-071-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 12:55:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.188	J	0.0644	MDL	0.215	PQL	mg/Kg	J	Z, Q, Q, E
ARSENIC	10.0		0.0858	MDL	0.429	PQL	mg/Kg	J	Q
CADMIUM	0.0786	J	0.0429	MDL	0.107	PQL	mg/Kg	J	Z
CHROMIUM	26.6		0.129	MDL	0.429	PQL	mg/Kg	J	A, E, Q, Q
COPPER	13.7		0.0708	MDL	0.429	PQL	mg/Kg	J	E
SILVER	0.0777	J	0.0129	MDL	0.107	PQL	mg/Kg	J	Z, E

Sample ID: SL-072-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 11:55:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.274	J	0.0459	MDL	0.459	PQL	mg/Kg	J	Z

Sample ID: SL-072-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 11:55:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.09		0.0574	MDL	0.115	PQL	mg/Kg	J	Q

Sample ID: SL-072-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 11:55:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	44.9		0.0248	MDL	0.113	PQL	mg/Kg	J	A, Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE117 **Laboratory:** LL

EDD Filename: PrepDE117_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-072-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 11:55:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.273		0.0689	MDL	0.230	PQL	mg/Kg	J	Q, Q, E
ARSENIC	9.41		0.0919	MDL	0.459	PQL	mg/Kg	J	Q
CHROMIUM	33.0		0.138	MDL	0.459	PQL	mg/Kg	J	A, E, Q, Q
COPPER	21.4		0.0758	MDL	0.459	PQL	mg/Kg	J	E
SILVER	0.0793	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z, E

Sample ID: SL-076-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 10:55:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.150	J	0.0416	MDL	0.416	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 10:55:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.18		0.0521	MDL	0.104	PQL	mg/Kg	J	Q

Sample ID: SL-076-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 10:55:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	44.7		0.0225	MDL	0.102	PQL	mg/Kg	J	A, Q

Sample ID: SL-076-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 10:55:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.193	J	0.0625	MDL	0.208	PQL	mg/Kg	J	Z, Q, Q, E
ARSENIC	8.28		0.0833	MDL	0.416	PQL	mg/Kg	J	Q
CADMIUM	0.0936	J	0.0416	MDL	0.104	PQL	mg/Kg	J	Z
CHROMIUM	22.2		0.125	MDL	0.416	PQL	mg/Kg	J	A, E, Q, Q
COPPER	11.4		0.0687	MDL	0.416	PQL	mg/Kg	J	E
SILVER	0.0414	J	0.0125	MDL	0.104	PQL	mg/Kg	J	Z, E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE117 **Laboratory: LL**

EDD Filename: PrepDE117_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-071-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 12:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.62	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-072-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 11:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.38	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-071-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 12:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0096	J	0.0029	MDL	0.103	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 10:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0035	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-071-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 12:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	33.9	J	18.0	MDL	36.0	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-071-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 12:55:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	1.1	J	0.43	MDL	1.3	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE117 **Laboratory: LL**

EDD Filename: PrepDE117_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-071-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 12:55:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	4.6		0.43	MDL	1.3	PQL	mg/Kg	U	B
EFH (C8-C11)	0.48	J	0.43	MDL	1.3	PQL	mg/Kg	U	B

Sample ID: SL-072-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 11:55:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	1.1	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C30-C40)	3.3		0.46	MDL	1.4	PQL	mg/Kg	U	B
EFH (C8-C11)	0.67	J	0.46	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-076-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 10:55:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	4.1		0.42	MDL	1.3	PQL	mg/Kg	U	B
EFH (C8-C11)	0.47	J	0.42	MDL	1.3	PQL	mg/Kg	U	B

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-071-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 12:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	14	J	6.6	MDL	20	PQL	ug/Kg	J	Z
Diethylphthalate	9.8	J	6.6	MDL	20	PQL	ug/Kg	J	Z
Di-n-butylphthalate	11	J	6.6	MDL	20	PQL	ug/Kg	J	Z
Di-n-octylphthalate	7.2	J	6.6	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-072-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 11:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Diethylphthalate	11	J	7.0	MDL	21	PQL	ug/Kg	J	Z
Di-n-butylphthalate	12	J	7.0	MDL	21	PQL	ug/Kg	J	Z
Di-n-octylphthalate	17	J	7.0	MDL	21	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE117 Laboratory: LL

EDD Filename: PrepDE117_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-076-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 10:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-butylphthalate	13	J	6.3	MDL	19	PQL	ug/Kg	J	Z
Di-n-octylphthalate	12	J	6.3	MDL	19	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-071-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 12:55:00 *Analysis Type:* RES *Dilution:* 0.96

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.65	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: SL-072-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 11:55:00 *Analysis Type:* RES *Dilution:* 0.82

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	6.7	J	6.4	MDL	7.6	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.45	J	0.23	MDL	3.8	PQL	ug/Kg	U	B

Sample ID: SL-076-SA5A-SB-4.0-5.0 *Collected:* 4/1/2011 10:55:00 *Analysis Type:* RES *Dilution:* 1.04

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.57	J	0.26	MDL	4.4	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE117 **Laboratory: LL**

EDD Filename: PrepDE117_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE117 **Laboratory: LL**

EDD Filename: PrepDE117_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE117 **Laboratory: LL**

EDD Filename: PrepDE117_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DE117

Method Blank Outlier Report

Lab Reporting Batch ID: DE117 Laboratory: LL

EDD Filename: DE117_v1 eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P09408BB220330	4/13/2011 3:30:00 AM	IRON PHOSPHORUS TIN	4.95 mg/Kg 1.16 mg/Kg 1.99 mg/Kg	SL-071-SA5A-SB-4.0-5.0 SL-072-SA5A-SB-4.0-5.0 SL-076-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-071-SA5A-SB-4.0-5.0(RES)	TIN	3.50 mg/Kg	3.50U mg/Kg
SL-072-SA5A-SB-4.0-5.0(RES)	TIN	3.36 mg/Kg	3.36U mg/Kg
SL-076-SA5A-SB-4.0-5.0(RES)	TIN	3.41 mg/Kg	3.41U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P09426AB221050A	4/5/2011 10:50:00 AM	COPPER	0.124 mg/Kg	SL-071-SA5A-SB-4.0-5.0 SL-072-SA5A-SB-4.0-5.0 SL-076-SA5A-SB-4.0-5.0

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P02021AB320743A	4/14/2011 7:43:00 AM	EFH (C30-C40) EFH (C8-C11)	1.1 mg/Kg 0.59 mg/Kg	SL-071-SA5A-SB-4.0-5.0 SL-072-SA5A-SB-4.0-5.0 SL-076-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-071-SA5A-SB-4.0-5.0(REA2)	EFH (C30-C40)	4.6 mg/Kg	4.6U mg/Kg
SL-071-SA5A-SB-4.0-5.0(REA2)	EFH (C8-C11)	0.48 mg/Kg	1.3U mg/Kg
SL-072-SA5A-SB-4.0-5.0(REA2)	EFH (C30-C40)	3.3 mg/Kg	3.3U mg/Kg
SL-072-SA5A-SB-4.0-5.0(REA2)	EFH (C8-C11)	0.67 mg/Kg	1.4U mg/Kg
SL-076-SA5A-SB-4.0-5.0(REA2)	EFH (C30-C40)	4.1 mg/Kg	4.1U mg/Kg
SL-076-SA5A-SB-4.0-5.0(REA2)	EFH (C8-C11)	0.47 mg/Kg	1.3U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE117 **Laboratory: LL**

EDD Filename: DE117_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB14B211209A	4/5/2011 12:09:00 PM	METHYLENE CHLORIDE	0.42 ug/Kg	SL-071-SA5A-SB-4.0-5.0 SL-072-SA5A-SB-4.0-5.0 SL-076-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-071-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.65 ug/Kg	4.2U ug/Kg
SL-072-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.45 ug/Kg	3.8U ug/Kg
SL-076-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.57 ug/Kg	4.4U ug/Kg

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE117 **Laboratory: LL**

EDD Filename: DE117_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSY90Q211607A (TB-040111)	TRICHLOROFLUOROMETHANE	135	-	64.00-129.00	-	TRICHLOROFLUOROMETHAN	J(all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P09426AQ221053A (SL-071-SA5A-SB-4.0-5.0 SL -072-SA5A-SB-4.0-5.0 SL -076-SA5A-SB-4.0-5.0)	ANTIMONY	141	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11021AQ321510A (SL-071-SA5A-SB-4.0-5.0 SL -072-SA5A-SB-4.0-5.0 SL -076-SA5A-SB-4.0-5.0)	DIETHYLENE GLYCOL	160	-	75.00-125.00	-	DIETHYLENE GLYCOL	J(all detects)
	ETHYLENE GLYCOL	159	-	65.00-122.00	-	ETHYLENE GLYCOL	
	Propylene glycol	187	-	75.00-125.00	-	Propylene glycol	

Reporting Limit Outliers

Lab Reporting Batch ID: DE117 **Laboratory: LL**

EDD Filename: DE117_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-071-SA5A-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	33.9	36.0	PQL	ng/Kg	J (all detects)

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-071-SA5A-SB-4.0-5.0	Nitrate-NO3	J	1.4	1.6	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-071-SA5A-SB-4.0-5.0	TIN	J	3.50	10.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.42	5.36	PQL	mg/Kg	
SL-072-SA5A-SB-4.0-5.0	BORON	J	3.41	5.58	PQL	mg/Kg	J (all detects)
	SODIUM	J	84.4	112	PQL	mg/Kg	
	TIN	J	3.36	11.2	PQL	mg/Kg	
	Zirconium	J	4.27	5.58	PQL	mg/Kg	
SL-076-SA5A-SB-4.0-5.0	BORON	J	2.83	5.15	PQL	mg/Kg	J (all detects)
	TIN	J	3.41	10.3	PQL	mg/Kg	
	Zirconium	J	4.02	5.15	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-071-SA5A-SB-4.0-5.0	ANTIMONY	J	0.188	0.215	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0786	0.107	PQL	mg/Kg	
	SELENIUM	J	0.245	0.429	PQL	mg/Kg	
	SILVER	J	0.0777	0.107	PQL	mg/Kg	
SL-072-SA5A-SB-4.0-5.0	SELENIUM	J	0.274	0.459	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0793	0.115	PQL	mg/Kg	
SL-076-SA5A-SB-4.0-5.0	ANTIMONY	J	0.193	0.208	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0936	0.104	PQL	mg/Kg	
	SELENIUM	J	0.150	0.416	PQL	mg/Kg	
	SILVER	J	0.0414	0.104	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE117 **Laboratory: LL**

EDD Filename: DE117_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-071-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.62	1.1	PQL	mg/Kg	J (all detects)
SL-072-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.38	1.2	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-071-SA5A-SB-4.0-5.0	MERCURY	J	0.0096	0.103	PQL	mg/Kg	J (all detects)
SL-076-SA5A-SB-4.0-5.0	MERCURY	J	0.0035	0.105	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-071-SA5A-SB-4.0-5.0	EFH (C21-C30) EFH (C8-C11)	J J	1.1 0.48	1.3 1.3	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-072-SA5A-SB-4.0-5.0	EFH (C21-C30) EFH (C8-C11)	J J	1.1 0.67	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-076-SA5A-SB-4.0-5.0	EFH (C8-C11)	J	0.47	1.3	PQL	mg/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-071-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.65	4.2	PQL	ug/Kg	J (all detects)
SL-072-SA5A-SB-4.0-5.0	ACETONE METHYLENE CHLORIDE	J J	6.7 0.45	7.6 3.8	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-076-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.57	4.4	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-071-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE Diethylphthalate Di-n-butylphthalate Di-n-octylphthalate	J J J J	14 9.8 11 7.2	20 20 20 20	PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE117 **Laboratory: LL**

EDD Filename: DE117_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-072-SA5A-SB-4.0-5.0	Diethylphthalate	J	11	21	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	12	21	PQL	ug/Kg	
	Di-n-octylphthalate	J	17	21	PQL	ug/Kg	
SL-076-SA5A-SB-4.0-5.0	Di-n-butylphthalate	J	13	19	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	12	19	PQL	ug/Kg	

LDC #: 25911Z4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-11
SDG #: DE117 ADR
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets. .

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No Quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (SDG: DE115)
VII.	Duplicate Sample Analysis	N	Qual J
VIII.	Laboratory Control Samples (LCS)	A	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	—	(SDG: DE115)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-076-SA5A-SB-4.0-5.0	11		21		31	
2	SL-072-SA5A-SB-4.0-5.0	12		22		32	
3	SL-071-SA5A-SB-4.0-5.0	13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

SAMPLE DELIVERY GROUP

DE118

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
04-Apr-2011	TB-040411	6248208	TB	5030B	8260B	III
04-Apr-2011	TB-040411	6248208	TB	5030B	8260B SIM	III
04-Apr-2011	SL-085-SA5A-SB-4.0-5.0	6248206	N	3050B	6010B	III
04-Apr-2011	SL-085-SA5A-SB-4.0-5.0	6248206	N	3050B	6020	III
04-Apr-2011	SL-085-SA5A-SB-4.0-5.0	6248206	N	3060A	7199	III
04-Apr-2011	SL-085-SA5A-SB-4.0-5.0	6248206	N	3550B	8082	III
04-Apr-2011	SL-085-SA5A-SB-4.0-5.0	6248206	N	3550B	8270C	III
04-Apr-2011	SL-085-SA5A-SB-4.0-5.0	6248206	N	3550B	8270C SIM	III
04-Apr-2011	SL-085-SA5A-SB-4.0-5.0	6248206	N	5035	8260B	III
04-Apr-2011	SL-085-SA5A-SB-4.0-5.0	6248206	N	5035	8260B SIM	III
04-Apr-2011	SL-085-SA5A-SB-4.0-5.0	6248206	N	Gen Prep	9045M	III
04-Apr-2011	SL-085-SA5A-SB-4.0-5.0	6248206	N	METHOD	300.0	III
04-Apr-2011	SL-085-SA5A-SB-4.0-5.0	6248206	N	METHOD	314.0	III
04-Apr-2011	SL-085-SA5A-SB-4.0-5.0	6248206	N	METHOD	7471A	III
04-Apr-2011	SL-085-SA5A-SB-4.0-5.0DUP	P248206D291400A	DUP	Gen Prep	9045M	III
04-Apr-2011	SL-087-SA5A-SB-2.0-3.0	6248207	N	3050B	6010B	III
04-Apr-2011	SL-087-SA5A-SB-2.0-3.0	6248207	N	3050B	6020	III
04-Apr-2011	SL-087-SA5A-SB-2.0-3.0	6248207	N	3060A	7199	III
04-Apr-2011	SL-087-SA5A-SB-2.0-3.0	6248207	N	3550B	8082	III
04-Apr-2011	SL-087-SA5A-SB-2.0-3.0	6248207	N	3550B	8270C	III
04-Apr-2011	SL-087-SA5A-SB-2.0-3.0	6248207	N	3550B	8270C SIM	III
04-Apr-2011	SL-087-SA5A-SB-2.0-3.0	6248207	N	5035	8260B	III
04-Apr-2011	SL-087-SA5A-SB-2.0-3.0	6248207	N	5035	8260B SIM	III
04-Apr-2011	SL-087-SA5A-SB-2.0-3.0	6248207	N	Gen Prep	9045M	III
04-Apr-2011	SL-087-SA5A-SB-2.0-3.0	6248207	N	METHOD	300.0	III
04-Apr-2011	SL-087-SA5A-SB-2.0-3.0	6248207	N	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
04-Apr-2011	SL-087-SA5A-SB-2.0-3.0	6248207	N	METHOD	7471A	III

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation
N = Normal Sample
FD = Field Duplicate
TB = Trip Blank
FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE118 **Laboratory: LL**

EDD Filename: PrepDE118_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-085-SA5A-SB-4.0-5.0 *Collected:* 4/4/2011 9:54:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	26.3		0.24	MDL	2.2	PQL	mg/Kg	J	A
PHOSPHORUS	167		0.616	MDL	11.0	PQL	mg/Kg	J	Q
POTASSIUM	1300		19.8	MDL	55.0	PQL	mg/Kg	J	Q
TIN	3.23	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	4.47	J	0.924	MDL	5.50	PQL	mg/Kg	J	Z

Sample ID: SL-087-SA5A-SB-2.0-3.0 *Collected:* 4/4/2011 10:56:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	22.7		0.24	MDL	2.2	PQL	mg/Kg	J	A
PHOSPHORUS	363		0.603	MDL	10.8	PQL	mg/Kg	J	Q
POTASSIUM	1570		19.4	MDL	53.8	PQL	mg/Kg	J	Q
TIN	2.93	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	1.95	J	0.904	MDL	5.38	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-085-SA5A-SB-4.0-5.0 *Collected:* 4/4/2011 9:54:00 AM *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.117	J	0.0449	MDL	0.449	PQL	mg/Kg	J	Z

Sample ID: SL-085-SA5A-SB-4.0-5.0 *Collected:* 4/4/2011 9:54:00 AM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	100		0.121	MDL	0.449	PQL	mg/Kg	J	A

Sample ID: SL-085-SA5A-SB-4.0-5.0 *Collected:* 4/4/2011 9:54:00 AM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.205	J	0.0673	MDL	0.224	PQL	mg/Kg	J	Z, Q
ARSENIC	7.21		0.0898	MDL	0.449	PQL	mg/Kg	J	Q
CADMIUM	0.0883	J	0.0449	MDL	0.112	PQL	mg/Kg	J	Z
CHROMIUM	23.2		0.135	MDL	0.449	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE118 **Laboratory: LL**

EDD Filename: PrepDE118_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-085-SA5A-SB-4.0-5.0 **Collected:** 4/4/2011 9:54:00 AM **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	7.25		0.0224	MDL	0.112	PQL	mg/Kg	J	A
COPPER	8.80		0.0741	MDL	0.449	PQL	mg/Kg	J	Q, A
LEAD	7.99		0.0117	MDL	0.224	PQL	mg/Kg	J	Q, A
NICKEL	16.7		0.112	MDL	0.449	PQL	mg/Kg	J	Q
SILVER	0.0733	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z
THALLIUM	0.235		0.0337	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	46.0		0.0247	MDL	0.112	PQL	mg/Kg	J	Q, A

Sample ID: SL-087-SA5A-SB-2.0-3.0 **Collected:** 4/4/2011 10:56:00 **Analysis Type:** REA **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.135	J	0.0422	MDL	0.422	PQL	mg/Kg	J	Z

Sample ID: SL-087-SA5A-SB-2.0-3.0 **Collected:** 4/4/2011 10:56:00 **Analysis Type:** REA3 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	86.8		0.114	MDL	0.422	PQL	mg/Kg	J	A

Sample ID: SL-087-SA5A-SB-2.0-3.0 **Collected:** 4/4/2011 10:56:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.393		0.0633	MDL	0.211	PQL	mg/Kg	J	Q
ARSENIC	8.10		0.0844	MDL	0.422	PQL	mg/Kg	J	Q
CADMIUM	0.0914	J	0.0422	MDL	0.106	PQL	mg/Kg	J	Z
CHROMIUM	25.0		0.127	MDL	0.422	PQL	mg/Kg	J	Q, A
COBALT	14.5		0.0211	MDL	0.106	PQL	mg/Kg	J	A
COPPER	15.9		0.0696	MDL	0.422	PQL	mg/Kg	J	Q, A
LEAD	8.10		0.0110	MDL	0.211	PQL	mg/Kg	J	Q, A
NICKEL	16.0		0.106	MDL	0.422	PQL	mg/Kg	J	Q
THALLIUM	0.411		0.0317	MDL	0.106	PQL	mg/Kg	J	Q
VANADIUM	45.9		0.0232	MDL	0.106	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE118 **Laboratory: LL**

EDD Filename: PrepDE118_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-087-SA5A-SB-2.0-3.0 *Collected:* 4/4/2011 10:56:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.32	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-085-SA5A-SB-4.0-5.0 *Collected:* 4/4/2011 9:54:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	6.7	MDL	20	PQL	ug/Kg	J	Z
CHRYSENE	0.49	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
Diethylphthalate	9.1	J	6.7	MDL	20	PQL	ug/Kg	J	Z
Di-n-butylphthalate	11	J	6.7	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-087-SA5A-SB-2.0-3.0 *Collected:* 4/4/2011 10:56:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	14	J	6.5	MDL	20	PQL	ug/Kg	J	Z
Diethylphthalate	9.1	J	6.5	MDL	20	PQL	ug/Kg	J	Z
Di-n-butylphthalate	11	J	6.5	MDL	20	PQL	ug/Kg	J	Z
Di-n-octylphthalate	6.6	J	6.5	MDL	20	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-085-SA5A-SB-4.0-5.0 *Collected:* 4/4/2011 9:54:00 AM *Analysis Type:* RES *Dilution:* 0.95

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.1	J	7.1	MDL	8.5	PQL	ug/Kg	J	Z

Sample ID: SL-087-SA5A-SB-2.0-3.0 *Collected:* 4/4/2011 10:56:00 *Analysis Type:* RES *Dilution:* 0.91

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	1.3	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE118
EDD Filename: PrepDE118_v1

Laboratory: LL
eQAPP Name: CDM_SSFL_110509

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE118

Laboratory: LL

EDD Filename: PrepDE118_v1

eQAPP Name: CDM_SSFL_110509

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE118

Laboratory: LL

EDD Filename: PrepDE118_v1

eQAPP Name: CDM_SSFL_110509

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE118

Laboratory: LL

EDD Filename: PrepDE118_v1

eQAPP Name: CDM_SSFL_110509

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE118

Method Blank Outlier Report

Lab Reporting Batch ID: DE118 **Laboratory: LL**

EDD Filename: DE118_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10208AB220725	4/16/2011 7:25:00 AM	ALUMINUM LITHIUM PHOSPHORUS TIN	29.3 mg/Kg 0.33 mg/Kg 1.22 mg/Kg 1.28 mg/Kg	SL-085-SA5A-SB-4.0-5.0 SL-087-SA5A-SB-2.0-3.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-085-SA5A-SB-4.0-5.0(RES)	TIN	3.23 mg/Kg	3.23U mg/Kg
SL-087-SA5A-SB-2.0-3.0(RES)	TIN	2.93 mg/Kg	2.93U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10226AB220850A	4/13/2011 8:50:00 AM	COPPER	0.162 mg/Kg	SL-085-SA5A-SB-4.0-5.0 SL-087-SA5A-SB-2.0-3.0

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB17B211327A	4/7/2011 1:27:00 PM	METHYLENE CHLORIDE TOLUENE	0.52 ug/Kg 0.09 ug/Kg	SL-085-SA5A-SB-4.0-5.0 SL-087-SA5A-SB-2.0-3.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-087-SA5A-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	1.3 ug/Kg	4.0U ug/Kg

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE118 **Laboratory: LL**

EDD Filename: DE118_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSY90Q211607A (TB-040411)	TRICHLOROFLUOROMETHANE	135	-	64.00-129.00	-	TRICHLOROFLUOROMETHAN	J(all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10226AQ220853A (SL-085-SA5A-SB-4.0-5.0 SL -087-SA5A-SB-2.0-3.0)	ANTIMONY	177	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Reporting Limit Outliers

Lab Reporting Batch ID: DE118

Laboratory: LL

EDD Filename: DE118_v1

eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-085-SA5A-SB-4.0-5.0	TIN	J	3.23	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.47	5.50	PQL	mg/Kg	
SL-087-SA5A-SB-2.0-3.0	TIN	J	2.93	10.8	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.95	5.38	PQL	mg/Kg	

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-085-SA5A-SB-4.0-5.0	ANTIMONY	J	0.205	0.224	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0883	0.112	PQL	mg/Kg	
	SELENIUM	J	0.117	0.449	PQL	mg/Kg	
	SILVER	J	0.0733	0.112	PQL	mg/Kg	
SL-087-SA5A-SB-2.0-3.0	CADMIUM	J	0.0914	0.106	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.135	0.422	PQL	mg/Kg	

Method: 7199
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-087-SA5A-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.32	1.1	PQL	mg/Kg	J (all detects)

Method: 8260B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-085-SA5A-SB-4.0-5.0	ACETONE	J	8.1	8.5	PQL	ug/Kg	J (all detects)
SL-087-SA5A-SB-2.0-3.0	METHYLENE CHLORIDE	J	1.3	4.0	PQL	ug/Kg	J (all detects)

Method: 8270C SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-085-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	20	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.49	1.9	PQL	ug/Kg	
	Diethylphthalate	J	9.1	20	PQL	ug/Kg	
	Di-n-butylphthalate	J	11	20	PQL	ug/Kg	
SL-087-SA5A-SB-2.0-3.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	14	20	PQL	ug/Kg	J (all detects)
	Diethylphthalate	J	9.1	20	PQL	ug/Kg	
	Di-n-butylphthalate	J	11	20	PQL	ug/Kg	
	Di-n-octylphthalate	J	6.6	20	PQL	ug/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

LDC #: 25916A4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-11
SDG #: DE118 ADR
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No Quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (SDG: DE123)
VII.	Duplicate Sample Analysis	N	Dup ↓
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	—	SDG: DE123
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-085-SA5A-SB-4.0-5.0	11		21		31	
2	SL-087-SA5A-SB-2.0-3.0	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

SAMPLE DELIVERY GROUP

DE119

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
05-Apr-2011	TB-040511	6250045	TB	5030B	8015M	III
05-Apr-2011	TB-040511	6250045	TB	5030B	8260B	III
05-Apr-2011	TB-040511	6250045	TB	5030B	8260B SIM	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	3050B	6010B	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	3050B	6020	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	3060A	7199	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	3546	1625C	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	3550B	8015B	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	3550B	8015M	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	3550B	8082	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	3550B	8270C	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	3550B	8270C SIM	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	5035	8015M	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	5035	8260B	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	5035	8260B SIM	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	8330	8330A	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	Gen Prep	9045M	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	METHOD	300.0	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	METHOD	314.0	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	METHOD	7471A	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	METHOD	8015B	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	METHOD	8015M	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	METHOD	8315A	III
05-Apr-2011	SL-156-SA5A-SB-3.0-4.0	6250043	N	METHOD	9012B	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	3050B	6010B	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	3050B	6020	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	3060A	7199	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	3546	1625C	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	3550B	8015B	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	3550B	8015M	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	3550B	8082	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	3550B	8270C	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	3550B	8270C SIM	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	5035	8015M	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	5035	8260B	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	5035	8260B SIM	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	8330	8330A	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	Gen Prep	9045M	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	METHOD	300.0	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	METHOD	314.0	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	METHOD	7471A	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	METHOD	8015B	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	METHOD	8015M	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	METHOD	8315A	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0	6250041	N	METHOD	9012B	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0DUP	P250041D271219B	DUP	METHOD	300.0	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0MSD	P250041M242239A	MSD	METHOD	8315A	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0MSD	P250041M321742A	MSD	3550B	8015B	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0MSD	P250041M321748A	MSD	METHOD	8015M	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0MS	P250041R242230A	MS	METHOD	8315A	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0MS	P250041R271300B	MS	METHOD	300.0	III
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0MS	P250041R321657A	MS	3550B	8015B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
05-Apr-2011	SL-154-SA5A-SB-4.0-5.0MS	P250041R321713A	MS	METHOD	8015M	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	3050B	6010B	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	3050B	6020	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	3060A	7199	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	3546	1625C	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	3550B	8015B	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	3550B	8015M	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	3550B	8082	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	3550B	8270C	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	3550B	8270C SIM	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	5035	8015M	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	5035	8260B	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	5035	8260B SIM	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	8330	8330A	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	Gen Prep	9045M	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	METHOD	300.0	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	METHOD	314.0	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	METHOD	7471A	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	METHOD	8015B	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	METHOD	8015M	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	METHOD	8315A	III
05-Apr-2011	SL-154-SA5A-SB-7.0-8.0	6250042	N	METHOD	9012B	III
05-Apr-2011	EB11-SA5A-SB-040511	6250044	EB	3005A	6010B	III
05-Apr-2011	EB11-SA5A-SB-040511	6250044	EB	3020A	6020	III
05-Apr-2011	EB11-SA5A-SB-040511	6250044	EB	3510C	8082	III
05-Apr-2011	EB11-SA5A-SB-040511	6250044	EB	3510C	8270C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
05-Apr-2011	EB11-SA5A-SB-040511	6250044	EB	3510C	8270C SIM	III
05-Apr-2011	EB11-SA5A-SB-040511	6250044	EB	5030B	8260B	III
05-Apr-2011	EB11-SA5A-SB-040511	6250044	EB	5030B	8260B SIM	III
05-Apr-2011	EB11-SA5A-SB-040511	6250044	EB	Gen Prep	300.0	III
05-Apr-2011	EB11-SA5A-SB-040511	6250044	EB	Gen Prep	314.0	III
05-Apr-2011	EB11-SA5A-SB-040511	6250044	EB	Gen Prep	7199	III
05-Apr-2011	EB11-SA5A-SB-040511	6250044	EB	METHOD	7470A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE119 **Laboratory: LL**

EDD Filename: DE119_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-154-SA5A-SB-4.0-5.0 *Collected:* 4/5/2011 11:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.6		0.94	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.4	J	0.94	MDL	1.8	PQL	mg/Kg	J	Z

Sample ID: SL-154-SA5A-SB-7.0-8.0 *Collected:* 4/5/2011 11:22:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.5		0.94	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.6	J	0.94	MDL	1.8	PQL	mg/Kg	J	Z

Sample ID: SL-156-SA5A-SB-3.0-4.0 *Collected:* 4/5/2011 9:34:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.91	U	0.91	MDL	1.1	PQL	mg/Kg	UJ	Q
Nitrate-NO3	1.1	J	0.91	MDL	1.7	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix: AQ**

Sample ID: EB11-SA5A-SB-040511 *Collected:* 4/5/2011 2:50:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	0.168	J	0.0522	MDL	0.200	PQL	mg/L	U	B
MAGNESIUM	0.0305	J	0.0172	MDL	0.100	PQL	mg/L	J	Z
MANGANESE	0.0014	J	0.00084	MDL	0.0050	PQL	mg/L	U	B

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-154-SA5A-SB-4.0-5.0 *Collected:* 4/5/2011 11:15:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.44	J	1.04	MDL	5.85	PQL	mg/Kg	J	Z
LITHIUM	23.5		0.26	MDL	2.3	PQL	mg/Kg	J	A
PHOSPHORUS	167		0.655	MDL	11.7	PQL	mg/Kg	J	Q
POTASSIUM	1750		21.1	MDL	58.5	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE119 **Laboratory: LL**

EDD Filename: DE119_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-154-SA5A-SB-4.0-5.0 *Collected:* 4/5/2011 11:15:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.91	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	2.19	J	0.982	MDL	5.85	PQL	mg/Kg	J	Z

Sample ID: SL-154-SA5A-SB-7.0-8.0 *Collected:* 4/5/2011 11:22:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	25.8		0.26	MDL	2.3	PQL	mg/Kg	J	A
PHOSPHORUS	168		0.655	MDL	11.7	PQL	mg/Kg	J	Q
POTASSIUM	1900		21.0	MDL	58.4	PQL	mg/Kg	J	Q
SODIUM	113	J	43.6	MDL	117	PQL	mg/Kg	J	Z
TIN	3.15	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	3.95	J	0.982	MDL	5.84	PQL	mg/Kg	J	Z

Sample ID: SL-156-SA5A-SB-3.0-4.0 *Collected:* 4/5/2011 9:34:00 AM *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	21.2		0.25	MDL	2.2	PQL	mg/Kg	J	A
PHOSPHORUS	278		0.628	MDL	11.2	PQL	mg/Kg	J	Q
POTASSIUM	2690		20.2	MDL	56.1	PQL	mg/Kg	J	Q
SODIUM	74.7	J	41.8	MDL	112	PQL	mg/Kg	J	Z
TIN	2.94	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	2.40	J	0.942	MDL	5.61	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-154-SA5A-SB-4.0-5.0 *Collected:* 4/5/2011 11:15:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0659	J	0.0463	MDL	0.463	PQL	mg/Kg	J	Z

Sample ID: SL-154-SA5A-SB-4.0-5.0 *Collected:* 4/5/2011 11:15:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	105		0.125	MDL	0.463	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE119 **Laboratory: LL**

EDD Filename: DE119_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-154-SA5A-SB-4.0-5.0** ***Collected:*** **4/5/2011 11:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.201	J	0.0695	MDL	0.232	PQL	mg/Kg	J	Z, Q
ARSENIC	5.53		0.0926	MDL	0.463	PQL	mg/Kg	J	Q
CADMIUM	0.0764	J	0.0463	MDL	0.116	PQL	mg/Kg	J	Z
CHROMIUM	21.0		0.139	MDL	0.463	PQL	mg/Kg	J	A, Q
COBALT	6.21		0.0232	MDL	0.116	PQL	mg/Kg	J	A
COPPER	7.31		0.0764	MDL	0.463	PQL	mg/Kg	J	A, Q
LEAD	6.77		0.0120	MDL	0.232	PQL	mg/Kg	J	A, Q
NICKEL	12.7		0.116	MDL	0.463	PQL	mg/Kg	J	Q
SILVER	0.0624	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z
THALLIUM	0.308		0.0347	MDL	0.116	PQL	mg/Kg	J	Q
VANADIUM	43.9		0.0255	MDL	0.116	PQL	mg/Kg	J	A, Q

Sample ID: **SL-154-SA5A-SB-7.0-8.0** ***Collected:*** **4/5/2011 11:22:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.114	J	0.0463	MDL	0.463	PQL	mg/Kg	J	Z

Sample ID: **SL-154-SA5A-SB-7.0-8.0** ***Collected:*** **4/5/2011 11:22:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	101		0.125	MDL	0.463	PQL	mg/Kg	J	A

Sample ID: **SL-154-SA5A-SB-7.0-8.0** ***Collected:*** **4/5/2011 11:22:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.269		0.0694	MDL	0.231	PQL	mg/Kg	J	Q
ARSENIC	6.97		0.0926	MDL	0.463	PQL	mg/Kg	J	Q
CADMIUM	0.0659	J	0.0463	MDL	0.116	PQL	mg/Kg	J	Z
CHROMIUM	25.2		0.139	MDL	0.463	PQL	mg/Kg	J	A, Q
COBALT	8.18		0.0231	MDL	0.116	PQL	mg/Kg	J	A
COPPER	9.62		0.0764	MDL	0.463	PQL	mg/Kg	J	A, Q
LEAD	7.52		0.0120	MDL	0.231	PQL	mg/Kg	J	A, Q
NICKEL	15.0		0.116	MDL	0.463	PQL	mg/Kg	J	Q
SILVER	0.0599	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z
THALLIUM	0.386		0.0347	MDL	0.116	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE119 **Laboratory:** LL

EDD Filename: DE119_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-154-SA5A-SB-7.0-8.0 *Collected:* 4/5/2011 11:22:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	57.4		0.0255	MDL	0.116	PQL	mg/Kg	J	A, Q

Sample ID: SL-156-SA5A-SB-3.0-4.0 *Collected:* 4/5/2011 9:34:00 AM *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.151	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

Sample ID: SL-156-SA5A-SB-3.0-4.0 *Collected:* 4/5/2011 9:34:00 AM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	95.0		0.120	MDL	0.444	PQL	mg/Kg	J	A

Sample ID: SL-156-SA5A-SB-3.0-4.0 *Collected:* 4/5/2011 9:34:00 AM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.368		0.0666	MDL	0.222	PQL	mg/Kg	J	Q
ARSENIC	6.02		0.0888	MDL	0.444	PQL	mg/Kg	J	Q
CADMIUM	0.0774	J	0.0444	MDL	0.111	PQL	mg/Kg	J	Z
CHROMIUM	18.7		0.133	MDL	0.444	PQL	mg/Kg	J	A, Q
COBALT	11.8		0.0222	MDL	0.111	PQL	mg/Kg	J	A
COPPER	8.38		0.0733	MDL	0.444	PQL	mg/Kg	J	A, Q
LEAD	8.56		0.0115	MDL	0.222	PQL	mg/Kg	J	A, Q
NICKEL	11.4		0.111	MDL	0.444	PQL	mg/Kg	J	Q
THALLIUM	0.360		0.0333	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	38.7		0.0244	MDL	0.111	PQL	mg/Kg	J	A, Q

Method Category: METALS

Method: 7199 **Matrix:** AQ

Sample ID: EB11-SA5A-SB-040511 *Collected:* 4/5/2011 2:50:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	5.0	U	5.0	MDL	10.0	PQL	ug/L	UJ	H

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE119 **Laboratory: LL**

EDD Filename: DE119_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS
Method: 7199 **Matrix: SO**

Sample ID: SL-156-SA5A-SB-3.0-4.0 *Collected:* 4/5/2011 9:34:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.36	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS
Method: 7471A **Matrix: SO**

Sample ID: SL-156-SA5A-SB-3.0-4.0 *Collected:* 4/5/2011 9:34:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0096	J	0.0032	MDL	0.110	PQL	mg/Kg	J	Z

Method Category: SVOA
Method: 1625C **Matrix: SO**

Sample ID: SL-154-SA5A-SB-4.0-5.0 *Collected:* 4/5/2011 11:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	35.3	J	19.4	MDL	38.7	PQL	ng/Kg	J	Z

Sample ID: SL-154-SA5A-SB-7.0-8.0 *Collected:* 4/5/2011 11:22:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	27.3	J	19.4	MDL	38.7	PQL	ng/Kg	J	Z

Method Category: SVOA
Method: 8015M **Matrix: SO**

Sample ID: SL-154-SA5A-SB-4.0-5.0 *Collected:* 4/5/2011 11:15:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	0.51	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z, L
EFH (C30-C40)	0.58	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE119 **Laboratory: LL**

EDD Filename: DE119_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-154-SA5A-SB-7.0-8.0 *Collected:* 4/5/2011 11:22:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.63	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-156-SA5A-SB-3.0-4.0 *Collected:* 4/5/2011 9:34:00 AM *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	1.2	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z, L
EFH (C21-C30)	4.1		0.45	MDL	1.4	PQL	mg/Kg	J	L

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-156-SA5A-SB-3.0-4.0 *Collected:* 4/5/2011 9:34:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.71	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5460	2.9	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: AQ**

Sample ID: EB11-SA5A-SB-040511 *Collected:* 4/5/2011 2:50:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	0.098	J	0.055	MDL	1.1	PQL	ug/L	J	Z
Diethylphthalate	0.066	J	0.055	MDL	1.1	PQL	ug/L	J	Z
Di-n-butylphthalate	0.62	J	0.055	MDL	1.1	PQL	ug/L	J	Z
NAPHTHALENE	0.036	J	0.033	MDL	0.055	PQL	ug/L	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE119 **Laboratory:** LL

EDD Filename: DE119_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA **Method:** 8270C SIM **Matrix:** SO

Sample ID: SL-154-SA5A-SB-4.0-5.0 **Collected:** 4/5/2011 11:15:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	8.1	J	7.0	MDL	21	PQL	ug/Kg	J	Z
Diethylphthalate	8.7	J	7.0	MDL	21	PQL	ug/Kg	J	Z
Di-n-butylphthalate	10	J	7.0	MDL	21	PQL	ug/Kg	J	Z
N-NITROSODIMETHYLAMINE	0.77	U	0.77	MDL	1.9	PQL	ug/Kg	UJ	L

Sample ID: SL-154-SA5A-SB-7.0-8.0 **Collected:** 4/5/2011 11:22:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	7.7	J	7.0	MDL	21	PQL	ug/Kg	J	Z
Diethylphthalate	8.4	J	7.0	MDL	21	PQL	ug/Kg	J	Z
Di-n-butylphthalate	10	J	7.0	MDL	21	PQL	ug/Kg	J	Z
N-NITROSODIMETHYLAMINE	0.78	U	0.78	MDL	2.0	PQL	ug/Kg	UJ	L

Sample ID: SL-156-SA5A-SB-3.0-4.0 **Collected:** 4/5/2011 9:34:00 AM **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.88	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.90	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	8.6	J	6.7	MDL	20	PQL	ug/Kg	J	Z
Diethylphthalate	8.1	J	6.7	MDL	20	PQL	ug/Kg	J	Z
Di-n-butylphthalate	13	J	6.7	MDL	20	PQL	ug/Kg	J	Z
NAPHTHALENE	0.84	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
N-NITROSODIMETHYLAMINE	0.75	U	0.75	MDL	1.9	PQL	ug/Kg	UJ	L

Method Category: VOA **Method:** 8015B **Matrix:** SO

Sample ID: SL-154-SA5A-SB-4.0-5.0 **Collected:** 4/5/2011 11:15:00 **Analysis Type:** REA3 **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
p-Terphenyl	1.8	U	1.8	MDL	4.1	PQL	mg/Kg	UJ	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE119 **Laboratory:** LL

EDD Filename: DE119_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-154-SA5A-SB-4.0-5.0 **Collected:** 4/5/2011 11:15:00 **Analysis Type:** RES **Dilution:** 0.85

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.98	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE119

Laboratory: LL

EDD Filename: DE119_v1

eQAPP Name: CDM_SSFL_110509

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE119

Laboratory: LL

EDD Filename: DE119_v1

eQAPP Name: CDM_SSFL_110509

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE119

Laboratory: LL

EDD Filename: DE119_v1

eQAPP Name: CDM_SSFL_110509

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE119

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE119
EDD Filename: DE119_v1

Laboratory: LL
eQAPP Name: CDM_SSFL_110509

Method: 7199 **Preparation Method: Gen Prep**
Matrix: AQ

Sample ID	*Type*	*Actual*	*Criteria*	*Units*	*Flag*
EB11-SA5A-SB-040511 (RES)	Sampling To Analysis	25.00	24.00	HOURS	J (all detects) UJ (all non-detects)

Method Blank Outlier Report

Lab Reporting Batch ID: DE119 **Laboratory: LL**

EDD Filename: DE119_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10248BB222213	4/17/2011 10:13:00 PM	IRON MANGANESE Zirconium	0.183 mg/L 0.0011 mg/L 0.0209 mg/L	EB11-SA5A-SB-040511

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB11-SA5A-SB-040511(RES)	IRON	0.168 mg/L	0.168U mg/L
EB11-SA5A-SB-040511(RES)	MANGANESE	0.0014 mg/L	0.0014U mg/L

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10208AB220725	4/16/2011 7:25:00 AM	ALUMINUM LITHIUM PHOSPHORUS TIN	29.3 mg/Kg 0.33 mg/Kg 1.22 mg/Kg 1.28 mg/Kg	SL-154-SA5A-SB-4.0-5.0 SL-154-SA5A-SB-7.0-8.0 SL-156-SA5A-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-154-SA5A-SB-4.0-5.0(REA2)	TIN	2.91 mg/Kg	2.91U mg/Kg
SL-154-SA5A-SB-7.0-8.0(REA2)	TIN	3.15 mg/Kg	3.15U mg/Kg
SL-156-SA5A-SB-3.0-4.0(REA2)	TIN	2.94 mg/Kg	2.94U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10226AB220850A	4/13/2011 8:50:00 AM	COPPER	0.162 mg/Kg	SL-154-SA5A-SB-4.0-5.0 SL-154-SA5A-SB-7.0-8.0 SL-156-SA5A-SB-3.0-4.0

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB17B211327A	4/7/2011 1:27:00 PM	METHYLENE CHLORIDE TOLUENE	0.52 ug/Kg 0.09 ug/Kg	SL-154-SA5A-SB-4.0-5.0 SL-154-SA5A-SB-7.0-8.0 SL-156-SA5A-SB-3.0-4.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE119 **Laboratory: LL**

EDD Filename: DE119_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-154-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.98 ug/Kg	4.0U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE119 **Laboratory: LL**

EDD Filename: DE119_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-154-SA5A-SB-4.0-5.0MS (SL-154-SA5A-SB-4.0-5.0 SL-154-SA5A-SB-7.0-8.0 SL-156-SA5A-SB-3.0-4.0)	FLUORIDE	67	-	80.00-120.00	-	FLUORIDE	J (all detects) UJ (all non-detects)

Method: 8015B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-154-SA5A-SB-4.0-5.0MS **SL-154-SA5A-SB-4.0-5.0MSD** (SL-154-SA5A-SB-4.0-5.0)	p-Terphenyl	74	74	75.00-125.00	-	p-Terphenyl	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE119 **Laboratory: LL**

EDD Filename: DE119_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-154-SA5A-SB-4.0-5.0DUP (SL-154-SA5A-SB-4.0-5.0 SL -154-SA5A-SB-7.0-8.0 SL -156-SA5A-SB-3.0-4.0)	Nitrate-NO3	22	20.00	No Qual OK by difference

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE119 **Laboratory: LL**

EDD Filename: DE119_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P8WKLCSQ261832 **P8WKLCSY261904** (EB11-SA5A-SB-040511)	ACENAPHTHENE	116	112	74.00-109.00	-	ACENAPHTHENE	J (all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10226AQ220853A (SL-154-SA5A-SB-4.0-5.0 SL-154-SA5A-SB-7.0-8.0 SL-156-SA5A-SB-3.0-4.0)	ANTIMONY	177	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P3LCLCSQ261825 (SL-154-SA5A-SB-4.0-5.0 SL-154-SA5A-SB-7.0-8.0 SL-156-SA5A-SB-3.0-4.0)	N-NITROSODIMETHYLAMINE	47	-	55.00-118.00	-	N-NITROSODIMETHYLAMINE	J(all detects) UJ(all non-detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10986AQ321544A (SL-154-SA5A-SB-4.0-5.0 SL-154-SA5A-SB-7.0-8.0 SL-156-SA5A-SB-3.0-4.0)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	174 176 181	- - -	75.00-125.00 65.00-122.00 75.00-125.00	- - -	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	J(all detects)
P11045AQ322144A (SL-154-SA5A-SB-4.0-5.0 SL-154-SA5A-SB-7.0-8.0 SL-156-SA5A-SB-3.0-4.0)	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30)	118 126 128	- - -	66.00-113.00 66.00-113.00 66.00-113.00	- - -	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30)	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE119 **Laboratory: LL**

EDD Filename: DE119_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB11-SA5A-SB-040511	IRON	J	0.168	0.200	PQL	mg/L	
	MAGNESIUM	J	0.0305	0.100	PQL	mg/L	J (all detects)
	MANGANESE	J	0.0014	0.0050	PQL	mg/L	

Method: 8270C SIM
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB11-SA5A-SB-040511	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.098	1.1	PQL	ug/L	
	Diethylphthalate	J	0.066	1.1	PQL	ug/L	J (all detects)
	Di-n-butylphthalate	J	0.62	1.1	PQL	ug/L	
	NAPHTHALENE	J	0.036	0.055	PQL	ug/L	

Method: 1625C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-154-SA5A-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	35.3	38.7	PQL	ng/Kg	J (all detects)
SL-154-SA5A-SB-7.0-8.0	N-NITROSODIMETHYLAMINE	J	27.3	38.7	PQL	ng/Kg	J (all detects)

Method: 300.0
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-154-SA5A-SB-4.0-5.0	Nitrate-NO3	J	1.4	1.8	PQL	mg/Kg	J (all detects)
SL-154-SA5A-SB-7.0-8.0	Nitrate-NO3	J	1.6	1.8	PQL	mg/Kg	J (all detects)
SL-156-SA5A-SB-3.0-4.0	Nitrate-NO3	J	1.1	1.7	PQL	mg/Kg	J (all detects)

Method: 6010B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-154-SA5A-SB-4.0-5.0	BORON	J	1.44	5.85	PQL	mg/Kg	
	TIN	J	2.91	11.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.19	5.85	PQL	mg/Kg	
SL-154-SA5A-SB-7.0-8.0	SODIUM	J	113	117	PQL	mg/Kg	
	TIN	J	3.15	11.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.95	5.84	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE119 **Laboratory: LL**

EDD Filename: DE119_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-156-SA5A-SB-3.0-4.0	SODIUM	J	74.7	112	PQL	mg/Kg	J (all detects)
	TIN	J	2.94	11.2	PQL	mg/Kg	
	Zirconium	J	2.40	5.61	PQL	mg/Kg	

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-154-SA5A-SB-4.0-5.0	ANTIMONY	J	0.201	0.232	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0764	0.116	PQL	mg/Kg	
	SELENIUM	J	0.0659	0.463	PQL	mg/Kg	
	SILVER	J	0.0624	0.116	PQL	mg/Kg	
SL-154-SA5A-SB-7.0-8.0	CADMIUM	J	0.0659	0.116	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.114	0.463	PQL	mg/Kg	
	SILVER	J	0.0599	0.116	PQL	mg/Kg	
SL-156-SA5A-SB-3.0-4.0	CADMIUM	J	0.0774	0.111	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.151	0.444	PQL	mg/Kg	

Method: 7199
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-156-SA5A-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.36	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-156-SA5A-SB-3.0-4.0	MERCURY	J	0.0096	0.110	PQL	mg/Kg	J (all detects)

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-154-SA5A-SB-4.0-5.0	EFH (C21-C30)	J	0.51	1.4	PQL	mg/Kg	J (all detects)
	EFH (C30-C40)	J	0.58	1.4	PQL	mg/Kg	
SL-154-SA5A-SB-7.0-8.0	EFH (C30-C40)	J	0.63	1.4	PQL	mg/Kg	J (all detects)
SL-156-SA5A-SB-3.0-4.0	EFH (C15-C20)	J	1.2	1.4	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE119 **Laboratory: LL**

EDD Filename: DE119_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8082
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-156-SA5A-SB-3.0-4.0	AROCLOR 1260	J	0.71	1.9	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	2.9	3.7	PQL	ug/Kg	

Method: 8260B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-154-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.98	4.0	PQL	ug/Kg	J (all detects)

Method: 8270C SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-154-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.1	21	PQL	ug/Kg	J (all detects)
	Diethylphthalate	J	8.7	21	PQL	ug/Kg	
	Di-n-butylphthalate	J	10	21	PQL	ug/Kg	
SL-154-SA5A-SB-7.0-8.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.7	21	PQL	ug/Kg	J (all detects)
	Diethylphthalate	J	8.4	21	PQL	ug/Kg	
	Di-n-butylphthalate	J	10	21	PQL	ug/Kg	
SL-156-SA5A-SB-3.0-4.0	1-METHYLNAPHTHALENE	J	0.88	1.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.90	1.9	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.6	20	PQL	ug/Kg	
	Diethylphthalate	J	8.1	20	PQL	ug/Kg	
	Di-n-butylphthalate	J	13	20	PQL	ug/Kg	
	NAPHTHALENE	J	0.84	1.9	PQL	ug/Kg	

LDC #: 25916B4

SDG #: DE119

Laboratory: Lancaster Laboratories

VALIDATION COMPLETENESS WORKSHEET
ADR

Date: 8-3-4

Reviewer: CR

2nd Reviewer: C

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No Quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (SDG: DE123)
VII.	Duplicate Sample Analysis	N	DUP ↓
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	—	(SDG: DE123)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-154-SA5A-SB-4.0-5.0	11		21		31	
2	SL-154-SA5A-SB-7.0-8.0	12		22		32	
3	SL-156-SA5A-SB-3.0-4.0	13		23		33	
4	EB11-SA5A-SB-040511	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

SAMPLE DELIVERY GROUP

DE120

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
06-Apr-2011	TB-040611	6251860	TB	5030B	8015M	III
06-Apr-2011	TB-040611	6251860	TB	5030B	8260B	III
06-Apr-2011	TB-040611	6251860	TB	5030B	8260B SIM	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	3050B	6010B	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	3050B	6020	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	3060A	7199	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	3546	1625C	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	3550B	8015B	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	3550B	8015M	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	3550B	8082	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	3550B	8270C	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	3550B	8270C SIM	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	5035	8015M	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	5035	8260B	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	5035	8260B SIM	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	8330	8330A	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	METHOD	300.0	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	METHOD	314.0	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	METHOD	7471A	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	METHOD	8015B	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	METHOD	8015M	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	METHOD	8315A	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0	6251858	N	METHOD	9012B	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0MSD	P251858M322235A	MSD	METHOD	8015B	III
06-Apr-2011	SL-151-SA5A-SB-4.0-5.0MS	P251858R322220A	MS	METHOD	8015B	III
06-Apr-2011	EB12-SA5A-SB-040611	6251859	EB	3510C	8015B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
06-Apr-2011	EB12-SA5A-SB-040611	6251859	EB	3510C	8015M	III
06-Apr-2011	EB12-SA5A-SB-040611	6251859	EB	3520C	1625C	III
06-Apr-2011	EB12-SA5A-SB-040611	6251859	EB	5030B	8015M	III
06-Apr-2011	EB12-SA5A-SB-040611	6251859	EB	8330	8330A	III
06-Apr-2011	EB12-SA5A-SB-040611	6251859	EB	Gen Prep	300.0	III
06-Apr-2011	EB12-SA5A-SB-040611	6251859	EB	Gen Prep	8015B	III
06-Apr-2011	EB12-SA5A-SB-040611	6251859	EB	Gen Prep	8015M	III
06-Apr-2011	EB12-SA5A-SB-040611	6251859	EB	METHOD	8315A	III
06-Apr-2011	EB12-SA5A-SB-040611	6251859	EB	METHOD	9012B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE120 **Laboratory:** LL

EDD Filename: DE120_v1. **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-151-SA5A-SB-4.0-5.0 *Collected:* 4/6/2011 9:20:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.08	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	4.08	J	0.949	MDL	5.65	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-151-SA5A-SB-4.0-5.0 *Collected:* 4/6/2011 9:20:00 AM *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0837	J	0.0435	MDL	0.435	PQL	mg/Kg	J	Z

Sample ID: SL-151-SA5A-SB-4.0-5.0 *Collected:* 4/6/2011 9:20:00 AM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.122	J	0.0652	MDL	0.217	PQL	mg/Kg	J	Z
CADMIUM	0.0565	J	0.0435	MDL	0.109	PQL	mg/Kg	J	Z
SILVER	0.0485	J	0.0130	MDL	0.109	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix:** AQ

Sample ID: EB12-SA5A-SB-040611 *Collected:* 4/6/2011 9:40:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	0.730	J	0.514	MDL	1.03	PQL	ng/L	J	Z, S

Method Category: SVOA

Method: 8015M **Matrix:** SO

Sample ID: SL-151-SA5A-SB-4.0-5.0 *Collected:* 4/6/2011 9:20:00 AM *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	0.48	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z, L
EFH (C30-C40)	0.87	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE120 **Laboratory:** LL

EDD Filename: DE120_v1. **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: SL-151-SA5A-SB-4.0-5.0 *Collected:* 4/6/2011 9:20:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	7.2	J	6.7	MDL	20	PQL	ug/Kg	J	Z
Diethylphthalate	7.9	J	6.7	MDL	20	PQL	ug/Kg	J	Z
Di-n-butylphthalate	9.7	J	6.7	MDL	20	PQL	ug/Kg	J	Z
N-NITROSODIMETHYLAMINE	0.75	U	0.75	MDL	1.9	PQL	ug/Kg	UJ	L

Method Category: VOA

Method: 8015B **Matrix:** AQ

Sample ID: EB12-SA5A-SB-040611 *Collected:* 4/6/2011 9:40:00 AM *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m-Terphenyl	0.085	U	0.085	MDL	0.27	PQL	mg/L	UJ	S
O-TERPHENYL	0.085	U	0.085	MDL	0.27	PQL	mg/L	UJ	S
p-Terphenyl	0.085	U	0.085	MDL	0.27	PQL	mg/L	UJ	L, S

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-151-SA5A-SB-4.0-5.0 *Collected:* 4/6/2011 9:20:00 AM *Analysis Type:* RES *Dilution:* 0.83

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	2.1	J	0.23	MDL	3.8	PQL	ug/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE120 **Laboratory: LL**

EDD Filename: DE120_v1. **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Laboratory Triplicate Precision
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Verification Percent Recovery Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE120 **Laboratory: LL**

EDD Filename: DE120_v1. **eQAPP Name: CDM_SSFL_110509**

E	Matrix Spike Precision
F	Equipment Blank Contamination
F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE120 **Laboratory: LL**

EDD Filename: DE120_v1. **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Estimation
R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DE120

Method Blank Outlier Report

Lab Reporting Batch ID: DE120 Laboratory: LL

EDD Filename: DE120_v1. eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10208AB220725	4/16/2011 7:25:00 AM	ALUMINUM LITHIUM PHOSPHORUS TIN	29.3 mg/Kg 0.33 mg/Kg 1.22 mg/Kg 1.28 mg/Kg	SL-151-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-151-SA5A-SB-4.0-5.0(RES)	TIN	3.08 mg/Kg	3.08U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10226AB220850A	4/13/2011 8:50:00 AM	COPPER	0.162 mg/Kg	SL-151-SA5A-SB-4.0-5.0

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB20B211253A	4/12/2011 12:53:00 PM	METHYLENE CHLORIDE	0.64 ug/Kg	SL-151-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-151-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.1 ug/Kg	3.8U ug/Kg

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE120 Laboratory: LL

EDD Filename: DE120_v1. eQAPP Name: CDM_SSFL_110509

Method: 8015B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11028AQ320112A P11028AY320157A (EB12-SA5A-SB-040611)	p-Terphenyl	71	73	75.00-125.00	-	p-Terphenyl	J(all detects) UJ(all non-detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10226AQ220853A (SL-151-SA5A-SB-4.0-5.0)	ANTIMONY	177	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC limits

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P3LCLCSQ261825 (SL-151-SA5A-SB-4.0-5.0)	N-NITROSODIMETHYLAMINE	47	-	55.00-118.00	-	N-NITROSODIMETHYLAMINE	J(all detects) UJ(all non-detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10986AQ321544A (SL-151-SA5A-SB-4.0-5.0)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	174 176 181	- - -	75.00-125.00 65.00-122.00 75.00-125.00	- - -	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	J(all detects)
P11045AQ322144A (SL-151-SA5A-SB-4.0-5.0)	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30)	118 126 128	- - -	66.00-113.00 66.00-113.00 66.00-113.00	- - -	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30)	J(all detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE120 **Laboratory: LL**

EDD Filename: DE120_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **1625C**
Matrix: **AQ**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
EB12-SA5A-SB-040611	N-Nitrosodimethylamine-d6	183	50.00-150.00	All Target Analytes	J (all detects)

Method: **8015B**
Matrix: **AQ**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
EB12-SA5A-SB-040611	n-Triacontane-d62	28	50.00-150.00	All Target Analytes	J(all detects) UJ(all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE120 Laboratory: LL

EDD Filename: DE120_v1. eQAPP Name: CDM_SSFL_110509

Method: 1625C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB12-SA5A-SB-040611	N-NITROSODIMETHYLAMINE	J	0.730	1.03	PQL	ng/L	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-151-SA5A-SB-4.0-5.0	TIN	J	3.08	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.08	5.65	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-151-SA5A-SB-4.0-5.0	ANTIMONY	J	0.122	0.217	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0565	0.109	PQL	mg/Kg	
	SELENIUM	J	0.0837	0.435	PQL	mg/Kg	
	SILVER	J	0.0485	0.109	PQL	mg/Kg	

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-151-SA5A-SB-4.0-5.0	EFH (C21-C30)	J	0.48	1.4	PQL	mg/Kg	J (all detects)
	EFH (C30-C40)	J	0.87	1.4	PQL	mg/Kg	

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-151-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	2.1	3.8	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-151-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.2	20	PQL	ug/Kg	J (all detects)
	Diethylphthalate	J	7.9	20	PQL	ug/Kg	
	Di-n-butylphthalate	J	9.7	20	PQL	ug/Kg	

LDC #: 26078A4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/29/11
SDG #: DE120 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: CC
2nd Reviewer: A

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No quals by ICB/CCB
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	CS
VII.	Duplicate Sample Analysis	N	1
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	N	Not performed
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: 9

1	SL-151-SA5A-SB-4.0-5.0	11		21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

SAMPLE DELIVERY GROUP

DE121

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-Apr-2011	TB-040711	6253030	TB	5030B	8015M	III
07-Apr-2011	TB-040711	6253030	TB	5030B	8260B	III
07-Apr-2011	TB-040711	6253030	TB	5030B	8260B SIM	III
07-Apr-2011	SL-081-SA5A-SB-2.0-3.0	6253027	N	3050B	6010B	III
07-Apr-2011	SL-081-SA5A-SB-2.0-3.0	6253027	N	3050B	6020	III
07-Apr-2011	SL-081-SA5A-SB-2.0-3.0	6253027	N	3060A	7199	III
07-Apr-2011	SL-081-SA5A-SB-2.0-3.0	6253027	N	3550B	8082	III
07-Apr-2011	SL-081-SA5A-SB-2.0-3.0	6253027	N	3550B	8270C	III
07-Apr-2011	SL-081-SA5A-SB-2.0-3.0	6253027	N	3550B	8270C SIM	III
07-Apr-2011	SL-081-SA5A-SB-2.0-3.0	6253027	N	5035	8260B	III
07-Apr-2011	SL-081-SA5A-SB-2.0-3.0	6253027	N	5035	8260B SIM	III
07-Apr-2011	SL-081-SA5A-SB-2.0-3.0	6253027	N	Gen Prep	9045M	III
07-Apr-2011	SL-081-SA5A-SB-2.0-3.0	6253027	N	METHOD	300.0	III
07-Apr-2011	SL-081-SA5A-SB-2.0-3.0	6253027	N	METHOD	314.0	III
07-Apr-2011	SL-081-SA5A-SB-2.0-3.0	6253027	N	METHOD	7471A	III
07-Apr-2011	SL-080-SA5A-SB-3.0-4.0	6253026	N	3050B	6010B	III
07-Apr-2011	SL-080-SA5A-SB-3.0-4.0	6253026	N	3050B	6020	III
07-Apr-2011	SL-080-SA5A-SB-3.0-4.0	6253026	N	3060A	7199	III
07-Apr-2011	SL-080-SA5A-SB-3.0-4.0	6253026	N	3550B	8082	III
07-Apr-2011	SL-080-SA5A-SB-3.0-4.0	6253026	N	3550B	8270C	III
07-Apr-2011	SL-080-SA5A-SB-3.0-4.0	6253026	N	3550B	8270C SIM	III
07-Apr-2011	SL-080-SA5A-SB-3.0-4.0	6253026	N	5035	8260B	III
07-Apr-2011	SL-080-SA5A-SB-3.0-4.0	6253026	N	5035	8260B SIM	III
07-Apr-2011	SL-080-SA5A-SB-3.0-4.0	6253026	N	Gen Prep	9045M	III
07-Apr-2011	SL-080-SA5A-SB-3.0-4.0	6253026	N	METHOD	300.0	III
07-Apr-2011	SL-080-SA5A-SB-3.0-4.0	6253026	N	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-Apr-2011	SL-080-SA5A-SB-3.0-4.0	6253026	N	METHOD	7471A	III
07-Apr-2011	SL-080-SA5A-SB-3.0-4.0DUP	P253026D271122B	DUP	METHOD	314.0	III
07-Apr-2011	SL-080-SA5A-SB-3.0-4.0MS	P253026R272357B	MS	METHOD	314.0	III
07-Apr-2011	SL-079-SA5A-SB-4.0-5.0	6253025	N	3050B	6010B	III
07-Apr-2011	SL-079-SA5A-SB-4.0-5.0	6253025	N	3050B	6020	III
07-Apr-2011	SL-079-SA5A-SB-4.0-5.0	6253025	N	3060A	7199	III
07-Apr-2011	SL-079-SA5A-SB-4.0-5.0	6253025	N	3550B	8082	III
07-Apr-2011	SL-079-SA5A-SB-4.0-5.0	6253025	N	3550B	8270C	III
07-Apr-2011	SL-079-SA5A-SB-4.0-5.0	6253025	N	3550B	8270C SIM	III
07-Apr-2011	SL-079-SA5A-SB-4.0-5.0	6253025	N	5035	8260B	III
07-Apr-2011	SL-079-SA5A-SB-4.0-5.0	6253025	N	5035	8260B SIM	III
07-Apr-2011	SL-079-SA5A-SB-4.0-5.0	6253025	N	Gen Prep	9045M	III
07-Apr-2011	SL-079-SA5A-SB-4.0-5.0	6253025	N	METHOD	300.0	III
07-Apr-2011	SL-079-SA5A-SB-4.0-5.0	6253025	N	METHOD	314.0	III
07-Apr-2011	SL-079-SA5A-SB-4.0-5.0	6253025	N	METHOD	7471A	III
07-Apr-2011	SL-079-SA5A-SB-4.0-5.0DUP	P253025D271225A	DUP	METHOD	300.0	III
07-Apr-2011	SL-079-SA5A-SB-4.0-5.0MS	P253025R271240A	MS	METHOD	300.0	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	3050B	6010B	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	3050B	6020	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	3060A	7199	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	3546	1625C	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	3550B	8015B	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	3550B	8015M	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	3550B	8082	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	3550B	8270C	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	3550B	8270C SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	5035	8015M	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	5035	8260B	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	5035	8260B SIM	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	8330	8330A	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	Gen Prep	9045M	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	METHOD	300.0	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	METHOD	314.0	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	METHOD	7471A	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	METHOD	8015B	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	METHOD	8015M	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	METHOD	8315A	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0	6253028	N	METHOD	9012B	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0DUP	P253028D291400B	DUP	Gen Prep	9045M	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0MSD	P253028M322009A	MSD	METHOD	8015M	III
07-Apr-2011	SL-258-SA5A-SB-4.0-5.0MS	P253028R321951A	MS	METHOD	8015M	III
07-Apr-2011	SL-088-SA5A-SB-4.0-5.0	6253029	N	3050B	6010B	III
07-Apr-2011	SL-088-SA5A-SB-4.0-5.0	6253029	N	3050B	6020	III
07-Apr-2011	SL-088-SA5A-SB-4.0-5.0	6253029	N	3060A	7199	III
07-Apr-2011	SL-088-SA5A-SB-4.0-5.0	6253029	N	3550B	8082	III
07-Apr-2011	SL-088-SA5A-SB-4.0-5.0	6253029	N	3550B	8270C	III
07-Apr-2011	SL-088-SA5A-SB-4.0-5.0	6253029	N	3550B	8270C SIM	III
07-Apr-2011	SL-088-SA5A-SB-4.0-5.0	6253029	N	5035	8260B	III
07-Apr-2011	SL-088-SA5A-SB-4.0-5.0	6253029	N	5035	8260B SIM	III
07-Apr-2011	SL-088-SA5A-SB-4.0-5.0	6253029	N	Gen Prep	9045M	III
07-Apr-2011	SL-088-SA5A-SB-4.0-5.0	6253029	N	METHOD	300.0	III
07-Apr-2011	SL-088-SA5A-SB-4.0-5.0	6253029	N	METHOD	314.0	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
07-Apr-2011	SL-088-SA5A-SB-4.0-5.0	6253029	N	METHOD	7471A	III

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation
N = Normal Sample
FD = Field Duplicate
TB = Trip Blank
FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE121 **Laboratory:** LL

EDD Filename: DE121_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-079-SA5A-SB-4.0-5.0 **Collected:** 4/7/2011 11:05:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	29.7		0.24	MDL	2.2	PQL	mg/Kg	J	A
PHOSPHORUS	411		0.609	MDL	10.9	PQL	mg/Kg	J	Q
POTASSIUM	2900		19.6	MDL	54.4	PQL	mg/Kg	J	Q
SODIUM	70.6	J	40.6	MDL	109	PQL	mg/Kg	J	Z
TIN	3.37	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	3.75	J	0.914	MDL	5.44	PQL	mg/Kg	J	Z

Sample ID: SL-080-SA5A-SB-3.0-4.0 **Collected:** 4/7/2011 9:58:00 AM **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	37.9		0.24	MDL	2.2	PQL	mg/Kg	J	A
PHOSPHORUS	523		0.609	MDL	10.9	PQL	mg/Kg	J	Q
POTASSIUM	3000		19.6	MDL	54.3	PQL	mg/Kg	J	Q
TIN	3.57	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	3.60	J	0.913	MDL	5.43	PQL	mg/Kg	J	Z

Sample ID: SL-081-SA5A-SB-2.0-3.0 **Collected:** 4/7/2011 9:00:00 AM **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	28.8		0.24	MDL	2.2	PQL	mg/Kg	J	A
PHOSPHORUS	424		0.605	MDL	10.8	PQL	mg/Kg	J	Q
POTASSIUM	2700		19.5	MDL	54.1	PQL	mg/Kg	J	Q
SODIUM	89.5	J	40.3	MDL	108	PQL	mg/Kg	J	Z
TIN	2.84	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	2.70	J	0.908	MDL	5.41	PQL	mg/Kg	J	Z

Sample ID: SL-088-SA5A-SB-4.0-5.0 **Collected:** 4/7/2011 3:23:00 PM **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LITHIUM	27.3		0.25	MDL	2.3	PQL	mg/Kg	J	A
PHOSPHORUS	327		0.640	MDL	11.4	PQL	mg/Kg	J	Q
POTASSIUM	2400		20.6	MDL	57.1	PQL	mg/Kg	J	Q
SODIUM	87.0	J	42.6	MDL	114	PQL	mg/Kg	J	Z
TIN	3.13	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	4.00	J	0.960	MDL	5.71	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-258-SA5A-SB-4.0-5.0 *Collected:* 4/7/2011 2:03:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.88	J	1.09	MDL	6.15	PQL	mg/Kg	J	Z
LITHIUM	26.0		0.27	MDL	2.5	PQL	mg/Kg	J	A
PHOSPHORUS	628		0.689	MDL	12.3	PQL	mg/Kg	J	Q
POTASSIUM	6680		22.1	MDL	61.5	PQL	mg/Kg	J	Q
SODIUM	109	J	45.9	MDL	123	PQL	mg/Kg	J	Z
TIN	3.21	J	1.23	MDL	12.3	PQL	mg/Kg	U	B
Zirconium	4.55	J	1.03	MDL	6.15	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-079-SA5A-SB-4.0-5.0 *Collected:* 4/7/2011 11:05:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.139	J	0.0435	MDL	0.435	PQL	mg/Kg	J	Z

Sample ID: SL-079-SA5A-SB-4.0-5.0 *Collected:* 4/7/2011 11:05:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	75.2		0.118	MDL	0.435	PQL	mg/Kg	J	A

Sample ID: SL-079-SA5A-SB-4.0-5.0 *Collected:* 4/7/2011 11:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.134	J	0.0653	MDL	0.218	PQL	mg/Kg	J	Z, Q
ARSENIC	5.20		0.0870	MDL	0.435	PQL	mg/Kg	J	Q
CHROMIUM	17.9		0.131	MDL	0.435	PQL	mg/Kg	J	Q, A
COBALT	6.21		0.0218	MDL	0.109	PQL	mg/Kg	J	A
COPPER	8.73		0.0718	MDL	0.435	PQL	mg/Kg	J	Q, A
LEAD	4.93		0.0113	MDL	0.218	PQL	mg/Kg	J	Q, A
NICKEL	11.8		0.109	MDL	0.435	PQL	mg/Kg	J	Q
SILVER	0.0211	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z
THALLIUM	0.239		0.0326	MDL	0.109	PQL	mg/Kg	J	Q
VANADIUM	35.0		0.0239	MDL	0.109	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE121 **Laboratory:** LL

EDD Filename: DE121_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-080-SA5A-SB-3.0-4.0 ***Collected:*** 4/7/2011 9:58:00 AM ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.161	J	0.0439	MDL	0.439	PQL	mg/Kg	J	Z

Sample ID: SL-080-SA5A-SB-3.0-4.0 ***Collected:*** 4/7/2011 9:58:00 AM ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	84.3		0.119	MDL	0.439	PQL	mg/Kg	J	A

Sample ID: SL-080-SA5A-SB-3.0-4.0 ***Collected:*** 4/7/2011 9:58:00 AM ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.501		0.0659	MDL	0.220	PQL	mg/Kg	J	Q
ARSENIC	10.8		0.0878	MDL	0.439	PQL	mg/Kg	J	Q
CADMIUM	0.0979	J	0.0439	MDL	0.110	PQL	mg/Kg	J	Z
CHROMIUM	30.7		0.132	MDL	0.439	PQL	mg/Kg	J	Q, A
COBALT	14.7		0.0220	MDL	0.110	PQL	mg/Kg	J	A
COPPER	22.3		0.0724	MDL	0.439	PQL	mg/Kg	J	Q, A
LEAD	13.0		0.0114	MDL	0.220	PQL	mg/Kg	J	Q, A
NICKEL	23.6		0.110	MDL	0.439	PQL	mg/Kg	J	Q
SILVER	0.0461	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z
THALLIUM	0.458		0.0329	MDL	0.110	PQL	mg/Kg	J	Q
VANADIUM	51.9		0.0241	MDL	0.110	PQL	mg/Kg	J	Q, A

Sample ID: SL-081-SA5A-SB-2.0-3.0 ***Collected:*** 4/7/2011 9:00:00 AM ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.166	J	0.0428	MDL	0.428	PQL	mg/Kg	J	Z

Sample ID: SL-081-SA5A-SB-2.0-3.0 ***Collected:*** 4/7/2011 9:00:00 AM ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	122		0.116	MDL	0.428	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-081-SA5A-SB-2.0-3.0 **Collected:** 4/7/2011 9:00:00 AM **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.283		0.0642	MDL	0.214	PQL	mg/Kg	J	Q
ARSENIC	7.25		0.0857	MDL	0.428	PQL	mg/Kg	J	Q
CHROMIUM	24.6		0.128	MDL	0.428	PQL	mg/Kg	J	Q, A
COBALT	8.62		0.0214	MDL	0.107	PQL	mg/Kg	J	A
COPPER	11.4		0.0707	MDL	0.428	PQL	mg/Kg	J	Q, A
LEAD	7.69		0.0111	MDL	0.214	PQL	mg/Kg	J	Q, A
NICKEL	17.2		0.107	MDL	0.428	PQL	mg/Kg	J	Q
SILVER	0.0267	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z
THALLIUM	0.362		0.0321	MDL	0.107	PQL	mg/Kg	J	Q
VANADIUM	50.6		0.0236	MDL	0.107	PQL	mg/Kg	J	Q, A

Sample ID: SL-088-SA5A-SB-4.0-5.0 **Collected:** 4/7/2011 3:23:00 PM **Analysis Type:** REA **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.163	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

Sample ID: SL-088-SA5A-SB-4.0-5.0 **Collected:** 4/7/2011 3:23:00 PM **Analysis Type:** REA3 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	78.8		0.122	MDL	0.453	PQL	mg/Kg	J	A

Sample ID: SL-088-SA5A-SB-4.0-5.0 **Collected:** 4/7/2011 3:23:00 PM **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0941	J	0.0679	MDL	0.226	PQL	mg/Kg	J	Z, Q
ARSENIC	4.29		0.0905	MDL	0.453	PQL	mg/Kg	J	Q
CADMIUM	0.0758	J	0.0453	MDL	0.113	PQL	mg/Kg	J	Z
CHROMIUM	19.4		0.136	MDL	0.453	PQL	mg/Kg	J	Q, A
COBALT	5.95		0.0226	MDL	0.113	PQL	mg/Kg	J	A
COPPER	6.98		0.0747	MDL	0.453	PQL	mg/Kg	J	Q, A
LEAD	5.28		0.0118	MDL	0.226	PQL	mg/Kg	J	Q, A
NICKEL	11.4		0.113	MDL	0.453	PQL	mg/Kg	J	Q
SILVER	0.0441	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z
THALLIUM	0.317		0.0339	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	39.1		0.0249	MDL	0.113	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-258-SA5A-SB-4.0-5.0 *Collected:* 4/7/2011 2:03:00 PM *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.215	J	0.0487	MDL	0.487	PQL	mg/Kg	J	Z

Sample ID: SL-258-SA5A-SB-4.0-5.0 *Collected:* 4/7/2011 2:03:00 PM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	117		0.132	MDL	0.487	PQL	mg/Kg	J	A

Sample ID: SL-258-SA5A-SB-4.0-5.0 *Collected:* 4/7/2011 2:03:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.343		0.0731	MDL	0.244	PQL	mg/Kg	J	Q
ARSENIC	6.98		0.0974	MDL	0.487	PQL	mg/Kg	J	Q
CHROMIUM	29.6		0.146	MDL	0.487	PQL	mg/Kg	J	Q, A
COBALT	11.3		0.0244	MDL	0.122	PQL	mg/Kg	J	A
COPPER	20.0		0.0804	MDL	0.487	PQL	mg/Kg	J	Q, A
LEAD	10.8		0.0127	MDL	0.244	PQL	mg/Kg	J	Q, A
NICKEL	23.3		0.122	MDL	0.487	PQL	mg/Kg	J	Q
SILVER	0.0471	J	0.0146	MDL	0.122	PQL	mg/Kg	J	Z
THALLIUM	0.318		0.0365	MDL	0.122	PQL	mg/Kg	J	Q
VANADIUM	56.3		0.0268	MDL	0.122	PQL	mg/Kg	J	Q, A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-081-SA5A-SB-2.0-3.0 *Collected:* 4/7/2011 9:00:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.31	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-088-SA5A-SB-4.0-5.0 *Collected:* 4/7/2011 3:23:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.41	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-258-SA5A-SB-4.0-5.0 *Collected:* 4/7/2011 2:03:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.56	J	0.25	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-258-SA5A-SB-4.0-5.0 *Collected:* 4/7/2011 2:03:00 PM *Analysis Type:* REA2S *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	1.2	J	0.49	MDL	1.5	PQL	mg/Kg	J	Z, L
EFH (C21-C30)	3.8		0.49	MDL	1.5	PQL	mg/Kg	J	L

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-080-SA5A-SB-3.0-4.0 *Collected:* 4/7/2011 9:58:00 AM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.54	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-088-SA5A-SB-4.0-5.0 *Collected:* 4/7/2011 3:23:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.5	J	0.45	MDL	2.0	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-079-SA5A-SB-4.0-5.0 *Collected:* 4/7/2011 11:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.5	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
Diethylphthalate	7.5	J	6.6	MDL	20	PQL	ug/Kg	J	Z
Di-n-butylphthalate	9.7	J	6.6	MDL	20	PQL	ug/Kg	J	Z
NAPHTHALENE	0.87	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix:** SO

Sample ID: **SL-079-SA5A-SB-4.0-5.0** ***Collected:*** **4/7/2011 11:05:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	L
PHENANTHRENE	0.82	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-080-SA5A-SB-3.0-4.0** ***Collected:*** **4/7/2011 9:58:00 AM** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	9.5	J	6.6	MDL	20	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.9	J	6.6	MDL	20	PQL	ug/Kg	J	Z
CHRYSENE	0.38	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
Diethylphthalate	7.9	J	6.6	MDL	20	PQL	ug/Kg	J	Z
Di-n-butylphthalate	9.5	J	6.6	MDL	20	PQL	ug/Kg	J	Z
N-NITROSODIMETHYLAMINE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	L

Sample ID: **SL-081-SA5A-SB-2.0-3.0** ***Collected:*** **4/7/2011 9:00:00 AM** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	8.1	J	6.6	MDL	20	PQL	ug/Kg	J	Z
Diethylphthalate	7.6	J	6.6	MDL	20	PQL	ug/Kg	J	Z
Di-n-butylphthalate	10	J	6.6	MDL	20	PQL	ug/Kg	J	Z
N-NITROSODIMETHYLAMINE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	L

Sample ID: **SL-088-SA5A-SB-4.0-5.0** ***Collected:*** **4/7/2011 3:23:00 PM** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Diethylphthalate	8.1	J	6.9	MDL	21	PQL	ug/Kg	J	Z
Di-n-butylphthalate	11	J	6.9	MDL	21	PQL	ug/Kg	J	Z
NAPHTHALENE	0.99	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
N-NITROSODIMETHYLAMINE	0.77	U	0.77	MDL	1.9	PQL	ug/Kg	UJ	L

Sample ID: **SL-258-SA5A-SB-4.0-5.0** ***Collected:*** **4/7/2011 2:03:00 PM** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	12	J	7.3	MDL	22	PQL	ug/Kg	J	Z
Diethylphthalate	7.8	J	7.3	MDL	22	PQL	ug/Kg	J	Z
Di-n-butylphthalate	10	J	7.3	MDL	22	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: SO**

Sample ID: SL-258-SA5A-SB-4.0-5.0 *Collected:* 4/7/2011 2:03:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	0.81	U	0.81	MDL	2.0	PQL	ug/Kg	UJ	L

Method Category: VOA

Method: 8015B **Matrix: SO**

Sample ID: SL-258-SA5A-SB-4.0-5.0 *Collected:* 4/7/2011 2:03:00 PM *Analysis Type:* REA3S *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m-Terphenyl	1.8	U	1.8	MDL	4.3	PQL	mg/Kg	UJ	S
O-TERPHENYL	1.8	U	1.8	MDL	4.3	PQL	mg/Kg	UJ	S
p-Terphenyl	1.8	U	1.8	MDL	4.3	PQL	mg/Kg	UJ	S

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-079-SA5A-SB-4.0-5.0 *Collected:* 4/7/2011 11:05:00 *Analysis Type:* RES *Dilution:* 0.9

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.43	J	0.24	MDL	4.0	PQL	ug/Kg	U	B
TOLUENE	0.17	J	0.08	MDL	4.0	PQL	ug/Kg	J	Z

Sample ID: SL-080-SA5A-SB-3.0-4.0 *Collected:* 4/7/2011 9:58:00 AM *Analysis Type:* RES *Dilution:* 0.99

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.48	J	0.26	MDL	4.4	PQL	ug/Kg	U	B
TOLUENE	0.13	J	0.09	MDL	4.4	PQL	ug/Kg	J	Z

Sample ID: SL-081-SA5A-SB-2.0-3.0 *Collected:* 4/7/2011 9:00:00 AM *Analysis Type:* RES *Dilution:* 1.03

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.67	J	0.27	MDL	4.6	PQL	ug/Kg	U	B
TOLUENE	0.24	J	0.09	MDL	4.6	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: **SL-088-SA5A-SB-4.0-5.0** ***Collected:*** **4/7/2011 3:23:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **0.86**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.47	J	0.24	MDL	4.0	PQL	ug/Kg	U	B
TOLUENE	0.28	J	0.08	MDL	4.0	PQL	ug/Kg	J	Z

Sample ID: **SL-258-SA5A-SB-4.0-5.0** ***Collected:*** **4/7/2011 2:03:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **0.9**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.38	J	0.27	MDL	4.4	PQL	ug/Kg	U	B
TOLUENE	0.09	J	0.09	MDL	4.4	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

Reason Code Legend

Reason Code	*Description*
	Duplicate Sample Count = 0
	Duplicate Sample Count > 1
	Illogical Fraction
	Laboratory Control Sample Count = 0
	Laboratory Control Sample Count > 1
	Matrix Spike Sample Count = 0
	Matrix Spike Sample Count > 1
	Method Blank Sample Count = 0
	Method Blank Sample Count > 1
	Percent Moisture
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
C	Continuing Calibration Verification Correlation Coefficient
C	Continuing Calibration Verification Percent Difference Lower Estimation
C	Continuing Calibration Verification Percent Difference Lower Rejection
C	Continuing Calibration Verification Percent Difference Upper Estimation
C	Continuing Calibration Verification Percent Difference Upper Rejection
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Verification Correlation Coefficient
C	Initial Calibration Verification Percent Difference Lower Estimation
C	Initial Calibration Verification Percent Difference Lower Rejection
C	Initial Calibration Verification Percent Difference Upper Estimation
C	Initial Calibration Verification Percent Difference Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

F	Field Blank Contamination
FD	Field Duplicate Precision
FT	Field Triplicate Precision
H	Extraction to Analysis Estimation
H	Extraction to Analysis Rejection
H	Preservation
H	Sampling to Analysis Estimation
H	Sampling to Analysis Rejection
H	Sampling to Extraction Estimation
H	Sampling to Extraction Rejection
H	Sampling to Leaching Estimation
H	Sampling to Leaching Rejection
H	Temperature Estimation
H	Temperature Rejection
I	Internal Standard Estimation
I	Internal Standard Rejection
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
L	Laboratory Control Spike Upper Rejection
M	Continuing Tune
M	Initial Tune
M	Performance Evaluation Mixture
M	Resolution Check Mixture
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Q	Matrix Spike Upper Rejection
R	Continuing Calibration Verification Percent Recovery Lower Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

R	Continuing Calibration Verification Percent Recovery Lower Rejection
R	Continuing Calibration Verification Percent Recovery Upper Estimation
R	Continuing Calibration Verification Percent Recovery Upper Rejection
R	Continuing Calibration Verification Relative Response Factor
R	Initial Calibration Relative Response Factor
R	Initial Calibration Verification Percent Recovery Lower Estimation
R	Initial Calibration Verification Percent Recovery Lower Rejection
R	Initial Calibration Verification Percent Recovery Upper Estimation
R	Initial Calibration Verification Percent Recovery Upper Rejection
R	Initial Calibration Verification Relative Response Factor
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
S	Surrogate/Tracer Recovery Upper Rejection
T	Trip Blank Contamination
Z	Reporting Limit
Z	Reporting Limit > Project Maximum Contamination Limit
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

EPA Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE121

Method Blank Outlier Report

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10208AB220725	4/16/2011 7:25:00 AM	ALUMINUM LITHIUM PHOSPHORUS TIN	29.3 mg/Kg 0.33 mg/Kg 1.22 mg/Kg 1.28 mg/Kg	SL-079-SA5A-SB-4.0-5.0 SL-080-SA5A-SB-3.0-4.0 SL-081-SA5A-SB-2.0-3.0 SL-088-SA5A-SB-4.0-5.0 SL-258-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-079-SA5A-SB-4.0-5.0(RES)	TIN	3.37 mg/Kg	3.37U mg/Kg
SL-080-SA5A-SB-3.0-4.0(RES)	TIN	3.57 mg/Kg	3.57U mg/Kg
SL-081-SA5A-SB-2.0-3.0(RES)	TIN	2.84 mg/Kg	2.84U mg/Kg
SL-088-SA5A-SB-4.0-5.0(RES)	TIN	3.13 mg/Kg	3.13U mg/Kg
SL-258-SA5A-SB-4.0-5.0(RES)	TIN	3.21 mg/Kg	3.21U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10226AB220850A	4/13/2011 8:50:00 AM	COPPER	0.162 mg/Kg	SL-079-SA5A-SB-4.0-5.0 SL-080-SA5A-SB-3.0-4.0 SL-081-SA5A-SB-2.0-3.0 SL-088-SA5A-SB-4.0-5.0 SL-258-SA5A-SB-4.0-5.0

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB20B211253A	4/12/2011 12:53:00 PM	METHYLENE CHLORIDE	0.64 ug/Kg	SL-079-SA5A-SB-4.0-5.0 SL-080-SA5A-SB-3.0-4.0 SL-081-SA5A-SB-2.0-3.0 SL-088-SA5A-SB-4.0-5.0 SL-258-SA5A-SB-4.0-5.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-079-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.43 ug/Kg	4.0U ug/Kg
SL-080-SA5A-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	0.48 ug/Kg	4.4U ug/Kg
SL-081-SA5A-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	0.67 ug/Kg	4.6U ug/Kg
SL-088-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.47 ug/Kg	4.0U ug/Kg
SL-258-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.38 ug/Kg	4.4U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8015M**
Matrix: **SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-258-SA5A-SB-4.0-5.0MSD (SL-258-SA5A-SB-4.0-5.0)	DIETHYLENE GLYCOL	-	-	59.00-109.00	23 (20.00)	DIETHYLENE GLYCOL	J (all detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P10226AQ220853A (SL-079-SA5A-SB-4.0-5.0 SL -080-SA5A-SB-3.0-4.0 SL -081-SA5A-SB-2.0-3.0 SL -088-SA5A-SB-4.0-5.0 SL -258-SA5A-SB-4.0-5.0)	ANTIMONY	177	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P3LCLCSQ261825 (SL-079-SA5A-SB-4.0-5.0 SL -080-SA5A-SB-3.0-4.0 SL -081-SA5A-SB-2.0-3.0 SL -088-SA5A-SB-4.0-5.0 SL -258-SA5A-SB-4.0-5.0)	N-NITROSODIMETHYLAMINE	47	-	55.00-118.00	-	N-NITROSODIMETHYLAMINE	J(all detects) UJ(all non-detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11045AQ322144A (SL-258-SA5A-SB-4.0-5.0)	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30)	118 126 128	- - -	66.00-113.00 66.00-113.00 66.00-113.00	- - -	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30)	J(all detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8015B**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-258-SA5A-SB-4.0-5.0	n-Triacontane-d62	46	50.00-150.00	All Target Analytes	J (all detects) UJ (all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-079-SA5A-SB-4.0-5.0	SODIUM	J	70.6	109	PQL	mg/Kg	J (all detects)
	TIN	J	3.37	10.9	PQL	mg/Kg	
	Zirconium	J	3.75	5.44	PQL	mg/Kg	
SL-080-SA5A-SB-3.0-4.0	TIN	J	3.57	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.60	5.43	PQL	mg/Kg	
SL-081-SA5A-SB-2.0-3.0	SODIUM	J	89.5	108	PQL	mg/Kg	J (all detects)
	TIN	J	2.84	10.8	PQL	mg/Kg	
	Zirconium	J	2.70	5.41	PQL	mg/Kg	
SL-088-SA5A-SB-4.0-5.0	SODIUM	J	87.0	114	PQL	mg/Kg	J (all detects)
	TIN	J	3.13	11.4	PQL	mg/Kg	
	Zirconium	J	4.00	5.71	PQL	mg/Kg	
SL-258-SA5A-SB-4.0-5.0	BORON	J	5.88	6.15	PQL	mg/Kg	J (all detects)
	SODIUM	J	109	123	PQL	mg/Kg	
	TIN	J	3.21	12.3	PQL	mg/Kg	
	Zirconium	J	4.55	6.15	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-079-SA5A-SB-4.0-5.0	ANTIMONY	J	0.134	0.218	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.139	0.435	PQL	mg/Kg	
	SILVER	J	0.0211	0.109	PQL	mg/Kg	
SL-080-SA5A-SB-3.0-4.0	CADMIUM	J	0.0979	0.110	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.161	0.439	PQL	mg/Kg	
	SILVER	J	0.0461	0.110	PQL	mg/Kg	
SL-081-SA5A-SB-2.0-3.0	SELENIUM	J	0.166	0.428	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0267	0.107	PQL	mg/Kg	
SL-088-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0941	0.226	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0758	0.113	PQL	mg/Kg	
	SELENIUM	J	0.163	0.453	PQL	mg/Kg	
	SILVER	J	0.0441	0.113	PQL	mg/Kg	
SL-258-SA5A-SB-4.0-5.0	SELENIUM	J	0.215	0.487	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0471	0.122	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-081-SA5A-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.31	1.1	PQL	mg/Kg	J (all detects)
SL-088-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.41	1.2	PQL	mg/Kg	J (all detects)
SL-258-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.56	1.2	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-258-SA5A-SB-4.0-5.0	EFH (C15-C20)	J	1.2	1.5	PQL	mg/Kg	J (all detects)

Method: 8082
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-080-SA5A-SB-3.0-4.0	AROCLOR 1260	J	0.54	1.9	PQL	ug/Kg	J (all detects)
SL-088-SA5A-SB-4.0-5.0	AROCLOR 1260	J	1.5	2.0	PQL	ug/Kg	J (all detects)

Method: 8260B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-079-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.43	4.0	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.17	4.0	PQL	ug/Kg	
SL-080-SA5A-SB-3.0-4.0	METHYLENE CHLORIDE	J	0.48	4.4	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.13	4.4	PQL	ug/Kg	
SL-081-SA5A-SB-2.0-3.0	METHYLENE CHLORIDE	J	0.67	4.6	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.24	4.6	PQL	ug/Kg	
SL-088-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.47	4.0	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.28	4.0	PQL	ug/Kg	
SL-258-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.38	4.4	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.09	4.4	PQL	ug/Kg	

Method: 8270C SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-079-SA5A-SB-4.0-5.0	1-METHYLNAPHTHALENE	J	1.5	1.8	PQL	ug/Kg	J (all detects)
	Diethylphthalate	J	7.5	20	PQL	ug/Kg	
	Di-n-butylphthalate	J	9.7	20	PQL	ug/Kg	
	NAPHTHALENE	J	0.87	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	0.82	1.8	PQL	ug/Kg	
SL-080-SA5A-SB-3.0-4.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.5	20	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	6.9	20	PQL	ug/Kg	
	CHRYSENE	J	0.38	1.8	PQL	ug/Kg	
	Diethylphthalate	J	7.9	20	PQL	ug/Kg	
	Di-n-butylphthalate	J	9.5	20	PQL	ug/Kg	
SL-081-SA5A-SB-2.0-3.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.1	20	PQL	ug/Kg	J (all detects)
	Diethylphthalate	J	7.6	20	PQL	ug/Kg	
	Di-n-butylphthalate	J	10	20	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE121 **Laboratory: LL**

EDD Filename: DE121_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-088-SA5A-SB-4.0-5.0	Diethylphthalate	J	8.1	21	PQL	ug/Kg	
	Di-n-butylphthalate	J	11	21	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	0.99	1.9	PQL	ug/Kg	
SL-258-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	12	22	PQL	ug/Kg	
	Diethylphthalate	J	7.8	22	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	10	22	PQL	ug/Kg	

LDC #: 25916C4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-31
SDG #: DE121 ADR
Laboratory: Lancaster Laboratories

Reviewer: CR
2nd Reviewer: C

METHOD: Metals (EPA SW 846 Method 6010B/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	No Quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (SDG: DE123)
VII.	Duplicate Sample Analysis	N	D,R J
VIII.	Laboratory Control Samples (LCS)	~~N~~ A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	~~SW~~	(SDG: DE123)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	—	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	SL-079-SA5A-SB-4.0-5.0	11		21		31	
2	SL-080-SA5A-SB-3.0-4.0	12		22		32	
3	SL-081-SA5A-SB-2.0-3.0	13		23		33	
4	SL-258-SA5A-SB-4.0-5.0	14		24		34	
5	SL-088-SA5A-SB-4.0-5.0	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

SAMPLE DELIVERY GROUP

DE122

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-Mar-2011	TB-032511	6240611	TB	5030B	8015M	III
25-Mar-2011	TB-032511	6240611	TB	5030B	8260B	III
25-Mar-2011	TB-032511	6240611	TB	5030B	8260B SIM	III
25-Mar-2011	SL-213-SA5A-SB-4.0-5.0	6240605	N	3050B	6010B	III
25-Mar-2011	SL-213-SA5A-SB-4.0-5.0	6240605	N	3050B	6020	III
25-Mar-2011	SL-213-SA5A-SB-4.0-5.0	6240605	N	3060A	7199	III
25-Mar-2011	SL-213-SA5A-SB-4.0-5.0	6240605	N	3550B	8082	III
25-Mar-2011	SL-213-SA5A-SB-4.0-5.0	6240605	N	3550B	8270C	III
25-Mar-2011	SL-213-SA5A-SB-4.0-5.0	6240605	N	3550B	8270C SIM	III
25-Mar-2011	SL-213-SA5A-SB-4.0-5.0	6240605	N	5035	8260B	III
25-Mar-2011	SL-213-SA5A-SB-4.0-5.0	6240605	N	5035	8260B SIM	III
25-Mar-2011	SL-213-SA5A-SB-4.0-5.0	6240605	N	Gen Prep	9045M	III
25-Mar-2011	SL-213-SA5A-SB-4.0-5.0	6240605	N	METHOD	300.0	III
25-Mar-2011	SL-213-SA5A-SB-4.0-5.0	6240605	N	METHOD	314.0	III
25-Mar-2011	SL-213-SA5A-SB-4.0-5.0	6240605	N	METHOD	6850	III
25-Mar-2011	SL-213-SA5A-SB-4.0-5.0	6240605	N	METHOD	7471A	III
25-Mar-2011	SL-213-SA5A-SB-8.0-9.0	6240606	N	3050B	6010B	III
25-Mar-2011	SL-213-SA5A-SB-8.0-9.0	6240606	N	3050B	6020	III
25-Mar-2011	SL-213-SA5A-SB-8.0-9.0	6240606	N	3060A	7199	III
25-Mar-2011	SL-213-SA5A-SB-8.0-9.0	6240606	N	3550B	8082	III
25-Mar-2011	SL-213-SA5A-SB-8.0-9.0	6240606	N	3550B	8270C	III
25-Mar-2011	SL-213-SA5A-SB-8.0-9.0	6240606	N	3550B	8270C SIM	III
25-Mar-2011	SL-213-SA5A-SB-8.0-9.0	6240606	N	Gen Prep	9045M	III
25-Mar-2011	SL-213-SA5A-SB-8.0-9.0	6240606	N	METHOD	300.0	III
25-Mar-2011	SL-213-SA5A-SB-8.0-9.0	6240606	N	METHOD	314.0	III
25-Mar-2011	SL-213-SA5A-SB-8.0-9.0	6240606	N	METHOD	7471A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	3050B	6010B	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	3050B	6020	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	3060A	7199	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	3546	1625C	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	3550B	8015B	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	3550B	8015M	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	3550B	8082	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	3550B	8270C	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	3550B	8270C SIM	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	5035	8015M	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	5035	8260B	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	5035	8260B SIM	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	8330	8330A	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	Gen Prep	9045M	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	METHOD	300.0	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	METHOD	314.0	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	METHOD	7471A	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	METHOD	8015B	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	METHOD	8015M	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	METHOD	8315A	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0	6240607	N	METHOD	9012B	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0DUP	P240607D271903A	DUP	METHOD	9012B	III
25-Mar-2011	SL-143-SA5A-SB-4.0-5.0MS	P240607R271904A	MS	METHOD	9012B	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	3050B	6010B	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	3050B	6020	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	3060A	7199	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	3546	1625C	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	3550B	8015B	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	3550B	8015M	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	3550B	8082	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	3550B	8270C	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	3550B	8270C SIM	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	5035	8015M	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	5035	8260B	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	5035	8260B SIM	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	8330	8330A	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	Gen Prep	9045M	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	METHOD	300.0	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	METHOD	314.0	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	METHOD	7471A	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	METHOD	8015B	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	METHOD	8015M	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	METHOD	8315A	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0	6240608	N	METHOD	9012B	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0DUP	P240608D271504B	DUP	METHOD	300.0	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0DUP	P240608D272000B	DUP	METHOD	314.0	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0MS	P240608R271519B	MS	METHOD	300.0	III
25-Mar-2011	SL-143-SA5A-SB-8.0-9.0MS	P240608R272022B	MS	METHOD	314.0	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	3050B	6010B	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	3050B	6020	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	3060A	7199	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	3546	1625C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	3550B	8015B	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	3550B	8015M	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	3550B	8082	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	3550B	8270C	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	3550B	8270C SIM	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	5035	8015M	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	5035	8260B	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	5035	8260B SIM	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	8330	8330A	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	Gen Prep	9045M	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	METHOD	300.0	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	METHOD	314.0	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	METHOD	7471A	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	METHOD	8015B	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	METHOD	8015M	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	METHOD	8315A	III
25-Mar-2011	SL-144-SA5A-SB-4.0-5.0	6240609	N	METHOD	9012B	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	3050B	6010B	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	3050B	6020	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	3060A	7199	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	3546	1625C	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	3550B	8015B	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	3550B	8015M	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	3550B	8082	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	3550B	8270C	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	3550B	8270C SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	5035	8015M	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	5035	8260B	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	5035	8260B SIM	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	8330	8330A	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	Gen Prep	9045M	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	METHOD	300.0	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	METHOD	314.0	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	METHOD	7471A	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	METHOD	8015B	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	METHOD	8015M	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	METHOD	8315A	III
25-Mar-2011	SL-144-SA5A-SB-7.0-8.0	6240610	N	METHOD	9012B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE122 **Laboratory: LL**

EDD Filename: DE122_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-143-SA5A-SB-8.0-9.0 *Collected:* 3/25/2011 2:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.0		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-144-SA5A-SB-4.0-5.0 *Collected:* 3/25/2011 3:18:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.2		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-144-SA5A-SB-7.0-8.0 *Collected:* 3/25/2011 3:24:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.7		0.84	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-143-SA5A-SB-4.0-5.0 *Collected:* 3/25/2011 2:04:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	124		0.636	MDL	11.4	PQL	mg/Kg	J	Q
POTASSIUM	2020		20.4	MDL	56.8	PQL	mg/Kg	J	Q
TIN	3.27	J	1.14	MDL	11.4	PQL	mg/Kg	U	B

Sample ID: SL-143-SA5A-SB-8.0-9.0 *Collected:* 3/25/2011 2:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.58	J	1.01	MDL	5.68	PQL	mg/Kg	J	Z
PHOSPHORUS	120		0.636	MDL	11.4	PQL	mg/Kg	J	Q
POTASSIUM	1700		20.4	MDL	56.8	PQL	mg/Kg	J	Q
TIN	3.18	J	1.14	MDL	11.4	PQL	mg/Kg	U	B

Sample ID: SL-144-SA5A-SB-4.0-5.0 *Collected:* 3/25/2011 3:18:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	136		0.611	MDL	10.9	PQL	mg/Kg	J	Q
POTASSIUM	1910		19.7	MDL	54.6	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE122 **Laboratory: LL**

EDD Filename: DE122_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-144-SA5A-SB-4.0-5.0 ***Collected:*** 3/25/2011 3:18:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.37	J	1.09	MDL	10.9	PQL	mg/Kg	U	B

Sample ID: SL-144-SA5A-SB-7.0-8.0 ***Collected:*** 3/25/2011 3:24:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	127		0.582	MDL	10.4	PQL	mg/Kg	J	Q
POTASSIUM	1920		18.7	MDL	52.0	PQL	mg/Kg	J	Q
TIN	3.04	J	1.04	MDL	10.4	PQL	mg/Kg	U	B

Sample ID: SL-213-SA5A-SB-4.0-5.0 ***Collected:*** 3/25/2011 10:14:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	299		0.656	MDL	11.7	PQL	mg/Kg	J	Q
POTASSIUM	2560		21.1	MDL	58.6	PQL	mg/Kg	J	Q
SODIUM	115	J	43.7	MDL	117	PQL	mg/Kg	J	Z
TIN	3.39	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	1.10	J	0.984	MDL	5.86	PQL	mg/Kg	J	Z

Sample ID: SL-213-SA5A-SB-8.0-9.0 ***Collected:*** 3/25/2011 10:18:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	532		0.661	MDL	11.8	PQL	mg/Kg	J	Q
POTASSIUM	4010		21.3	MDL	59.1	PQL	mg/Kg	J	Q
TIN	3.70	J	1.18	MDL	11.8	PQL	mg/Kg	U	B

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-143-SA5A-SB-4.0-5.0 ***Collected:*** 3/25/2011 2:04:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0796	J	0.0675	MDL	0.225	PQL	mg/Kg	J	Z, Q
CADMIUM	0.0458	J	0.0450	MDL	0.112	PQL	mg/Kg	J	Z
CHROMIUM	57.2		0.135	MDL	0.450	PQL	mg/Kg	J	Q, E
COBALT	11.1		0.0225	MDL	0.112	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE122 **Laboratory: LL**

EDD Filename: DE122_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-143-SA5A-SB-4.0-5.0 **Collected:** 3/25/2011 2:04:00 **Analysis Type:** REA **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	36.3		0.0742	MDL	0.450	PQL	mg/Kg	J	Q, E, A
NICKEL	30.3		0.112	MDL	0.450	PQL	mg/Kg	J	Q
SILVER	0.0190	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z
ZINC	100		0.630	MDL	3.37	PQL	mg/Kg	J	E

Sample ID: SL-143-SA5A-SB-4.0-5.0 **Collected:** 3/25/2011 2:04:00 **Analysis Type:** REA2 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0686	J	0.0450	MDL	0.450	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA5A-SB-4.0-5.0 **Collected:** 3/25/2011 2:04:00 **Analysis Type:** REA4 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	166		0.121	MDL	0.450	PQL	mg/Kg	J	E, A

Sample ID: SL-143-SA5A-SB-4.0-5.0 **Collected:** 3/25/2011 2:04:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	4.93		0.0117	MDL	0.225	PQL	mg/Kg	J	A

Sample ID: SL-143-SA5A-SB-8.0-9.0 **Collected:** 3/25/2011 2:15:00 **Analysis Type:** REA **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0772	J	0.0681	MDL	0.227	PQL	mg/Kg	J	Z, Q
CHROMIUM	18.6		0.136	MDL	0.454	PQL	mg/Kg	J	Q, E
COBALT	5.60		0.0227	MDL	0.114	PQL	mg/Kg	J	E, A
COPPER	5.30		0.0749	MDL	0.454	PQL	mg/Kg	J	Q, E, A
NICKEL	11.9		0.114	MDL	0.454	PQL	mg/Kg	J	Q
SILVER	0.0451	J	0.0136	MDL	0.114	PQL	mg/Kg	J	Z
ZINC	47.7		0.636	MDL	3.41	PQL	mg/Kg	J	E

Sample ID: SL-143-SA5A-SB-8.0-9.0 **Collected:** 3/25/2011 2:15:00 **Analysis Type:** REA2 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0472	J	0.0454	MDL	0.454	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE122 **Laboratory: LL**

EDD Filename: DE122_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-143-SA5A-SB-8.0-9.0 *Collected:* 3/25/2011 2:15:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	102		0.123	MDL	0.454	PQL	mg/Kg	J	E, A

Sample ID: SL-143-SA5A-SB-8.0-9.0 *Collected:* 3/25/2011 2:15:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	4.61		0.0118	MDL	0.227	PQL	mg/Kg	J	A

Sample ID: SL-144-SA5A-SB-4.0-5.0 *Collected:* 3/25/2011 3:18:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0822	J	0.0655	MDL	0.218	PQL	mg/Kg	J	Z, Q
CHROMIUM	13.6		0.131	MDL	0.437	PQL	mg/Kg	J	Q, E
COBALT	3.05		0.0218	MDL	0.109	PQL	mg/Kg	J	E, A
COPPER	5.21		0.0721	MDL	0.437	PQL	mg/Kg	J	Q, E, A
NICKEL	5.79		0.109	MDL	0.437	PQL	mg/Kg	J	Q
SILVER	0.0226	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z
ZINC	31.3		0.611	MDL	3.28	PQL	mg/Kg	J	E

Sample ID: SL-144-SA5A-SB-4.0-5.0 *Collected:* 3/25/2011 3:18:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0821	J	0.0437	MDL	0.437	PQL	mg/Kg	J	Z

Sample ID: SL-144-SA5A-SB-4.0-5.0 *Collected:* 3/25/2011 3:18:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	57.8		0.118	MDL	0.437	PQL	mg/Kg	J	E, A

Sample ID: SL-144-SA5A-SB-4.0-5.0 *Collected:* 3/25/2011 3:18:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	6.62		0.0114	MDL	0.218	PQL	mg/Kg	J	A

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE122 **Laboratory: LL**

EDD Filename: DE122_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-144-SA5A-SB-7.0-8.0** ***Collected:*** **3/25/2011 3:24:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0630	U	0.0630	MDL	0.210	PQL	mg/Kg	UJ	Q
CHROMIUM	16.2		0.126	MDL	0.420	PQL	mg/Kg	J	Q, E
COBALT	12.5		0.0210	MDL	0.105	PQL	mg/Kg	J	E, A
COPPER	6.39		0.0693	MDL	0.420	PQL	mg/Kg	J	Q, E, A
NICKEL	10.7		0.105	MDL	0.420	PQL	mg/Kg	J	Q
SILVER	0.0257	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z
ZINC	46.5		0.588	MDL	3.15	PQL	mg/Kg	J	E

Sample ID: **SL-144-SA5A-SB-7.0-8.0** ***Collected:*** **3/25/2011 3:24:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0601	J	0.0420	MDL	0.420	PQL	mg/Kg	J	Z

Sample ID: **SL-144-SA5A-SB-7.0-8.0** ***Collected:*** **3/25/2011 3:24:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	72.3		0.113	MDL	0.420	PQL	mg/Kg	J	E, A

Sample ID: **SL-144-SA5A-SB-7.0-8.0** ***Collected:*** **3/25/2011 3:24:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	4.15		0.0109	MDL	0.210	PQL	mg/Kg	J	A

Sample ID: **SL-213-SA5A-SB-4.0-5.0** ***Collected:*** **3/25/2011 10:14:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0787	J	0.0710	MDL	0.237	PQL	mg/Kg	J	Z, Q
CHROMIUM	19.3		0.142	MDL	0.473	PQL	mg/Kg	J	Q, E
COBALT	7.00		0.0237	MDL	0.118	PQL	mg/Kg	J	E, A
COPPER	10.2		0.0781	MDL	0.473	PQL	mg/Kg	J	Q, E, A
NICKEL	14.6		0.118	MDL	0.473	PQL	mg/Kg	J	Q
SILVER	0.0451	J	0.0142	MDL	0.118	PQL	mg/Kg	J	Z
ZINC	63.0		0.663	MDL	3.55	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE122 **Laboratory: LL**

EDD Filename: DE122_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-213-SA5A-SB-4.0-5.0** ***Collected:*** **3/25/2011 10:14:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0875	J	0.0473	MDL	0.473	PQL	mg/Kg	J	Z

Sample ID: **SL-213-SA5A-SB-4.0-5.0** ***Collected:*** **3/25/2011 10:14:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	114		0.128	MDL	0.473	PQL	mg/Kg	J	E, A

Sample ID: **SL-213-SA5A-SB-4.0-5.0** ***Collected:*** **3/25/2011 10:14:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	6.79		0.0123	MDL	0.237	PQL	mg/Kg	J	A

Sample ID: **SL-213-SA5A-SB-8.0-9.0** ***Collected:*** **3/25/2011 10:18:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.101	J	0.0702	MDL	0.234	PQL	mg/Kg	J	Z, Q
CHROMIUM	23.8		0.140	MDL	0.468	PQL	mg/Kg	J	Q, E
COBALT	9.62		0.0234	MDL	0.117	PQL	mg/Kg	J	E, A
COPPER	11.1		0.0772	MDL	0.468	PQL	mg/Kg	J	Q, E, A
NICKEL	16.2		0.117	MDL	0.468	PQL	mg/Kg	J	Q
SILVER	0.0731	J	0.0140	MDL	0.117	PQL	mg/Kg	J	Z
ZINC	51.9		0.655	MDL	3.51	PQL	mg/Kg	J	E

Sample ID: **SL-213-SA5A-SB-8.0-9.0** ***Collected:*** **3/25/2011 10:18:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.123	J	0.0468	MDL	0.468	PQL	mg/Kg	J	Z

Sample ID: **SL-213-SA5A-SB-8.0-9.0** ***Collected:*** **3/25/2011 10:18:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	98.0		0.126	MDL	0.468	PQL	mg/Kg	J	E, A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE122 **Laboratory: LL**

EDD Filename: DE122_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-213-SA5A-SB-8.0-9.0 *Collected:* 3/25/2011 10:18:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	11.1		0.0122	MDL	0.234	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-143-SA5A-SB-4.0-5.0 *Collected:* 3/25/2011 2:04:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.37	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA5A-SB-8.0-9.0 *Collected:* 3/25/2011 2:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.41	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-144-SA5A-SB-7.0-8.0 *Collected:* 3/25/2011 3:24:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.40	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-213-SA5A-SB-4.0-5.0 *Collected:* 3/25/2011 10:14:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.38	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-213-SA5A-SB-8.0-9.0 *Collected:* 3/25/2011 10:18:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.57	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE122 **Laboratory: LL**

EDD Filename: DE122_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-143-SA5A-SB-4.0-5.0 **Collected: 3/25/2011 2:04:00** **Analysis Type: RES-BASE/NEUTRAL** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	62.8		19.1	MDL	38.2	PQL	ng/Kg	U	B

Sample ID: SL-143-SA5A-SB-8.0-9.0 **Collected: 3/25/2011 2:15:00** **Analysis Type: RES-BASE/NEUTRAL** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	82.4		19.1	MDL	38.2	PQL	ng/Kg	U	B

Sample ID: SL-144-SA5A-SB-4.0-5.0 **Collected: 3/25/2011 3:18:00** **Analysis Type: RES-BASE/NEUTRAL** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	83.3		18.2	MDL	36.4	PQL	ng/Kg	U	B

Sample ID: SL-144-SA5A-SB-7.0-8.0 **Collected: 3/25/2011 3:24:00** **Analysis Type: RES-BASE/NEUTRAL** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	53.6		17.5	MDL	35.0	PQL	ng/Kg	U	B

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-143-SA5A-SB-4.0-5.0 **Collected: 3/25/2011 2:04:00** **Analysis Type: REA2** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.50	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA5A-SB-8.0-9.0 **Collected: 3/25/2011 2:15:00** **Analysis Type: REA2** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.48	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C8-C11)	0.53	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-144-SA5A-SB-4.0-5.0 **Collected: 3/25/2011 3:18:00** **Analysis Type: REA2** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.56	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling