Appendix C
Data Usability Assessment Report
(On CD)

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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 8 North and 8 South 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 *Revised Addendum No. 3 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 8N Soil Sampling* (CDM 2011b) (WP/FSAP Addendum) and *Addendum No. 7 to Master Work Plan/Field Sampling and Analysis Plan, Co-Located Chemical Sampling at Area IV Santa Susana Field Laboratory, Ventura County, California, EPA Subareas 3, 5D South, 7 and 8 South Soil Sampling* (CDM 2011c).

A total of 202 soil samples were collected and analyzed from 13 drainage locations, 73 surface locations, and 89 soil boring locations for Subarea 8 North. For Subarea 8 South 54 soil samples were collected and analyzed from 21 surface locations, and 21 soil boring locations.

C.1 Usability Summary

For this data usability assessment, 72 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 8 North and 8 South Technical Memorandum (TM).

Samples were collected and analyzed in accordance with the WP/FSAP (CDM 2011a). Deviations were encountered during the field investigation for the Subarea 8 North and 8 South sampling activities and are discussed in detail in Section 2.7 of the Subarea 8 North and 8 South TM.

The data generated for the Subarea 8 North and 8 South samples together with the added data validation qualifiers are usable as reported, with the exception of five individual analyte results (0.01 percent of all analytes) that were rejected for Subarea 8 North data (five SVOC results) and 31 individual analyte results (two pesticide results, 24 herbicide results and five SVOC results) (0.40 percent of all analytes) that were rejected for Subarea 8 South data. 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 8 North and 8 South 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 8 North and 8 South 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

[1] During sampling in Subarea 8 North and 8 South, EPA transitioned sampling into other subareas. Thus some sample delivery groups may contain results for sample from multiple Subareas.

- 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.

C.4 Summary of Field and Laboratory QA Activities

CDM Smith completed sampling activities in Subarea 8 North and 8 South in accordance with the approved WP/FSAP (CDM 2011a). A total of 202 soil samples were collected and analyzed from 13 drainage locations, 73 surface locations, and 89 soil boring locations for Subarea 8 North. For Subarea 8 South 54 soil samples were collected and analyzed from 21 surface locations, and 21 soil boring locations. Tables 2-1 and 2-2 in the Subarea 8 North and 8 South 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 8 North and 8 South 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) 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. Eleven duplicate samples and MS/MSD samples were collected for Subarea 8 North and three duplicate and MS/MSD samples were collected for Subarea 8 South. MS/MSD and field duplicate samples met the frequency requirements detailed in the WP/FSAP (CDM 2011a).

Fifteen equipment rinsate blank samples were collected for Subarea 8 North and two were collected for Subarea 8 South. The equipment rinsate blank results are presented in Table C-2 and Table C-3.

One field blank sample was collected for Subarea 8 North. No field blank samples were collected in conjunction with soil sampling in Subarea 8 South. The field blank results for Subarea 8 North are presented in Table C-4.

Thirty trip blank samples were shipped with the Subarea 8 North soil samples and two trip blank samples were shipped with the Subarea 8 South samples. The results for these samples are presented in Tables C-5 and C-6. 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. If a temperature blank was inadvertently left out of a cooler, the laboratory took the temperature of the cooler immediately upon receipt.

The number of field QC samples collected satisfies the minimum requirements for the Subarea 8 North and 8 South sampling events specified in the WP/FSAP (CDM 2011a). 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. Five individual analyte results for 8 North (0.01 percent of all the analytes) and 31 individual analyte results for 8 South (0.4 percent of all 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). 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) 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-7 and Table C-8 show the field duplicate pairs and RPD results for Subareas 8 North and 8 South respectively. RPD results outside of criteria are highlighted.

The following individual analyte results were qualified as estimated "J/UJ" based on precision criteria for Subarea 8 North samples:

- One dioxin result and six PCB/PCT results were qualified as estimated based on second column RPD results
- Three dioxin results; three fluoride/nitrate results; 856 metal analyte results; two mercury results; one TPH/glycol result; and six PCB/PCT results were qualified as estimated based on laboratory precision criteria
- Sixty-one dioxin results; four NDMA results; three fluoride/nitrate results; seven metal results; two hexavalent chromium results; three mercury results; three TPH/glycol results; three PCB/PCT results; seven VOC results; two SVOC results; and 44 SVOC SIM results were qualified based on field duplicate criteria

The following individual analyte results were qualified as estimated "J/UJ" based on precision criteria for Subarea 8 South samples:

- One hundred and sixty-six metal analyte results and 57 six PCB/PCT results were qualified as estimated based on laboratory precision criteria

- Twelve dioxin results; one fluoride/nitrate result; three metal results; one hexavalent chromium results; one pesticide result; four PCB/PCT results; and two herbicide results were qualified based on field duplicate 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 with a degree of caution.

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:

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

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 for Subarea 8 North samples:

- Eight hundred and four metal analyte results were qualified as estimated based on inductively coupled plasma serial dilution results

- Thirty-four PCB/PCT results; six VOC results; seven SVOC results; 65 SVOC SIM results and one energetics result were qualified as estimated based on calibration criteria

- One metal result; ten TPH/glycol results; one PCB/PCT result; seven VOC results; 98 SVOC results; three SVOC SIM and three formaldehyde results were qualified as estimated based on LCS percent recovery criteria

- Five dioxin results; five NDMA results; 146 fluoride/nitrate results; 1,136 metal analyte results; six hexavalent chromium result; 17 mercury results; two alcohol/terphenyl results; 25 TPH/glycol results; three VOC results; 28 SVOC results; five SVOC SIM results; and 12 energetic results were qualified as estimated based on MS percent recovery criteria

- Four NDMA results; nine alcohol/terphenyl results; 15 PCB/PCT results; 24 VOC SIM results and three formaldehyde results were qualified as estimated based on surrogate recovery criteria

The following individual analyte results were qualified as nondetect "U" or nondetect estimated "UJ" based on accuracy criteria for Subarea 8 South samples:

- Two hundred and sixty-four metal analyte results were qualified as estimated based on inductively coupled plasma serial dilution results

- One metal result; six PCB/PCT results; 53 herbicide results and 16 SVOC results were qualified as estimated based on LCS percent recovery criteria

- Twenty-six fluoride/nitrate results; 347 metal analyte results; two pesticide results; six herbicide results; 24 SVOC results and one SVOC SIM result were qualified as estimated based on MS percent recovery criteria

- Nine pesticide results; 17 PCB/PCT results and 39 SVOC SIM results were qualified as estimated based on surrogate recovery criteria

The following individual analyte results were rejected "R" based on accuracy criteria for the Subarea 8 North samples:

- Four SVOC results (benzidine) based on MS accuracy

The following individual analyte results were rejected "R" based on accuracy criteria for the Subarea 8 South samples:

- Two pesticide results (one endosulfan sulfate result and one endrin ketone result) based on MS accuracy

- Twenty-four herbicide results (two dalapon results; one dicamba result and 21 dinoseb results) based on MS accuracy and LCS accuracy

- Five SVOC results (three benzidine results; one 2,4-dinitrophenol result and one benzoic acid result) based on MS accuracy

Sample preservation, handling, and holding times are additional measures of accuracy of the data. All sample preservation, holding times and handling criteria were met except for one dioxin result and three formaldehyde results for the Subarea 8 North samples and 168 pesticide results (8 samples) for the Subarea 8 South samples. These results were qualified as estimated "J/UJ."

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 nondetect "U" based on blank contamination for the Subarea 8 North samples:

- 1,690 dioxin results (51%); 9 NDMA results (9.47%); 220 metal results (3.81%); ten hexavalent chromium results (5.2%); 19 TPH/glycol result (2%); 84 VOC results (1%); 10 SVOC results (0.1%); and 4 SVOC SIM results (0.08%) were qualified as non-detect due to blank contamination criteria

The following individual analyte results were qualified as estimated "U" based on blank contamination for the Subarea 8 South samples:

- 557 dioxin results (64%); 80 metal results (5.2%); eight mercury results (1.5%) and 17 SVOC SIM results (1.3%) 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 through C-6 provide a summary of chemicals observed in the equipment and trip blank samples. Twenty-five metal results, one mercury result and 12 SVOC SIM results for the Subarea 8 North samples were qualified due to field blank contamination. 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) 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 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 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 for Subarea 8 North samples:

- Method 1613B (Dioxins)
  - 2,561 individual analyte results
- Method 1625C (NDMA)
  - 27 individual analyte results
- Method 300 (Fluoride/Nitrate)
  - 26 individual analyte results
- Method 314 (Perchlorate)
  - 1 individual analyte results
- Methods 6010B/6020 (Metals)
  - 804 individual analyte results
- Method 6850 (Perchlorate)
  - 3 individual analyte results
- Method 7199 (Hexavalent Chromium)
  - 99 individual analyte results
- Method 7471A (Mercury)
  - 81 individual analyte results
- Method 8015B (Alcohols and terphenyls)
  - 2 individual analyte results
- Method 8015M (TPHs and glycols)
  - 59 individual analyte results

- Method 8082 (PCBs)
  - 103 individual analyte results

- Method 8260B (VOCs)
  - 46 individual analyte results

- Method 8270C (SVOCs)
  - 135 individual analyte results

- Method 8270C SIM (SVOCs)
  - 483 individual analyte results

- Method 8315A (Formaldehyde)
  - 8 individual analyte results

- Method 9012B (Cyanide)
  - 6 individual analyte results

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 for Subarea 8 South samples:

- Method 1613B (Dioxins)
  - 198 individual analyte results

- Method 300 (Fluoride/Nitrate)
  - 7 individual analyte results

- Methods 6010B/6020 (Metals)
  - 171 individual analyte results

- Method 7199 (Hexavalent Chromium)
  - 32 individual analyte results

- Method 7471A (Mercury)
  - 21 individual analyte results

- Method 8081A (Pesticides)
  - 25 individual analyte results

- Method 8082 (PCBs)
  - 21 individual analyte results

- Method 8151A (Herbicides)
  - 7 individual analyte results

- Method 8270C (SVOCs)
  - 14 individual analyte results

- Method 8270C SIM (SVOCs)
  - 89 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). 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) 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. $$\%Completeness = Cx\frac{100}{n}$$

Where:

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

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

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 202 Subarea 8 North and 54 Subarea 8 South soil samples including the field duplicates were collected and analyzed. As discussed in Section 2.7 of the TM, 102 locations were to be sampled in Subarea 8 North and 24 locations in Subarea 8 South. Some locations required only a subsurface sample while other locations required both a surface and subsurface sample. The number of subsurface samples to be collected at each location is not pre-determined because the total depth of each boring varies depending on the local geology. Hence, the completeness calculation defined in Equation A above is more accurately reflected by identifying whether all the locations were sampled at versus the actual number of samples collected since that is not pre-determined. Of all the locations indicated for collection in Subareas 8 North and 8 South, only one location in Subarea 8 North was not collected due to archeology significance, as cited in Table 2.1 and stated in Section 2.7. The remaining deviations from the proposed sample collection for Subareas 8 North and 8 South were due to shallow refusal on bedrock. For all of these locations, a surface sample was successfully collected.

As discussed in Section 2.7, the sampling deviations do not impact completeness objectives for this sampling event. As the sampling program progresses, it may be determined during the Phase 3 Data Gap Investigation that Phase 1 locations not affected by archeological findings that were not sampled, or methods were inadvertently left off of the CoCs (pesticides and herbicides for the Subarea 8 North samples) may be sampled during Phase 3 sampling. Ninety-nine percent of the sample locations identified in the WP/FSAP Addendum were collected meeting the completeness goal for the number of locations sampled versus number of locations planned to be sampled.

The completeness goal for acceptable data achieved was 99.9 percent of the number of measurements judged to be valid versus the total number of measurements made for all Subarea 8 North and 99.6 percent for Subarea 8 South samples analyzed. Tables C-9 and C-10, Completeness Calculation Summary, show a summary of the results that were estimated or rejected.

The following Subarea 8 North individual analyte results were rejected per analyses:

- Method 8270C
  - 5 individual SVOC analyte results out of 9250 results (0.01%)

The following Subarea 8 South individual analyte results were rejected per analyses:

- Method 8081A
  - 2 individual pesticide analyte results out of 441 results (0.45%)

- Method 8151A
  - 24 individual herbicide analyte results out of 210 results (11%)
- Method 8270C
  - 5 individual SVOC analyte results out of 2413 results (0.21%)

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) 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) 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 99 percent of the data validated and reported for Subarea 8 North and Subarea 8 South 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 8 North and 8 South

Sample Delivery Group	Level of Validation Performed	CDM Smith Review
8 North		
DE124	Level III	
DE125	Level IV	
DE126	Level III	
DE127	Level III	
DE129	Level III	
DE130	Level IV	
DE131	Level III	
DE132	Level III	
DE134	Level IV	Yes
DE135	Level III	
DE136	Level III	
DE137	Level III	
DE138	Level III	
DE139	Level III	
DE140	Level III	
DE141	Level III	
DE142	Level III	
DE143	Level III	
DE144	Level III	Yes
DE145	Level III	
DE146	Level III	
DE147	Level III	
DE148	Level III	
DE149	Level III	
DE150	Level III	
DE165	Level III	
DE166	Level III	
DE167	Level III	
DE174	Level III	
DE175	Level III	Yes
DE176	Level IV	
DE177	Level III	
DE178	Level III	
DE183	Level III	
DX068	Level III	
DX069	Level III	
DX070	Level III	
DX071	Level III	
DX072	Level IV	Yes
DX073	Level III	
DX074	Level III	
DX076	Level III	
DX077	Level III	
DX078	Level IV	
DX079	Level III	
DX080	Level III	
DX081	Level III	
DX091	Level III	Yes
DX093	Level III	
DX094	Level III	

Table C-1 Sample Delivery Groups and Validation Levels for Subarea 8 North and 8 South

Sample Delivery Group	Level of Validation Performed	CDM Smith Review
8 North (cont.)		
DX099	Level III	
DX100	Level IV	
DX101	Level III	
DX103	Level III	
Sample Delivery Group	**Level of Validation Performed**	**CDM Smith Review**
8 South		
DE258	Level III	
DE259	Level III	
DE273	Level III	
DE277	Level III	
DE286	Level III	
DE287	Level III	Yes
DE288	Level III	
DE289	Level III	
DE291	Level III	
DE292	Level III	
DX145	Level III	
DX146	Level III	
DX147	Level IV	Yes
DX150	Level III	
DX152	Level III	
DX155	Level III	
DX156	Level III	
DX157	Level IV	

Table C-2 - Subarea 8N Equipment Rinsate Blank Results

Sample Name:		EB01-SA8N-041211		EB02-SA8N-SS-041311		EB04-SA8N-SS-041411		EB05-SA8N-SB-042811		EB05-SA8N-SS-041811		EB06-SA8N-SS-041911		EB07-SA8N-SS-042011		EB08-SA8N-SB-050311		EB09-SA8N-SB-051011	
Sample Date:		04/12/2011		04/13/2011		04/14/2011		04/28/2011		04/18/2011		04/19/2011		04/20/2011		05/03/2011		05/10/2011	
Sample Type		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
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
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	pg/l	20.9	U	20.3	U			21.1	U	19.8	U	20.1	U	19.5	U	20.7	U	20.6	U
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	pg/l	20.9	U	20.3	U			21.1	U	19.8	U	20.1	U	19.5	U	20.7	U	20.6	U
1,2,3,4,6,7,8-Heptachlorodibenzofuran	pg/l	10.4	U	10.1	U			10.6	U	9.88	U	10.1	U	9.76	U	10.4	U	10.3	U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	pg/l	10.4	U	10.1	U			10.6	U	9.88	U	10.1	U	9.76	U	10.4	U	10.3	U
1,2,3,4,7,8,9-Heptachlorodibenzofuran	pg/l	10.4	U	10.1	U			10.6	U	9.88	U	10.1	U	9.76	U	10.4	U	10.3	U
1,2,3,4,7,8-Hexachlorodibenzofuran	pg/l	10.4	U	10.1	U			10.6	U	9.88	U	10.1	U	9.76	U	10.4	U	10.3	U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	pg/l	10.4	U	10.1	U			10.6	U	9.88	U	10.1	U	9.76	U	10.4	U	10.3	U
1,2,3,6,7,8-Hexachlorodibenzofuran	pg/l	10.4	U	10.1	U			10.6	U	9.88	U	10.1	U	9.76	U	10.4	U	10.3	U
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	pg/l	10.4	U	10.1	U			10.6	U	9.88	U	10.1	U	9.76	U	10.4	U	10.3	U
1,2,3,7,8,9-Hexachlorodibenzofuran	pg/l	10.4	U	10.1	U			10.6	U	9.88	U	10.1	U	0.596	J	10.4	U	10.3	U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	pg/l	10.4	U	10.1	U			10.6	U	9.88	U	10.1	U	9.76	U	10.4	U	10.3	U
1,2,3,7,8-Pentachlorodibenzofuran	pg/l	10.4	U	10.1	U			10.6	U	9.88	U	10.1	U	9.76	U	10.4	U	0.148	J
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	pg/l	10.4	U	10.1	U			10.6	U	9.88	U	10.1	U	0.389	J	10.4	U	10.3	U
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-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	ug/l							5	U							5	U	5	U
1,2-Dichloroethane	ug/l							5	U							5	U	5	U
1,2-Dichloropropane	ug/l							5	U							5	U	5	U
1,2-Diphenylhydrazine	ug/l	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
1,3,5-Trinitrobenzene	ug/l					0.6	U			0.6	U	0.6	U						
1,3-Dichloropropane	ug/l							5	U							5	U	5	U
1,4-Dioxane	ug/l							2	U							2	U	2	U
1-Methylnaphthalene	ug/l	0.053	U	0.051	U			0.049	U	0.096	U	0.052	U	0.05	U			0.05	U
2,2-Dichloropropane	ug/l							5	U							5	U	5	U
2,3,4,6,7,8-Hexachlorodibenzofuran	pg/l	10.4	U	10.1	U			10.6	U	9.88	U	10.1	U	9.76	U	10.4	U	10.3	U
2,3,4,7,8-Pentachlorodibenzofuran	pg/l	10.4	U	10.1	U			10.6	U	9.88	U	10.1	U	9.76	U	10.4	U	10.3	U
2,3,7,8-Tetrachlorodibenzofuran	pg/l	2.09	U	2.03	U			2.11	U	1.98	U	2.01	U	1.95	U	2.07	U	2.06	U
2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/l	2.09	U	2.03	U			2.11	U	1.98	U	2.01	U	1.95	U	2.07	U	2.06	U
2,4,5-Trichlorophenol	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
2,4,6-Trichlorophenol	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
2,4,6-Trinitrotoluene	ug/l					0.6	U			0.6	U	0.6	U						
2,4-Diamino-6-nitrotoluene	ug/l					0.6	U			0.6	U	0.6	U						
2,4-Dichlorophenol	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
2,4-Dimethylphenol	ug/l	10	U	10	U			10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dinitrophenol	ug/l	31	U	31	U			31	U	29	U	29	U	31	U	31	U	31	U
2,6-Diamino-4-nitrotoluene	ug/l					0.6	U			0.6	U	0.6	U						
2-Amino-4,6-Dinitrotoluene	ug/l					0.6	U			0.6	U	0.6	U						
2-Butanone	ug/l							10	U							10	U	10	U
2-Chloroethyl Vinyl Ether	ug/l							10	U							10	U	10	U
2-Chloronaphthalene	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
2-Chlorophenol	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	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	0.053	U	0.051	U			0.049	U	0.096	U	0.052	U	0.05	UJ			0.05	U
2-Methylphenol	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
2-Nitroaniline	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
2-Nitrophenol	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
2-Nitrotoluene	ug/l					0.6	U			0.6	U	0.6	U						
2-Propanol	ug/l					1000	U			1000	U	1000	U						
3,3`-Dichlorobenzidine	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
3,5-Dimethylphenol	ug/l	10	U	10	U			10	U	10	U	10	U	10	U	10	U	10	U
3-Nitroaniline	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
3-Nitrotoluene	ug/l					1.2	U			1.2	U	1.2	U						
4,6-Dinitro-2-Methylphenol	ug/l	15	U	15	U			16	U	15	U	15	U	16	U	16	U	15	U
4-Amino-2,6-Dinitrotoluene	ug/l					0.6	U			0.6	U	0.6	U						
4-Bromophenyl Phenyl Ether	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
4-Chloro-3-Methylphenol	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
4-Chloroaniline	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
4-Chlorophenyl Phenylether	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
4-Chlorotoluene	ug/l							5	U							5	U	5	U
4-Methyl-2-Pentanone	ug/l							10	U							10	U	10	U
4-Methylphenol	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
4-Nitroaniline	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
4-Nitrophenol	ug/l	31	U	31	U			31	U	29	U	29	U	31	U	31	UJ	31	U
4-Nitrotoluene	ug/l					1.2	U			1.2	U	1.2	U						
Acenaphthene	ug/l	0.053	U	0.051	U			0.049	U	0.096	U	0.052	U	0.05	U			0.05	U
Acenaphthylene	ug/l	0.053	U	0.051	U			0.049	U	0.096	U	0.052	U	0.05	U			0.05	U
Acetone	ug/l							20	U							20	U	20	U
Aluminum	mg/l	0.2	U	0.2	U			0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Aniline	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U

Table C-2 - Subarea 8N Equipment Rinsate Blank Results

Sample Name:		EB01-SA8N-041211		EB02-SA8N-SS-041311		EB04-SA8N-SS-041411		EB05-SA8N-SB-042811		EB05-SA8N-SS-041811		EB06-SA8N-SS-041911		EB07-SA8N-SS-042011		EB08-SA8N-SB-050311		EB09-SA8N-SB-051011	
Sample Date:		04/12/2011		04/13/2011		04/14/2011		04/28/2011		04/18/2011		04/19/2011		04/20/2011		05/03/2011		05/10/2011	
Sample Type		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
Anthracene	ug/l	0.053	U	0.051	U			0.049	U	0.096	U	0.052	U	0.05	U			0.05	U
Antimony	mg/l	0.001	U	0.001	U			0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Aroclor 1016	ug/l	0.48	U	0.49	U			0.5	U	0.49	U	0.49	U	0.52	U	0.5	U	0.52	U
Aroclor 1221	ug/l	0.48	U	0.49	U			0.5	U	0.49	U	0.49	U	0.52	U	0.5	U	0.52	U
Aroclor 1232	ug/l	0.48	U	0.49	U			0.5	U	0.49	U	0.49	U	0.52	U	0.5	U	0.52	U
Aroclor 1242	ug/l	0.48	U	0.49	U			0.5	U	0.49	U	0.49	U	0.52	U	0.5	U	0.52	U
Aroclor 1248	ug/l	0.48	U	0.49	U			0.5	U	0.49	U	0.49	U	0.52	U	0.5	U	0.52	U
Aroclor 1254	ug/l	0.48	U	0.49	U			0.5	U	0.49	U	0.49	U	0.52	U	0.5	U	0.52	U
Aroclor 1260	ug/l	0.48	U	0.49	U			0.5	U	0.49	U	0.49	U	0.52	U	0.5	U	0.52	U
Aroclor 1262	ug/l	0.48	U	0.49	U			0.5	U	0.49	U	0.49	U	0.52	U	0.5	U	0.52	U
Aroclor 1268	ug/l	0.48	U	0.49	U			0.5	U	0.49	U	0.49	U	0.52	U	0.5	U	0.52	U
Aroclor 5432	ug/l	0.48	U	0.49	U			0.5	U	0.49	UJ	0.49	U	0.52	U	0.5	U	0.52	U
Aroclor 5442	ug/l	0.48	U	0.49	U			0.5	U	0.49	U	0.49	U	0.52	U	0.5	U	0.52	U
Aroclor 5460	ug/l	0.48	U	0.49	U			0.5	U	0.49	U	0.49	U	0.52	U	0.5	U	0.52	U
Arsenic	mg/l	0.002	U	0.002	U			0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
Barium	mg/l	0.002	U	0.002	U			0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
Benzene	ug/l							5	U							5	U	5	U
Benzidine	ug/l	62	U	61	U			62	U	59	U	58	U	62	U	62	U	62	U
Benzo(a)anthracene	ug/l	0.053	U	0.051	U			0.049	U	0.096	U	0.052	U	0.05	U			0.05	U
Benzo(a)pyrene	ug/l	0.053	U	0.051	U			0.049	U	0.096	U	0.052	U	0.05	U			0.05	U
Benzo(b)fluoranthene	ug/l	0.053	UJ	0.051	U			0.049	U	0.096	UJ	0.052	U	0.05	U			0.05	U
Benzo(g,h,i)perylene	ug/l	0.053	U	0.051	U			0.049	U	0.096	U	0.052	U	0.05	U			0.05	U
Benzo(k)fluoranthene	ug/l	0.053	U	0.051	U			0.049	U	0.096	U	0.052	U	0.05	U			0.05	U
Benzoic Acid	ug/l	15	U	15	U			16	U	15	UJ	15	UJ	16	UJ	16	UJ	15	U
Benzyl Alcohol	ug/l	15	U	15	U			16	U	15	U	15	U	16	U	16	U	15	U
Beryllium	mg/l	0.0005	U	0.0005	U			0.0005	U	0.0005	U	0.0005	U	0.0005	U	0.0005	U	0.0005	U
Bis(2-Chloroethoxy) methane	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
Bis(2-Chloroethyl) ether	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
bis(2-Chloroisopropyl) ether	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
Bis(2-Ethylhexyl) phthalate	ug/l	4.9		3.2				0.98	U	0.72	J	0.13	J	0.16	J			1	U
Boron	mg/l	0.05	U	0.05	U			0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	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	U			0.98	U	0.33	J	1	U	0.99	U			1	U
Cadmium	mg/l	0.0005	U	0.0005	U			0.0005	U	0.0005	U	0.0005	U	0.0005	U	0.0005	U	0.0005	U
Calcium	mg/l	0.2	U	0.2	U			0.2	U	0.0949	J	0.0796	J	0.08	J	0.2	U	0.2	U
Carbazole	ug/l	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
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
Chlorotrifluoroethene	ug/l							5	U							5	U	5	U
Chromium	mg/l	0.002	U	0.002	U			0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
Chromium (Hexavalent Compounds)	ug/l	10	U	10	U			10	U	10	U	10	U	10	U	10	U	10	U
Chrysene	ug/l	0.053	U	0.051	U			0.049	U	0.096	U	0.052	U	0.05	U			0.05	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	0.0005	U	0.0005	U			0.0005	U	0.0005	U	0.0005	U	0.0005	U	0.0005	U	0.0005	U
Copper	mg/l	0.002	U	0.002	U			0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
Cyanide	mg/l					0.01	U			0.01	U	0.01	U						
Dibenzo(a,h)anthracene	ug/l	0.053	U	0.051	U			0.049	U	0.096	U	0.052	U	0.05	U			0.05	U
Dibenzofuran	ug/l	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
Dibromomethane	ug/l							5	U							5	U	5	U
Dichlorodifluoromethane	ug/l							5	U							5	U	5	U
Diethylene Glycol	mg/l			100	U	100	U			100	U	100	U			100	U		
Diethylphthalate	ug/l	0.13	J	0.13	J			0.98	U	1.9	U	0.057	J	0.074	J			0.12	J
Dimethylphthalate	ug/l	1.1	U	1	U			0.98	U	1.9	U	1	U	0.99	U			1	U
Di-N-Butylphthalate	ug/l	0.51	J	0.53	J			0.98	U	0.37	J	0.3	J	0.31	J			1	U
Di-N-Octyl Phthalate	ug/l	4.7	J	3	J			0.98	U	0.52	J	0.25	J	0.99	U			1	U
EFH (C15-C20)	mg/l					0.62	U			0.6	U	0.61	U						
EFH (C21-C30)	mg/l					0.62	U			0.6	U	0.61	U						
EFH (C30-C40)	mg/l					0.62	U			0.6	U	0.61	U						
EFH (C8-C11)	mg/l					0.62	U			0.6	U	0.61	U						
Ethanol	ug/l					1000	U			1000	U	1000	U						
Ethylbenzene	ug/l							5	U							5	U	5	U
Ethylene Glycol	mg/l			100	UJ	100	U			100	U	100	U			100	U		
Fluoranthene	ug/l	0.053	U	0.051	U			0.049	U	0.096	U	0.052	U	0.05	U			0.05	U
Fluorene	ug/l	0.053	U	0.051	U			0.049	U	0.096	U	0.052	U	0.05	U			0.05	U
Fluoride	mg/l	0.1	U	0.1	U			0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Formaldehyde	ug/l					50	U			50	U	15	J						
Freon 113a	ug/l							5	U							5	U	5	U
Gasoline Range Organices (C5-C12)	ug/l																		
Hexachlorobenzene	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
Hexachlorocyclopentadiene	ug/l	15	U	15	U			16	U	15	U	15	U	16	U	16	U	15	U
Hexachloroethane	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
Indeno(1,2,3-Cd)Pyrene	ug/l	0.053	U	0.051	U			0.049	U	0.096	U	0.052	U	0.05	U			0.05	U

Table C-2 - Subarea 8N Equipment Rinsate Blank Results

Sample Name:		EB01-SA8N-041211		EB02-SA8N-SS-041311		EB04-SA8N-SS-041411		EB05-SA8N-SB-042811		EB05-SA8N-SS-041811		EB06-SA8N-SS-041911		EB07-SA8N-SS-042011		EB08-SA8N-SB-050311		EB09-SA8N-SB-051011	
Sample Date:		04/12/2011		04/13/2011		04/14/2011		04/28/2011		04/18/2011		04/19/2011		04/20/2011		05/03/2011		05/10/2011	
Sample Type		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
Iron	mg/l	0.2	U	0.2	U			0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Isophorone	ug/l	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
Isopropyltoluene	ug/l							5	U							5	U	5	U
Lead	mg/l	0.001	U	0.001	U			0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Lithium	mg/l	0.02	U	0.02	U			0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
m,p-Xylene	ug/l							5	U							5	U	5	U
Magnesium	mg/l	0.1	U	0.1	U			0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Manganese	mg/l	0.005	U	0.005	U			0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
m-Dinitrobenzene	ug/l					0.6	U			0.6	U	0.6	U						
Mercury	mg/l	0.0002	U	0.0002	U			0.0002	UJ	0.0002	U	0.0002	U	0.0002	UJ	0.0002	UJ	0.0002	U
Methanol	ug/l					1000	U			1000	U	1000	U						
Methyl tert-Butyl Ether	ug/l							5	U							5	U	5	U
Methylene chloride	ug/l							5	U							5	U	5	U
Molybdenum	mg/l	0.0005	U	0.0005	U			0.0005	U	0.0005	U	0.0005	U	0.0005	U	0.0005	U	0.0005	U
m-Terphenyl	mg/l					0.27	U			0.25	U	0.25	U						
Naphthalene	ug/l	0.053	U	0.034	J			0.049	U	0.096	U	0.052	U	0.033	J			0.032	J
N-Butylbenzene	ug/l							5	U							5	U	5	U
Nickel	mg/l	0.002	U	0.002	U			0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
Nitrate	mg/l					0.1	U			0.1	U	0.1	U						
Nitrate [as N]	mg/l					0.1	U			0.1	U	0.1	U						
Nitroglycerin	ug/l					15	U			15	U	15	U						
N-Nitroso-Di-N-Propylamine	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	U	5	U
N-Nitrosodiphenylamine	ug/l	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
Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine	ug/l					2	U			2	U	2	U						
o-Terphenyl	mg/l					0.27	U			0.25	U	0.25	U						
o-Xylene	ug/l							5	U							5	U	5	U
Pentachlorophenol	ug/l	15	U	15	U			16	U	15	U	15	U	16	U	16	U	15	U
Pentaerythritol Tetranitrate	ug/l					18	U			18	U	18	U						
Phenanthrene	ug/l	0.053	U	0.018	J			0.049	U	0.096	U	0.052	U	0.05	U			0.05	U
Phenol	ug/l	5	U	5	U			5	U	5	U	5	U	5	U	5	UJ	5	U
Phosphorus	mg/l	0.1	U	0.1	U			0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Potassium	mg/l	0.5	U	0.5	U			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Propylene glycol	mg/l			100	UJ	100	U			100	U	100	U			100	UJ		
P-TERPHENYL	mg/l					0.27	U			0.25	U	0.25	U						
Pyrene	ug/l	0.053	U	0.051	U			0.049	U	0.096	U	0.052	U	0.05	U			0.05	U
RDX	ug/l					0.6	U			0.6	U	0.6	U						
sec-Butylbenzene	ug/l							5	U							5	U	5	U
Selenium	mg/l	0.002	U	0.002	U			0.002	U	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
Silver	mg/l	0.0005	U	0.0005	U			0.0005	U	0.0005	U	0.0005	U	0.0005	U	0.0005	U	0.0005	U
Sodium	mg/l	1	U	1	U			1	U	1	U	1	U	1	U	1	U	1	U
Strontium	mg/l	0.005	U	0.005	U			0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	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					0.6	UJ			0.6	UJ	0.6	U						
Thallium	mg/l	0.0005	U	0.0005	U			0.0005	U	0.0005	U	0.0005	U	0.0005	U	0.0005	U	0.0005	U
Tin	mg/l	0.02	U	0.02	U			0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Titanium	mg/l	0.01	U	0.01	U			0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Toluene	ug/l							5	U							5	U	5	U
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	U	5	U
Vanadium	mg/l	0.0005	U	0.0005	U			0.0005	U	0.0005	U	0.0005	U	0.0005	U	0.0005	U	0.0005	U
Vinyl Chloride	ug/l							5	U							5	U	5	U
Zinc	mg/l	0.015	U	0.015	U			0.015	U	0.015	U	0.015	U	0.015	U	0.015	U	0.015	U
Zirconium	mg/l	0.05	U	0.05	U			0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	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 8N Equipment Rinsate Blank Results

Sample Name:		EB10-SA8N-SB-051111		EB11-SA8N-SB-052611		EB16-SA8N-SB-060811		EB17-SA8N-SB-060911	
Sample Date:		05/11/2011		05/26/2011		06/08/2011		06/09/2011	
Sample Type		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
Analyte	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	ug/l			5	U	5	U		
1,1,1-Trichloroethane	ug/l			5	U	5	U		
1,1,2,2-Tetrachloroethane	ug/l			5	U	5	U		
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l			10	U	10	U		
1,1,2-Trichloroethane	ug/l			5	U	5	U		
1,1-Dichloroethane	ug/l			5	U	5	U		
1,1-Dichloroethene	ug/l			5	U	5	U		
1,1-Dichloropropene	ug/l			5	U	5	U		
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	pg/l			20.2	U	20.1	U		
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	pg/l			20.2	U	20.1	U		
1,2,3,4,6,7,8-Heptachlorodibenzofuran	pg/l			10.1	U	10.1	U		
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	pg/l			10.1	U	10.1	U		
1,2,3,4,7,8,9-Heptachlorodibenzofuran	pg/l			10.1	U	10.1	U		
1,2,3,4,7,8-Hexachlorodibenzofuran	pg/l			10.1	U	10.1	U		
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	pg/l			10.1	U	10.1	U		
1,2,3,6,7,8-Hexachlorodibenzofuran	pg/l			10.1	U	10.1	U		
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	pg/l			10.1	U	10.1	U		
1,2,3,7,8,9-Hexachlorodibenzofuran	pg/l			10.1	U	10.1	U		
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	pg/l			10.1	U	10.1	U		
1,2,3,7,8-Pentachlorodibenzofuran	pg/l			10.1	U	10.1	U		
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	pg/l			10.1	U	10.1	U		
1,2,3-Trichlorobenzene	ug/l			5	U	5	U		
1,2,3-Trichloropropane	ug/l			5	U	5	U		
1,2,4-Trimethylbenzene	ug/l			5	U	5	U		
1,2-Dibromo-3-chloropropane	ug/l			5	U	5	U		
1,2-Dibromoethane	ug/l			5	U	5	U		
1,2-Dichloroethane	ug/l			5	U	5	U		
1,2-Dichloropropane	ug/l			5	U	5	U		
1,2-Diphenylhydrazine	ug/l			5	U	5	U		
1,3,5-Trimethylbenzene	ug/l			5	U	5	U		
1,3,5-Trinitrobenzene	ug/l	0.6	U					0.6	U
1,3-Dichloropropane	ug/l			5	U	5	U		
1,4-Dioxane	ug/l			2	U	2	U		
1-Methylnaphthalene	ug/l			0.033	J	0.052	U		
2,2-Dichloropropane	ug/l			5	U	5	U		
2,3,4,6,7,8-Hexachlorodibenzofuran	pg/l			10.1	U	10.1	U		
2,3,4,7,8-Pentachlorodibenzofuran	pg/l			10.1	U	10.1	U		
2,3,7,8-Tetrachlorodibenzofuran	pg/l			2.02	U	2.01	U		
2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/l			2.02	U	2.01	U		
2,4,5-Trichlorophenol	ug/l			5	U	5	U		
2,4,6-Trichlorophenol	ug/l			5	U	5	U		
2,4,6-Trinitrotoluene	ug/l	0.6	U					0.6	U
2,4-Diamino-6-nitrotoluene	ug/l	0.6	U					0.6	U
2,4-Dichlorophenol	ug/l			5	U	5	U		
2,4-Dimethylphenol	ug/l			10	U	10	U		
2,4-Dinitrophenol	ug/l			31	U	30	U		
2,6-Diamino-4-nitrotoluene	ug/l	0.6	U					0.6	U
2-Amino-4,6-Dinitrotoluene	ug/l	0.6	U					0.6	U
2-Butanone	ug/l			10	U	10	U		
2-Chloroethyl Vinyl Ether	ug/l			10	U	10	U		
2-Chloronaphthalene	ug/l			5	U	5	U		
2-Chlorophenol	ug/l			5	U	5	U		
2-Chlorotoluene	ug/l			5	U	5	U		
2-Hexanone	ug/l			10	U	10	U		
2-Methylnaphthalene	ug/l			0.034	J	0.052	U		
2-Methylphenol	ug/l			5	U	5	U		
2-Nitroaniline	ug/l			5	U	5	UJ		
2-Nitrophenol	ug/l			5	U	5	U		
2-Nitrotoluene	ug/l	0.6	U					0.6	U
2-Propanol	ug/l	1000	U					1000	U
3,3`-Dichlorobenzidine	ug/l			5	U	5	U		
3,5-Dimethylphenol	ug/l			10	U	10	U		
3-Nitroaniline	ug/l			5	U	5	U		
3-Nitrotoluene	ug/l	1.2	U					1.2	U
4,6-Dinitro-2-Methylphenol	ug/l			15	U	15	U		
4-Amino-2,6-Dinitrotoluene	ug/l	0.6	U					0.6	U
4-Bromophenyl Phenyl Ether	ug/l			5	U	5	U		
4-Chloro-3-Methylphenol	ug/l			5	U	5	U		
4-Chloroaniline	ug/l			5	U	5	U		
4-Chlorophenyl Phenylether	ug/l			5	U	5	U		
4-Chlorotoluene	ug/l			5	U	5	U		
4-Methyl-2-Pentanone	ug/l			10	U	10	U		
4-Methylphenol	ug/l			5	U	5	U		
4-Nitroaniline	ug/l			5	U	5	U		
4-Nitrophenol	ug/l			31	U	30	U		
4-Nitrotoluene	ug/l	1.2	U					1.2	U
Acenaphthene	ug/l			0.048	U	0.052	U		
Acenaphthylene	ug/l			0.048	U	0.052	U		
Acetone	ug/l			20	U	20	U		
Aluminum	mg/l			0.2	U	0.2	U		
Aniline	ug/l			5	U	5	U		

Table C-2 - Subarea 8N Equipment Rinsate Blank Results

Sample Name:		EB10-SA8N-SB-051111		EB11-SA8N-SB-052611		EB16-SA8N-SB-060811		EB17-SA8N-SB-060911	
Sample Date:		05/11/2011		05/26/2011		06/08/2011		06/09/2011	
Sample Type		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
Analyte	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Anthracene	ug/l			0.048	U	0.052	U		
Antimony	mg/l			0.001	U	0.001	U		
Aroclor 1016	ug/l			0.55	U	0.5	U		
Aroclor 1221	ug/l			0.55	U	0.5	U		
Aroclor 1232	ug/l			0.55	U	0.5	U		
Aroclor 1242	ug/l			0.55	U	0.5	U		
Aroclor 1248	ug/l			0.55	U	0.5	U		
Aroclor 1254	ug/l			0.55	U	0.5	U		
Aroclor 1260	ug/l			0.55	U	0.5	U		
Aroclor 1262	ug/l			0.55	U	0.5	U		
Aroclor 1268	ug/l			0.55	U	0.5	U		
Aroclor 5432	ug/l			0.55	U	0.5	U		
Aroclor 5442	ug/l			0.55	U	0.5	U		
Aroclor 5460	ug/l			0.55	U	0.5	U		
Arsenic	mg/l			0.002	U	0.002	U		
Barium	mg/l			0.002	U	0.002	U		
Benzene	ug/l			1	J	5	U		
Benzidine	ug/l			62	U	60	U		
Benzo(a)anthracene	ug/l			0.048	U	0.052	U		
Benzo(a)pyrene	ug/l			0.048	U	0.052	U		
Benzo(b)fluoranthene	ug/l			0.048	U	0.052	U		
Benzo(g,h,i)perylene	ug/l			0.048	U	0.052	U		
Benzo(k)fluoranthene	ug/l			0.048	U	0.052	U		
Benzoic Acid	ug/l			15	UJ	15	U		
Benzyl Alcohol	ug/l			15	U	15	U		
Beryllium	mg/l			0.0005	U	0.0005	U		
Bis(2-Chloroethoxy) methane	ug/l			5	U	5	U		
Bis(2-Chloroethyl) ether	ug/l			5	U	5	U		
bis(2-Chloroisopropyl) ether	ug/l			5	U	5	U		
Bis(2-Ethylhexyl) phthalate	ug/l			0.97	U	1	U		
Boron	mg/l			0.05	U	0.05	U		
Bromobenzene	ug/l			5	U	5	U		
Bromochloromethane	ug/l			5	U	5	U		
Bromodichloromethane	ug/l			5	U	5	U		
Bromoform	ug/l			5	U	5	U		
Bromomethane	ug/l			5	U	5	U		
Butylbenzylphthalate	ug/l			0.97	U	1	U		
Cadmium	mg/l			0.0005	U	0.0005	U		
Calcium	mg/l			0.2	U	0.2	U		
Carbazole	ug/l			5	U	5	U		
Carbon tetrachloride	ug/l			5	U	5	U		
Chlorobenzene	ug/l			5	U	5	U		
Chloroethane	ug/l			5	U	5	U		
Chloroform	ug/l			5	U	5	U		
Chloromethane	ug/l			5	U	5	U		
Chlorotrifluoroethene	ug/l			5	U	5	U		
Chromium	mg/l			0.002	U	0.002	U		
Chromium (Hexavalent Compounds)	ug/l			10	U	10	UJ		
Chrysene	ug/l			0.048	U	0.052	U		
cis-1,2-Dichloroethene	ug/l			5	U	5	U		
cis-1,3-Dichloropropene	ug/l			5	U	5	U		
Cobalt	mg/l			0.0005	U	0.0005	U		
Copper	mg/l			0.002	U	0.002	U		
Cyanide	mg/l	0.01	U					0.01	U
Dibenzo(a,h)anthracene	ug/l			0.048	U	0.052	U		
Dibenzofuran	ug/l			5	U	5	U		
Dibromochloromethane	ug/l			5	U	5	U		
Dibromomethane	ug/l			5	U	5	U		
Dichlorodifluoromethane	ug/l			5	U	5	U		
Diethylene Glycol	mg/l	100	U					100	U
Diethylphthalate	ug/l			0.97	U	0.3	J		
Dimethylphthalate	ug/l			0.97	U	1	U		
Di-N-Butylphthalate	ug/l			0.065	J	0.71	J		
Di-N-Octyl Phthalate	ug/l			0.97	U	1	U		
EFH (C15-C20)	mg/l	0.65	U					0.6	U
EFH (C21-C30)	mg/l	0.65	U					0.6	U
EFH (C30-C40)	mg/l	0.65	U					0.6	U
EFH (C8-C11)	mg/l	0.65	U					0.6	UJ
Ethanol	ug/l	1000	U					1000	U
Ethylbenzene	ug/l			5	U	5	U		
Ethylene Glycol	mg/l	100	U					100	U
Fluoranthene	ug/l			0.048	U	0.052	U		
Fluorene	ug/l			0.048	U	0.052	U		
Fluoride	mg/l			0.1	U	0.1	U		
Formaldehyde	ug/l	50	U					50	U
Freon 113a	ug/l			5	U	5	U		
Gasoline Range Organices (C5-C12)	ug/l	50	U					50	U
Hexachlorobenzene	ug/l			5	U	5	U		
Hexachlorocyclopentadiene	ug/l			15	U	15	U		
Hexachloroethane	ug/l			5	U	5	U		
Indeno(1,2,3-Cd)Pyrene	ug/l			0.048	U	0.052	U		

Table C-2 - Subarea 8N Equipment Rinsate Blank Results

Sample Name:		EB10-SA8N-SB-051111		EB11-SA8N-SB-052611		EB16-SA8N-SB-060811		EB17-SA8N-SB-060911	
Sample Date:		05/11/2011		05/26/2011		06/08/2011		06/09/2011	
Sample Type		Equipment Blank		Equipment Blank		Equipment Blank		Equipment Blank	
Analyte	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Iron	mg/l			0.2	U	0.2	U		
Isophorone	ug/l			5	U	5	U		
Isopropylbenzene	ug/l			5	U	5	U		
Isopropyltoluene	ug/l			5	U	5	U		
Lead	mg/l			0.001	U	0.000066	J		
Lithium	mg/l			0.02	U	0.02	U		
m,p-Xylene	ug/l			5	U	5	U		
Magnesium	mg/l			0.1	U	0.1	U		
Manganese	mg/l			0.005	U	0.005	U		
m-Dinitrobenzene	ug/l	0.6	U					0.6	U
Mercury	mg/l			0.0002	UJ	0.0002	U		
Methanol	ug/l	1000	U					1000	U
Methyl tert-Butyl Ether	ug/l			5	U	5	U		
Methylene chloride	ug/l			5	U	5	U		
Molybdenum	mg/l			0.0005	U	0.0005	U		
m-Terphenyl	mg/l	0.26	U					0.26	U
Naphthalene	ug/l			0.25		0.06	J		
N-Butylbenzene	ug/l			5	U	5	U		
Nickel	mg/l			0.002	U	0.002	U		
Nitrate	mg/l	0.1	U					0.1	U
Nitrate [as N]	mg/l	0.1	U					0.1	U
Nitroglycerin	ug/l	15	U					15	U
N-Nitroso-Di-N-Propylamine	ug/l			5	U	5	U		
N-Nitrosodiphenylamine	ug/l			5	U	5	U		
N-Propylbenzene	ug/l			5	U	5	U		
Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine	ug/l	2	U					2	U
o-Terphenyl	mg/l	0.26	U					0.26	U
o-Xylene	ug/l			5	U	5	U		
Pentachlorophenol	ug/l			15	U	15	U		
Pentaerythritol Tetranitrate	ug/l	18	U					18	U
Phenanthrene	ug/l			0.048	U	0.052	U		
Phenol	ug/l			5	U	5	U		
Phosphorus	mg/l			0.1	U	0.1	U		
Potassium	mg/l			0.5	U	0.5	U		
Propylene glycol	mg/l	100	U					100	U
P-TERPHENYL	mg/l	0.26	U					0.26	U
Pyrene	ug/l			0.048	U	0.052	U		
RDX	ug/l	0.61						0.43	J
sec-Butylbenzene	ug/l			5	U	5	U		
Selenium	mg/l			0.002	U	0.002	U		
Silver	mg/l			0.0005	U	0.0005	U		
Sodium	mg/l			1	U	1	U		
Strontium	mg/l			0.005	U	0.005	U		
Styrene	ug/l			5	U	5	U		
tert-Butylbenzene	ug/l			5	U	5	U		
Tetrachloroethene	ug/l			5	U	5	U		
Tetryl	ug/l	0.6	U					0.6	U
Thallium	mg/l			0.0005	U	0.0005	U		
Tin	mg/l			0.02	U	0.02	U		
Titanium	mg/l			0.01	U	0.01	U		
Toluene	ug/l			0.7	J	5	U		
trans-1,2-Dichloroethene	ug/l			5	U	5	U		
trans-1,3-Dichloropropene	ug/l			5	U	5	U		
Trichloroethene	ug/l			5	U	5	U		
Trichlorofluoromethane	ug/l			5	U	5	U		
Vanadium	mg/l			0.0005	U	0.0005	U		
Vinyl Chloride	ug/l			5	U	5	U		
Zinc	mg/l			0.015	U	0.015	U		
Zirconium	mg/l			0.05	U	0.05	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 8S Equipment Rinsate Blank Results

	Sample Name:	EB-SA8S-SB-111711	
	Sample Date:	11/17/2011	
	Sample Type	Equipment Blank	
Analyte	Units	Concentration	Final Qualifer
1,2,3,4,6,7,8-HpCDD	pg/l	10.5	U
1,2,3,4,6,7,8-HpCDF	pg/l	10.5	U
1,2,3,4,7,8,9-HpCDF	pg/l	10.5	U
1,2,3,4,7,8-HxCDD	pg/l	10.5	U
1,2,3,4,7,8-HxCDF	pg/l	10.5	U
1,2,3,6,7,8-HxCDD	pg/l	10.5	U
1,2,3,6,7,8-HxCDF	pg/l	10.5	U
1,2,3,7,8,9-HxCDD	pg/l	10.5	U
1,2,3,7,8,9-HxCDF	pg/l	0.276	J
1,2,3,7,8-PeCDD	pg/l	0.347	J
1,2,3,7,8-PeCDF	pg/l	10.5	U
1,2,4-Trichlorobenzene	ug/l	6	U
1,2-Dichlorobenzene	ug/l	6	U
1,2-Diphenylhydrazine	ug/l	6	U
1,3-Dichlorobenzene	ug/l	6	U
1,4-Dichlorobenzene	ug/l	6	U
1-Methylnaphthalene	ug/l	0.053	U
2,3,4,6,7,8-HxCDF	pg/l	10.5	U
2,3,4,7,8-PeCDF	pg/l	10.5	U
2,3,7,8-TCDD	pg/l	2.09	U
2,3,7,8-TCDF	pg/l	2.09	U
2,4,5-Trichlorophenol	ug/l	6	U
2,4,6-Trichlorophenol	ug/l	6	U
2,4-Dichlorophenol	ug/l	6	U
2,4-Dimethylphenol	ug/l	11	U
2,4-Dinitrophenol	ug/l	33	U
2,4-Dinitrotoluene	ug/l	6	U
2,6-Dinitrotoluene	ug/l	6	U
2-Chloronaphthalene	ug/l	6	U
2-Chlorophenol	ug/l	6	U
2-Methylnaphthalene	ug/l	0.012	J
2-Methylphenol	ug/l	6	U
2-Nitroaniline	ug/l	6	U
2-Nitrophenol	ug/l	6	U
3,3`-Dichlorobenzidine	ug/l	6	U
3,5-Dimethylphenol	ug/l	11	U
3-Nitroaniline	ug/l	6	U
4,6-Dinitro-2-Methylphenol	ug/l	17	U
4-Bromophenyl Phenyl Ether	ug/l	6	U
4-Chloro-3-Methylphenol	ug/l	6	U
4-Chloroaniline	ug/l	6	U
4-Chlorophenyl Phenylether	ug/l	6	U
4-Methylphenol	ug/l	6	U
4-Nitroaniline	ug/l	6	U
4-Nitrophenol	ug/l	33	U
Acenaphthene	ug/l	0.053	U
Acenaphthylene	ug/l	0.053	U
Aluminum	mg/l	0.200	U
Aniline	ug/l	6	U
Anthracene	ug/l	0.053	U
Antimony	mg/l	0.0010	U
Aroclor 1016	ug/l	0.51	U
Aroclor 1221	ug/l	0.51	U
Aroclor 1232	ug/l	0.51	U
Aroclor 1242	ug/l	0.51	U
Aroclor 1248	ug/l	0.51	U
Aroclor 1254	ug/l	0.51	U
Aroclor 1260	ug/l	0.51	U
Aroclor 1262	ug/l	0.51	U
Aroclor 1268	ug/l	0.51	U
Aroclor 5432	ug/l	0.51	U
Aroclor 5442	ug/l	0.51	U
Aroclor 5460	ug/l	0.51	U
Arsenic	mg/l	0.0020	U
Barium	mg/l	0.0020	U
Benzidine	ug/l	66	U
Benzo(a)anthracene	ug/l	0.053	U
Benzo(a)pyrene	ug/l	0.053	U
Benzo(b)fluoranthene	ug/l	0.053	U
Benzo(g,h,i)perylene	ug/l	0.053	U
Benzo(k)fluoranthene	ug/l	0.053	U
Benzoic Acid	ug/l	17	U
Benzyl Alcohol	ug/l	17	U
Beryllium	mg/l	0.00050	U
Bis(2-Chloroethoxy) methane	ug/l	6	U
Bis(2-Chloroethyl) ether	ug/l	6	U

Table C-3 - Subarea 8S Equipment Rinsate Blank Results

Sample Name:		EB-SA8S-SB-111711	
Sample Date:		11/17/2011	
Sample Type		Equipment Blank	
Analyte	Units	Concentration	Final Qualifer
bis(2-Chloroisopropyl) ether	ug/l	6	U
Bis(2-Ethylhexyl) phthalate	ug/l	1.1	U
Boron	mg/l	0.0500	U
Butylbenzylphthalate	ug/l	1.1	U
Cadmium	mg/l	0.00050	U
Calcium	mg/l	0.200	U
Carbazole	ug/l	6	U
Chromium	mg/l	0.0020	U
Chromium VI	ug/l	10.0	U
Chrysene	ug/l	0.053	U
Cobalt	mg/l	0.00050	U
Copper	mg/l	0.0020	U
Dibenzo(a,h)anthracene	ug/l	0.053	U
Dibenzofuran	ug/l	6	U
Diethylphthalate	ug/l	0.066	J
Dimethylphthalate	ug/l	1.1	U
Di-n-Butylphthalate	ug/l	0.31	J
Di-N-Octyl Phthalate	ug/l	0.084	J
Fluoranthene	ug/l	0.053	U
Fluorene	ug/l	0.053	U
Fluoride	mg/l	0.10	U
Hexachlorobenzene	ug/l	6	U
Hexachlorobutadiene	ug/l	6	U
Hexachlorocyclopentadiene	ug/l	17	U
Hexachloroethane	ug/l	6	U
Indeno(1,2,3-Cd)Pyrene	ug/l	0.053	U
Iron	mg/l	0.200	U
Isophorone	ug/l	6	U
Lead	mg/l	0.0010	U
Lithium	mg/l	0.0200	U
Magnesium	mg/l	0.100	U
Manganese	mg/l	0.0050	U
Mercury	mg/l	0.00020	U
Molybdenum	mg/l	0.00050	U
Naphthalene	ug/l	0.066	
Nickel	mg/l	0.0020	U
Nitrobenzene	ug/l	6	U
N-Nitrosodimethylamine	ug/l	0.053	U
N-Nitroso-Di-N-Propylamine	ug/l	6	U
N-Nitrosodiphenylamine	ug/l	6	U
OCDD	pg/l	20.9	U
OCDF	pg/l	20.9	U
Pentachlorophenol	ug/l	17	U
Perchlorate	ug/l	2.0	U
Phenanthrene	ug/l	0.053	U
Phenol	ug/l	6	U
Phosphorus	mg/l	0.100	U
Potassium	mg/l	0.500	U
Pyrene	ug/l	0.053	U
Selenium	mg/l	0.0020	U
Silver	mg/l	0.00050	U
Sodium	mg/l	1.00	U
Strontium	mg/l	0.0050	U
Thallium	mg/l	0.00050	U
Tin	mg/l	0.0200	U
Titanium	mg/l	0.0100	U
Vanadium	mg/l	0.00050	U
Zinc	mg/l	0.0150	U
Zirconium	mg/l	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-4 - Subarea 8N Field Blank Results

Sample Name:		FB07-SA8N-QC-042711	
Sample Date:		04/27/2011	
Sample Type		Field 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
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	pg/l	21.3	U
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	pg/l	21.3	U
1,2,3,4,6,7,8-Heptachlorodibenzofuran	pg/l	10.6	U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	pg/l	10.6	U
1,2,3,4,7,8,9-Heptachlorodibenzofuran	pg/l	10.6	U
1,2,3,4,7,8-Hexachlorodibenzofuran	pg/l	10.6	U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	pg/l	10.6	U
1,2,3,6,7,8-Hexachlorodibenzofuran	pg/l	10.6	U
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	pg/l	10.6	U
1,2,3,7,8,9-Hexachlorodibenzofuran	pg/l	10.6	U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	pg/l	10.6	U
1,2,3,7,8-Pentachlorodibenzofuran	pg/l	10.6	U
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	pg/l	10.6	U
1,2,3-Trichlorobenzene	ug/l	5	U
1,2,3-Trichloropropane	ug/l	5	U
1,2,4-Trimethylbenzene	ug/l	5	U
1,2-Dibromo-3-chloropropane	ug/l	5	U
1,2-Dibromoethane	ug/l	5	U
1,2-Dichloroethane	ug/l	5	U
1,2-Dichloropropane	ug/l	5	U
1,2-Diphenylhydrazine	ug/l	5	U
1,3,5-Trimethylbenzene	ug/l	5	U
1,3,5-Trinitrobenzene	ug/l	0.6	U
1,3-Dichloropropane	ug/l	5	U
1,4-Dioxane	ug/l	2	U
1-Methylnaphthalene	ug/l	0.026	J
2,2-Dichloropropane	ug/l	5	U
2,2-Dichlor-Propionic Acid	ug/l	1.3	U
2,3,4,6,7,8-Hexachlorodibenzofuran	pg/l	10.6	U
2,3,4,7,8-Pentachlorodibenzofuran	pg/l	10.6	U
2,3,7,8-Tetrachlorodibenzofuran	pg/l	2.13	U
2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/l	2.13	U
2,4 DB	ug/l	1	U
2,4,5-T (Trichlorophenoxyacetic Acid)	ug/l	0.052	U
2,4,5-Trichlorophenol	ug/l	5	U
2,4,6-Trichlorophenol	ug/l	5	U
2,4,6-Trinitrotoluene	ug/l	0.6	U
2,4-D (Dichlorophenoxyacetic Acid)	ug/l	0.52	U
2,4-Diamino-6-nitrotoluene	ug/l	0.6	U
2,4-Dichlorophenol	ug/l	5	U
2,4-Dimethylphenol	ug/l	10	U
2,4-Dinitrophenol	ug/l	31	U
2,6-Diamino-4-nitrotoluene	ug/l	0.6	U
2-Amino-4,6-Dinitrotoluene	ug/l	0.6	U
2-Butanone	ug/l	10	U
2-Chloroethyl Vinyl Ether	ug/l	10	U
2-Chloronaphthalene	ug/l	5	U
2-Chlorophenol	ug/l	5	U
2-Chlorotoluene	ug/l	5	U
2-Hexanone	ug/l	10	U
2-Methylnaphthalene	ug/l	0.03	J
2-Methylphenol	ug/l	5	U
2-Nitroaniline	ug/l	5	U
2-Nitrophenol	ug/l	5	U
2-Nitrotoluene	ug/l	0.6	U
2-Propanol	ug/l	1000	U
3,3`-Dichlorobenzidine	ug/l	5	U
3,5-Dimethylphenol	ug/l	10	U
3-Nitroaniline	ug/l	5	U
3-Nitrotoluene	ug/l	1.2	U
4,4'-DDD	ug/l	0.022	U
4,4'-DDE	ug/l	0.022	U
4,4'-DDT	ug/l	0.022	U
4,6-Dinitro-2-Methylphenol	ug/l	16	U
4-Amino-2,6-Dinitrotoluene	ug/l	0.6	U
4-Bromophenyl Phenyl Ether	ug/l	5	U
4-Chloro-3-Methylphenol	ug/l	5	U
4-Chloroaniline	ug/l	5	U
4-Chlorophenyl Phenylether	ug/l	5	U
4-Chlorotoluene	ug/l	5	U
4-Methyl-2-Pentanone	ug/l	10	U
4-Methylphenol	ug/l	5	U
4-Nitroaniline	ug/l	5	U

Table C-4 - Subarea 8N Field Blank Results

Sample Name:		FB07-SA8N-QC-042711	
Sample Date:		04/27/2011	
Sample Type		Field Blank	
Analyte	Units	Concentration	Final Qualifer
4-Nitrophenol	ug/l	31	U
4-Nitrotoluene	ug/l	1.2	U
Acenaphthene	ug/l	0.05	U
Acenaphthylene	ug/l	0.05	U
Acetone	ug/l	20	U
Aldrin	ug/l	0.011	U
Alpha-Bhc	ug/l	0.011	U
Aluminum	mg/l	0.2	U
Aniline	ug/l	5	U
Anthracene	ug/l	0.05	U
Antimony	mg/l	0.001	U
Aroclor 1016	ug/l	0.54	U
Aroclor 1221	ug/l	0.54	U
Aroclor 1232	ug/l	0.54	U
Aroclor 1242	ug/l	0.54	U
Aroclor 1248	ug/l	0.54	U
Aroclor 1254	ug/l	0.54	U
Aroclor 1260	ug/l	0.54	U
Aroclor 1262	ug/l	0.54	U
Aroclor 1268	ug/l	0.54	U
Aroclor 5432	ug/l	0.54	U
Aroclor 5442	ug/l	0.54	U
Aroclor 5460	ug/l	0.54	U
Arsenic	mg/l	0.002	U
Barium	mg/l	0.002	U
Benzene	ug/l	5	U
Benzidine	ug/l	62	U
Benzo(a)anthracene	ug/l	0.05	U
Benzo(a)pyrene	ug/l	0.05	U
Benzo(b)fluoranthene	ug/l	0.05	U
Benzo(g,h,i)perylene	ug/l	0.05	U
Benzo(k)fluoranthene	ug/l	0.05	U
Benzoic Acid	ug/l	16	U
Benzyl Alcohol	ug/l	16	U
Beryllium	mg/l	0.0005	U
Beta-Bhc	ug/l	0.011	U
Bis(2-Chloroethoxy) methane	ug/l	5	U
Bis(2-Chloroethyl) ether	ug/l	5	U
bis(2-Chloroisopropyl) ether	ug/l	5	U
Bis(2-Ethylhexyl) phthalate	ug/l	1	U
Boron	mg/l	0.05	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
Butylbenzylphthalate	ug/l	1	U
Cadmium	mg/l	0.0005	U
Calcium	mg/l	0.2	U
Carbazole	ug/l	5	U
Carbon tetrachloride	ug/l	5	U
Chlordane	ug/l	0.54	U
Chlorinated Camphene	ug/l	3.2	U
Chlorobenzene	ug/l	5	U
Chloroethane	ug/l	5	U
Chloroform	ug/l	5	U
Chloromethane	ug/l	5	U
Chlorotrifluoroethene	ug/l	5	U
Chromium	mg/l	0.002	U
Chromium (Hexavalent Compounds)	ug/l	10	U
Chrysene	ug/l	0.05	U
cis-1,2-Dichloroethene	ug/l	5	U
cis-1,3-Dichloropropene	ug/l	5	U
Cobalt	mg/l	0.0005	U
Copper	mg/l	0.002	U
Cyanide	mg/l	0.01	U
Delta-BHC	ug/l	0.011	U
Dibenzo(a,h)anthracene	ug/l	0.05	U
Dibenzofuran	ug/l	5	U
Dibromochloromethane	ug/l	5	U
Dibromomethane	ug/l	5	U
Dicamba	ug/l	0.31	U
Dichlorodifluoromethane	ug/l	5	U
Dichlorprop	ug/l	0.52	U
Dieldrin	ug/l	0.022	U
Diethylene Glycol	mg/l	100	U
Diethylphthalate	ug/l	1	U
Dimethylphthalate	ug/l	1	U
Di-N-Butylphthalate	ug/l	1	U
Dinitrobutyl Phenol	ug/l	0.52	U
Di-N-Octyl Phthalate	ug/l	1	U

Table C-4 - Subarea 8N Field Blank Results

Sample Name:		FB07-SA8N-QC-042711	
Sample Date:		04/27/2011	
Sample Type		Field Blank	
Analyte	Units	Concentration	Final Qualifer
EFH (C15-C20)	mg/l	0.63	U
EFH (C21-C30)	mg/l	0.63	U
EFH (C30-C40)	mg/l	0.63	U
EFH (C8-C11)	mg/l	0.63	U
Endosulfan I	ug/l	0.011	U
Endosulfan II	ug/l	0.022	U
Endosulfan Sulfate	ug/l	0.022	U
Endrin	ug/l	0.022	U
Endrin Aldehyde	ug/l	0.11	U
Endrin Ketone	ug/l	0.022	U
Ethanol	ug/l	1000	U
Ethylbenzene	ug/l	5	U
Ethylene Glycol	mg/l	100	U
Fluoranthene	ug/l	0.05	U
Fluorene	ug/l	0.05	U
Fluoride	mg/l	0.1	U
Formaldehyde	ug/l	50	U
Freon 113a	ug/l	5	U
Gamma-Bhc (Lindane)	ug/l	0.011	U
Gasoline Range Organices (C5-C12)	ug/l	50	U
Heptachlor	ug/l	0.011	U
Heptachlor Epoxide	ug/l	0.011	U
Hexachlorobenzene	ug/l	5	U
Hexachlorocyclopentadiene	ug/l	16	U
Hexachloroethane	ug/l	5	U
Indeno(1,2,3-Cd)Pyrene	ug/l	0.05	U
Iron	mg/l	0.2	U
Isophorone	ug/l	5	U
Isopropylbenzene	ug/l	5	U
Isopropyltoluene	ug/l	5	U
Lead	mg/l	0.001	U
Lithium	mg/l	0.02	U
m,p-Xylene	ug/l	5	U
Magnesium	mg/l	0.1	U
Manganese	mg/l	0.005	U
MCPA (2-Methyl-4-Chlorophenoxyacetic Acid)	ug/l	1000	U
MCPP	ug/l	210	U
m-Dinitrobenzene	ug/l	0.6	U
Mercury	mg/l	0.0002	UJ
Methanol	ug/l	1000	U
Methoxychlor	ug/l	0.11	U
Methyl tert-Butyl Ether	ug/l	5	U
Methylene chloride	ug/l	5	U
Mirex	ug/l	0.27	U
Molybdenum	mg/l	0.0005	U
m-Terphenyl	mg/l	0.26	U
Naphthalene	ug/l	0.22	
N-Butylbenzene	ug/l	5	U
Nickel	mg/l	0.002	U
Nitrate	mg/l	0.1	U
Nitrate [as N]	mg/l	0.1	U
Nitroglycerin	ug/l	15	U
N-Nitroso-Di-N-Propylamine	ug/l	5	U
N-Nitrosodiphenylamine	ug/l	5	U
N-Propylbenzene	ug/l	5	U
Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine	ug/l	2	U
o-Terphenyl	mg/l	0.26	U
o-Xylene	ug/l	5	U
Pentachlorophenol	ug/l	16	U
Pentaerythritol Tetranitrate	ug/l	18	U
Phenanthrene	ug/l	0.05	U
Phenol	ug/l	5	U
Phosphorus	mg/l	0.1	U
Potassium	mg/l	0.5	U
Propylene glycol	mg/l	100	U
P-TERPHENYL	mg/l	0.26	U
Pyrene	ug/l	0.05	U
RDX	ug/l	0.6	U
sec-Butylbenzene	ug/l	5	U
Selenium	mg/l	0.002	U
Silver	mg/l	0.0005	U
Silvex (2,4,5-TP)	ug/l	0.052	U
Sodium	mg/l	1	U
Strontium	mg/l	0.005	U
Styrene	ug/l	5	U
tert-Butylbenzene	ug/l	5	U
Tetrachloroethene	ug/l	5	U
Tetryl	ug/l	0.6	U
Thallium	mg/l	0.0005	U
Tin	mg/l	0.02	U
Titanium	mg/l	0.01	U

Table C-4 - Subarea 8N Field Blank Results

	Sample Name:	FB07-SA8N-QC-042711	
	Sample Date:	04/27/2011	
	Sample Type	Field Blank	
Analyte	Units	Concentration	Final Qualifer
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
Vanadium	mg/l	0.0005	U
Vinyl Chloride	ug/l	5	U
Zinc	mg/l	0.015	U
Zirconium	mg/l	0.05	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-5 - Subarea 8N Trip Blanks Results

Sample Name:		TB-041211		TB-041311		TB-041511		TB-041811		TB-041911		TB-042111		TB-042211		TB-042511		TB-042611		TB-042711	
Sample Date:		04/12/2011		04/13/2011		04/15/2011		04/18/2011		04/19/2011		04/21/2011		04/22/2011		04/25/2011		04/26/2011		04/27/2011	
Sample Type		Trip Blank		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	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	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	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	5	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	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	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	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	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	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	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	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	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	5	U
1,2-Dibromoethane	ug/l	5	U	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	5	U
1,2-Dichloroethane	ug/l	5	U	5	U	5	U	5	UJ	5	U	5	UJ	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	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	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	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	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	5	U
1,4-Dioxane	ug/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
2,2-Dichloropropane	ug/l	5	U	5	U	5	U	5	U	5	U	5	UJ	5	U	5	U	5	U	5	U
2-Butanone	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	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	10	U
2-Chlorotoluene	ug/l	5	U	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	10	U
4-Chlorotoluene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-Pentanone	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	ug/l	20	UJ	20	U	20	U	20	UJ	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	5	U
Bromobenzene	ug/l	5	U	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	5	U
Bromodichloromethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	UJ	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	5	U
Bromomethane	ug/l	5	U	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	UJ	5	U	5	UJ	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	5	U
Chloroethane	ug/l	5	U	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	5	U
Chloromethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chlorotrifluoroethene	ug/l	5	U	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	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	5	U
Dibromochloromethane	ug/l	5	U	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	5	U
Dichlorodifluoromethane	ug/l	5	UJ	5	U	5	U	5	UJ	5	U	5	UJ	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	5	U
Freon 113	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Freon 113a	ug/l	5	UJ	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
GRO (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	5	U
Isopropylbenzene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Isopropyltoluene	ug/l	5	U	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	5	U
Methyl tert-Butyl Ether	ug/l	5	U	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	5	U
N-Butylbenzene	ug/l	5	U	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	5	U
o-Xylene	ug/l	5	U	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	5	U
Styrene	ug/l	5	U	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	5	U
Tetrachloroethene	ug/l	5	U	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	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	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	5	U
Trichloroethene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Trichlorofluoromethane	ug/l	5	UJ	5	U	5	U	5	UJ	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	5	U

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-5 - Subarea 8N Trip Blanks Results

Sample Name:		TB-042811		TB-042911		TB-050211		TB-050311		TB-050411		TB-050511		TB-050611		TB-050911		TB-051011	
Sample Date:		04/28/2011		04/29/2011		05/02/2011		05/03/2011		05/04/2011		05/05/2011		05/06/2011		05/09/2011		05/10/2011	
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-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	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	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	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	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	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	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
Chlorotrifluoroethene	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
Freon 113	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Freon 113a	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
GRO (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
Isopropyltoluene	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	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
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

Table C-5 - Subarea 8N Trip Blanks Results

Sample Name:		TB-051111		TB-051211		TB-051311		TB-052611		TB-052711		TB-060611		TB-060711		TB-060811		TB-060911	
Sample Date:		05/11/2011		05/12/2011		05/13/2011		05/26/2011		05/27/2011		06/06/2011		06/07/2011		06/08/2011		06/09/2011	
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-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	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	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	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	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	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	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	1	J	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
Chlorotrifluoroethene	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
Freon 113	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Freon 113a	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
GRO (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
Isopropyltoluene	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	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
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	0.7	J	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

Table C-5 - Subarea 8N Trip Blanks Results

Sample Name:		TB-061011		TB-061711	
Sample Date:		06/10/2011		06/17/2011	
Sample Type		Trip Blank		Trip Blank	
Analyte	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	ug/l	5	U	5	U
1,1,1-Trichloroethane	ug/l	5	U	5	U
1,1,2,2-Tetrachloroethane	ug/l	5	U	5	U
1,1,2-Trichloroethane	ug/l	5	U	5	U
1,1-Dichloroethane	ug/l	5	U	5	U
1,1-Dichloroethene	ug/l	5	U	5	U
1,1-Dichloropropene	ug/l	5	U	5	U
1,2,3-Trichlorobenzene	ug/l	5	U	5	U
1,2,3-Trichloropropane	ug/l	5	U	5	U
1,2,4-Trichlorobenzene	ug/l	5	U	5	U
1,2,4-Trimethylbenzene	ug/l	5	U	5	U
1,2-Dibromo-3-chloropropane	ug/l	5	U	5	U
1,2-Dibromoethane	ug/l	5	U	5	U
1,2-Dichlorobenzene	ug/l	5	U	5	U
1,2-Dichloroethane	ug/l	5	U	5	U
1,2-Dichloropropane	ug/l	5	U	5	U
1,3,5-Trimethylbenzene	ug/l	5	U	5	U
1,3-Dichlorobenzene	ug/l	5	U	5	U
1,3-Dichloropropane	ug/l	5	U	5	U
1,4-Dichlorobenzene	ug/l	5	U	5	U
1,4-Dioxane	ug/l	2	U	2	U
2,2-Dichloropropane	ug/l	5	U	5	U
2-Butanone	ug/l	10	U	10	U
2-Chloroethyl Vinyl Ether	ug/l	10	U	10	U
2-Chlorotoluene	ug/l	5	U	5	U
2-Hexanone	ug/l	10	U	10	U
4-Chlorotoluene	ug/l	5	U	5	U
4-Methyl-2-Pentanone	ug/l	10	U	10	U
Acetone	ug/l	20	U	20	U
Benzene	ug/l	5	U	5	U
Bromobenzene	ug/l	5	U	5	U
Bromochloromethane	ug/l	5	U	5	U
Bromodichloromethane	ug/l	5	U	5	U
Bromoform	ug/l	5	U	5	U
Bromomethane	ug/l	5	U	5	U
Carbon tetrachloride	ug/l	5	U	5	U
Chlorobenzene	ug/l	5	U	5	U
Chloroethane	ug/l	5	U	5	U
Chloroform	ug/l	5	U	5	U
Chloromethane	ug/l	5	U	5	U
Chlorotrifluoroethene	ug/l	5	U	5	U
cis-1,2-Dichloroethene	ug/l	5	U	5	U
cis-1,3-Dichloropropene	ug/l	5	U	5	U
Dibromochloromethane	ug/l	5	U	5	U
Dibromomethane	ug/l	5	U	5	U
Dichlorodifluoromethane	ug/l	5	U	5	U
Ethylbenzene	ug/l	5	U	5	U
Freon 113	ug/l	10	U	10	U
Freon 113a	ug/l	5	U	5	U
GRO (C5-C12)	ug/l	50	U		
Hexachlorobutadiene	ug/l	5	U	5	U
Isopropylbenzene	ug/l	5	U	5	U
Isopropyltoluene	ug/l	5	U	5	U
m,p-Xylene	ug/l	5	U	5	U
Methyl tert-Butyl Ether	ug/l	5	U	5	U
Methylene chloride	ug/l	5	U	5	U
N-Butylbenzene	ug/l	5	U	5	U
N-Propylbenzene	ug/l	5	U	5	U
o-Xylene	ug/l	5	U	5	U
sec-Butylbenzene	ug/l	5	U	5	U
Styrene	ug/l	5	U	5	U
tert-Butylbenzene	ug/l	5	U	5	U
Tetrachloroethene	ug/l	5	U	5	U
Toluene	ug/l	5	U	5	U
trans-1,2-Dichloroethene	ug/l	5	U	5	U
trans-1,3-Dichloropropene	ug/l	5	U	5	U
Trichloroethene	ug/l	5	U	5	U
Trichlorofluoromethane	ug/l	5	U	5	U
Vinyl Chloride	ug/l	5	U	5	U

ug/L - microgram per liter

U - Compound not detected above the reporting

Table C-6 - Subarea 8S Trip Blanks Results

Sample Name:		TB-092911		TB-102011	
Sample Date:		09/29/2011		10/20/2011	
Sample Type		Trip Blank		Trip Blank	
Analyte	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
GRO (C5-C12)	ug/l	50	U	50	U
		50	U		
N-Nitrosodimethylamine	ng/kg	33.0	U		
N-Nitrosodimethylamine	ng/l	4.12			
Percent Moisture	%	0.50	U		

ng/kg - nanogram per kilogram

ng/L - nanogram per liter

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-7 - Subarea 8 North Field Duplicate results

				Location	SL-013-SA8N		SL-013-SA8N			SL-027-SA8N		SL-027-SA8N			SL-133-SA8N		SL-133-SA8N			SL-138-SA8N		SL-138-SA8N		
				Sample Name:	DUP01-SA8N-QC-041111		SL-013-SA8N-SS-0.0-0.5		RPD	DUP02-SA8N-QC-041311		SL-027-SA8N-SS-0.0-0.5		RPD	DUP03-SA8N-QC-041411		SL-133-SA8N-SS-0.0-0.5		RPD	DUP04-SA8N-QC-041911		SL-138-SA8N-SS-0.0-0.5		RPD
				Sample Date	04/11/2011		04/11/2011			04/13/2011		04/13/2011			04/14/2011		04/14/2011			04/19/2011		04/19/2011		
				Start Depth:	0		0			0		0			0		0			0		0		
				End Depth:	0.5		0.5			0.5		0.5			0.5		0.5			0.5		0.5		
				Area:	8N		8N			8N		8N			8N		8N			8N		8N		
				Matrix:	SO		SO			SO		SO			SO		SO			SO		SO		
				Sample Type:	FD		N			FD		N			FD		N			FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit																				
Inorganic	Aluminum	7429-90-5	6010B	mg/kg	18300		19000		-3.75	23600		27200		-14.17			23000			12400		12500		-0.80
Inorganic	Antimony	7440-36-0	6020	mg/kg	0.0937	J	0.130	J	-32.45	0.738	J	0.678	J	8.47			0.117	J		0.123	J	0.218	UJ	200.00
Inorganic	Arsenic	7440-38-2	6020	mg/kg	5.41	J	5.33	J	1.49	6.75	J	7.19	J	-6.31			5.37	J		6.46		5.92		8.72
Inorganic	Barium	7440-39-3	6020	mg/kg	94.3		95.5		-1.26	195	J	198	J	-1.53			132	J		123	J	116	J	5.86
Inorganic	Beryllium	7440-41-7	6020	mg/kg	0.646		0.640		0.93	0.895	J	0.970	J	-8.04			0.697			0.630		0.629		0.16
Inorganic	Boron	7440-42-8	6010B	mg/kg	11.2		12.0		-6.90	15.2		23.6		-43.30			6.92			5.42	UJ	5.39	UJ	200.00
Inorganic	Cadmium	7440-43-9	6020	mg/kg	0.609	J	0.854	J	-33.49	1.31	J	1.30	J	0.77			0.559	J		0.224	J	0.150	J	39.57
Inorganic	Calcium	7440-70-2	6010B	mg/kg	17800		16400		8.19	25400		26900		-5.74			7990			2280		2180		4.48
Inorganic	Chromium	7440-47-3	6020	mg/kg	23.4	J	27.8	J	-17.19	36.1	J	39.7	J	-9.50			57.1	J		19.1		18.2		4.83
Inorganic	Chromium VI	18540-29-9	7199	mg/kg	0.78	J	0.94	J	-18.60	1.2	UJ	0.65	J	200.00			0.67	J		1.1	U	1.1	U	--
Inorganic	Cobalt	7440-48-4	6020	mg/kg	12.6	J	11.4	J	10.00	11.4	J	10.7	J	6.33			9.52	J		7.53	J	6.90	J	8.73
Inorganic	Copper	7440-50-8	6020	mg/kg	15.5	J	15.0	J	3.28	54.9	J	57.3	J	-4.28			20.3	J		11.7	J	10.1	J	14.68
Inorganic	Cyanide	57-12-5	9012B	mg/kg											0.58	U	0.59	U	-1.71	0.54	U	0.53	U	1.87
Inorganic	Fluoride	16984-48-8	300.0	mg/kg	1.9	J	1.5	J	23.53	1.6	J	2.6	J	-47.62			2.8	J		1.1	UJ	1.1	UJ	--
Inorganic	Iron	7439-89-6	6010B	mg/kg	22400		24000		-6.90	48200		29600		47.81			27400			19400		18600		4.21
Inorganic	Lead	7439-92-1	6020	mg/kg	13.0	J	12.3	J	5.53	29.3	J	31.2	J	-6.28			166	J		13.8		12.9		6.74
Inorganic	Lithium	7439-93-2	6010B	mg/kg	21.5		23.4		-8.46	21.6		25.1		-14.99			22.8			25.2		25.5		-1.18
Inorganic	Magnesium	7439-95-4	6010B	mg/kg	5330		5320		0.19	7060		7940		-11.73			6190			4100		4060		0.98
Inorganic	Manganese	7439-96-5	6010B	mg/kg	310		322		-3.80	459		444		3.32			418			306		309		-0.98
Inorganic	Mercury	7439-97-6	7471A	mg/kg	0.111	UJ	0.0037	J	200.00	0.0795	J	0.0873	J	-9.35			0.313	J		0.0168	J	0.0181	J	-7.45
Inorganic	Molybdenum	7439-98-7	6020	mg/kg	0.656		0.468		33.45	0.630	J	0.779	J	-21.15			0.901	J		0.591		0.502		16.29
Inorganic	Nickel	7440-02-0	6020	mg/kg	29.3	J	28.6	J	2.42	26.0	J	28.5	J	-9.17			44.8	J		14.1	J	13.2	J	6.59
Inorganic	Nitrate	14797-55-8	300.0	mg/kg											4.9	J	9.0	J	-58.99	3.7		3.5		5.56
Inorganic	Percent Moisture	MOIST	160.3M	%	14.4		13.9		3.53	14.9		15.2		-1.99	13.5		14.6		-7.83	8.7		8.2		5.92
Inorganic	Perchlorate	14797-73-0	314.0	ug/kg	35.0	U	34.8	U	0.57	35.3	U	35.4	U	-0.28			35.1	U		32.9	U	32.7	U	0.61
Inorganic	pH	pH	9045M	pH unit	7.87		8.01		-1.76	8.21		8.27		-0.73			7.20			6.03		5.92		1.84
Inorganic	Phosphorus	7723-14-0	6010B	mg/kg	428	J	533	J	-21.85	1430		1580		-9.97			561			439		431		1.84
Inorganic	Potassium	7440-09-7	6010B	mg/kg	3320	J	3140	J	5.57	6340		6680		-5.22			5220			3580		3530		1.41
Inorganic	Selenium	7782-49-2	6020	mg/kg	0.131	J	0.142	J	-8.06	0.200	J	0.216	J	-7.69			0.169	J		0.156	J	0.122	J	24.46
Inorganic	Silver	7440-22-4	6020	mg/kg	0.0613	J	0.0679	J	-10.22	0.502	J	0.298	J	51.00			0.289			0.0477	J	0.0257	J	59.95
Inorganic	Sodium	7440-23-5	6010B	mg/kg	84.0	J	90.9	J	-7.89	219		219		--			108	J		67.8	J	69.8	J	-2.91
Inorganic	Strontium	7440-24-6	6010B	mg/kg	30.8		30.4		1.31	112		111		0.90			27.6			15.5		14.7		5.30
Inorganic	Thallium	7440-28-0	6020	mg/kg	0.289		0.274		5.33	0.359	J	0.340	J	5.44			0.253	J		0.298		0.300		-0.67
Inorganic	Tin	7440-31-5	6010B	mg/kg	11.5	U	11.5	U	--	11.5	U	11.8	U	-2.58			11.6	U		10.8	U	10.8	U	--
Inorganic	Titanium	7440-32-6	6010B	mg/kg	1270		1340		-5.36	1350		1360		-0.74			1280			1050		1080		-2.82
Inorganic	Vanadium	7440-62-2	6020	mg/kg	42.4	J	41.7	J	1.66	63.0	J	65.4	J	-3.74			48.4	J		38.9		37.0		5.01
Inorganic	Zinc	7440-66-6	6020	mg/kg	331	J	260	J	24.03	188	J	182	J	3.24			211	J		85.5		79.3		7.52
Inorganic	Zirconium	7440-67-7	6010B	mg/kg	2.49	J	1.85	J	29.49	6.37		7.09		-10.70			4.34	J		1.51	J	1.84	J	-19.70
Misc. Organics	1,3,5-Trinitrobenzene	99-35-4	8330A	ug/kg											140	U	130	U	7.41	130	U	120	U	--
Misc. Organics	2,4,6-Trinitrotoluene	118-96-7	8330A	ug/kg											140	U	130	U	7.41	130	U	120	U	--
Misc. Organics	2,4-Diamino-6-nitrotoluene	6629-29-4	8330A	ug/kg											270	U	270	U	--	260	U	250	U	--
Misc. Organics	2,4-Dinitrotoluene	121-14-2	8330A	ug/kg											140	U	130	U	7.41	130	U	120	U	--
Misc. Organics	2,6-Diamino-4-nitrotoluene	59229-75-3	8330A	ug/kg											270	U	270	U	--	260	U	250	U	--
Misc. Organics	2,6-Dinitrotoluene	606-20-2	8330A	ug/kg											140	U	130	U	7.41	130	U	120	U	--
Misc. Organics	2-Amino-4,6-Dinitrotoluene	35572-78-2	8330A	ug/kg											140	U	130	U	7.41	130	U	120	U	--
Misc. Organics	2-Nitrotoluene	88-72-2	8330A	ug/kg											140	U	130	U	7.41	130	U	120	U	--
Misc. Organics	2-Propanol	67-63-0	8015B	ug/kg											580	U	590	U	-1.71	550	U	540	U	--
Misc. Organics	3-Nitrotoluene	99-08-1	8330A	ug/kg											140	U	130	U	7.41	130	U	120	U	--
Misc. Organics	4-Amino-2,6-Dinitrotoluene	19406-51-0	8330A	ug/kg											140	U	130	U	7.41	130	U	120	U	--
Misc. Organics	4-Nitrotoluene	99-99-0	8330A	ug/kg											140	U	130	U	7.41	130	U	120	U	--
Misc. Organics	Diethylene Glycol	111-46-6	8015M	mg/kg	15	U	15	U	--						14	U	15	U	-6.90	14	U	14	U	--
Misc. Organics	Ethanol	64-17-5	8015B	ug/kg											580	U	590	U	-1.71	550	U	540	U	--
Misc. Organics	Ethylene Glycol	107-21-1	8015M	mg/kg	15	U	15	UJ	--						14	U	15	U	-6.90	14	U	14	U	--
Misc. Organics	Formaldehyde	50-00-0	8315A	ug/kg											1700	U	1800	U	-5.71	3200	U	3300	U	--
Misc. Organics	HMX	2691-41-0	8330A	ug/kg											340	U	330	U	2.99	330	U	310	U	--
Misc. Organics	m-Dinitrobenzene	99-65-0	8330A	ug/kg											140	U	130	U	7.41	130	U	120	U	--
Misc. Organics	Methanol	67-56-1	8015B	ug/kg											580	U	590	U	-1.71	550	U	540	U	--
Misc. Organics	m-Terphenyl	92-06-8	8015B	mg/kg											4.0	U	4.1	U	-2.47	3.8	U	3.8	U	--
Misc. Organics	Nitrobenzene	98-95-3	8330A	ug/kg											140	U	130	U	7.41	130	U	120	U	--
Misc. Organics	Nitroglycerin	55-63-0	8330A	ug/kg											2700	U	2700	U	--	2600	U	2500	U	--
Misc. Organics	o-Terphenyl	84-15-1	8015B	mg/kg											4.0	U	4.1	U	-2.47	3.8	U	3.8	U	--
Misc. Organics	PETN	78-11-5	8330A	ug/kg											2700	U	2700	U	--	2600	U	2500	U	--
Misc. Organics	Propylene glycol	57-55-6	8015M	mg/kg	15	U	15	UJ	--						14	U	15	U	-6.90	14	U	14	U	--
Misc. Organics	p-Terphenyl	92-94-4	8015B	mg/kg											4.0	U	4.1	U	-2.47	3.8	U	3.8	U	--
Misc. Organics	RDX	121-82-4	8330A	ug/kg											140	U	130	U	7.41	130	U	120	U	--
Misc. Organics	Tetryl	479-45-8	8330A	ug/kg											140	U	130	U	7.41	130	U	120	U	--
PCBs and Dioxins	1,2,3,4,6,7,8-HpCDD	35822-46-9	1613B	ng/kg	44.9		61.6		-31.36	67.7		104		-42.28			45.4			3.27	J	3.55	J	-8.21
PCBs and Dioxins	1,2,3,4,6,7,8-HpCDF	67562-39-4	1613B	ng/kg	5.55	J	7.59		-31.05	7.56	J	24.4	J	-105.38			10.9			5.43	U	0.804	J	200.00
PCBs and Dioxins	1,2,3,4,7,8,9-HpCDF	55673-89-7	1613B	ng/kg	0.433	J	5.74	U	200.00	0.637	J	1.65	J	-88.59			1.04	J		5.43	UJ	5.42	UJ	--
PCBs and Dioxins	1,2,3,4,7,8-HxCDD	39227-28-6	1613B	ng/kg	0.396	J	5.74	U	200.00	0.823	J	0.989	J	-18.32			0.857	J		5.43	U	5.42	U	--
PCBs and Dioxins	1,2,3,4,7,8-HxCDF	70648-26-9	1613B	ng/kg	3.07	J	2.22	J	32.14	1.59	J	2.17	J	-30.85			4.98	J		5.43	U	5.42	U	--
PCBs and Dioxins	1,2,3,6,7,8-HxCDD	57653-85-7	1613B	ng/kg	1.60	J	2.14	J	-28.88	3.10	J	4.59	J	-38.75			2.13	J		0.477	J	0.490	J	-2.69
PCBs and Dioxins	1,2,3,6,7,8-HxCDF	57117-44-9	1613B	ng/kg	0.534	J	5.74	U	200.00	0.665	J	1.09	J	-48.43			1.36	J		5.43	U	5.42	U	--
PCBs and Dioxins	1,2,3,7,8,9-HxCDD	19408-74-3	1613B	ng/kg	0.741	J	5.74	U	200.00	2.28	J	2.45	J	-7.19			1.64	J		0.549	J	0.556	J	-1.27
PCBs and Dioxins	1,2,3,7,8,9-HxCDF	72918-21-9	1613B	ng/kg	5.82	U	5.74	U	1.38	0.270	J	5.77	U	200.00			1.17	J		5.43	U	5.42	U	--
PCBs and Dioxins	1,2,3,7,8-PeCDD	40321-76-4	1613B	ng/kg	5.82	U	5.74	U	1.38	1.18	J	1.27	J	-7.35			0.699	J		5.43	U	5.42	U	--
PCBs and Dioxins	1,2,3,7,8-PeCDF	57117-41-6	1613B	ng/kg	0.372	J	5.74	U	200.00	0.869	J	0.493	J	55.21			3.96	J		0.274	J	0.352	J	-24.92
PCBs and Dioxins	2,3,4,6,7,8-HxCDF	60851-34-5	1613B	ng/kg	0.594	J	5.74	U	200.00	0.676	J	0.966	J	-35.32			1.40	J		5.43	U	5.42	U	--
PCBs and Dioxins	2,3,4,7,8-PeCDF	57117-31-4	1613B	ng/kg	0.542	J	5.74	U	200.00	0.843	J	0.993	J	-16.34			10.6			0.464	J	0.448	J	3.51
PCBs and Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	0.0869	J	1.15	UJ	200.00	0.358	J	0.434	J	-19.19			1.17	U		1.09	UJ	1.08	UJ	--
PCBs and Dioxins	2,3,7,8-TCDF	51207-31-9	1613B	ng/kg	0.250	J	1.15	UJ	200.00	1.24		1.43		-14.23			28.5			0.215	J	0.231	J	-7.17
PCBs and Dioxins	Aroclor 1016	12674-11-2	8082	ug/kg	2.0	U	2.0	U	--	200	U	100	U	--			200	U		1.9	U	1.8	U	--

Table C-7 - Subarea 8 North Field Duplicate results

					Location	SL-013-SA8N	SL-013-SA8N		SL-027-SA8N	SL-027-SA8N		SL-133-SA8N	SL-133-SA8N		SL-138-SA8N	SL-138-SA8N	
					Sample Name:	DUP01-SA8N-QC-041111	SL-013-SA8N-SS-0.0-0.5		DUP02-SA8N-QC-041311	SL-027-SA8N-SS-0.0-0.5		DUP03-SA8N-QC-041411	SL-133-SA8N-SS-0.0-0.5		DUP04-SA8N-QC-041911	SL-138-SA8N-SS-0.0-0.5	
					Sample Date	04/11/2011	04/11/2011		04/13/2011	04/13/2011		04/14/2011	04/14/2011		04/19/2011	04/19/2011	
					Start Depth:	0	0		0	0		0	0		0	0	
					End Depth:	0.5	0.5	RPD	0.5	0.5	RPD	0.5	0.5	RPD	0.5	0.5	RPD
					Area:	8N	8N		8N	8N		8N	8N		8N	8N	
					Matrix:	SO	SO		SO	SO		SO	SO		SO	SO	
					Sample Type:	FD	N		FD	N		FD	N		FD	N	
PCBs and Dioxins	Aroclor 1221	11104-28-2	8082	ug/kg	2.0 U	2.0 U	--	200 U	100 U	--			200 U		1.9 U	1.8 U	--
PCBs and Dioxins	Aroclor 1232	11141-16-5	8082	ug/kg	2.0 U	2.0 U	--	200 U	100 U	--			200 U		1.9 U	1.8 U	--
PCBs and Dioxins	Aroclor 1242	53469-21-9	8082	ug/kg	2.0 U	2.0 U	--	200 U	100 U	--			200 U		1.9 U	1.8 U	--
PCBs and Dioxins	Aroclor 1248	12672-29-6	8082	ug/kg	1.8 J	2.0 UJ	200.00	200 U	100 U	--			1700		1.9 U	1.8 U	--
PCBs and Dioxins	Aroclor 1254	11097-69-1	8082	ug/kg	5.0	5.7	-13.08	200 U	100 U	--			1500		0.89 J	0.86 J	3.43
PCBs and Dioxins	Aroclor 1260	11096-82-5	8082	ug/kg	20	22	-9.52	200 U	100 U	--			200 U		0.93 J	1.2 J	-25.35
PCBs and Dioxins	Aroclor 1262	37324-23-5	8082	ug/kg	2.0 U	2.0 U	--	200 U	100 U	--			200 U		1.9 U	1.8 U	--
PCBs and Dioxins	Aroclor 1268	11100-14-4	8082	ug/kg	2.0 U	2.0 U	--	200 U	100 U	--			200 U		1.9 U	1.8 U	--
PCBs and Dioxins	Aroclor 5432	63496-31-1	8082	ug/kg	3.9 U	3.8 U	2.60	390 U	190 U	--			390 U		3.6 U	3.6 U	--
PCBs and Dioxins	Aroclor 5442	12642-23-8	8082	ug/kg	3.9 U	3.8 U	2.60	390 U	190 U	--			390 U		3.6 U	3.6 U	--
PCBs and Dioxins	Aroclor 5460	11126-42-4	8082	ug/kg	10 J	20 J	-66.67	390 U	190 U	--			5100		1.9 J	2.2 J	-14.63
PCBs and Dioxins	OCDD	3268-87-9	1613B	ng/kg	462	672 J	-37.04	523	866 J	-49.39			493 J		24.5	28.5	-15.09
PCBs and Dioxins	OCDF	39001-02-0	1613B	ng/kg	8.03 J	11.3 J	-33.83	18.7 J	72.7 J	-118.16			21.1		10.9 U	10.8 U	--
Semivolatiles	1,2,4-Trichlorobenzene	120-82-1	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	1,2-Dichlorobenzene	95-50-1	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	1,2-Diphenylhydrazine	122-66-7	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	1,3-Dichlorobenzene	541-73-1	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	1,4-Dichlorobenzene	106-46-7	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	1-Methylnaphthalene	90-12-0	8270C SIM	ug/kg	9.6 U	9.6 U	--	1.4 J	1.3 J	7.41			2.4		1.8 U	1.8 U	--
Semivolatiles	2,4,5-Trichlorophenol	95-95-4	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	2,4,6-Trichlorophenol	88-06-2	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	2,4-Dichlorophenol	120-83-2	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	2,4-Dimethylphenol	105-67-9	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	2,4-Dinitrophenol	51-28-5	8270C	ug/kg	1100 U	1200 U	-8.70	1200 U	1200 U	--			1200 U		1100 U	1100 U	--
Semivolatiles	2,4-Dinitrotoluene	121-14-2	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	2,6-Dinitrotoluene	606-20-2	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	2-Chloronaphthalene	91-58-7	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	2-Chlorophenol	95-57-8	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	2-Methylnaphthalene	91-57-6	8270C SIM	ug/kg	9.6 U	9.6 U	--	2.5	1.8 J	32.56			3.3		1.8 U	1.8 U	--
Semivolatiles	2-Methylphenol	95-48-7	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	2-Nitroaniline	88-74-4	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	2-Nitrophenol	88-75-5	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	3,3`-Dichlorobenzidine	91-94-1	8270C	ug/kg	380 U	380 U	--	390 U	390 U	--			390 U		360 U	360 U	--
Semivolatiles	3,5-Dimethylphenol	108-68-9	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	3-Nitroaniline	99-09-2	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	4,6-Dinitro-2-Methylphenol	534-52-1	8270C	ug/kg	570 U	580 U	-1.74	590 U	590 U	--			580 U		540 U	540 U	--
Semivolatiles	4-Bromophenyl Phenyl Ether	101-55-3	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 UJ	180 UJ	--
Semivolatiles	4-Chloro-3-Methylphenol	59-50-7	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	4-Chloroaniline	106-47-8	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	4-Chlorophenyl Phenylether	7005-72-3	8270C	ug/kg	190 U	190 UJ	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	4-Methylphenol	106-44-5	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	4-Nitroaniline	100-01-6	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	4-Nitrophenol	100-02-7	8270C	ug/kg	570 U	580 U	-1.74	590 U	590 U	--			580 U		540 U	540 U	--
Semivolatiles	Acenaphthene	83-32-9	8270C SIM	ug/kg	9.6 U	9.6 U	--	2.0 U	2.0 U	--			1.2 J		1.8 U	1.8 U	--
Semivolatiles	Acenaphthylene	208-96-8	8270C SIM	ug/kg	9.6 U	9.6 U	--	0.63 J	0.51 J	21.05			0.66 J		1.8 U	1.8 U	--
Semivolatiles	Aniline	62-53-3	8270C	ug/kg	570 U	580 U	-1.74	590 U	590 U	--			580 U		540 U	540 U	--
Semivolatiles	Anthracene	120-12-7	8270C SIM	ug/kg	9.6 U	9.6 U	--	1.5 J	0.82 J	58.62			1.9 U		1.8 U	1.8 U	--
Semivolatiles	Benzidine	92-87-5	8270C	ug/kg	3800 U	3800 UJ	--	3900 U	3900 UJ	--			3900 R		3600 U	3600 R	--
Semivolatiles	Benzo(a)anthracene	56-55-3	8270C	ug/kg				55 J					20 J				
Semivolatiles	Benzo(a)anthracene	56-55-3	8270C SIM	ug/kg	9.6 U	9.6 U	--		4.4						1.8 U	1.8 U	--
Semivolatiles	Benzo(a)pyrene	50-32-8	8270C	ug/kg				66 J									
Semivolatiles	Benzo(a)pyrene	50-32-8	8270C SIM	ug/kg	3.9 J	9.6 UJ	200.00		5.1				1.3 J		1.8 UJ	0.77 J	200.00
Semivolatiles	Benzo(b)fluoranthene	205-99-2	8270C	ug/kg				98 J					21 J				
Semivolatiles	Benzo(b)fluoranthene	205-99-2	8270C SIM	ug/kg	6.2 J	9.6 UJ	200.00		12						1.8 UJ	1.8 J	200.00
Semivolatiles	Benzo(g,h,i)perylene	191-24-2	8270C	ug/kg				51 J									
Semivolatiles	Benzo(g,h,i)perylene	191-24-2	8270C SIM	ug/kg	9.6 U	9.6 U	--		5.1				1.2 J		1.8 U	1.8 U	--
Semivolatiles	Benzo(k)fluoranthene	207-08-9	8270C	ug/kg				37 J									
Semivolatiles	Benzo(k)fluoranthene	207-08-9	8270C SIM	ug/kg	9.6 U	9.6 U	--		3.7				0.99 J		1.8 UJ	0.86 J	200.00
Semivolatiles	Benzoic Acid	65-85-0	8270C	ug/kg	570 U	580 U	-1.74	590 U	590 U	--			580 U		540 U	540 U	--
Semivolatiles	Benzyl Alcohol	100-51-6	8270C	ug/kg	570 U	580 U	-1.74	590 U	590 U	--			580 U		540 U	540 U	--
Semivolatiles	Bis(2-Chloroethoxy) methane	111-91-1	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	Bis(2-Chloroethyl) ether	111-44-4	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	bis(2-Chloroisopropyl) ether	39638-32-9	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	Bis(2-Ethylhexyl) phthalate	117-81-7	8270C	ug/kg	23 J	31 J	-29.63						67 J			24 J	
Semivolatiles	Bis(2-Ethylhexyl) phthalate	117-81-7	8270C SIM	ug/kg				260 J	41 J	145.51					20 U		
Semivolatiles	Butylbenzylphthalate	85-68-7	8270C	ug/kg	190 U	190 U	--						25 J				
Semivolatiles	Butylbenzylphthalate	85-68-7	8270C SIM	ug/kg				8.8 J	21 UJ	200.00					20 U	20 U	--
Semivolatiles	Carbazole	86-74-8	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			21 J		180 U	180 U	--
Semivolatiles	Chrysene	218-01-9	8270C	ug/kg				91 J					26 J				
Semivolatiles	Chrysene	218-01-9	8270C SIM	ug/kg	4.7 J	9.6 UJ	200.00		10						0.42 J	1.5 J	-112.50
Semivolatiles	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	ug/kg	9.6 U	9.6 U	--	1.3 J	0.98 J	28.07			1.9 U		1.8 U	1.8 U	--
Semivolatiles	Dibenzofuran	132-64-9	8270C	ug/kg	190 U	190 U	--	200 U	200 U	--			190 U		180 U	180 U	--
Semivolatiles	Diethylphthalate	84-66-2	8270C	ug/kg	190 U	190 U	--										
Semivolatiles	Diethylphthalate	84-66-2	8270C SIM	ug/kg				21 U	21 U	--			21 U		20 U	20 U	--
Semivolatiles	Dimethylphthalate	131-11-3	8270C	ug/kg	190 U	190 U	--										
Semivolatiles	Dimethylphthalate	131-11-3	8270C SIM	ug/kg				21 U	21 U	--			21 U		20 U	20 U	--
Semivolatiles	Di-n-Butylphthalate	84-74-2	8270C	ug/kg	190 U	190 U	--						22 J				
Semivolatiles	Di-n-Butylphthalate	84-74-2	8270C SIM	ug/kg				21 U	21 U	--					20 U	20 U	--
Semivolatiles	Di-N-Octyl Phthalate	117-84-0	8270C	ug/kg	190 U	190 U	--										
Semivolatiles	Di-N-Octyl Phthalate	117-84-0	8270C SIM	ug/kg				230 J	21 UJ	200.00			21 U		20 U	20 U	--
Semivolatiles	Fluoranthene	206-44-0	8270C	ug/kg				45 J					41 J				
Semivolatiles	Fluoranthene	206-44-0	8270C SIM	ug/kg	5.7 J	9.6 UJ	200.00		10						1.8 UJ	1.7 J	200.00
Semivolatiles	Fluorene	86-73-7	8270C SIM	ug/kg	9.6 U	9.6 U	--	2.0 U	2.0 U	--			0.95 J		1.8 U	1.8 U	--

Table C-7 - Subarea 8 North Field Duplicate results

					Location	SL-013-SA8N		SL-013-SA8N			SL-027-SA8N		SL-027-SA8N			SL-133-SA8N		SL-133-SA8N			SL-138-SA8N		SL-138-SA8N		
					Sample Name:	DUP01-SA8N-QC-041111		SL-013-SA8N-SS-0.0-0.5			DUP02-SA8N-QC-041311		SL-027-SA8N-SS-0.0-0.5			DUP03-SA8N-QC-041411		SL-133-SA8N-SS-0.0-0.5			DUP04-SA8N-QC-041911		SL-138-SA8N-SS-0.0-0.5		
					Sample Date	04/11/2011		04/11/2011			04/13/2011		04/13/2011			04/14/2011		04/14/2011			04/19/2011		04/19/2011		
					Start Depth:	0		0			0		0			0		0			0		0		
					End Depth:	0.5		0.5			0.5		0.5			0.5		0.5			0.5		0.5		
					Area:	8N		8N			8N		8N			8N		8N			8N		8N		
					Matrix:	SO		SO			SO		SO			SO		SO			SO		SO		
					Sample Type:	FD		N			FD		N			FD		N			FD		N		
Semivolatiles	Hexachlorobenzene	118-74-1	8270C	ug/kg	190	U	190	U	--	200	U	200	U	--			190	U		180	U	180	U	--
Semivolatiles	Hexachlorobutadiene	87-68-3	8270C	ug/kg	190	U	190	U	--	200	U	200	U	--			190	U		180	U	180	U	--
Semivolatiles	Hexachlorocyclopentadiene	77-47-4	8270C	ug/kg	570	U	580	U	-1.74	590	U	590	U	--			580	U		540	U	540	U	--
Semivolatiles	Hexachloroethane	67-72-1	8270C	ug/kg	190	U	190	U	--	200	U	200	U	--			190	U		180	U	180	U	--
Semivolatiles	Indeno(1,2,3-Cd)Pyrene	193-39-5	8270C	ug/kg						47	J													
Semivolatiles	Indeno(1,2,3-Cd)Pyrene	193-39-5	8270C SIM	ug/kg	9.6	U	9.6	U	--			3.7					0.93	J		1.8	U	1.8	U	--
Semivolatiles	Isophorone	78-59-1	8270C	ug/kg	190	U	190	U	--	200	U	200	U	--			190	U		180	U	180	U	--
Semivolatiles	Naphthalene	91-20-3	8270C SIM	ug/kg	9.6	U	9.6	U	--	4.6		3.9		16.47			4.2			1.8	U	1.8	U	--
Semivolatiles	Nitrobenzene	98-95-3	8270C	ug/kg	190	U	190	U	--	200	U	200	U	--			190	U		180	U	180	U	--
Semivolatiles	N-Nitrosodimethylamine	62-75-9	1625C	ng/kg											39.2	J	300	J	-153.77	36.5	U	36.3	UJ	0.55
Semivolatiles	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	9.6	U	9.6	U	--	2.0	U	2.0	U	--			1.9	U		1.8	U	1.8	U	--
Semivolatiles	N-Nitroso-Di-N-Propylamine	621-64-7	8270C	ug/kg	190	U	190	U	--	200	U	200	U	--			190	U		180	U	180	U	--
Semivolatiles	N-Nitrosodiphenylamine	86-30-6	8270C	ug/kg	190	U	190	U	--	200	U	200	U	--			190	U		180	U	180	U	--
Semivolatiles	Pentachlorophenol	87-86-5	8270C	ug/kg	570	U	580	U	-1.74	590	U	590	U	--			580	U		540	U	540	U	--
Semivolatiles	Phenanthrene	85-01-8	8270C	ug/kg													21	J						
Semivolatiles	Phenanthrene	85-01-8	8270C SIM	ug/kg	9.6	U	9.6	U	--	7.3		4.9		39.34						1.8	UJ	0.96	J	200.00
Semivolatiles	Phenol	108-95-2	8270C	ug/kg	190	U	190	U	--	200	U	200	U	--			190	U		180	U	180	U	--
Semivolatiles	Pyrene	129-00-0	8270C	ug/kg						67	J						37	J						
Semivolatiles	Pyrene	129-00-0	8270C SIM	ug/kg	5.8	J	9.6	UJ	200.00			7.6								1.8	UJ	1.1	J	200.00
Volatiles	1,1,1,2-Tetrachloroethane	630-20-6	8260B	ug/kg																				
Volatiles	1,1,1-Trichloroethane	71-55-6	8260B	ug/kg																				
Volatiles	1,1,2,2-Tetrachloroethane	79-34-5	8260B	ug/kg																				
Volatiles	1,1,2-Trichloroethane	79-00-5	8260B	ug/kg																				
Volatiles	1,1-Dichloroethane	75-34-3	8260B	ug/kg																				
Volatiles	1,1-Dichloroethene	75-35-4	8260B	ug/kg																				
Volatiles	1,1-Dichloropropene	563-58-6	8260B	ug/kg																				
Volatiles	1,2,3-Trichlorobenzene	87-61-6	8260B	ug/kg																				
Volatiles	1,2,3-Trichloropropane	96-18-4	8260B	ug/kg																				
Volatiles	1,2,4-Trichlorobenzene	120-82-1	8260B	ug/kg																				
Volatiles	1,2,4-Trimethylbenzene	95-63-6	8260B	ug/kg																				
Volatiles	1,2-Dibromo-3-chloropropane	96-12-8	8260B	ug/kg																				
Volatiles	1,2-Dibromoethane	106-93-4	8260B	ug/kg																				
Volatiles	1,2-Dichlorobenzene	95-50-1	8260B	ug/kg																				
Volatiles	1,2-Dichloroethane	107-06-2	8260B	ug/kg																				
Volatiles	1,2-Dichloropropane	78-87-5	8260B	ug/kg																				
Volatiles	1,3,5-Trimethylbenzene	108-67-8	8260B	ug/kg																				
Volatiles	1,3-Dichlorobenzene	541-73-1	8260B	ug/kg																				
Volatiles	1,3-Dichloropropane	142-28-9	8260B	ug/kg																				
Volatiles	1,4-Dichlorobenzene	106-46-7	8260B	ug/kg																				
Volatiles	1,4-Dioxane	123-91-1	8260B SIM	ug/kg																				
Volatiles	2,2-Dichloropropane	594-20-7	8260B	ug/kg																				
Volatiles	2-Butanone	78-93-3	8260B	ug/kg																				
Volatiles	2-Chloroethyl Vinyl Ether	110-75-8	8260B	ug/kg																				
Volatiles	2-Chlorotoluene	95-49-8	8260B	ug/kg																				
Volatiles	2-Hexanone	591-78-6	8260B	ug/kg																				
Volatiles	4-Chlorotoluene	106-43-4	8260B	ug/kg																				
Volatiles	4-Methyl-2-Pentanone	108-10-1	8260B	ug/kg																				
Volatiles	Acetone	67-64-1	8260B	ug/kg																				
Volatiles	Benzene	71-43-2	8260B	ug/kg																				
Volatiles	Bromobenzene	108-86-1	8260B	ug/kg																				
Volatiles	Bromochloromethane	74-97-5	8260B	ug/kg																				
Volatiles	Bromodichloromethane	75-27-4	8260B	ug/kg																				
Volatiles	Bromoform	75-25-2	8260B	ug/kg																				
Volatiles	Bromomethane	74-83-9	8260B	ug/kg																				
Volatiles	Carbon tetrachloride	56-23-5	8260B	ug/kg																				
Volatiles	Chlorobenzene	108-90-7	8260B	ug/kg																				
Volatiles	Chloroethane	75-00-3	8260B	ug/kg																				
Volatiles	Chloroform	67-66-3	8260B	ug/kg																				
Volatiles	Chloromethane	74-87-3	8260B	ug/kg																				
Volatiles	Chlorotrifluoroethene	79-38-9	8260B	ug/kg																				
Volatiles	cis-1,2-Dichloroethene	156-59-2	8260B	ug/kg																				
Volatiles	cis-1,3-Dichloropropene	10061-01-5	8260B	ug/kg																				
Volatiles	Dibromochloromethane	124-48-1	8260B	ug/kg																				
Volatiles	Dibromomethane	74-95-3	8260B	ug/kg																				
Volatiles	Dichlorodifluoromethane	75-71-8	8260B	ug/kg																				
Volatiles	EFH (C12-C14)	PHCC12C14	8015M	mg/kg								7.0	U		6.9	U	7.0	U	-1.44	1.3	U	1.3	U	--
Volatiles	EFH (C15-C20)	PHCC15C20	8015M	mg/kg								3.6	J		10		9.8		2.02	0.97	J	0.85	J	13.19
Volatiles	EFH (C21-C30)	PHCC21C30	8015M	mg/kg								31			50		44		12.77	8.6		5.8	J	38.89
Volatiles	EFH (C30-C40)	PHCC30C40	8015M	mg/kg								170			140		140		--	35		22		45.61
Volatiles	EFH (C8-C11)	PHCC8C11	8015M	mg/kg								7.0	U		6.9	U	7.0	U	-1.44	1.3	U	1.3	U	--
Volatiles	Ethylbenzene	100-41-4	8260B	ug/kg																				
Volatiles	Freon 113	76-13-1	8260B	ug/kg																				
Volatiles	Freon 113a	75-88-7	8260B	ug/kg																				
Volatiles	GRO (C5-C12)	GROC5C12	8015M	mg/kg																				
Volatiles	Hexachlorobutadiene	87-68-3	8260B	ug/kg																				
Volatiles	Isopropylbenzene	98-82-8	8260B	ug/kg																				
Volatiles	Isopropyltoluene	99-87-6	8260B	ug/kg																				
Volatiles	m,p-Xylene	179601-23-1	8260B	ug/kg																				
Volatiles	Methyl tert-Butyl Ether	1634-04-4	8260B	ug/kg																				
Volatiles	Methylene chloride	75-09-2	8260B	ug/kg																				
Volatiles	N-Butylbenzene	104-51-8	8260B	ug/kg																				
Volatiles	N-Propylbenzene	103-65-1	8260B	ug/kg																				
Volatiles	o-Xylene	95-47-6	8260B	ug/kg																				

Table C-7 - Subarea 8 North Field Duplicate results

					Location	SL-013-SA8N	SL-013-SA8N		SL-027-SA8N	SL-027-SA8N		SL-133-SA8N	SL-133-SA8N		SL-138-SA8N	SL-138-SA8N	
					Sample Name:	DUP01-SA8N-QC-041111	SL-013-SA8N-SS-0.0-0.5		DUP02-SA8N-QC-041311	SL-027-SA8N-SS-0.0-0.5		DUP03-SA8N-QC-041411	SL-133-SA8N-SS-0.0-0.5		DUP04-SA8N-QC-041911	SL-138-SA8N-SS-0.0-0.5	
					Sample Date	04/11/2011	04/11/2011		04/13/2011	04/13/2011		04/14/2011	04/14/2011		04/19/2011	04/19/2011	
					Start Depth:	0	0	RPD	0	0	RPD	0	0	RPD	0	0	RPD
					End Depth:	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
					Area:	8N	8N		8N	8N		8N	8N		8N	8N	
					Matrix:	SO	SO		SO	SO		SO	SO		SO	SO	
					Sample Type:	FD	N		FD	N		FD	N		FD	N	
Volatiles	sec-Butylbenzene	135-98-8	8260B	ug/kg													
Volatiles	Styrene	100-42-5	8260B	ug/kg													
Volatiles	tert-Butylbenzene	98-06-6	8260B	ug/kg													
Volatiles	Tetrachloroethene	127-18-4	8260B	ug/kg													
Volatiles	Toluene	108-88-3	8260B	ug/kg													
Volatiles	trans-1,2-Dichloroethene	156-60-5	8260B	ug/kg													
Volatiles	trans-1,3-Dichloropropene	10061-02-6	8260B	ug/kg													
Volatiles	Trichloroethene	79-01-6	8260B	ug/kg													
Volatiles	Trichlorofluoromethane	75-69-4	8260B	ug/kg													
Volatiles	Vinyl Chloride	75-01-4	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-7 - Subarea 8 North Field Duplicate results

				Location	SL-120-SA8N		SL-120-SA8N			SL-119-SA8N		SL-119-SA8N			SL-040-SA8N		SL-040-SA8N			SL-018-SA8N		SL-018-SA8N		
				Sample Name:	DUP05-SA8N-QC-042011		SL-120-SA8N-SS-0.0-0.5		RPD	DUP06-SA8N-QC-042111		SL-119-SA8N-SS-0.0-0.5		RPD	DUP06-SA8N-QC-042911		SL-040-SA8N-SB-4.0-5.0		RPD	DUP07-SA8N-QC-050311		SL-018-SA8N-SB-4.0-5.0		RPD
				Sample Date	04/20/2011		04/20/2011			04/21/2011		04/21/2011			04/29/2011		04/29/2011			05/03/2011		05/03/2011		
				Start Depth:	0		0			0		0			0		4			4		4		
				End Depth:	0.5		0.5			0.5		0.5			0.5		5			5		5		
				Area:	8N		8N			8N		8N			8N		8N			8N		8N		
				Matrix:	SO		SO			SO		SO			SO		SO			SO		SO		
				Sample Type:	FD		N			FD		N			FD		N			FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit																				
Inorganic	Aluminum	7429-90-5	6010B	mg/kg	23600		24500		-3.74	14600		15200		-4.03	33000		31900		3.39	25900		24600		5.15
Inorganic	Antimony	7440-36-0	6020	mg/kg	0.216	J	0.308	J	-35.11	0.210	UJ	0.209	UJ	0.48	0.240	J	0.303	J	-23.20	0.384	J	0.278	J	32.02
Inorganic	Arsenic	7440-38-2	6020	mg/kg	5.86	J	6.25	J	-6.44	5.09		5.13		-0.78	6.52		5.99		8.47	7.24	J	7.52	J	-3.79
Inorganic	Barium	7440-39-3	6020	mg/kg	113	J	129	J	-13.22	110		95.2		14.42	138	J	130	J	5.97	142	J	136	J	4.32
Inorganic	Beryllium	7440-41-7	6020	mg/kg	0.658	J	0.758	J	-14.12	0.547		0.519		5.25	0.845	J	0.800	J	5.47	0.944	J	0.970	J	-2.72
Inorganic	Boron	7440-42-8	6010B	mg/kg	10.6		9.27		13.39	3.04	J	3.66	J	-18.51	8.74		7.56		14.48	5.57	UJ	3.14	J	200.00
Inorganic	Cadmium	7440-43-9	6020	mg/kg	0.438	J	0.466	J	-6.19	0.178		0.128		32.68	0.281		0.279		0.71	0.112	UJ	0.116	J	200.00
Inorganic	Calcium	7440-70-2	6010B	mg/kg	6500		6510		-0.15	3270		3370		-3.01	11700	J	10400	J	11.76	5490	J	3410	J	46.74
Inorganic	Chromium	7440-47-3	6020	mg/kg	24.0	J	28.3	J	-16.44	26.2	J	23.5	J	10.87	34.0	J	31.4	J	7.95	30.8	J	30.2	J	1.97
Inorganic	Chromium VI	18540-29-9	7199	mg/kg	0.91	J	0.89	J	2.22	1.1	UJ	0.43	J	200.00	0.47	J	0.56	J	-17.48	1.2	U	1.1	U	8.70
Inorganic	Cobalt	7440-48-4	6020	mg/kg	12.6	J	9.63	J	26.72	8.11		6.61		20.38	12.0	J	10.7	J	11.45	11.7	J	10.5	J	10.81
Inorganic	Copper	7440-50-8	6020	mg/kg	17.0	J	17.8	J	-4.60	11.9	J	10.1	J	16.36	19.0	J	16.5	J	14.08	15.5	J	12.5	J	21.43
Inorganic	Cyanide	57-12-5	9012B	mg/kg	0.54	U	0.53	U	1.87			0.53	U											
Inorganic	Fluoride	16984-48-8	300.0	mg/kg	1.3		1.6		-20.69	1.9	J	1.4	J	30.30	1.7		1.6		6.06	8.1	J	8.0	J	1.24
Inorganic	Iron	7439-89-6	6010B	mg/kg	25400		26600		-4.62	22000		22400		-1.80	37700		37900		-0.53	32700		29700		9.62
Inorganic	Lead	7439-92-1	6020	mg/kg	20.8	J	20.4	J	1.94	8.66	J	7.08	J	20.08	10.4	J	9.31	J	11.06	9.20	J	9.29	J	-0.97
Inorganic	Lithium	7439-93-2	6010B	mg/kg	24.7		26.1		-5.51	26.2		27.5		-4.84	29.1		28.8		1.04	25.7		24.3		5.60
Inorganic	Magnesium	7439-95-4	6010B	mg/kg	5280		6290		-17.46	6220		6160		0.97	8010		7890		1.51	7020		5330		27.37
Inorganic	Manganese	7439-96-5	6010B	mg/kg	322	J	371	J	-14.14	301		311		-3.27	494		493		0.20	291	J	458	J	-44.59
Inorganic	Mercury	7439-97-6	7471A	mg/kg	0.0556	J	0.0277	J	66.99	0.0221	J	0.0190	J	15.09	0.117	U	0.115	U	1.72	0.0056	J	0.110	UJ	200.00
Inorganic	Molybdenum	7439-98-7	6020	mg/kg	0.679		0.603		11.86	0.449		0.452		-0.67	0.505		0.359		33.80	0.431	J	0.627	J	-37.05
Inorganic	Nickel	7440-02-0	6020	mg/kg	16.6	J	18.3	J	-9.74	16.7		13.9		18.30	22.6	J	20.9	J	7.82	25.6	J	19.3	J	28.06
Inorganic	Nitrate	14797-55-8	300.0	mg/kg	2.8		3.6		-25.00			1.5	J											
Inorganic	Percent Moisture	MOIST	160.3M	%	6.7		6.1		9.38			6.4					16.5					11.9		
Inorganic	Perchlorate	14797-73-0	314.0	ug/kg	32.2	U	31.9	U	0.94	32.2	U	32.1	U	0.31	36.0	U	35.9	U	0.28	34.8	U	34.1	U	--
Inorganic	pH	pH	9045M	pH unit	7.00		7.80		-10.81	6.93		6.83		1.45	7.73		7.89		-2.05	7.84		7.84		--
Inorganic	Phosphorus	7723-14-0	6010B	mg/kg	463	J	467	J	-0.86	459		485		-5.51	357		356		0.28	237	J	108	J	74.78
Inorganic	Potassium	7440-09-7	6010B	mg/kg	4010	J	4980	J	-21.58	3680	J	3760	J	-2.15	5270		5260		0.19	1870		2470		-27.65
Inorganic	Selenium	7782-49-2	6020	mg/kg	0.193	J	0.165	J	15.64	0.166	J	0.171	J	-2.97	0.222	J	0.251	J	-12.26	0.450	UJ	0.445	UJ	--
Inorganic	Silver	7440-22-4	6020	mg/kg	0.106	J	0.0736	J	36.08	0.0469	J	0.0481	J	-2.53	0.0453	J	0.0278	J	47.88	0.0754	J	0.0574	J	27.11
Inorganic	Sodium	7440-23-5	6010B	mg/kg	94.9	J	120		-23.36	82.1	J	89.8	J	-8.96	108	J	113	J	-4.52	536		425		23.10
Inorganic	Strontium	7440-24-6	6010B	mg/kg	32.9		32.7		0.61	15.7		16.8		-6.77	47.0		45.6		3.02	29.2		22.7		25.05
Inorganic	Thallium	7440-28-0	6020	mg/kg	0.310		0.324		-4.42	0.270		0.266		1.49	0.402		0.306		27.12	0.353		0.347		1.71
Inorganic	Tin	7440-31-5	6010B	mg/kg	10.7	U	10.2	U	4.78	10.6	U	10.5	U	0.95	12.0	U	11.9	U	0.84	11.1	U	11.2	U	--
Inorganic	Titanium	7440-32-6	6010B	mg/kg	1260		1270		-0.79	1190		1220		-2.49	1560		1290		18.95	1050		1170		-10.81
Inorganic	Vanadium	7440-62-2	6020	mg/kg	44.0	J	50.4	J	-13.56	43.7	J	39.4	J	10.35	63.5	J	55.6	J	13.27	53.5	J	53.9	J	-0.74
Inorganic	Zinc	7440-66-6	6020	mg/kg	118	J	121	J	-2.51	70.2		61.1		13.86	75.8	J	73.1	J	3.63	68.1	J	59.3	J	13.81
Inorganic	Zirconium	7440-67-7	6010B	mg/kg	5.36	U	5.12	U	4.58	5.31	U	5.24	U	1.33	7.08		6.47		9.00	5.79		5.27	J	9.40
Misc. Organics	1,3,5-Trinitrobenzene	99-35-4	8330A	ug/kg	130	U	130	U	--			120	U											
Misc. Organics	2,4,6-Trinitrotoluene	118-96-7	8330A	ug/kg	130	U	130	U	--			120	U											
Misc. Organics	2,4-Diamino-6-nitrotoluene	6629-29-4	8330A	ug/kg	260	U	260	U	--			240	U											
Misc. Organics	2,4-Dinitrotoluene	121-14-2	8330A	ug/kg	130	U	130	U	--			120	U											
Misc. Organics	2,6-Diamino-4-nitrotoluene	59229-75-3	8330A	ug/kg	260	U	260	U	--			240	U											
Misc. Organics	2,6-Dinitrotoluene	606-20-2	8330A	ug/kg	130	U	130	U	--			120	U											
Misc. Organics	2-Amino-4,6-Dinitrotoluene	35572-78-2	8330A	ug/kg	130	U	130	U	--			120	U											
Misc. Organics	2-Nitrotoluene	88-72-2	8330A	ug/kg	130	U	130	U	--			120	U											
Misc. Organics	2-Propanol	67-63-0	8015B	ug/kg	540	U	530	U	1.87			530	U											
Misc. Organics	3-Nitrotoluene	99-08-1	8330A	ug/kg	130	U	130	U	--			120	U											
Misc. Organics	4-Amino-2,6-Dinitrotoluene	19406-51-0	8330A	ug/kg	130	U	130	U	--			120	U											
Misc. Organics	4-Nitrotoluene	99-99-0	8330A	ug/kg	130	U	130	U	--			120	U											
Misc. Organics	Diethylene Glycol	111-46-6	8015M	mg/kg	13	U	13	U	--			13	U							12	U			
Misc. Organics	Ethanol	64-17-5	8015B	ug/kg	540	U	530	U	1.87			530	U											
Misc. Organics	Ethylene Glycol	107-21-1	8015M	mg/kg	13	U	13	U	--			13	U							12	U			
Misc. Organics	Formaldehyde	50-00-0	8315A	ug/kg	1600	U	1600	U	--			1000	J											
Misc. Organics	HMX	2691-41-0	8330A	ug/kg	320	U	320	U	--			300	U											
Misc. Organics	m-Dinitrobenzene	99-65-0	8330A	ug/kg	130	U	130	U	--			120	U											
Misc. Organics	Methanol	67-56-1	8015B	ug/kg	540	U	530	U	1.87			530	U											
Misc. Organics	m-Terphenyl	92-06-8	8015B	mg/kg	3.7	U	3.7	U	--			3.7	U											
Misc. Organics	Nitrobenzene	98-95-3	8330A	ug/kg	130	U	130	U	--			120	U											
Misc. Organics	Nitroglycerin	55-63-0	8330A	ug/kg	2600	U	2600	U	--			2400	U											
Misc. Organics	o-Terphenyl	84-15-1	8015B	mg/kg	3.7	U	3.7	U	--			3.7	U											
Misc. Organics	PETN	78-11-5	8330A	ug/kg	2600	U	2600	U	--			2400	U											
Misc. Organics	Propylene glycol	57-55-6	8015M	mg/kg	13	U	13	U	--			13	U							12	U			
Misc. Organics	p-Terphenyl	92-94-4	8015B	mg/kg	3.7	U	3.7	U	--			3.7	U											
Misc. Organics	RDX	121-82-4	8330A	ug/kg	130	U	130	U	--			120	U											
Misc. Organics	Tetryl	479-45-8	8330A	ug/kg	130	U	130	U	--			120	U											
PCBs and Dioxins	1,2,3,4,6,7,8-HpCDD	35822-46-9	1613B	ng/kg	338	J	166	J	68.25	17.0		14.6		15.19	5.95	U	5.94	U	--	5.78	U	5.60	U	--
PCBs and Dioxins	1,2,3,4,6,7,8-HpCDF	67562-39-4	1613B	ng/kg	22.2		15.0		38.71	2.17	J	2.14	J	1.39	5.95	UJ	5.94	UJ	--	5.78	U	5.60	U	--
PCBs and Dioxins	1,2,3,4,7,8,9-HpCDF	55673-89-7	1613B	ng/kg	1.83	J	1.51	J	19.16	5.32	U	5.34	U	-0.38	5.95	UJ	5.94	UJ	--	5.78	U	5.60	U	--
PCBs and Dioxins	1,2,3,4,7,8-HxCDD	39227-28-6	1613B	ng/kg	0.939	J	1.02	J	-8.27	5.32	UJ	0.204	J	200.00	5.95	UJ	0.138	J	200.00	5.78	UJ	5.60	UJ	--
PCBs and Dioxins	1,2,3,4,7,8-HxCDF	70648-26-9	1613B	ng/kg	2.62	J	2.27	J	14.31	0.473	J	0.476	J	-0.63	5.95	UJ	5.94	UJ	--	0.290	J	5.60	UJ	200.00
PCBs and Dioxins	1,2,3,6,7,8-HxCDD	57653-85-7	1613B	ng/kg	7.23		4.88	J	38.81	0.490	J	0.568	J	-14.74	5.95	UJ	0.180	J	200.00	5.78	UJ	5.60	UJ	--
PCBs and Dioxins	1,2,3,6,7,8-HxCDF	57117-44-9	1613B	ng/kg	1.29	J	0.970	J	28.32	5.32	UJ	5.34	UJ	--	5.95	UJ	0.196	J	200.00	5.78	UJ	5.60	UJ	--
PCBs and Dioxins	1,2,3,7,8,9-HxCDD	19408-74-3	1613B	ng/kg	2.88	J	2.05	J	33.67	5.32	U	0.358	J	200.00	0.253	J	0.303	J	-17.99	0.118	J	0.0775	J	41.43
PCBs and Dioxins	1,2,3,7,8,9-HxCDF	72918-21-9	1613B	ng/kg	0.876	J	0.689	J	23.90	0.152	J	0.185	J	-19.58	5.95	U	0.457	J	200.00	5.78	U	5.60	U	--
PCBs and Dioxins	1,2,3,7,8-PeCDD	40321-76-4	1613B	ng/kg	0.769	J	0.395	J	64.26	5.32	UJ	5.34	UJ	--	5.95	UJ	0.269	J	200.00	0.164	J	0.0338	J	131.65
PCBs and Dioxins	1,2,3,7,8-PeCDF	57117-41-6	1613B	ng/kg	4.85	J	0.883	J	138.39	5.32	UJ	0.262	J	200.00	5.95	UJ	0.299	J	200.00	0.358	J	5.60	UJ	200.00
PCBs and Dioxins	2,3,4,6,7,8-HxCDF	60851-34-5	1613B	ng/kg	1.28	J	0.948	J	29.80	5.32	U	5.34	U	--	5.95	UJ	5.94	UJ	--	5.78	U	5.60	U	--
PCBs and Dioxins	2,3,4,7,8-PeCDF	57117-31-4	1613B	ng/kg	1.78	J	1.59	J	11.28	0.382	J	0.485	J	-23.76	5.95	UJ	5.94	UJ	--	5.78	UJ	5.60	UJ	--
PCBs and Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	0.0542	J	0.0445	J	19.66	0.0250	J	0.0702	J	-94.96	1.19	UJ	1.19	UJ	--	0.119	J	1.12	UJ	200.00
PCBs and Dioxins	2,3,7,8-TCDF	51207-31-9	1613B	ng/kg	2.51		0.453	J	138.85	1.06	UJ	0.114	J	200.00	1.19	UJ	1.19	UJ	--	0.111	J	1.12	UJ	200.00
PCBs and Dioxins	Aroclor 1016	12674-11-2	8082	ug/kg	18	U	9.0	U	--	3.6	U	1.8	U	--	2.0	U	2.0	U	--	2.0	U	1.9	U	--

Table C-7 - Subarea 8 North Field Duplicate results

					Location	SL-120-SA8N		SL-120-SA8N			SL-119-SA8N			SL-119-SA8N			SL-040-SA8N			SL-040-SA8N			SL-018-SA8N			SL-018-SA8N		
					Sample Name:	DUP05-SA8N-QC-042011		SL-120-SA8N-SS-0.0-0.5		RPD	DUP06-SA8N-QC-042111			SL-119-SA8N-SS-0.0-0.5		RPD	DUP06-SA8N-QC-042911			SL-040-SA8N-SB-4.0-5.0		RPD	DUP07-SA8N-QC-050311			SL-018-SA8N-SB-4.0-5.0		RPD
					Sample Date	04/20/2011		04/20/2011			04/21/2011			04/21/2011			04/29/2011			04/29/2011			05/03/2011			05/03/2011		
					Start Depth:	0		0			0			0			0			4			4			4		
					End Depth:	0.5		0.5			0.5			0.5			0.5			5			5			5		
					Area:	8N		8N			8N			8N			8N			8N			8N			8N		
					Matrix:	SO		SO			SO			SO			SO			SO			SO			SO		
					Sample Type:	FD		N			FD			N			FD			N			FD			N		
PCBs and Dioxins	Aroclor 1221	11104-28-2	8082	ug/kg		18	U	9.0	U	--	3.6	U	1.8	U	--	2.0	U	2.0	U	--	2.0	U	1.9	U	--
PCBs and Dioxins	Aroclor 1232	11141-16-5	8082	ug/kg		18	U	9.0	U	--	3.6	U	1.8	U	--	2.0	U	2.0	U	--	2.0	U	1.9	U	--
PCBs and Dioxins	Aroclor 1242	53469-21-9	8082	ug/kg		18	U	9.0	U	--	3.6	U	1.8	U	--	2.0	U	2.0	U	--	2.0	U	1.9	U	--
PCBs and Dioxins	Aroclor 1248	12672-29-6	8082	ug/kg		18	U	9.0	U	--	3.6	U	1.8	U	--	2.0	U	2.0	U	--	2.0	U	1.9	U	--
PCBs and Dioxins	Aroclor 1254	11097-69-1	8082	ug/kg		75		56		29.01	1.3	J	0.82	J	45.28	2.0	U	2.0	U	--	2.0	U	1.9	U	--
PCBs and Dioxins	Aroclor 1260	11096-82-5	8082	ug/kg		21		17		21.05	1.6	J	0.96	J	50.00	2.0	U	2.0	U	--	2.0	U	1.9	U	--
PCBs and Dioxins	Aroclor 1262	37324-23-5	8082	ug/kg		18	U	9.0	U	--	3.6	U	1.8	U	--	2.0	U	2.0	U	--	2.0	U	1.9	U	--
PCBs and Dioxins	Aroclor 1268	11100-14-4	8082	ug/kg		18	U	9.0	U	--	3.6	U	1.8	U	--	2.0	U	2.0	U	--	2.0	U	1.9	U	--
PCBs and Dioxins	Aroclor 5432	63496-31-1	8082	ug/kg		35	U	17	U	--	7.1	U	3.5	U	--	4.0	U	4.0	U	--	3.8	U	3.7	U	--
PCBs and Dioxins	Aroclor 5442	12642-23-8	8082	ug/kg		35	U	17	U	--	7.1	U	3.5	U	--	4.0	U	4.0	U	--	3.8	U	3.7	U	--
PCBs and Dioxins	Aroclor 5460	11126-42-4	8082	ug/kg		35	U	17	U	--	7.1	UJ	4.0	J	200.00	4.0	U	4.0	U	--	3.8	U	3.7	U	--
PCBs and Dioxins	OCDD	3268-87-9	1613B	ng/kg		3760	J	2070	J	57.98	206		186	J	10.20	11.9	U	2.43	J	200.00	11.6	U	11.2	U	--
PCBs and Dioxins	OCDF	39001-02-0	1613B	ng/kg		62.6		40.1		43.82	4.91	J	4.33	J	12.55	11.9	U	11.9	U	--	11.6	U	11.2	U	--
Semivolatiles	1,2,4-Trichlorobenzene	120-82-1	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	1,2-Dichlorobenzene	95-50-1	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	1,2-Diphenylhydrazine	122-66-7	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	1,3-Dichlorobenzene	541-73-1	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	1,4-Dichlorobenzene	106-46-7	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	1-Methylnaphthalene	90-12-0	8270C SIM	ug/kg		3.8	J	8.9	UJ	200.00	1.8	U	1.8	U	--	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Semivolatiles	2,4,5-Trichlorophenol	95-95-4	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	2,4,6-Trichlorophenol	88-06-2	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	2,4-Dichlorophenol	120-83-2	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	2,4-Dimethylphenol	105-67-9	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	2,4-Dinitrophenol	51-28-5	8270C	ug/kg		1100	U	1100	U	--	1100	UJ	1100	UJ	--	1200	U	1200	U	--	1200	U	1100	U	--
Semivolatiles	2,4-Dinitrotoluene	121-14-2	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	2,6-Dinitrotoluene	606-20-2	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	2-Chloronaphthalene	91-58-7	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	2-Chlorophenol	95-57-8	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	2-Methylnaphthalene	91-57-6	8270C SIM	ug/kg		6.0	J	8.9	UJ	200.00	1.8	U	1.8	U	--	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Semivolatiles	2-Methylphenol	95-48-7	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	2-Nitroaniline	88-74-4	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	2-Nitrophenol	88-75-5	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	3,3`-Dichlorobenzidine	91-94-1	8270C	ug/kg		350	U	350	U	--	350	U	350	U	--	400	U	400	U	--	390	U	380	U	--
Semivolatiles	3,5-Dimethylphenol	108-68-9	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	3-Nitroaniline	99-09-2	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	4,6-Dinitro-2-Methylphenol	534-52-1	8270C	ug/kg		530	U	530	U	--	530	U	530	UJ	--	600	U	600	U	--	580	U	570	U	--
Semivolatiles	4-Bromophenyl Phenyl Ether	101-55-3	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	4-Chloro-3-Methylphenol	59-50-7	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	4-Chloroaniline	106-47-8	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	4-Chlorophenyl Phenylether	7005-72-3	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	4-Methylphenol	106-44-5	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	4-Nitroaniline	100-01-6	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	4-Nitrophenol	100-02-7	8270C	ug/kg		530	U	530	U	--	530	U	530	U	--	600	U	600	U	--	580	U	570	U	--
Semivolatiles	Acenaphthene	83-32-9	8270C SIM	ug/kg		37	J	8.9	UJ	200.00	1.8	U	1.8	U	--	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Semivolatiles	Acenaphthylene	208-96-8	8270C SIM	ug/kg		8.9	U	8.9	U	--	1.8	U	1.8	U	--	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Semivolatiles	Aniline	62-53-3	8270C	ug/kg		530	U	530	U	--	530	U	530	U	--	600	U	600	U	--	580	U	570	U	--
Semivolatiles	Anthracene	120-12-7	8270C SIM	ug/kg		89	J	8.9	UJ	200.00	1.8	U	1.8	U	--	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Semivolatiles	Benzidine	92-87-5	8270C	ug/kg		3500	U	3500	R	--	3500	U	3500	R	--	4000	U	4000	U	--	3900	U	3800	U	--
Semivolatiles	Benzo(a)anthracene	56-55-3	8270C	ug/kg																					
Semivolatiles	Benzo(a)anthracene	56-55-3	8270C SIM	ug/kg		390	J	8.9	UJ	200.00	0.79	J	1.4	J	-55.71	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Semivolatiles	Benzo(a)pyrene	50-32-8	8270C	ug/kg																					
Semivolatiles	Benzo(a)pyrene	50-32-8	8270C SIM	ug/kg		340	J	3.6	J	195.81	0.94	J	1.8	J	-62.77	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Semivolatiles	Benzo(b)fluoranthene	205-99-2	8270C	ug/kg																					
Semivolatiles	Benzo(b)fluoranthene	205-99-2	8270C SIM	ug/kg		570	J	8.1	J	194.40	2.0	J	2.6	J	-26.09	0.97	J	2.0	UJ	200.00	1.9	U	1.9	U	--
Semivolatiles	Benzo(g,h,i)perylene	191-24-2	8270C	ug/kg																					
Semivolatiles	Benzo(g,h,i)perylene	191-24-2	8270C SIM	ug/kg		87	J	4.2	J	181.58	0.97	J	1.8	J	-59.93	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Semivolatiles	Benzo(k)fluoranthene	207-08-9	8270C	ug/kg																					
Semivolatiles	Benzo(k)fluoranthene	207-08-9	8270C SIM	ug/kg		320	J	8.9	UJ	200.00	0.75	J	0.75	J	--	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Semivolatiles	Benzoic Acid	65-85-0	8270C	ug/kg		530	U	530	U	--	530	U	530	U	--	600	U	600	U	--	580	U	570	U	--
Semivolatiles	Benzyl Alcohol	100-51-6	8270C	ug/kg		530	U	530	U	--	530	U	530	U	--	600	U	600	U	--	580	U	570	U	--
Semivolatiles	Bis(2-Chloroethoxy) methane	111-91-1	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	Bis(2-Chloroethyl) ether	111-44-4	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	bis(2-Chloroisopropyl) ether	39638-32-9	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	Bis(2-Ethylhexyl) phthalate	117-81-7	8270C	ug/kg		40	J	28	J	35.29	57	J				400	U								
Semivolatiles	Bis(2-Ethylhexyl) phthalate	117-81-7	8270C SIM	ug/kg									56					21	U		21	U	20	U	--
Semivolatiles	Butylbenzylphthalate	85-68-7	8270C	ug/kg		180	U	180	U	--															
Semivolatiles	Butylbenzylphthalate	85-68-7	8270C SIM	ug/kg							13	J	19	UJ	-37.50	22	U	21	U	4.65	21	U	20	U	--
Semivolatiles	Carbazole	86-74-8	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	Chrysene	218-01-9	8270C	ug/kg																					
Semivolatiles	Chrysene	218-01-9	8270C SIM	ug/kg		480	J	6.9	J	194.33	1.4	J	2.2		-44.44	0.74	J	2.0	UJ	200.00	1.9	U	1.9	U	--
Semivolatiles	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	ug/kg		43	J	8.9	UJ	200.00	1.8	U	1.8	U	--	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Semivolatiles	Dibenzofuran	132-64-9	8270C	ug/kg		180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	Diethylphthalate	84-66-2	8270C	ug/kg		180	U	180	U	--															
Semivolatiles	Diethylphthalate	84-66-2	8270C SIM	ug/kg							19	UJ	8.9	J	200.00	22	U	21	U	4.65	21	U	20	U	--
Semivolatiles	Dimethylphthalate	131-11-3	8270C	ug/kg		180	U	180	U	--															
Semivolatiles	Dimethylphthalate	131-11-3	8270C SIM	ug/kg							19	U	19	U	--	22	U	21	U	4.65	21	U	20	U	--
Semivolatiles	Di-n-Butylphthalate	84-74-2	8270C	ug/kg		38	J	180	UJ	200.00															
Semivolatiles	Di-n-Butylphthalate	84-74-2	8270C SIM	ug/kg							19	U	19	U	--	22	U	21	U	4.65	21	U	20	U	--
Semivolatiles	Di-N-Octyl Phthalate	117-84-0	8270C	ug/kg		180	U	180	U	--															
Semivolatiles	Di-N-Octyl Phthalate	117-84-0	8270C SIM	ug/kg							19	UJ	19	UJ	--	9.5	J	9.1	J	4.30	8.9	J	9.0	J	-1.12
Semivolatiles	Fluoranthene	206-44-0	8270C	ug/kg																					
Semivolatiles	Fluoranthene	206-44-0	8270C SIM	ug/kg		1000	J	9.5	J	196.24	1.6	J	2.3		-35.90	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Semivolatiles	Fluorene	86-73-7	8270C SIM	ug/kg		41	J	8.9	UJ	200.00	1.8	U	1.8	U	--	2.0	U	2.0	U	--	1.9	U	1.9	U	--

Table C-7 - Subarea 8 North Field Duplicate results

					Location	SL-120-SA8N		SL-120-SA8N			SL-119-SA8N		SL-119-SA8N			SL-040-SA8N		SL-040-SA8N			SL-018-SA8N		SL-018-SA8N		
					Sample Name:	DUP05-SA8N-QC-042011		SL-120-SA8N-SS-0.0-0.5			DUP06-SA8N-QC-042111		SL-119-SA8N-SS-0.0-0.5			DUP06-SA8N-QC-042911		SL-040-SA8N-SB-4.0-5.0			DUP07-SA8N-QC-050311		SL-018-SA8N-SB-4.0-5.0		
					Sample Date	04/20/2011		04/20/2011			04/21/2011		04/21/2011			04/29/2011		04/29/2011			05/03/2011		05/03/2011		
					Start Depth:	0		0			0		0			0		4			4		4		
					End Depth:	0.5		0.5			0.5		0.5			0.5		5			5		5		
					Area:	8N		8N			8N		8N			8N		8N			8N		8N		
					Matrix:	SO		SO			SO		SO			SO		SO			SO		SO		
					Sample Type:	FD		N			FD		N			FD		N			FD		N		
Semivolatiles	Hexachlorobenzene	118-74-1	8270C	ug/kg	180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	Hexachlorobutadiene	87-68-3	8270C	ug/kg	180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	Hexachlorocyclopentadiene	77-47-4	8270C	ug/kg	530	U	530	U	--	530	U	530	U	--	600	U	600	U	--	580	U	570	U	--
Semivolatiles	Hexachloroethane	67-72-1	8270C	ug/kg	180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	Indeno(1,2,3-Cd)Pyrene	193-39-5	8270C	ug/kg																				
Semivolatiles	Indeno(1,2,3-Cd)Pyrene	193-39-5	8270C SIM	ug/kg	120	J	8.9	UJ	200.00	1.8	UJ	1.0	J	200.00	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Semivolatiles	Isophorone	78-59-1	8270C	ug/kg	180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	Naphthalene	91-20-3	8270C SIM	ug/kg	7.6	J	8.9	UJ	200.00	1.8	U	1.8	U	--	0.83	J	2.0	UJ	200.00	1.9	U	1.9	U	--
Semivolatiles	Nitrobenzene	98-95-3	8270C	ug/kg	180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	N-Nitrosodimethylamine	62-75-9	1625C	ng/kg	58.8	J	149	J	-86.81			101	J											
Semivolatiles	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	8.9	U	8.9	U	--	1.8	U	1.8	U	--	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Semivolatiles	N-Nitroso-Di-N-Propylamine	621-64-7	8270C	ug/kg	180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	N-Nitrosodiphenylamine	86-30-6	8270C	ug/kg	180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	Pentachlorophenol	87-86-5	8270C	ug/kg	530	U	530	U	--	530	U	530	U	--	600	U	600	U	--	580	U	570	U	1.74
Semivolatiles	Phenanthrene	85-01-8	8270C	ug/kg																				
Semivolatiles	Phenanthrene	85-01-8	8270C SIM	ug/kg	630	J	5.4	J	196.60	0.87	J	1.4	J	-46.70	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Semivolatiles	Phenol	108-95-2	8270C	ug/kg	180	U	180	U	--	180	U	180	U	--	200	U	200	U	--	190	U	190	U	--
Semivolatiles	Pyrene	129-00-0	8270C	ug/kg																				
Semivolatiles	Pyrene	129-00-0	8270C SIM	ug/kg	630	J	6.6	J	195.85	1.3	J	1.7	J	-26.67	2.0	U	2.0	U	--	1.9	U	1.9	U	--
Volatiles	1,1,1,2-Tetrachloroethane	630-20-6	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,1,1-Trichloroethane	71-55-6	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,1,2,2-Tetrachloroethane	79-34-5	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,1,2-Trichloroethane	79-00-5	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,1-Dichloroethane	75-34-3	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,1-Dichloroethene	75-35-4	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,1-Dichloropropene	563-58-6	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,2,3-Trichlorobenzene	87-61-6	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,2,3-Trichloropropane	96-18-4	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,2,4-Trichlorobenzene	120-82-1	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,2,4-Trimethylbenzene	95-63-6	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,2-Dibromo-3-chloropropane	96-12-8	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,2-Dibromoethane	106-93-4	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,2-Dichlorobenzene	95-50-1	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,2-Dichloroethane	107-06-2	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,2-Dichloropropane	78-87-5	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,3,5-Trimethylbenzene	108-67-8	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,3-Dichlorobenzene	541-73-1	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,3-Dichloropropane	142-28-9	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,4-Dichlorobenzene	106-46-7	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	1,4-Dioxane	123-91-1	8260B SIM	ug/kg											14	U	15	U	--	15	U	14	U	--
Volatiles	2,2-Dichloropropane	594-20-7	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	2-Butanone	78-93-3	8260B	ug/kg											8.2	U	10	U	--	7.9	U	8.4	U	--
Volatiles	2-Chloroethyl Vinyl Ether	110-75-8	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	2-Chlorotoluene	95-49-8	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	2-Hexanone	591-78-6	8260B	ug/kg											8.2	U	10	U	--	7.9	U	8.4	U	--
Volatiles	4-Chlorotoluene	106-43-4	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	4-Methyl-2-Pentanone	108-10-1	8260B	ug/kg											8.2	U	10	U	--	7.9	U	8.4	U	--
Volatiles	Acetone	67-64-1	8260B	ug/kg											8.2	UJ	10	UJ	--	7.9	U	8.4	U	--
Volatiles	Benzene	71-43-2	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Bromobenzene	108-86-1	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Bromochloromethane	74-97-5	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Bromodichloromethane	75-27-4	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Bromoform	75-25-2	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Bromomethane	74-83-9	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Carbon tetrachloride	56-23-5	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Chlorobenzene	108-90-7	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Chloroethane	75-00-3	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Chloroform	67-66-3	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Chloromethane	74-87-3	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Chlorotrifluoroethene	79-38-9	8260B	ug/kg											5.1	U	6.2	U	--	4.9	U	5.2	U	--
Volatiles	cis-1,2-Dichloroethene	156-59-2	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	cis-1,3-Dichloropropene	10061-01-5	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Dibromochloromethane	124-48-1	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Dibromomethane	74-95-3	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Dichlorodifluoromethane	75-71-8	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	26	U	13	U	--			1.3	U		1.4	U	1.4	U	--					
Volatiles	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	26	U	13	U	--			2.8	J		1.4	U	1.4	U	--					
Volatiles	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	62		48		25.45			12			1.4	UJ	1.7	J	200.00					
Volatiles	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	240		200		18.18			30			0.96	J	4.0	J	-122.58					
Volatiles	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	26	U	13	U	--			1.3	U		1.4	U	1.4	U	--					
Volatiles	Ethylbenzene	100-41-4	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Freon 113	76-13-1	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Freon 113a	75-88-7	8260B	ug/kg											5.1	U	6.2	U	--	4.9	U	5.2	U	--
Volatiles	GRO (C5-C12)	GROC5C12	8015M	mg/kg											1.0	U	1.0	U	--					
Volatiles	Hexachlorobutadiene	87-68-3	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Isopropylbenzene	98-82-8	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Isopropyltoluene	99-87-6	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	m,p-Xylene	179601-23-1	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Methyl tert-Butyl Ether	1634-04-4	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	Methylene chloride	75-09-2	8260B	ug/kg											22		14	J	44.44	10		12		-18.18
Volatiles	N-Butylbenzene	104-51-8	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	N-Propylbenzene	103-65-1	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--
Volatiles	o-Xylene	95-47-6	8260B	ug/kg											4.1	U	5.0	U	--	3.9	U	4.2	U	--

Table C-7 - Subarea 8 North Field Duplicate results

					Location	SL-120-SA8N	SL-120-SA8N		SL-119-SA8N	SL-119-SA8N		SL-040-SA8N	SL-040-SA8N		SL-018-SA8N	SL-018-SA8N	
					Sample Name:	DUP05-SA8N-QC-042011	SL-120-SA8N-SS-0.0-0.5		DUP06-SA8N-QC-042111	SL-119-SA8N-SS-0.0-0.5		DUP06-SA8N-QC-042911	SL-040-SA8N-SB-4.0-5.0		DUP07-SA8N-QC-050311	SL-018-SA8N-SB-4.0-5.0	
					Sample Date	04/20/2011	04/20/2011		04/21/2011	04/21/2011		04/29/2011	04/29/2011		05/03/2011	05/03/2011	
					Start Depth:	0	0	RPD	0	0	RPD	0	4	RPD	4	4	RPD
					End Depth:	0.5	0.5		0.5	0.5		0.5	5		5	5	
					Area:	8N	8N		8N	8N		8N	8N		8N	8N	
					Matrix:	SO	SO		SO	SO		SO	SO		SO	SO	
					Sample Type:	FD	N		FD	N		FD	N		FD	N	
Volatiles	sec-Butylbenzene	135-98-8	8260B	ug/kg								4.1 U	5.0 U	--	3.9 U	4.2 U	--
Volatiles	Styrene	100-42-5	8260B	ug/kg								4.1 U	5.0 U	--	3.9 U	4.2 U	--
Volatiles	tert-Butylbenzene	98-06-6	8260B	ug/kg								4.1 U	5.0 U	--	3.9 U	4.2 U	--
Volatiles	Tetrachloroethene	127-18-4	8260B	ug/kg								4.1 U	5.0 U	--	3.9 U	4.2 U	--
Volatiles	Toluene	108-88-3	8260B	ug/kg								4.1 U	5.0 U	--	3.9 UJ	4.2 UJ	--
Volatiles	trans-1,2-Dichloroethene	156-60-5	8260B	ug/kg								4.1 U	5.0 U	--	3.9 U	4.2 U	--
Volatiles	trans-1,3-Dichloropropene	10061-02-6	8260B	ug/kg								4.1 U	5.0 U	--	3.9 U	4.2 U	--
Volatiles	Trichloroethene	79-01-6	8260B	ug/kg								4.1 U	5.0 U	--	3.9 U	4.2 U	--
Volatiles	Trichlorofluoromethane	75-69-4	8260B	ug/kg								4.1 U	5.0 U	--	3.9 U	4.2 U	--
Volatiles	Vinyl Chloride	75-01-4	8260B	ug/kg								4.1 U	5.0 U	--	3.9 U	4.2 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-7 - Subarea 8 North Field Duplicate results

				Location	SL-141-SA8N		SL-141-SA8N			SL-002-SA8N		SL-002-SA8N			SL-076-SA8N		SL-076-SA8N		
				Sample Name:	DUP08-SA8N-QC-050911		SL-141-SA8N-SB-4.0-5.0		RPD	DUP09-SA8N-QC-052611		SL-002-SA8N-SB-4.0-5.0		RPD	DUP10-SA8N-QC-060811		SL-076-SA8N-SB-4.0-5.0		RPD
				Sample Date	05/09/2011		05/09/2011			05/26/2011		05/26/2011			06/08/2011		06/08/2011		
				Start Depth:	4		4			4		4			4		4		
				End Depth:	5		5			5		5			5		5		
				Area:	8N		8N			8N		8N			8N		8N		
				Matrix:	SO		SO			SO		SO			SO		SO		
				Sample Type:	FD		N			FD		N			FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit															
Inorganic	Aluminum	7429-90-5	6010B	mg/kg	23200		22300		3.96	28700		28300		1.40	24700		24500		0.81
Inorganic	Antimony	7440-36-0	6020	mg/kg	0.323	J	0.236	J	31.13	0.129	J	0.140	J	-8.18	0.201	J	0.275	J	-31.09
Inorganic	Arsenic	7440-38-2	6020	mg/kg	6.87	J	6.00	J	13.52	6.89	J	6.98	J	-1.30	11.5	J	9.52	J	18.84
Inorganic	Barium	7440-39-3	6020	mg/kg	113	J	92.9	J	19.52	129	J	113	J	13.22	165		119		32.39
Inorganic	Beryllium	7440-41-7	6020	mg/kg	0.716	J	0.594	J	18.63	0.889		0.842		5.43	1.07	J	0.872	J	20.39
Inorganic	Boron	7440-42-8	6010B	mg/kg	8.47		7.50		12.15	10.8		11.3		-4.52	4.54	J	4.48	J	1.33
Inorganic	Cadmium	7440-43-9	6020	mg/kg	0.147		0.162		-9.71	0.284		0.229		21.44	0.113	J	0.0781	J	36.53
Inorganic	Calcium	7440-70-2	6010B	mg/kg	26500	J	30800	J	-15.01	10100		14300		-34.43	2430		2430		--
Inorganic	Chromium	7440-47-3	6020	mg/kg	33.1	J	27.7	J	17.76	33.6	J	31.8	J	5.50	22.3	J	18.8	J	17.03
Inorganic	Chromium VI	18540-29-9	7199	mg/kg	1.2	U	1.2	U	--	0.38	J	0.49	J	-25.29	0.48	J	0.51	J	-6.06
Inorganic	Cobalt	7440-48-4	6020	mg/kg	11.2	J	9.29	J	18.64	13.6		10.6		24.79	8.70	J	6.63	J	27.01
Inorganic	Copper	7440-50-8	6020	mg/kg	17.4	J	14.7	J	16.82	18.5		16.9		9.04	12.6	J	10.2	J	21.05
Inorganic	Cyanide	57-12-5	9012B	mg/kg	0.57	U	0.58	U	-1.74						0.56	U	0.54	U	3.64
Inorganic	Fluoride	16984-48-8	300.0	mg/kg	1.9	J	3.5	J	-59.26	4.3	J	4.6	J	-6.74	2.6	J	2.5	J	3.92
Inorganic	Iron	7439-89-6	6010B	mg/kg	31500		30800		2.25	36000		35600		1.12	23100		23200		-0.43
Inorganic	Lead	7439-92-1	6020	mg/kg	9.52	J	7.39	J	25.19	11.7	J	10.2	J	13.70	9.71	J	7.66	J	23.60
Inorganic	Lithium	7439-93-2	6010B	mg/kg	33.3		32.1		3.67	27.3		26.0		4.88	31.4		31.3		0.32
Inorganic	Magnesium	7439-95-4	6010B	mg/kg	7900		7970		-0.88	8080		7900		2.25	4370		4360		0.23
Inorganic	Manganese	7439-96-5	6010B	mg/kg	379		362		4.59	303		430		-34.65	230	J	280	J	-19.61
Inorganic	Mercury	7439-97-6	7471A	mg/kg	0.112	U	0.118	U	--	0.111	U	0.118	U	--	0.110	U	0.107	U	--
Inorganic	Molybdenum	7439-98-7	6020	mg/kg	0.424		0.398		6.33	0.396		0.327		19.09	1.45	J	1.18	J	20.53
Inorganic	Nickel	7440-02-0	6020	mg/kg	19.5	J	16.9	J	14.29	28.5	J	23.0	J	21.36	20.0	J	16.0	J	22.22
Inorganic	Nitrate	14797-55-8	300.0	mg/kg	9.8	J	2.0	J	132.20						2.0	J	1.5	J	28.57
Inorganic	Percent Moisture	MOIST	160.3M	%	15.2		16.8		-10.00			16.3			11.6		11.4		1.74
Inorganic	Perchlorate	14797-73-0	314.0	ug/kg	35.4	U	36.1	U	--	35.4	U	35.8	U	--	33.9	U	33.9	U	--
Inorganic	pH	pH	9045M	pH unit	7.91		8.05		-1.75	8.15		8.19		-0.49	6.87		6.90		-0.44
Inorganic	Phosphorus	7723-14-0	6010B	mg/kg	639		647		-1.24	294		299		-1.69	240		238		0.84
Inorganic	Potassium	7440-09-7	6010B	mg/kg	6140		5720		7.08	3730	J	3770	J	-1.07	2150		2160		-0.46
Inorganic	Selenium	7782-49-2	6020	mg/kg	0.282	J	0.289	J	-2.45	0.140	J	0.147	J	-4.88	0.128	J	0.127	J	0.78
Inorganic	Silver	7440-22-4	6020	mg/kg	0.0342	J	0.0290	J	16.46	0.0304	J	0.0264	J	14.08	0.0883	J	0.0697	J	23.54
Inorganic	Sodium	7440-23-5	6010B	mg/kg	265		303		-13.38	124		119		4.12	134		122		9.38
Inorganic	Strontium	7440-24-6	6010B	mg/kg	59.8		58.4		2.37	50.0		51.1		-2.18	16.9		16.8		0.59
Inorganic	Thallium	7440-28-0	6020	mg/kg	0.364		0.281		25.74	0.378		0.334		12.36	0.406	J	0.333	J	19.76
Inorganic	Tin	7440-31-5	6010B	mg/kg	11.3	U	11.9	U	-5.17	11.6	U	11.9	U	--	11.0	U	11.1	U	-0.90
Inorganic	Titanium	7440-32-6	6010B	mg/kg	1440		1350		6.45	1380		1460		-5.63	1190		1210		-1.67
Inorganic	Vanadium	7440-62-2	6020	mg/kg	75.2	J	62.3	J	18.76	68.6	J	63.9	J	7.09	49.0	J	40.1	J	19.98
Inorganic	Zinc	7440-66-6	6020	mg/kg	78.9	J	69.4	J	12.81	78.9		70.3		11.53	85.1		62.6		30.47
Inorganic	Zirconium	7440-67-7	6010B	mg/kg	6.58		5.89	J	11.07	3.92	J	4.41	J	-11.76	3.14	J	3.47	J	-9.98
Misc. Organics	1,3,5-Trinitrobenzene	99-35-4	8330A	ug/kg	140	U	140	UJ	--						130	U	130	UJ	--
Misc. Organics	2,4,6-Trinitrotoluene	118-96-7	8330A	ug/kg	140	U	140	UJ	--						130	U	130	U	--
Misc. Organics	2,4-Diamino-6-nitrotoluene	6629-29-4	8330A	ug/kg	280	U	280	U	--						250	U	270	U	--
Misc. Organics	2,4-Dinitrotoluene	121-14-2	8330A	ug/kg	140	U	140	UJ	--						130	U	130	U	--
Misc. Organics	2,6-Diamino-4-nitrotoluene	59229-75-3	8330A	ug/kg	280	U	280	U	--						250	U	270	U	--
Misc. Organics	2,6-Dinitrotoluene	606-20-2	8330A	ug/kg	140	U	140	UJ	--						130	U	130	U	--
Misc. Organics	2-Amino-4,6-Dinitrotoluene	35572-78-2	8330A	ug/kg	140	U	140	UJ	--						130	U	130	U	--
Misc. Organics	2-Nitrotoluene	88-72-2	8330A	ug/kg	140	U	140	UJ	--						130	U	130	U	--
Misc. Organics	2-Propanol	67-63-0	8015B	ug/kg	590	U	600	U	--						570	U	560	U	--
Misc. Organics	3-Nitrotoluene	99-08-1	8330A	ug/kg	140	U	140	U	--						130	U	130	U	--
Misc. Organics	4-Amino-2,6-Dinitrotoluene	19406-51-0	8330A	ug/kg	140	U	140	UJ	--						130	U	130	U	--
Misc. Organics	4-Nitrotoluene	99-99-0	8330A	ug/kg	140	U	140	UJ	--						130	U	130	U	--
Misc. Organics	Diethylene Glycol	111-46-6	8015M	mg/kg	12	U	12	UJ	--	12	U	12	UJ	--	11	U	11	UJ	--
Misc. Organics	Ethanol	64-17-5	8015B	ug/kg	590	U	600	U	--						570	U	560	U	--
Misc. Organics	Ethylene Glycol	107-21-1	8015M	mg/kg	12	U	12	UJ	--	12	U	12	U	--	11	U	11	UJ	--
Misc. Organics	Formaldehyde	50-00-0	8315A	ug/kg	1800	U	1800	U	--						1700	U	1700	U	--
Misc. Organics	HMX	2691-41-0	8330A	ug/kg	350	U	350	UJ	--						310	U	330	U	--
Misc. Organics	m-Dinitrobenzene	99-65-0	8330A	ug/kg	140	U	140	U	--						130	U	130	U	--
Misc. Organics	Methanol	67-56-1	8015B	ug/kg	590	U	600	U	--						570	U	560	U	--
Misc. Organics	m-Terphenyl	92-06-8	8015B	mg/kg	4.1	U	4.2	U	--						4.0	U	4.0	UJ	--
Misc. Organics	Nitrobenzene	98-95-3	8330A	ug/kg	140	U	140	U	--						130	U	130	U	--
Misc. Organics	Nitroglycerin	55-63-0	8330A	ug/kg	2800	U	2800	UJ	--						2500	U	2700	U	--
Misc. Organics	o-Terphenyl	84-15-1	8015B	mg/kg	4.1	U	4.2	U	--						4.0	U	4.0	U	--
Misc. Organics	PETN	78-11-5	8330A	ug/kg	2800	U	2800	U	--						2500	U	2700	U	--
Misc. Organics	Propylene glycol	57-55-6	8015M	mg/kg	12	U	12	UJ	--	12	U	12	U	--	11	U	11	UJ	--
Misc. Organics	p-Terphenyl	92-94-4	8015B	mg/kg	4.1	U	4.2	U	--						4.0	U	4.0	U	--
Misc. Organics	RDX	121-82-4	8330A	ug/kg	140	U	140	UJ	--						130	U	130	U	--
Misc. Organics	Tetryl	479-45-8	8330A	ug/kg	140	U	140	U	--						130	U	130	U	--
PCBs and Dioxins	1,2,3,4,6,7,8-HpCDD	35822-46-9	1613B	ng/kg	3.05	J	5.95	UJ	200.00	5.86	UJ	5.87	UJ	--	5.53	U	5.54	U	--
PCBs and Dioxins	1,2,3,4,6,7,8-HpCDF	67562-39-4	1613B	ng/kg	5.78	U	5.95	U	--	5.86	UJ	5.87	UJ	--	5.53	U	5.54	U	--
PCBs and Dioxins	1,2,3,4,7,8,9-HpCDF	55673-89-7	1613B	ng/kg	5.78	UJ	5.95	UJ	--	5.86	U	5.87	U	--	5.53	U	5.54	U	--
PCBs and Dioxins	1,2,3,4,7,8-HxCDD	39227-28-6	1613B	ng/kg	5.78	UJ	0.168	J	200.00	5.86	UJ	5.87	UJ	--	5.53	UJ	5.54	UJ	--
PCBs and Dioxins	1,2,3,4,7,8-HxCDF	70648-26-9	1613B	ng/kg	5.78	U	5.95	U	--	5.86	U	5.87	U	--	0.550	J	0.593	J	-7.52
PCBs and Dioxins	1,2,3,6,7,8-HxCDD	57653-85-7	1613B	ng/kg	5.78	U	5.95	U	--	5.86	U	5.87	U	--	5.53	U	5.54	U	--
PCBs and Dioxins	1,2,3,6,7,8-HxCDF	57117-44-9	1613B	ng/kg	5.78	U	0.192	J	187.14	5.86	U	5.87	U	--	5.53	UJ	0.0805	J	200.00
PCBs and Dioxins	1,2,3,7,8,9-HxCDD	19408-74-3	1613B	ng/kg	0.268	J	0.336	J	-22.52	5.86	UJ	5.87	UJ	--	5.53	U	5.54	U	--
PCBs and Dioxins	1,2,3,7,8,9-HxCDF	72918-21-9	1613B	ng/kg	5.78	U	5.95	U	--	5.86	U	5.87	U	--	5.53	U	5.54	U	--
PCBs and Dioxins	1,2,3,7,8-PeCDD	40321-76-4	1613B	ng/kg	0.201	J	0.332	J	-49.16	5.86	U	5.87	U	--	5.53	UJ	0.0871	J	200.00
PCBs and Dioxins	1,2,3,7,8-PeCDF	57117-41-6	1613B	ng/kg	5.78	U	5.95	U	--	5.86	U	5.87	U	--	1.96	J	0.167	J	168.59
PCBs and Dioxins	2,3,4,6,7,8-HxCDF	60851-34-5	1613B	ng/kg	5.78	U	5.95	U	--	5.86	UJ	5.87	UJ	--	5.53	UJ	5.54	UJ	--
PCBs and Dioxins	2,3,4,7,8-PeCDF	57117-31-4	1613B	ng/kg	5.78	UJ	5.95	UJ	--	5.86	U	5.87	U	--	5.53	UJ	0.369	J	200.00
PCBs and Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.16	U	1.19	U	--	1.17	UJ	1.17	UJ	--	1.11	UJ	1.11	UJ	--
PCBs and Dioxins	2,3,7,8-TCDF	51207-31-9	1613B	ng/kg	0.0244	J	0.0838	J	-109.80	1.17	UJ	0.0368	J	200.00	0.514	J	0.118	J	125.32
PCBs and Dioxins	Aroclor 1016	12674-11-2	8082	ug/kg	2.0	U	2.0	U	--	2.0	U	2.0	U	--	1.9	UJ	1.9	UJ	--

Table C-7 - Subarea 8 North Field Duplicate results

					Location	SL-141-SA8N	SL-141-SA8N	RPD	SL-002-SA8N	SL-002-SA8N	RPD	SL-076-SA8N	SL-076-SA8N	RPD
					Sample Name:	DUP08-SA8N-QC-050911	SL-141-SA8N-SB-4.0-5.0		DUP09-SA8N-QC-052611	SL-002-SA8N-SB-4.0-5.0		DUP10-SA8N-QC-060811	SL-076-SA8N-SB-4.0-5.0	
					Sample Date	05/09/2011	05/09/2011		05/26/2011	05/26/2011		06/08/2011	06/08/2011	
					Start Depth:	4	4		4	4		4	4	
					End Depth:	5	5		5	5		5	5	
					Area:	8N	8N		8N	8N		8N	8N	
					Matrix:	SO	SO		SO	SO		SO	SO	
					Sample Type:	FD	N		FD	N		FD	N	
PCBs and Dioxins	Aroclor 1221	11104-28-2	8082	ug/kg	2.0 U	2.0 U	--	2.0 U	2.0 U	--	1.9 UJ	1.9 UJ	--
PCBs and Dioxins	Aroclor 1232	11141-16-5	8082	ug/kg	2.0 U	2.0 U	--	2.0 U	2.0 U	--	1.9 UJ	1.9 UJ	--
PCBs and Dioxins	Aroclor 1242	53469-21-9	8082	ug/kg	2.0 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
PCBs and Dioxins	Aroclor 1248	12672-29-6	8082	ug/kg	2.0 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
PCBs and Dioxins	Aroclor 1254	11097-69-1	8082	ug/kg	2.0 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
PCBs and Dioxins	Aroclor 1260	11096-82-5	8082	ug/kg	2.0 U	2.0 U	--	2.0 U	2.0 U	--	2.4	3.4 J	-34.48
PCBs and Dioxins	Aroclor 1262	37324-23-5	8082	ug/kg	2.0 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
PCBs and Dioxins	Aroclor 1268	11100-14-4	8082	ug/kg	2.0 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
PCBs and Dioxins	Aroclor 5432	63496-31-1	8082	ug/kg	3.9 U	4.0 U	--	3.9 U	3.9 U	--	3.7 U	3.7 U	--
PCBs and Dioxins	Aroclor 5442	12642-23-8	8082	ug/kg	3.9 U	4.0 U	--	3.9 U	3.9 U	--	3.7 U	3.7 U	--
PCBs and Dioxins	Aroclor 5460	11126-42-4	8082	ug/kg	3.9 U	4.0 U	--	3.9 U	3.9 U	--	3.7 UJ	3.7 UJ	--
PCBs and Dioxins	OCDD	3268-87-9	1613B	ng/kg	49.0 J	6.16 J	155.33	11.7 UJ	11.7 UJ	--	16.0	12.7	23.00
PCBs and Dioxins	OCDF	39001-02-0	1613B	ng/kg	11.6 U	11.9 U	--	11.7 U	11.7 U	--	11.1 U	11.1 U	--
Semivolatiles	1,2,4-Trichlorobenzene	120-82-1	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	1,2-Dichlorobenzene	95-50-1	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 UJ	190 UJ	--
Semivolatiles	1,2-Diphenylhydrazine	122-66-7	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	1,3-Dichlorobenzene	541-73-1	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	1,4-Dichlorobenzene	106-46-7	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 UJ	--
Semivolatiles	1-Methylnaphthalene	90-12-0	8270C SIM	ug/kg	1.9 U	2.0 UJ	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Semivolatiles	2,4,5-Trichlorophenol	95-95-4	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 UJ	--
Semivolatiles	2,4,6-Trichlorophenol	88-06-2	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	2,4-Dichlorophenol	120-83-2	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 UJ	--
Semivolatiles	2,4-Dimethylphenol	105-67-9	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 UJ	--
Semivolatiles	2,4-Dinitrophenol	51-28-5	8270C	ug/kg	1200 U	1200 UJ	--	1200 U	1200 U	--	1100 U	1100 U	--
Semivolatiles	2,4-Dinitrotoluene	121-14-2	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 UJ	--
Semivolatiles	2,6-Dinitrotoluene	606-20-2	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	2-Chloronaphthalene	91-58-7	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	2-Chlorophenol	95-57-8	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 UJ	--
Semivolatiles	2-Methylnaphthalene	91-57-6	8270C SIM	ug/kg	1.9 U	2.0 UJ	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Semivolatiles	2-Methylphenol	95-48-7	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 UJ	--
Semivolatiles	2-Nitroaniline	88-74-4	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	2-Nitrophenol	88-75-5	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 UJ	190 UJ	--
Semivolatiles	3,3`-Dichlorobenzidine	91-94-1	8270C	ug/kg	390 U	400 U	--	390 U	400 U	--	380 U	370 U	--
Semivolatiles	3,5-Dimethylphenol	108-68-9	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	3-Nitroaniline	99-09-2	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	4,6-Dinitro-2-Methylphenol	534-52-1	8270C	ug/kg	590 U	600 U	--	590 U	600 U	--	560 U	560 U	--
Semivolatiles	4-Bromophenyl Phenyl Ether	101-55-3	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	4-Chloro-3-Methylphenol	59-50-7	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 UJ	--
Semivolatiles	4-Chloroaniline	106-47-8	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	4-Chlorophenyl Phenylether	7005-72-3	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 UJ	--
Semivolatiles	4-Methylphenol	106-44-5	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 UJ	--
Semivolatiles	4-Nitroaniline	100-01-6	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	4-Nitrophenol	100-02-7	8270C	ug/kg	590 U	600 U	--	590 U	600 U	--	560 U	560 U	--
Semivolatiles	Acenaphthene	83-32-9	8270C SIM	ug/kg	1.9 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Semivolatiles	Acenaphthylene	208-96-8	8270C SIM	ug/kg	1.9 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Semivolatiles	Aniline	62-53-3	8270C	ug/kg	590 U	600 U	--	590 U	600 U	--	560 U	560 U	--
Semivolatiles	Anthracene	120-12-7	8270C SIM	ug/kg	1.9 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Semivolatiles	Benzidine	92-87-5	8270C	ug/kg	3900 U	4000 U	--	3900 U	4000 U	--	3800 U	3700 R	--
Semivolatiles	Benzo(a)anthracene	56-55-3	8270C	ug/kg									
Semivolatiles	Benzo(a)anthracene	56-55-3	8270C SIM	ug/kg	1.9 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Semivolatiles	Benzo(a)pyrene	50-32-8	8270C	ug/kg									
Semivolatiles	Benzo(a)pyrene	50-32-8	8270C SIM	ug/kg	1.9 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Semivolatiles	Benzo(b)fluoranthene	205-99-2	8270C	ug/kg									
Semivolatiles	Benzo(b)fluoranthene	205-99-2	8270C SIM	ug/kg	1.9 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Semivolatiles	Benzo(g,h,i)perylene	191-24-2	8270C	ug/kg									
Semivolatiles	Benzo(g,h,i)perylene	191-24-2	8270C SIM	ug/kg	1.9 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Semivolatiles	Benzo(k)fluoranthene	207-08-9	8270C	ug/kg									
Semivolatiles	Benzo(k)fluoranthene	207-08-9	8270C SIM	ug/kg	1.9 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Semivolatiles	Benzoic Acid	65-85-0	8270C	ug/kg	590 U	600 U	--	590 U	600 U	--	560 U	560 U	--
Semivolatiles	Benzyl Alcohol	100-51-6	8270C	ug/kg	590 U	600 U	--	590 U	600 U	--	560 U	560 UJ	--
Semivolatiles	Bis(2-Chloroethoxy) methane	111-91-1	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 UJ	--
Semivolatiles	Bis(2-Chloroethyl) ether	111-44-4	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	bis(2-Chloroisopropyl) ether	39638-32-9	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	Bis(2-Ethylhexyl) phthalate	117-81-7	8270C	ug/kg							380 UJ	370 UJ	--
Semivolatiles	Bis(2-Ethylhexyl) phthalate	117-81-7	8270C SIM	ug/kg	21 U	21 U	--	12 J	22 UJ	200.00			
Semivolatiles	Butylbenzylphthalate	85-68-7	8270C	ug/kg									
Semivolatiles	Butylbenzylphthalate	85-68-7	8270C SIM	ug/kg	21 U	21 U	--	21 U	22 U	--	20 U	20 U	--
Semivolatiles	Carbazole	86-74-8	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	Chrysene	218-01-9	8270C	ug/kg									
Semivolatiles	Chrysene	218-01-9	8270C SIM	ug/kg	1.9 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Semivolatiles	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	ug/kg	1.9 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Semivolatiles	Dibenzofuran	132-64-9	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	Diethylphthalate	84-66-2	8270C	ug/kg									
Semivolatiles	Diethylphthalate	84-66-2	8270C SIM	ug/kg	21 U	21 U	--	21 U	22 U	--	20 U	20 U	--
Semivolatiles	Dimethylphthalate	131-11-3	8270C	ug/kg									
Semivolatiles	Dimethylphthalate	131-11-3	8270C SIM	ug/kg	21 U	21 U	--	21 U	22 U	--	20 U	20 U	--
Semivolatiles	Di-n-Butylphthalate	84-74-2	8270C	ug/kg									
Semivolatiles	Di-n-Butylphthalate	84-74-2	8270C SIM	ug/kg	21 U	21 U	--	21 U	22 U	--	20 U	20 U	--
Semivolatiles	Di-N-Octyl Phthalate	117-84-0	8270C	ug/kg		200 U							
Semivolatiles	Di-N-Octyl Phthalate	117-84-0	8270C SIM	ug/kg	21 U			21 U	22 U	--	20 U	20 U	--
Semivolatiles	Fluoranthene	206-44-0	8270C	ug/kg									
Semivolatiles	Fluoranthene	206-44-0	8270C SIM	ug/kg	1.9 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Semivolatiles	Fluorene	86-73-7	8270C SIM	ug/kg	1.9 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--

Table C-7 - Subarea 8 North Field Duplicate results

					Location	SL-141-SA8N	SL-141-SA8N	RPD	SL-002-SA8N	SL-002-SA8N	RPD	SL-076-SA8N	SL-076-SA8N	RPD
					Sample Name:	DUP08-SA8N-QC-050911	SL-141-SA8N-SB-4.0-5.0		DUP09-SA8N-QC-052611	SL-002-SA8N-SB-4.0-5.0		DUP10-SA8N-QC-060811	SL-076-SA8N-SB-4.0-5.0	
					Sample Date	05/09/2011	05/09/2011		05/26/2011	05/26/2011		06/08/2011	06/08/2011	
					Start Depth:	4	4		4	4		4	4	
					End Depth:	5	5		5	5		5	5	
					Area:	8N	8N		8N	8N		8N	8N	
					Matrix:	SO	SO		SO	SO		SO	SO	
					Sample Type:	FD	N		FD	N		FD	N	
Semivolatiles	Hexachlorobenzene	118-74-1	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 UJ	--
Semivolatiles	Hexachlorobutadiene	87-68-3	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	Hexachlorocyclopentadiene	77-47-4	8270C	ug/kg	590 U	600 U	--	590 U	600 U	--	560 U	560 U	--
Semivolatiles	Hexachloroethane	67-72-1	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	Indeno(1,2,3-Cd)Pyrene	193-39-5	8270C	ug/kg									
Semivolatiles	Indeno(1,2,3-Cd)Pyrene	193-39-5	8270C SIM	ug/kg	1.9 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Semivolatiles	Isophorone	78-59-1	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	Naphthalene	91-20-3	8270C SIM	ug/kg	0.91 J	2.0 UJ	200.00	2.0 U	2.0 U	--	1.2 J	0.94 J	24.30
Semivolatiles	Nitrobenzene	98-95-3	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	N-Nitrosodimethylamine	62-75-9	1625C	ng/kg	23.5 J	401 UJ	200.00				19.3 J	37.4 UJ	200.00
Semivolatiles	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	1.9 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Semivolatiles	N-Nitroso-Di-N-Propylamine	621-64-7	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	N-Nitrosodiphenylamine	86-30-6	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 UJ	200.00
Semivolatiles	Pentachlorophenol	87-86-5	8270C	ug/kg	590 U	600 U	--	590 U	600 U	--	560 U	560 U	--
Semivolatiles	Phenanthrene	85-01-8	8270C	ug/kg									
Semivolatiles	Phenanthrene	85-01-8	8270C SIM	ug/kg	1.9 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Semivolatiles	Phenol	108-95-2	8270C	ug/kg	200 U	200 U	--	200 U	200 U	--	190 U	190 U	--
Semivolatiles	Pyrene	129-00-0	8270C	ug/kg									
Semivolatiles	Pyrene	129-00-0	8270C SIM	ug/kg	1.9 U	2.0 U	--	2.0 U	2.0 U	--	1.9 U	1.9 U	--
Volatiles	1,1,1,2-Tetrachloroethane	630-20-6	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,1,1-Trichloroethane	71-55-6	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,1,2,2-Tetrachloroethane	79-34-5	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,1,2-Trichloroethane	79-00-5	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,1-Dichloroethane	75-34-3	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,1-Dichloroethene	75-35-4	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,1-Dichloropropene	563-58-6	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,2,3-Trichlorobenzene	87-61-6	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,2,3-Trichloropropane	96-18-4	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,2,4-Trichlorobenzene	120-82-1	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,2,4-Trimethylbenzene	95-63-6	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,2-Dibromo-3-chloropropane	96-12-8	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,2-Dibromoethane	106-93-4	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,2-Dichlorobenzene	95-50-1	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,2-Dichloroethane	107-06-2	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,2-Dichloropropane	78-87-5	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,3,5-Trimethylbenzene	108-67-8	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,3-Dichlorobenzene	541-73-1	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,3-Dichloropropane	142-28-9	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,4-Dichlorobenzene	106-46-7	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	1,4-Dioxane	123-91-1	8260B SIM	ug/kg	17 U	15 U	--	17 U	17 U	--	14 U	14 U	--
Volatiles	2,2-Dichloropropane	594-20-7	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	2-Butanone	78-93-3	8260B	ug/kg	8.3 U	9.1 U	--	9.0 U	9.9 U	--	7.8 U	7.5 U	--
Volatiles	2-Chloroethyl Vinyl Ether	110-75-8	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	2-Chlorotoluene	95-49-8	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	2-Hexanone	591-78-6	8260B	ug/kg	8.3 U	9.1 U	--	9.0 U	9.9 U	--	7.8 U	7.5 U	--
Volatiles	4-Chlorotoluene	106-43-4	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	4-Methyl-2-Pentanone	108-10-1	8260B	ug/kg	8.3 U	9.1 U	--	9.0 U	9.9 U	--	7.8 U	7.5 U	--
Volatiles	Acetone	67-64-1	8260B	ug/kg	9.5 J	9.1 UJ	200.00	9.0 U	9.9 U	--	7.8 UJ	7.5 UJ	--
Volatiles	Benzene	71-43-2	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Bromobenzene	108-86-1	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Bromochloromethane	74-97-5	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Bromodichloromethane	75-27-4	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Bromoform	75-25-2	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Bromomethane	74-83-9	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Carbon tetrachloride	56-23-5	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Chlorobenzene	108-90-7	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Chloroethane	75-00-3	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Chloroform	67-66-3	8260B	ug/kg	4.2 UJ	0.16 J	200.00	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Chloromethane	74-87-3	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Chlorotrifluoroethene	79-38-9	8260B	ug/kg	5.2 U	5.7 U	--	5.6 U	6.2 U	--	4.9 U	4.7 U	--
Volatiles	cis-1,2-Dichloroethene	156-59-2	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	cis-1,3-Dichloropropene	10061-01-5	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Dibromochloromethane	124-48-1	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Dibromomethane	74-95-3	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Dichlorodifluoromethane	75-71-8	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	1.4 U	1.4 U	--				1.4 U	1.4 U	--
Volatiles	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	1.4 U	1.4 U	--				0.54 J	1.4 UJ	200.00
Volatiles	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	1.4 U	1.4 U	--				2.5	2.1 J	17.39
Volatiles	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	0.77 J	0.85 J	-9.88				5.4	4.8 J	11.76
Volatiles	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	1.4 U	1.4 U	--				1.4 U	1.4 U	--
Volatiles	Ethylbenzene	100-41-4	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Freon 113	76-13-1	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Freon 113a	75-88-7	8260B	ug/kg	5.2 U	5.7 U	--	5.6 U	6.2 U	--	4.9 U	4.7 U	--
Volatiles	GRO (C5-C12)	GROC5C12	8015M	mg/kg	1 U	1.1 U	--				1 U	0.9 U	--
Volatiles	Hexachlorobutadiene	87-68-3	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Isopropylbenzene	98-82-8	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Isopropyltoluene	99-87-6	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	m,p-Xylene	179601-23-1	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Methyl tert-Butyl Ether	1634-04-4	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Methylene chloride	75-09-2	8260B	ug/kg	20	30 J	-40.00	4.5 U	5.0 U	--	3.9 UJ	3.7 UJ	--
Volatiles	N-Butylbenzene	104-51-8	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	N-Propylbenzene	103-65-1	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	o-Xylene	95-47-6	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--

Table C-7 - Subarea 8 North Field Duplicate results

					Location	SL-141-SA8N	SL-141-SA8N		SL-002-SA8N	SL-002-SA8N		SL-076-SA8N	SL-076-SA8N	
					Sample Name:	DUP08-SA8N-QC-050911	SL-141-SA8N-SB-4.0-5.0		DUP09-SA8N-QC-052611	SL-002-SA8N-SB-4.0-5.0		DUP10-SA8N-QC-060811	SL-076-SA8N-SB-4.0-5.0	
					Sample Date	05/09/2011	05/09/2011		05/26/2011	05/26/2011		06/08/2011	06/08/2011	
					Start Depth:	4	4	RPD	4	4	RPD	4	4	RPD
					End Depth:	5	5		5	5		5	5	
					Area:	8N	8N		8N	8N		8N	8N	
					Matrix:	SO	SO		SO	SO		SO	SO	
					Sample Type:	FD	N		FD	N		FD	N	
Volatiles	sec-Butylbenzene	135-98-8	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Styrene	100-42-5	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	tert-Butylbenzene	98-06-6	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Tetrachloroethene	127-18-4	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Toluene	108-88-3	8260B	ug/kg	4.2 U	4.5 U	--	4.5 UJ	0.11 J	200.00	3.9 U	3.7 U	--
Volatiles	trans-1,2-Dichloroethene	156-60-5	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	trans-1,3-Dichloropropene	10061-02-6	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Trichloroethene	79-01-6	8260B	ug/kg	6.3 J	17 J	-91.85	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Trichlorofluoromethane	75-69-4	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 U	3.7 U	--
Volatiles	Vinyl Chloride	75-01-4	8260B	ug/kg	4.2 U	4.5 U	--	4.5 U	5.0 U	--	3.9 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-8 - Subarea 8 South Field Duplicate Results

				Location	SL-003-SA8S		SL-003-SA8S		RPD	SL-018-SA8S		SL-018-SA8S		RPD	SL-019-SA8S		SL-019-SA8S		RPD
				Sample Name:	DUP01-SA8S-QC-092911		SL-003-SA8S-SS-0.0-0.5			DUP02-SA8S-QC-102111		SL-018-SA8S-SB-4.0-5.0			DUP02-SA8S-QC-120211		SL-019-SA8S-SB-4.0-5.0		
				Sample Date	09/29/2011		09/29/2011			10/21/2011		10/21/2011			12/02/2011		12/02/2011		
				Start Depth:	0		0			4		4			4		4		
				End Depth:	0.5		0.5			5		5			5		5		
				Area:	8S		8S			8S		8S			8S		8S		
				Matrix:	SO		SO			SO		SO			SO		SO		
				Sample Type:	FD		N			FD		N			FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit															
Inorganic	Aluminum	7429-90-5	6010B	mg/kg	19400		17900		8.04	27400	J	30600	J	-11.03	11000		11500		-4.44
Inorganic	Antimony	7440-36-0	6020	mg/kg	0.253	J	0.206	J	20.48	0.1	J	0.115	J	-13.95	0.206	UJ	0.208	UJ	--
Inorganic	Arsenic	7440-38-2	6020	mg/kg	8.86	J	6.79	J	26.45	6.72	J	7.4	J	-9.63	4.83	J	6.63	J	-31.41
Inorganic	Barium	7440-39-3	6020	mg/kg	108	J	93.2	J	14.71	114		122		-6.78	63.6	J	87	J	-31.08
Inorganic	Beryllium	7440-41-7	6020	mg/kg	0.749		0.656		13.24	0.862	J	0.92	J	-6.51	0.475		0.599		-23.09
Inorganic	Boron	7440-42-8	6010B	mg/kg	10.4		11.2		-7.41	9.11		10.9		-17.89	5.14	U	5.26	U	-2.31
Inorganic	Cadmium	7440-43-9	6020	mg/kg	0.343	J	0.3	J	13.37	0.0919	J	0.0985	J	-6.93	0.103	UJ	0.0592	J	200.00
Inorganic	Calcium	7440-70-2	6010B	mg/kg	134000		144000		-7.19	26100	J	14300	J	58.42	3440	J	3680	J	-6.74
Inorganic	Chromium	7440-47-3	6020	mg/kg	32.6	J	29.9	J	8.64	26.8	J	28.6	J	-6.50	10.2	J	13.9	J	-30.71
Inorganic	Chromium VI	18540-29-9	7199	mg/kg	0.49	J	0.41	J	17.78	1.1	UJ	0.24	J	200.00	1	U	1.1	U	--
Inorganic	Cobalt	7440-48-4	6020	mg/kg	10.2	J	9.6	J	6.06	7.19	J	8.56	J	-17.40	5.17	J	7.7	J	-39.32
Inorganic	Copper	7440-50-8	6020	mg/kg	22.9	J	18.8	J	19.66	11.7	J	12.7	J	-8.20	5.24		7.4		-34.18
Inorganic	Fluoride	16984-48-8	300	mg/kg	1	UJ	1	UJ	--	1.2	J	1.5	J	-22.22	1.1	J	1.1	UJ	200.00
Inorganic	Iron	7439-89-6	6010B	mg/kg	21300		20900		1.90	27000		28600		-5.76	21300		22700		-6.36
Inorganic	Lead	7439-92-1	6020	mg/kg	22.9	J	20.8	J	9.61	7.48	J	8.34	J	-10.87	3.61	J	5.09	J	-34.02
Inorganic	Lithium	7439-93-2	6010B	mg/kg	18.9		18.5		2.14	27.4		29.1		-6.02	21.2		23.1		-8.58
Inorganic	Magnesium	7439-95-4	6010B	mg/kg	6510		6100		6.50	5210		5660		-8.28	4090		4390		-7.08
Inorganic	Manganese	7439-96-5	6010B	mg/kg	268		278		-3.66	363		315		14.16	280		321		-13.64
Inorganic	Mercury	7439-97-6	7471A	mg/kg	0.0137	J	0.0184	J	-29.28	0.11	U	0.111	U	--	0.104	U	0.0985	U	--
Inorganic	Molybdenum	7439-98-7	6020	mg/kg	0.44	J	0.322	J	30.97	0.55		0.596		-8.03	0.103	U	0.104	U	--
Inorganic	Nickel	7440-02-0	6020	mg/kg	19.8	J	17.1	J	14.63	15.5	J	17.1	J	-9.82	5.96		8.55		-35.70
Inorganic	Percent Moisture	MOIST	160.3M	%	3.1		3.3		-6.25	10.6		10.5		0.95	4.7		5		-6.19
Inorganic	Perchlorate	14797-73-0	314	ug/kg	31	U	31	U	--	33.6	U	33.5	U	--	31.5	U	31.6	U	--
Inorganic	pH	pH	9045M	pH unit	7.47		7.81		-4.45	8.25		7.87		4.71	7.56		7.91		-4.52
Inorganic	Phosphorus	7723-14-0	6010B	mg/kg	455		452		0.66	219		187		15.76	378		472		-22.12
Inorganic	Potassium	9/7/7440	6010B	mg/kg	3360	J	3130	J	7.09	3050	J	2950	J	3.33	2080		2470		-17.14
Inorganic	Selenium	7782-49-2	6020	mg/kg	0.284	J	0.252	J	11.94	0.162	J	0.0883	J	58.89	0.107	J	0.107	J	--
Inorganic	Silver	7440-22-4	6020	mg/kg	0.102	UJ	0.101	UJ	--	0.0444	J	0.0334	J	28.28	0.103	U	0.104	U	--
Inorganic	Sodium	7440-23-5	6010B	mg/kg	116		121		-4.22	83.1	J	84.3	J	-1.43	60.6	J	63.9	J	-5.30
Inorganic	Strontium	7440-24-6	6010B	mg/kg	151		156		-3.26	23.4		21.8		7.08	7.31		7.27		0.55
Inorganic	Thallium	7440-28-0	6020	mg/kg	0.303	J	0.257	J	16.43	0.285		0.357		-22.43	0.103	U	0.288		200.00
Inorganic	Tin	7440-31-5	6010B	mg/kg	10.2	U	10.2	U	--	10.8	U	11	U	--	10.3	U	10.5	U	--
Inorganic	Titanium	7440-32-6	6010B	mg/kg	834		832		0.24	1090		1190		-8.77	1120		1190		-6.06
Inorganic	Vanadium	7440-62-2	6020	mg/kg	61.4	J	51.6	J	17.35	51.7	J	55.5	J	-7.09	25.5	J	31.6	J	-21.37
Inorganic	Zinc	7440-66-6	6020	mg/kg	64.6		55.1		15.87	52.8		59.7		-12.27	52.8	J	67.2	J	-24.00
Inorganic	Zirconium	7440-67-7	6010B	mg/kg	3.54	J	3.4	J	4.03	5.19	J	5.59		-7.42	5.14	U	2.17	J	200.00
PCBs and Dioxins	1,2,3,4,6,7,8-HpCDD	35822-46-9	1613B	ng/kg	3.04	J	2.71	J	11.48	5.48	U	5.56	U	--	5.18	U	5.25	U	--
PCBs and Dioxins	1,2,3,4,6,7,8-HpCDF	67562-39-4	1613B	ng/kg	0.615	J	0.574	J	6.90	5.48	U	5.56	U	--	5.18	U	5.25	U	--
PCBs and Dioxins	1,2,3,4,7,8,9-HpCDF	55673-89-7	1613B	ng/kg	5.15	U	5.09	U	--	5.48	U	5.56	U	--	5.18	U	5.25	U	--
PCBs and Dioxins	1,2,3,4,7,8-HxCDD	39227-28-6	1613B	ng/kg	0.0704	J	0.0692	J	1.72	5.48	UJ	5.56	UJ	--	5.18	U	5.25	U	--
PCBs and Dioxins	1,2,3,4,7,8-HxCDF	70648-26-9	1613B	ng/kg	0.361	J	0.22	J	48.54	5.48	UJ	5.56	UJ	--	5.18	U	5.25	U	--
PCBs and Dioxins	1,2,3,6,7,8-HxCDD	57653-85-7	1613B	ng/kg	0.193	J	5.09	U	200.00	5.48	UJ	5.56	UJ	--	5.18	U	5.25	U	--
PCBs and Dioxins	1,2,3,6,7,8-HxCDF	57117-44-9	1613B	ng/kg	0.148	J	5.09	U	200.00	5.48	U	5.56	U	--	5.18	U	5.25	U	--
PCBs and Dioxins	1,2,3,7,8,9-HxCDD	19408-74-3	1613B	ng/kg	0.138	J	0.163	J	-16.61	5.48	UJ	5.56	UJ	--	5.18	U	5.25	U	--
PCBs and Dioxins	1,2,3,7,8,9-HxCDF	72918-21-9	1613B	ng/kg	5.15	UJ	5.09	UJ	--	5.48	UJ	5.56	UJ	--	5.18	U	5.25	U	--
PCBs and Dioxins	1,2,3,7,8-PeCDD	40321-76-4	1613B	ng/kg	0.0846	J	0.0765	J	10.06	5.48	UJ	5.56	UJ	--	5.18	U	5.25	U	--
PCBs and Dioxins	1,2,3,7,8-PeCDF	57117-41-6	1613B	ng/kg	5.15	UJ	5.09	UJ	--	5.48	UJ	5.56	UJ	--	5.18	U	5.25	U	--
PCBs and Dioxins	2,3,4,6,7,8-HxCDF	60851-34-5	1613B	ng/kg	5.15	U	5.09	U	--	5.48	UJ	5.56	UJ	--	5.18	U	5.25	U	--
PCBs and Dioxins	2,3,4,7,8-PeCDF	57117-31-4	1613B	ng/kg	5.15	U	0.317	J	200.00	5.48	U	5.56	U	--	5.18	U	5.25	U	--
PCBs and Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.03	U	1.02	U	--	1.1	U	1.11	U	--	1.04	U	1.05	U	--
PCBs and Dioxins	2,3,7,8-TCDF	51207-31-9	1613B	ng/kg	0.265	J	0.196	J	29.93	1.1	U	1.11	U	--	1.04	UJ	1.05	UJ	--
PCBs and Dioxins	Aroclor 1016	12674-11-2	8082	ug/kg	1.7	U	1.8	U	--	1.9	U	1.9	U	--	1.8	U	1.8	U	--
PCBs and Dioxins	Aroclor 1221	11104-28-2	8082	ug/kg	1.7	U	1.8	U	--	1.9	U	1.9	U	--	1.8	U	1.8	U	--
PCBs and Dioxins	Aroclor 1232	11141-16-5	8082	ug/kg	1.7	U	1.8	U	--	1.9	U	1.9	U	--	1.8	U	1.8	U	--
PCBs and Dioxins	Aroclor 1242	53469-21-9	8082	ug/kg	1.7	U	1.8	U	--	1.9	U	1.9	U	--	1.8	U	1.8	U	--
PCBs and Dioxins	Aroclor 1248	12672-29-6	8082	ug/kg	1.7	U	1.8	U	--	1.9	UJ	0.51	J	200.00	1.8	U	1.8	U	--
PCBs and Dioxins	Aroclor 1254	11097-69-1	8082	ug/kg	1.7	U	1.8	U	--	1.9	UJ	1.9	J	200.00	1.8	U	1.8	U	--
PCBs and Dioxins	Aroclor 1260	11096-82-5	8082	ug/kg	0.54	J	1.8	UJ	200.00	1.9	UJ	0.8	J	200.00	1.8	U	1.8	U	--
PCBs and Dioxins	Aroclor 1262	37324-23-5	8082	ug/kg	1.7	U	1.8	U	--	1.9	U	1.9	U	--	1.8	U	1.8	U	--
PCBs and Dioxins	Aroclor 1268	11100-14-4	8082	ug/kg	1.7	U	1.8	U	--	1.9	U	1.9	U	--	1.8	U	1.8	U	--
PCBs and Dioxins	Aroclor 5432	63496-31-1	8082	ug/kg	3.4	U	3.4	U	--	3.7	UJ	3.7	UJ	--	3.4	U	3.5	U	--
PCBs and Dioxins	Aroclor 5442	12642-23-8	8082	ug/kg	3.4	U	3.4	U	--	3.7	UJ	3.7	UJ	--	3.4	U	3.5	U	--
PCBs and Dioxins	Aroclor 5460	11126-42-4	8082	ug/kg	3.4	U	3.4	U	--	3.7	UJ	3.7	UJ	--	3.4	U	3.5	U	--
PCBs and Dioxins	OCDD	3268-87-9	1613B	ng/kg	27.5		18.7		38.10	11	UJ	11.1	UJ	--	10.4	U	10.5	U	--
PCBs and Dioxins	OCDF	39001-02-0	1613B	ng/kg	1	J	10.2	U	200.00	11	U	11.1	U	--	10.4	U	10.5	U	--
Pesticides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	ug/kg	9.3	U	9.3	R	--										
Pesticides	2,4 DB	94-82-6	8151A	ug/kg	1.9	J	1.8	UJ	200.00										
Pesticides	2,4,5-T	93-76-5	8151A	ug/kg	0.33	U	0.18	U	--										
Pesticides	2,4,5-TP	93-72-1	8151A	ug/kg	0.23	UJ	0.18	UJ	--										
Pesticides	2,4-D	94-75-7	8151A	ug/kg	3.7	U	3.7	U	--										

Table C-8 - Subarea 8 South Field Duplicate Results

					Location	SL-003-SA8S	SL-003-SA8S		SL-018-SA8S	SL-018-SA8S		SL-019-SA8S	SL-019-SA8S	
					Sample Name:	DUP01-SA8S-QC-092911	SL-003-SA8S-SS-0.0-0.5		DUP02-SA8S-QC-102111	SL-018-SA8S-SB-4.0-5.0		DUP02-SA8S-QC-120211	SL-019-SA8S-SB-4.0-5.0	
					Sample Date	09/29/2011	09/29/2011		10/21/2011	10/21/2011		12/02/2011	12/02/2011	
					Start Depth:	0	0	RPD	4	4	RPD	4	4	RPD
					End Depth:	0.5	0.5		5	5		5	5	
					Area:	8S	8S		8S	8S		8S	8S	
					Matrix:	SO	SO		SO	SO		SO	SO	
					Sample Type:	FD	N		FD	N		FD	N	
Pesticides	4,4'-DDD	72-54-8	8081A	ug/kg	0.35 UJ	0.35 UJ	--							
Pesticides	4,4'-DDE	72-55-9	8081A	ug/kg	0.53 J	0.48 J	9.90							
Pesticides	4,4'-DDT	50-29-3	8081A	ug/kg	0.43 UJ	0.42 UJ	--							
Pesticides	Aldrin	309-00-2	8081A	ug/kg	0.17 UJ	0.17 UJ	--							
Pesticides	Alpha-BHC	319-84-6	8081A	ug/kg	0.17 UJ	0.17 UJ	--							
Pesticides	Beta-BHC	319-85-7	8081A	ug/kg	0.17 UJ	0.17 UJ	--							
Pesticides	Chlordane	57-74-9	8081A	ug/kg	1.6 J	3.5 UJ	200.00							
Pesticides	Delta-BHC	319-86-8	8081A	ug/kg	0.055 J	0.059 J	-7.02							
Pesticides	Dicamba	1918-00-9	8151A	ug/kg	1.2 UJ	1.2 R	--							
Pesticides	Dichlorprop	120-36-5	8151A	ug/kg	1.8 U	1.8 U	--							
Pesticides	Dieldrin	60-57-1	8081A	ug/kg	0.35 UJ	0.35 UJ	--							
Pesticides	Dinitrobutyl Phenol	88-85-7	8151A	ug/kg	2.5 R	2.5 R	--							
Pesticides	Endosulfan I	959-98-8	8081A	ug/kg	0.17 UJ	0.17 UJ	--							
Pesticides	Endosulfan II	33213-65-9	8081A	ug/kg	0.35 UJ	0.35 UJ	--							
Pesticides	Endosulfan Sulfate	1031-07-8	8081A	ug/kg	0.35 UJ	0.35 R	--							
Pesticides	Endrin	72-20-8	8081A	ug/kg	0.35 UJ	0.35 UJ	--							
Pesticides	Endrin Aldehyde	7421-93-4	8081A	ug/kg	0.35 UJ	0.35 UJ	--							
Pesticides	Endrin Ketone	53494-70-5	8081A	ug/kg	0.35 UJ	0.35 R	--							
Pesticides	Gamma-BHC (Lindane)	58-89-9	8081A	ug/kg	0.17 UJ	0.17 UJ	--							
Pesticides	Heptachlor	76-44-8	8081A	ug/kg	0.17 UJ	0.17 UJ	--							
Pesticides	Heptachlor Epoxide	1024-57-3	8081A	ug/kg	0.17 UJ	0.17 UJ	--							
Pesticides	MCPA	94-74-6	8151A	ug/kg	260 UJ	260 UJ	--							
Pesticides	MCPP	93-65-2	8151A	ug/kg	260 UJ	280 J	200.00							
Pesticides	Methoxychlor	72-43-5	8081A	ug/kg	1.7 UJ	1.7 UJ	--							
Pesticides	Mirex	2385-85-5	8081A	ug/kg	0.35 UJ	0.35 UJ	--							
Pesticides	Toxaphene	8001-35-2	8081A	ug/kg	7.8 UJ	7.2 UJ	--							
Semivolatiles	1,2,4-Trichlorobenzene	120-82-1	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	1,2-Dichlorobenzene	95-50-1	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	1,2-Diphenylhydrazine	122-66-7	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	1,3-Dichlorobenzene	541-73-1	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	1,4-Dichlorobenzene	106-46-7	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	1-Methylnaphthalene	90-12-0	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U		--	1.7 U	1.8 U	--
Semivolatiles	2,4,5-Trichlorophenol	95-95-4	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	2,4,6-Trichlorophenol	88-06-2	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	2,4-Dichlorophenol	120-83-2	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	2,4-Dimethylphenol	105-67-9	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	2,4-Dinitrophenol	51-28-5	8270C	ug/kg	1000 U	1000 R	--	1100 U	1100 U		--	1000 U	1100 U	--
Semivolatiles	2,4-Dinitrotoluene	121-14-2	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	2,6-Dinitrotoluene	606-20-2	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	2-Chloronaphthalene	91-58-7	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	2-Chlorophenol	95-57-8	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	2-Methylnaphthalene	91-57-6	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U		--	1.7 U	1.8 U	--
Semivolatiles	2-Methylphenol	95-48-7	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	2-Nitroaniline	88-74-4	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	2-Nitrophenol	88-75-5	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	3,3`-Dichlorobenzidine	91-94-1	8270C	ug/kg	340 U	340 U	--	370 U	370 U		--	350 U	350 U	--
Semivolatiles	3,5-Dimethylphenol	108-68-9	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	3-Nitroaniline	99-09-2	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	4,6-Dinitro-2-Methylphenol	534-52-1	8270C	ug/kg	510 UJ	520 UJ	--	560 U	550 U		--	520 U	530 U	--
Semivolatiles	4-Bromophenyl Phenyl Ether	101-55-3	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	4-Chloro-3-Methylphenol	59-50-7	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	4-Chloroaniline	106-47-8	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	4-Chlorophenyl Phenylether	7005-72-3	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	4-Methylphenol	106-44-5	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	4-Nitroaniline	100-01-6	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	4-Nitrophenol	100-02-7	8270C	ug/kg	510 U	520 U	--	560 U	550 U		--	520 U	530 U	--
Semivolatiles	Acenaphthene	83-32-9	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U		--	1.7 U	1.8 U	--
Semivolatiles	Acenaphthylene	208-96-8	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U		--	1.7 U	1.8 U	--
Semivolatiles	Aniline	62-53-3	8270C	ug/kg	510 U	520 U	--	560 U	550 U		--	520 U	530 U	--
Semivolatiles	Anthracene	120-12-7	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U		--	1.7 U	1.8 U	--
Semivolatiles	Benzidine	92-87-5	8270C	ug/kg	3400 U	3400 R	--	3700 U	3700 UJ		--	3500 U	3500 R	--
Semivolatiles	Benzo(a)anthracene	56-55-3	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U		--	1.7 U	1.8 U	--
Semivolatiles	Benzo(a)pyrene	50-32-8	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U		--	1.7 U	1.8 U	--
Semivolatiles	Benzo(b)fluoranthene	205-99-2	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U		--	1.7 U	1.8 U	--
Semivolatiles	Benzo(g,h,i)perylene	191-24-2	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U		--	1.7 U	1.8 U	--
Semivolatiles	Benzo(k)fluoranthene	207-08-9	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U		--	1.7 U	1.8 U	--
Semivolatiles	Benzoic Acid	65-85-0	8270C	ug/kg	510 UJ	520 UJ	--	560 U	550 U		--	520 U	530 R	--
Semivolatiles	Benzyl Alcohol	100-51-6	8270C	ug/kg	510 U	520 U	--	560 U	550 U		--	520 U	530 U	--
Semivolatiles	Bis(2-Chloroethoxy) methane	111-91-1	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	Bis(2-Chloroethyl) ether	111-44-4	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--
Semivolatiles	bis(2-Chloroisopropyl) ether	39638-32-9	8270C	ug/kg	170 U	170 U	--	190 U	180 U		--	170 U	180 U	--

Table C-8 - Subarea 8 South Field Duplicate Results

					Location	SL-003-SA8S	SL-003-SA8S	RPD	SL-018-SA8S	SL-018-SA8S	RPD	SL-019-SA8S	SL-019-SA8S	RPD
					Sample Name:	DUP01-SA8S-QC-092911	SL-003-SA8S-SS-0.0-0.5		DUP02-SA8S-QC-102111	SL-018-SA8S-SB-4.0-5.0		DUP02-SA8S-QC-120211	SL-019-SA8S-SB-4.0-5.0	
					Sample Date	09/29/2011	09/29/2011		10/21/2011	10/21/2011		12/02/2011	12/02/2011	
					Start Depth:	0	0		4	4		4	4	
					End Depth:	0.5	0.5		5	5		5	5	
					Area:	8S	8S		8S	8S		8S	8S	
					Matrix:	SO	SO		SO	SO		SO	SO	
					Sample Type:	FD	N		FD	N		FD	N	
Semivolatiles	Bis(2-Ethylhexyl) phthalate	117-81-7	8270C SIM	ug/kg	19 U	19 U	--	20 U	20 U	--	19 U	19 U	--
Semivolatiles	Butylbenzylphthalate	85-68-7	8270C SIM	ug/kg	16 J	20	-22.22	20 U	20 U	--	19 U	19 U	--
Semivolatiles	Carbazole	86-74-8	8270C	ug/kg	170 U	170 U	--	190 U	180 U	--	170 U	180 U	--
Semivolatiles	Chrysene	218-01-9	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U	--	1.7 U	1.8 U	--
Semivolatiles	Dibenzo(a,h)anthracene	53-70-3	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U	--	1.7 U	1.8 U	--
Semivolatiles	Dibenzofuran	132-64-9	8270C	ug/kg	170 U	170 U	--	190 U	180 U	--	170 U	180 U	--
Semivolatiles	Diethylphthalate	84-66-2	8270C SIM	ug/kg	19 U	19 U	--	20 U	20 U	--	19 U	19 U	--
Semivolatiles	Dimethylphthalate	131-11-3	8270C SIM	ug/kg	19 U	19 U	--	20 U	20 U	--	19 U	19 U	--
Semivolatiles	Di-n-Butylphthalate	84-74-2	8270C SIM	ug/kg	19 U	19 U	--	20 U	20 U	--	19 U	19 U	--
Semivolatiles	Di-N-Octyl Phthalate	117-84-0	8270C SIM	ug/kg	19 U	19 U	--	20 U	20 U	--	19 U	19 U	--
Semivolatiles	Fluoranthene	206-44-0	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U	--	1.7 U	1.8 U	--
Semivolatiles	Fluorene	86-73-7	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U	--	1.7 U	1.8 U	--
Semivolatiles	Hexachlorobenzene	118-74-1	8270C	ug/kg	170 U	170 U	--	190 U	180 U	--	170 U	180 U	--
Semivolatiles	Hexachlorobutadiene	87-68-3	8270C	ug/kg	170 U	170 U	--	190 U	180 U	--	170 U	180 U	--
Semivolatiles	Hexachlorocyclopentadiene	77-47-4	8270C	ug/kg	510 U	520 U	--	560 U	550 U	--	520 U	530 U	--
Semivolatiles	Hexachloroethane	67-72-1	8270C	ug/kg	170 U	170 U	--	190 U	180 U	--	170 U	180 U	--
Semivolatiles	Indeno(1,2,3-Cd)Pyrene	193-39-5	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U	--	1.7 U	1.8 U	--
Semivolatiles	Isophorone	78-59-1	8270C	ug/kg	170 U	170 U	--	190 U	180 U	--	170 U	180 U	--
Semivolatiles	Naphthalene	91-20-3	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U	--	1.7 U	1.8 U	--
Semivolatiles	Nitrobenzene	98-95-3	8270C	ug/kg	170 U	170 U	--	190 U	180 U	--	170 U	180 U	--
Semivolatiles	N-Nitrosodimethylamine	62-75-9	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U	--	1.7 U	1.8 U	--
Semivolatiles	N-Nitroso-Di-N-Propylamine	621-64-7	8270C	ug/kg	170 U	170 U	--	190 U	180 U	--	170 U	180 U	--
Semivolatiles	N-Nitrosodiphenylamine	86-30-6	8270C	ug/kg	170 U	170 U	--	190 U	180 U	--	170 U	180 U	--
Semivolatiles	Pentachlorophenol	87-86-5	8270C	ug/kg	510 U	520 U	--	560 U	550 U	--	520 U	530 U	--
Semivolatiles	Phenanthrene	85-01-8	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U	--	1.7 U	1.8 U	--
Semivolatiles	Phenol	108-95-2	8270C	ug/kg	170 U	170 U	--	190 U	180 U	--	170 U	180 U	--
Semivolatiles	Pyrene	129-00-0	8270C SIM	ug/kg	1.7 U	1.7 U	--	1.9 U	1.9 U	--	1.7 U	1.8 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
200* - When one result is nondetect a 200% RPD is given and sample
Limit - 50% - If RPD is above 50% detected field duplicate results only

Table C-9 Summary of Data Completeness Following Data Validation – Subarea 8 North

	Number of Analyte Detections Without Qualifiers	Number of Estimated Results	Number of Rejected Results	Number of Nondetect Results	Number of Estimated Nondetect Results	Total Analytes Detect and Nondetect	Percent of Analyte Results Judged Valid Versus Total Analyte Results Collected
Dioxins	242	1124		1864	34	3264	100
NDMA	24	31		35	5	95	100
Formaldehyde	2	8		82	3	95	100
Cyanide		6		89		95	100
Fluoride, Nitrate	111	162		5	9	287	100
Hexavalent Chromium	7	100		85		192	100
Mercury	4	85		100	3	192	100
Metals – 6010B	1922	511		254	1	2688	100
Metals – 6020	889	2120		28	35	3072	100
Perchlorate-314	2	1		189		192	100
Perchlorate-6850	2	3		16		21	100
Alcohols, terphenyls		2		557	11	570	100
Energetics				1877	13	1890	100
Total Petroleum Hydrocarbons, glycols	183	68		787	25	1063	100
PCBs/PCTs	91	119		2057	37	2304	100
Pesticides							
Semivolatiles	13	134	5	8970	128	9250	99.95
Semivolatiles SIM	273	506		3710	88	4577	100
Volatiles	60	49		5703	17	5829	100
Volatiles SIM				87		87	100
Completeness Total for All Subarea 8 North Samples Collected and Judged Valid							**99.99**

Table C-10 Summary of Data Completeness Following Data Validation – Subarea 8 South

	Number of Analyte Detections Without Qualifiers	Number of Estimated Results	Number of Rejected Results	Number of Nondetect Results	Number of Estimated Nondetect Results	Total Analytes Detect and Nondetect	Percent of Analyte Results Judged Valid Versus Total Analyte Results Collected
Dioxins	27	198		630	12	867	100
Fluoride, Nitrate	11	20		9	10	50	100
Hexavalent Chromium	6	32		13		51	100
Mercury		21		30		51	100
Metals – 6010B	528	134		52		714	100
Metals – 6020	183	579		29	25	816	100
Perchlorate-314				51		51	100
Perchlorate-6850				1		1	100
PCBs/PCTs	18	23		501	70	612	100
Pesticides	31	39	2	227	142	441	99.55
Herbicides	6	13	24	141	26	210	89
Semivolatiles	4	14	5	2355	35	2413	99.8
Semivolatiles SIM	53	101		1082	23	1259	100
Completeness Total for All Subarea 8 South Samples Collected and Judged Valid							**99.6**

Appendix C. Samples by SDG for 8 North

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
8N	DUP01-SA8N-QC-041111	DE124	SO	4/11/2011	FIELD
8N	SL-001-SA8N-SS-0.0-0.5	DE124	SO	4/11/2011	FIELD
8N	SL-002-SA8N-SS-0.0-0.5	DE124	SO	4/11/2011	FIELD
8N	SL-003-SA8N-SS-0.0-0.5	DE124	SO	4/11/2011	FIELD
8N	SL-004-SA8N-SS-0.0-0.5	DE124	SO	4/11/2011	FIELD
8N	SL-005-SA8N-SS-0.0-0.5	DE124	SO	4/11/2011	FIELD
8N	SL-006-SA8N-SS-0.0-0.5	DE124	SO	4/11/2011	FIELD
8N	SL-007-SA8N-SS-0.0-0.5	DE124	SO	4/11/2011	FIELD
8N	SL-008-SA8N-SS-0.0-0.5	DE124	SO	4/11/2011	FIELD
8N	SL-009-SA8N-SS-0.0-0.5	DE124	SO	4/11/2011	FIELD
8N	SL-010-SA8N-SS-0.0-0.5	DE124	SO	4/11/2011	FIELD
8N	SL-011-SA8N-SS-0.0-0.5	DE124	SO	4/11/2011	FIELD
8N	SL-013-SA8N-SS-0.0-0.5	DE124	SO	4/11/2011	FIELD
8N	SL-014-SA8N-SS-0.0-0.5	DE124	SO	4/11/2011	FIELD
8N	SL-017-SA8N-SS-0.0-0.5	DE124	SO	4/11/2011	FIELD
8N	SL-049-SA8N-SS-0.0-0.5	DE124	SO	4/11/2011	FIELD
8N	EB01-SA8N-041211	DE125	WQ	4/12/2011	FIELD
8N	SL-012-SA8N-SS-0.0-0.5	DE125	SO	4/12/2011	FIELD
8N	SL-015-SA8N-SS-0.0-0.5	DE125	SO	4/12/2011	FIELD
8N	SL-016-SA8N-SS-0.0-0.5	DE125	SO	4/12/2011	FIELD
8N	SL-018-SA8N-SS-0.0-0.5	DE125	SO	4/12/2011	FIELD
8N	SL-019-SA8N-SS-0.0-0.5	DE125	SO	4/12/2011	FIELD
8N	SL-020-SA8N-SS-0.0-0.5	DE125	SO	4/12/2011	FIELD
8N	SL-021-SA8N-SS-0.0-0.5	DE125	SO	4/12/2011	FIELD
8N	SL-022-SA8N-SS-0.0-0.5	DE125	SO	4/12/2011	FIELD
8N	SL-023-SA8N-SS-0.0-0.5	DE125	SO	4/12/2011	FIELD
8N	SL-036-SA8N-SS-0.0-0.5	DE125	SO	4/12/2011	FIELD
8N	SL-047-SA8N-SS-0.0-0.5	DE125	SO	4/12/2011	FIELD
8N	SL-048-SA8N-SS-0.0-0.5	DE125	SO	4/12/2011	FIELD
8N	SL-050-SA8N-SS-0.0-0.5	DE125	SO	4/12/2011	FIELD
8N	SL-131-SA8N-SS-0.0-0.5	DE125	SO	4/12/2011	FIELD
	TB-041211	DE125	WQ	4/12/2011	FIELD
8N	DUP02-SA8N-QC-041311	DE126	SO	4/13/2011	FIELD
8N	EB02-SA8N-SS-041311	DE126	WQ	4/13/2011	FIELD
8N	SL-027-SA8N-SS-0.0-0.5	DE126	SO	4/13/2011	FIELD
8N	SL-028-SA8N-SS-0.0-0.5	DE126	SO	4/13/2011	FIELD
8N	SL-032-SA8N-SS-0.0-0.5	DE126	SO	4/13/2011	FIELD
8N	SL-046-SA8N-SS-0.0-0.5	DE126	SO	4/13/2011	FIELD
	TB-041311	DE126	WQ	4/13/2011	FIELD
8N	DUP03-SA8N-QC-041411	DE127	SO	4/14/2011	FIELD
8N	EB04-SA8N-SS-041411	DE127	WQ	4/14/2011	FIELD
8N	SL-040-SA8N-SS-0.0-0.5	DE127	SO	4/14/2011	FIELD
8N	SL-078-SA8N-SS-0.0-0.5	DE127	SO	4/14/2011	FIELD
8N	SL-079-SA8N-SS-0.0-0.5	DE127	SO	4/14/2011	FIELD
8N	SL-082-SA8N-SS-0.0-0.5	DE127	SO	4/14/2011	FIELD
8N	SL-089-SA8N-SS-0.0-0.5	DE127	SO	4/14/2011	FIELD
8N	SL-090-SA8N-SS-0.0-0.5	DE127	SO	4/14/2011	FIELD
8N	SL-091-SA8N-SS-0.0-0.5	DE127	SO	4/14/2011	FIELD
8N	SL-130-SA8N-SS-0.0-0.5	DE127	SO	4/14/2011	FIELD
8N	SL-133-SA8N-SS-0.0-0.5	DE127	SO	4/14/2011	FIELD
8N	SL-134-SA8N-SS-0.0-0.5	DE127	SO	4/14/2011	FIELD

Appendix C. Samples by SDG for 8 North

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
8N	SL-062-SA8N-SS-0.0-0.5	DE129	SO	4/15/2011	FIELD
8N	SL-067-SA8N-SS-0.0-0.5	DE129	SO	4/15/2011	FIELD
8N	SL-141-SA8N-SS-0.0-0.5	DE129	SO	4/15/2011	FIELD
	TB-041511	DE129	WQ	4/15/2011	FIELD
8N	EB05-SA8N-SS-041811	DE130	WQ	4/18/2011	FIELD
8N	SL-056-SA8N-SS-0.0-0.5	DE130	SO	4/18/2011	FIELD
8N	SL-057-SA8N-SS-0.0-0.5	DE130	SO	4/18/2011	FIELD
8N	SL-071-SA8N-SS-0.0-0.5	DE130	SO	4/18/2011	FIELD
8N	SL-080-SA8N-SS-0.0-0.5	DE130	SO	4/18/2011	FIELD
8N	SL-085-SA8N-SS-0.0-0.5	DE130	SO	4/18/2011	FIELD
8N	SL-086-SA8N-SS-0.0-0.5	DE130	SO	4/18/2011	FIELD
8N	SL-132-SA8N-SS-0.0-0.5	DE130	SO	4/18/2011	FIELD
	TB-041811	DE130	WQ	4/18/2011	FIELD
8N	DUP04-SA8N-QC-041911	DE131	SO	4/19/2011	FIELD
8N	EB06-SA8N-SS-041911	DE131	WQ	4/19/2011	FIELD
8N	SL-075-SA8N-SS-0.0-0.5	DE131	SO	4/19/2011	FIELD
8N	SL-076-SA8N-SS-0.0-0.5	DE131	SO	4/19/2011	FIELD
8N	SL-077-SA8N-SS-0.0-0.5	DE131	SO	4/19/2011	FIELD
8N	SL-092-SA8N-SS-0.0-0.5	DE131	SO	4/19/2011	FIELD
8N	SL-093-SA8N-SS-0.0-0.5	DE131	SO	4/19/2011	FIELD
8N	SL-094-SA8N-SS-0.0-0.5	DE131	SO	4/19/2011	FIELD
8N	SL-095-SA8N-SS-0.0-0.5	DE131	SO	4/19/2011	FIELD
8N	SL-096-SA8N-SS-0.0-0.5	DE131	SO	4/19/2011	FIELD
8N	SL-097-SA8N-SS-0.0-0.5	DE131	SO	4/19/2011	FIELD
8N	SL-122-SA8N-SS-0.0-0.5	DE131	SO	4/19/2011	FIELD
8N	SL-135-SA8N-SS-0.0-0.5	DE131	SO	4/19/2011	FIELD
8N	SL-138-SA8N-SS-0.0-0.5	DE131	SO	4/19/2011	FIELD
8N	SL-139-SA8N-SS-0.0-0.5	DE131	SO	4/19/2011	FIELD
8N	SL-140-SA8N-SS-0.0-0.5	DE131	SO	4/19/2011	FIELD
	TB-041911	DE131	WQ	4/19/2011	FIELD
8N	DUP05-SA8N-QC-042011	DE132	SO	4/20/2011	FIELD
8N	EB07-SA8N-SS-042011	DE132	WQ	4/20/2011	FIELD
8N	SL-098-SA8N-SS-0.0-0.5	DE132	SO	4/20/2011	FIELD
8N	SL-101-SA8N-SS-0.0-0.5	DE132	SO	4/20/2011	FIELD
8N	SL-102-SA8N-SS-0.0-0.5	DE132	SO	4/20/2011	FIELD
8N	SL-108-SA8N-SS-0.0-0.5	DE132	SO	4/20/2011	FIELD
8N	SL-120-SA8N-SS-0.0-0.5	DE132	SO	4/20/2011	FIELD
8N	SL-127-SA8N-SS-0.0-0.5	DE132	SO	4/20/2011	FIELD
8N	SL-128-SA8N-SS-0.0-0.5	DE132	SO	4/20/2011	FIELD
8N	SL-129-SA8N-SS-0.0-0.5	DE132	SO	4/20/2011	FIELD
8N	SL-136-SA8N-SS-0.0-0.5	DE132	SO	4/20/2011	FIELD
8N	SL-137-SA8N-SS-0.0-0.5	DE132	SO	4/20/2011	FIELD
8N	DUP06-SA8N-QC-042111	DE134	SO	4/21/2011	FIELD
8N	SL-004-SA8N-SB-4.0-5.0	DE134	SO	4/21/2011	FIELD
8N	SL-004-SA8N-SB-9.0-10.0	DE134	SO	4/21/2011	FIELD
8N	SL-005-SA8N-SB-4.0-5.0	DE134	SO	4/21/2011	FIELD
8N	SL-005-SA8N-SB-8.0-9.0	DE134	SO	4/21/2011	FIELD
8N	SL-006-SA8N-SB-4.0-5.0	DE134	SO	4/21/2011	FIELD
8N	SL-006-SA8N-SB-8.0-9.0	DE134	SO	4/21/2011	FIELD
8N	SL-111-SA8N-SS-0.0-0.5	DE134	SO	4/21/2011	FIELD
8N	SL-112-SA8N-SS-0.0-0.5	DE134	SO	4/21/2011	FIELD

Appendix C. Samples by SDG for 8 North

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
8N	SL-115-SA8N-SS-0.0-0.5	DE134	SO	4/21/2011	FIELD
8N	SL-116-SA8N-SS-0.0-0.5	DE134	SO	4/21/2011	FIELD
8N	SL-117-SA8N-SS-0.0-0.5	DE134	SO	4/21/2011	FIELD
8N	SL-118-SA8N-SS-0.0-0.5	DE134	SO	4/21/2011	FIELD
8N	SL-119-SA8N-SS-0.0-0.5	DE134	SO	4/21/2011	FIELD
8N	SL-125-SA8N-SS-0.0-0.5	DE134	SO	4/21/2011	FIELD
8N	SL-126-SA8N-SS-0.0-0.5	DE134	SO	4/21/2011	FIELD
	TB-042111	DE134	WQ	4/21/2011	FIELD
8N	SL-007-SA8N-SB-4.0-5.0	DE135	SO	4/22/2011	FIELD
8N	SL-007-SA8N-SB-9.0-10.0	DE135	SO	4/22/2011	FIELD
8N	SL-010-SA8N-SB-4.0-5.0	DE135	SO	4/22/2011	FIELD
8N	SL-010-SA8N-SB-9.0-10.0	DE135	SO	4/22/2011	FIELD
8N	SL-011-SA8N-SB-4.0-5.0	DE135	SO	4/22/2011	FIELD
8N	SL-011-SA8N-SB-9.0-10.0	DE135	SO	4/22/2011	FIELD
	TB-042211	DE135	WQ	4/22/2011	FIELD
8N	SL-036-SA8N-SB-4.0-5.0	DE136	SO	4/25/2011	FIELD
8N	SL-036-SA8N-SB-9.0-10.0	DE136	SO	4/25/2011	FIELD
	TB-042511	DE136	WQ	4/25/2011	FIELD
8N	SL-027-SA8N-SB-4.0-5.0	DE137	SO	4/26/2011	FIELD
8N	SL-027-SA8N-SB-9.0-10.0	DE137	SO	4/26/2011	FIELD
8N	SL-028-SA8N-SB-4.0-5.0	DE137	SO	4/26/2011	FIELD
8N	SL-028-SA8N-SB-9.0-10.0	DE137	SO	4/26/2011	FIELD
	TB-042611	DE137	WQ	4/26/2011	FIELD
8N	FB07-SA8N-QC-042711	DE138	WQ	4/27/2011	FIELD
8N	SL-032-SA8N-SB-4.0-5.0	DE138	SO	4/27/2011	FIELD
8N	SL-032-SA8N-SB-9.0-10.0	DE138	SO	4/27/2011	FIELD
	TB-042711	DE138	WQ	4/27/2011	FIELD
8N	EB05-SA8N-SB-042811	DE139	WQ	4/28/2011	FIELD
8N	SL-041-SA8N-SB-4.0-5.0	DE139	SO	4/28/2011	FIELD
8N	SL-041-SA8N-SB-9.0-10.0	DE139	SO	4/28/2011	FIELD
	TB-042811	DE139	WQ	4/28/2011	FIELD
8N	DUP06-SA8N-QC-042911	DE140	SO	4/29/2011	FIELD
8N	SL-013-SA8N-SB-2.0-3.0	DE140	SO	4/29/2011	FIELD
8N	SL-014-SA8N-SB-4.0-5.0	DE140	SO	4/29/2011	FIELD
8N	SL-017-SA8N-SB-4.0-5.0	DE140	SO	4/29/2011	FIELD
8N	SL-017-SA8N-SB-7.0-8.0	DE140	SO	4/29/2011	FIELD
8N	SL-040-SA8N-SB-4.0-5.0	DE140	SO	4/29/2011	FIELD
8N	SL-040-SA8N-SB-9.0-10.0	DE140	SO	4/29/2011	FIELD
8N	SL-049-SA8N-SB-4.0-5.0	DE140	SO	4/29/2011	FIELD
8N	SL-049-SA8N-SB-8.0-9.0	DE140	SO	4/29/2011	FIELD
	TB-042911	DE140	WQ	4/29/2011	FIELD
8N	SL-012-SA8N-SB-4.0-5.0	DE141	SO	5/2/2011	FIELD
8N	SL-022-SA8N-SB-4.0-5.0	DE141	SO	5/2/2011	FIELD
8N	SL-022-SA8N-SB-9.0-10.0	DE141	SO	5/2/2011	FIELD
8N	SL-023-SA8N-SB-4.0-5.0	DE141	SO	5/2/2011	FIELD
8N	SL-023-SA8N-SB-9.0-10.0	DE141	SO	5/2/2011	FIELD
8N	SL-050-SA8N-SB-4.0-5.0	DE141	SO	5/2/2011	FIELD
8N	SL-050-SA8N-SB-9.0-10.0	DE141	SO	5/2/2011	FIELD
	TB-050211	DE141	WQ	5/2/2011	FIELD
8N	DUP07-SA8N-QC-050311	DE142	SO	5/3/2011	FIELD
8N	EB08-SA8N-SB-050311	DE142	WQ	5/3/2011	FIELD

Appendix C. Samples by SDG for 8 North

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
8N	SL-015-SA8N-SB-4.0-5.0	DE142	SO	5/3/2011	FIELD
8N	SL-016-SA8N-SB-3.0-4.0	DE142	SO	5/3/2011	FIELD
8N	SL-018-SA8N-SB-4.0-5.0	DE142	SO	5/3/2011	FIELD
8N	SL-019-SA8N-SB-4.0-5.0	DE142	SO	5/3/2011	FIELD
8N	SL-020-SA8N-SB-4.0-5.0	DE142	SO	5/3/2011	FIELD
8N	SL-020-SA8N-SB-9.0-10.0	DE142	SO	5/3/2011	FIELD
	TB-050311	DE142	AQ	5/3/2011	FIELD
8N	SL-021-SA8N-SB-4.0-5.0	DE143	SO	5/4/2011	FIELD
8N	SL-021-SA8N-SB-9.0-10.0	DE143	SO	5/4/2011	FIELD
8N	SL-067-SA8N-SB-4.0-5.0	DE143	SO	5/4/2011	FIELD
8N	SL-080-SA8N-SB-4.0-5.0	DE143	SO	5/4/2011	FIELD
	TB-050411	DE143	AQ	5/4/2011	FIELD
8N	SL-056-SA8N-SB-4.0-5.0	DE144	SO	5/5/2011	FIELD
8N	SL-056-SA8N-SB-7.0-8.0	DE144	SO	5/5/2011	FIELD
8N	SL-057-SA8N-SB-4.0-5.0	DE144	SO	5/5/2011	FIELD
8N	SL-057-SA8N-SB-7.0-8.0	DE144	SO	5/5/2011	FIELD
8N	SL-062-SA8N-SB-4.0-5.0	DE144	SO	5/5/2011	FIELD
	TB-050511	DE144	WQ	5/5/2011	FIELD
8N	SL-086-SA8N-SB-6.5-7.5	DE145	SO	5/6/2011	FIELD
	TB-050611	DE145	WQ	5/6/2011	FIELD
8N	DUP08-SA8N-QC-050911	DE146	SO	5/9/2011	FIELD
8N	SL-078-SA8N-SB-4.0-5.0	DE146	SO	5/9/2011	FIELD
8N	SL-087-SA8N-SB-4.0-5.0	DE146	SO	5/9/2011	FIELD
8N	SL-087-SA8N-SB-9.0-10.0	DE146	SO	5/9/2011	FIELD
8N	SL-088-SA8N-SB-3.0-4.0	DE146	SO	5/9/2011	FIELD
8N	SL-135-SA8N-SB-2.0-3.0	DE146	SO	5/9/2011	FIELD
8N	SL-141-SA8N-SB-4.0-5.0	DE146	SO	5/9/2011	FIELD
	TB-050911	DE146	WQ	5/9/2011	FIELD
8N	EB09-SA8N-SB-051011	DE147	WQ	5/10/2011	FIELD
8N	SL-105-SA8N-SB-4.0-5.0	DE147	SO	5/10/2011	FIELD
8N	SL-127-SA8N-SB-4.0-5.0	DE147	SO	5/10/2011	FIELD
8N	SL-128-SA8N-SB-2.5-3.5	DE147	SO	5/10/2011	FIELD
8N	SL-129-SA8N-SB-4.0-5.0	DE147	SO	5/10/2011	FIELD
8N	SL-137-SA8N-SB-4.0-5.0	DE147	SO	5/10/2011	FIELD
8N	SL-137-SA8N-SB-9.0-10.0	DE147	SO	5/10/2011	FIELD
	TB-051011	DE147	AQ	5/10/2011	FIELD
8N	EB10-SA8N-SB-051111	DE148	WQ	5/11/2011	FIELD
8N	SL-120-SA8N-SB-4.0-5.0	DE148	SO	5/11/2011	FIELD
8N	SL-120-SA8N-SB-9.0-10.0	DE148	SO	5/11/2011	FIELD
8N	SL-136-SA8N-SB-4.0-5.0	DE148	SO	5/11/2011	FIELD
8N	SL-136-SA8N-SB-9.0-10.0	DE148	SO	5/11/2011	FIELD
	TB-051111	DE148	AQ	5/11/2011	FIELD
8N	SL-097-SA8N-SB-4.0-5.0	DE149	SO	5/12/2011	FIELD
8N	SL-098-SA8N-SB-4.0-5.0	DE149	SO	5/12/2011	FIELD
8N	SL-098-SA8N-SB-9.0-10.0	DE149	SO	5/12/2011	FIELD
8N	SL-099-SA8N-SB-4.0-5.0	DE149	SO	5/12/2011	FIELD
8N	SL-101-SA8N-SB-4.0-5.0	DE149	SO	5/12/2011	FIELD
8N	SL-101-SA8N-SB-7.0-8.0	DE149	SO	5/12/2011	FIELD
8N	SL-103-SA8N-SB-3.0-4.0	DE149	SO	5/12/2011	FIELD
	TB-051211	DE149	AQ	5/12/2011	FIELD
8N	SL-094-SA8N-SB-4.0-5.0	DE150	SO	5/13/2011	FIELD

Appendix C. Samples by SDG for 8 North

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
8N	SL-094-SA8N-SB-7.5-8.5	DE150	SO	5/13/2011	FIELD
8N	SL-095-SA8N-SB-4.0-5.0	DE150	SO	5/13/2011	FIELD
8N	SL-096-SA8N-SB-4.0-5.0	DE150	SO	5/13/2011	FIELD
8N	SL-096-SA8N-SB-9.0-10.0	DE150	SO	5/13/2011	FIELD
8N	SL-104-SA8N-SB-4.0-5.0	DE150	SO	5/13/2011	FIELD
8N	SL-104-SA8N-SB-9.0-10.0	DE150	SO	5/13/2011	FIELD
	TB-051311	DE150	AQ	5/13/2011	FIELD
8N	SL-001-SA8N-SB-4.0-5.0	DE165	SO	5/26/2011	FIELD
8N	SL-001-SA8N-SB-9.0-10.0	DE165	SO	5/26/2011	FIELD
8N	DUP09-SA8N-QC-052611	DE166	SO	5/26/2011	FIELD
8N	EB11-SA8N-SB-052611	DE166	WQ	5/26/2011	FIELD
8N	SL-002-SA8N-SB-4.0-5.0	DE166	SO	5/26/2011	FIELD
8N	SL-002-SA8N-SB-9.0-10.0	DE166	SO	5/26/2011	FIELD
8N	SL-008-SA8N-SB-4.0-5.0	DE166	SO	5/26/2011	FIELD
8N	SL-008-SA8N-SB-9.0-10.0	DE166	SO	5/26/2011	FIELD
	TB-052611	DE166	AQ	5/26/2011	FIELD
8N	SL-003-SA8N-SB-4.0-5.0	DE167	SO	5/27/2011	FIELD
8N	SL-003-SA8N-SB-9.0-10.0	DE167	SO	5/27/2011	FIELD
	TB-052711	DE167	AQ	5/27/2011	FIELD
8N	SL-079-SA8N-SB-4.0-5.0	DE174	SO	6/6/2011	FIELD
8N	SL-079-SA8N-SB-9.0-10.0	DE174	SO	6/6/2011	FIELD
8N	SL-133-SA8N-SB-4.0-5.0	DE174	SO	6/6/2011	FIELD
	TB-060611	DE174	AQ	6/6/2011	FIELD
8N	SL-071-SA8N-SB-2.0-3.0	DE175	SO	6/7/2011	FIELD
8N	SL-122-SA8N-SB-2.0-3.0	DE175	SO	6/7/2011	FIELD
8N	SL-133-SA8N-SB-7.0-8.0	DE175	SO	6/6/2011	FIELD
8N	SL-140-SA8N-SB-3.0-4.0	DE175	SO	6/7/2011	FIELD
	TB-060711	DE175	AQ	6/7/2011	FIELD
8N	DUP10-SA8N-QC-060811	DE176	SO	6/8/2011	FIELD
8N	EB16-SA8N-SB-060811	DE176	WQ	6/8/2011	FIELD
8N	SL-076-SA8N-SB-4.0-5.0	DE176	SO	6/8/2011	FIELD
8N	SL-076-SA8N-SB-7.5-8.5	DE176	SO	6/8/2011	FIELD
8N	SL-106-SA8N-SB-2.5-3.5	DE176	SO	6/8/2011	FIELD
8N	SL-109-SA8N-SB-4.0-5.0	DE176	SO	6/8/2011	FIELD
8N	SL-109-SA8N-SB-9.0-10.0	DE176	SO	6/8/2011	FIELD
	TB-060811	DE176	AQ	6/8/2011	FIELD
8N	EB17-SA8N-SB-060911	DE177	WQ	6/9/2011	FIELD
8N	SL-116-SA8N-SB-4.0-5.0	DE177	SO	6/9/2011	FIELD
	TB-060911	DE177	AQ	6/9/2011	FIELD
8N	SL-111-SA8N-SB-3.0-4.0	DE178	SO	6/10/2011	FIELD
	TB-061011	DE178	AQ	6/10/2011	FIELD
8N	SL-051-SA8N-SB-7.5-8.5	DE183	SO	6/17/2011	FIELD
8N	SL-054-SA8N-SB-7.0	DE183	SO	6/17/2011	FIELD
8N	SL-058-SA8N-SB-7.5	DE183	SO	6/17/2011	FIELD
8N	SL-059-SA8N-SB-9.0	DE183	SO	6/17/2011	FIELD
8N	SL-063-SA8N-SB-6.5	DE183	SO	6/17/2011	FIELD
	TB-061711	DE183	AQ	6/17/2011	FIELD
8N	DUP01-SA8N-QC-041111	DX068	SO	4/11/2011	FIELD
8N	SL-001-SA8N-SS-0.0-0.5	DX068	SO	4/11/2011	FIELD
8N	SL-002-SA8N-SS-0.0-0.5	DX068	SO	4/11/2011	FIELD
8N	SL-003-SA8N-SS-0.0-0.5	DX068	SO	4/11/2011	FIELD

Appendix C. Samples by SDG for 8 North

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
8N	SL-004-SA8N-SS-0.0-0.5	DX068	SO	4/11/2011	FIELD
8N	SL-005-SA8N-SS-0.0-0.5	DX068	SO	4/11/2011	FIELD
8N	SL-006-SA8N-SS-0.0-0.5	DX068	SO	4/11/2011	FIELD
8N	SL-007-SA8N-SS-0.0-0.5	DX068	SO	4/11/2011	FIELD
8N	SL-008-SA8N-SS-0.0-0.5	DX068	SO	4/11/2011	FIELD
8N	SL-009-SA8N-SS-0.0-0.5	DX068	SO	4/11/2011	FIELD
8N	SL-010-SA8N-SS-0.0-0.5	DX068	SO	4/11/2011	FIELD
8N	SL-011-SA8N-SS-0.0-0.5	DX068	SO	4/11/2011	FIELD
8N	SL-013-SA8N-SS-0.0-0.5	DX068	SO	4/11/2011	FIELD
8N	SL-014-SA8N-SS-0.0-0.5	DX068	SO	4/11/2011	FIELD
8N	SL-017-SA8N-SS-0.0-0.5	DX068	SO	4/11/2011	FIELD
8N	SL-049-SA8N-SS-0.0-0.5	DX068	SO	4/11/2011	FIELD
8N	EB01-SA8N-SS-041211	DX069	WQ	4/12/2011	FIELD
8N	SL-012-SA8N-SS-0.0-0.5	DX069	SO	4/12/2011	FIELD
8N	SL-015-SA8N-SS-0.0-0.5	DX069	SO	4/12/2011	FIELD
8N	SL-016-SA8N-SS-0.0-0.5	DX069	SO	4/12/2011	FIELD
8N	SL-018-SA8N-SS-0.0-0.5	DX069	SO	4/12/2011	FIELD
8N	SL-019-SA8N-SS-0.0-0.5	DX069	SO	4/12/2011	FIELD
8N	SL-020-SA8N-SS-0.0-0.5	DX069	SO	4/12/2011	FIELD
8N	SL-021-SA8N-SS-0.0-0.5	DX069	SO	4/12/2011	FIELD
8N	SL-022-SA8N-SS-0.0-0.5	DX069	SO	4/12/2011	FIELD
8N	SL-023-SA8N-SS-0.0-0.5	DX069	SO	4/12/2011	FIELD
8N	SL-036-SA8N-SS-0.0-0.5	DX069	SO	4/12/2011	FIELD
8N	SL-047-SA8N-SS-0.0-0.5	DX069	SO	4/12/2011	FIELD
8N	SL-048-SA8N-SS-0.0-0.5	DX069	SO	4/12/2011	FIELD
8N	SL-050-SA8N-SS-0.0-0.5	DX069	SO	4/12/2011	FIELD
8N	SL-131-SA8N-SS-0.0-0.5	DX069	SO	4/12/2011	FIELD
8N	DUP02-SA8N-QC-041311	DX070	SO	4/13/2011	FIELD
8N	EB02-SA8N-SS-041311	DX070	WQ	4/13/2011	FIELD
8N	EB05-SA8N-SS-041811	DX070	WQ	4/18/2011	FIELD
8N	SL-027-SA8N-SS-0.0-0.5	DX070	SO	4/13/2011	FIELD
8N	SL-028-SA8N-SS-0.0-0.5	DX070	SO	4/13/2011	FIELD
8N	SL-032-SA8N-SS-0.0-0.5	DX070	SO	4/13/2011	FIELD
8N	SL-046-SA8N-SS-0.0-0.5	DX070	SO	4/13/2011	FIELD
8N	SL-056-SA8N-SS-0.0-0.5	DX070	SO	4/18/2011	FIELD
8N	SL-057-SA8N-SS-0.0-0.5	DX070	SO	4/18/2011	FIELD
8N	SL-071-SA8N-SS-0.0-0.5	DX070	SO	4/18/2011	FIELD
8N	SL-080-SA8N-SS-0.0-0.5	DX070	SO	4/18/2011	FIELD
8N	SL-085-SA8N-SS-0.0-0.5	DX070	SO	4/18/2011	FIELD
8N	SL-086-SA8N-SS-0.0-0.5	DX070	SO	4/18/2011	FIELD
8N	SL-132-SA8N-SS-0.0-0.5	DX070	SO	4/18/2011	FIELD
8N	SL-040-SA8N-SS-0.0-0.5	DX071	SO	4/14/2011	FIELD
8N	SL-075-SA8N-SS-0.0-0.5	DX071	SO	4/19/2011	FIELD
8N	SL-076-SA8N-SS-0.0-0.5	DX071	SO	4/19/2011	FIELD
8N	SL-077-SA8N-SS-0.0-0.5	DX071	SO	4/19/2011	FIELD
8N	SL-078-SA8N-SS-0.0-0.5	DX071	SO	4/14/2011	FIELD
8N	SL-079-SA8N-SS-0.0-0.5	DX071	SO	4/14/2011	FIELD
8N	SL-082-SA8N-SS-0.0-0.5	DX071	SO	4/14/2011	FIELD
8N	SL-089-SA8N-SS-0.0-0.5	DX071	SO	4/14/2011	FIELD
8N	SL-090-SA8N-SS-0.0-0.5	DX071	SO	4/14/2011	FIELD
8N	SL-091-SA8N-SS-0.0-0.5	DX071	SO	4/14/2011	FIELD

Appendix C. Samples by SDG for 8 North

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
8N	SL-092-SA8N-SS-0.0-0.5	DX071	SO	4/19/2011	FIELD
8N	SL-093-SA8N-SS-0.0-0.5	DX071	SO	4/19/2011	FIELD
8N	SL-130-SA8N-SS-0.0-0.5	DX071	SO	4/14/2011	FIELD
8N	SL-133-SA8N-SS-0.0-0.5	DX071	SO	4/14/2011	FIELD
8N	SL-134-SA8N-SS-0.0-0.5	DX071	SO	4/14/2011	FIELD
8N	SL-062-SA8N-SS-0.0-0.5	DX072	SO	4/15/2011	FIELD
8N	SL-067-SA8N-SS-0.0-0.5	DX072	SO	4/15/2011	FIELD
8N	SL-094-SA8N-SS-0.0-0.5	DX072	SO	4/19/2011	FIELD
8N	SL-095-SA8N-SS-0.0-0.5	DX072	SO	4/19/2011	FIELD
8N	SL-096-SA8N-SS-0.0-0.5	DX072	SO	4/19/2011	FIELD
8N	SL-097-SA8N-SS-0.0-0.5	DX072	SO	4/19/2011	FIELD
8N	SL-122-SA8N-SS-0.0-0.5	DX072	SO	4/19/2011	FIELD
8N	SL-135-SA8N-SS-0.0-0.5	DX072	SO	4/19/2011	FIELD
8N	SL-141-SA8N-SS-0.0-0.5	DX072	SO	4/15/2011	FIELD
8N	DUP04-SA8N-QC-041911	DX073	SO	4/19/2011	FIELD
8N	EB06-SA8N-SS-041911	DX073	WQ	4/19/2011	FIELD
8N	FB07-SA8N-QC-042711	DX073	WQ	4/27/2011	FIELD
8N	SL-027-SA8N-SB-4.0-5.0	DX073	SO	4/26/2011	FIELD
8N	SL-027-SA8N-SB-9.0-10.0	DX073	SO	4/26/2011	FIELD
8N	SL-028-SA8N-SB-4.0-5.0	DX073	SO	4/26/2011	FIELD
8N	SL-028-SA8N-SB-9.0-10.0	DX073	SO	4/26/2011	FIELD
8N	SL-032-SA8N-SB-4.0-5.0	DX073	SO	4/27/2011	FIELD
8N	SL-032-SA8N-SB-9.0-10.0	DX073	SO	4/27/2011	FIELD
8N	SL-036-SA8N-SB-4.0-5.0	DX073	SO	4/25/2011	FIELD
8N	SL-036-SA8N-SB-9.0-10.0	DX073	SO	4/25/2011	FIELD
8N	SL-138-SA8N-SS-0.0-0.5	DX073	SO	4/19/2011	FIELD
8N	SL-139-SA8N-SS-0.0-0.5	DX073	SO	4/19/2011	FIELD
8N	SL-140-SA8N-SS-0.0-0.5	DX073	SO	4/19/2011	FIELD
8N	DUP05-SA8N-QC-042011	DX074	SO	4/20/2011	FIELD
8N	EB05-SA8N-SB-042811	DX074	WQ	4/28/2011	FIELD
8N	EB07-SA8N-SS-042011	DX074	WQ	4/20/2011	FIELD
8N	SL-041-SA8N-SB-4.0-5.0	DX074	SO	4/28/2011	FIELD
8N	SL-041-SA8N-SB-9.0-10.0	DX074	SO	4/28/2011	FIELD
8N	SL-098-SA8N-SS-0.0-0.5	DX074	SO	4/20/2011	FIELD
8N	SL-101-SA8N-SS-0.0-0.5	DX074	SO	4/20/2011	FIELD
8N	SL-102-SA8N-SS-0.0-0.5	DX074	SO	4/20/2011	FIELD
8N	SL-108-SA8N-SS-0.0-0.5	DX074	SO	4/20/2011	FIELD
8N	SL-120-SA8N-SS-0.0-0.5	DX074	SO	4/20/2011	FIELD
8N	SL-127-SA8N-SS-0.0-0.5	DX074	SO	4/20/2011	FIELD
8N	SL-128-SA8N-SS-0.0-0.5	DX074	SO	4/20/2011	FIELD
8N	SL-129-SA8N-SS-0.0-0.5	DX074	SO	4/20/2011	FIELD
8N	SL-136-SA8N-SS-0.0-0.5	DX074	SO	4/20/2011	FIELD
8N	SL-137-SA8N-SS-0.0-0.5	DX074	SO	4/20/2011	FIELD
8N	DUP06-SA8N-QC-042111	DX076	SO	4/21/2011	FIELD
8N	SL-004-SA8N-SB-4.0-5.0	DX076	SO	4/21/2011	FIELD
8N	SL-004-SA8N-SB-9.0-10.0	DX076	SO	4/21/2011	FIELD
8N	SL-005-SA8N-SB-4.0-5.0	DX076	SO	4/21/2011	FIELD
8N	SL-005-SA8N-SB-8.0-9.0	DX076	SO	4/21/2011	FIELD
8N	SL-006-SA8N-SB-4.0-5.0	DX076	SO	4/21/2011	FIELD
8N	SL-006-SA8N-SB-8.0-9.0	DX076	SO	4/21/2011	FIELD
8N	SL-021-SA8N-SB-4.0-5.0	DX076	SO	5/4/2011	FIELD

Appendix C. Samples by SDG for 8 North

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
8N	SL-021-SA8N-SB-9.0-10.0	DX076	SO	5/4/2011	FIELD
8N	SL-067-SA8N-SB-4.0-5.0	DX076	SO	5/4/2011	FIELD
8N	SL-080-SA8N-SB-4.0-5.0	DX076	SO	5/4/2011	FIELD
8N	SL-111-SA8N-SS-0.0-0.5	DX076	SO	4/21/2011	FIELD
8N	SL-112-SA8N-SS-0.0-0.5	DX076	SO	4/21/2011	FIELD
8N	SL-115-SA8N-SS-0.0-0.5	DX076	SO	4/21/2011	FIELD
8N	SL-116-SA8N-SS-0.0-0.5	DX076	SO	4/21/2011	FIELD
8N	SL-117-SA8N-SS-0.0-0.5	DX076	SO	4/21/2011	FIELD
8N	SL-118-SA8N-SS-0.0-0.5	DX076	SO	4/21/2011	FIELD
8N	SL-119-SA8N-SS-0.0-0.5	DX076	SO	4/21/2011	FIELD
8N	SL-125-SA8N-SS-0.0-0.5	DX076	SO	4/21/2011	FIELD
8N	SL-126-SA8N-SS-0.0-0.5	DX076	SO	4/21/2011	FIELD
8N	SL-007-SA8N-SB-4.0-5.0	DX077	SO	4/22/2011	FIELD
8N	SL-007-SA8N-SB-9.0-10.0	DX077	SO	4/22/2011	FIELD
8N	SL-010-SA8N-SB-4.0-5.0	DX077	SO	4/22/2011	FIELD
8N	SL-010-SA8N-SB-9.0-10.0	DX077	SO	4/22/2011	FIELD
8N	SL-011-SA8N-SB-4.0-5.0	DX077	SO	4/22/2011	FIELD
8N	SL-011-SA8N-SB-9.0-10.0	DX077	SO	4/22/2011	FIELD
8N	SL-012-SA8N-SB-4.0-5.0	DX077	SO	5/2/2011	FIELD
8N	SL-022-SA8N-SB-4.0-5.0	DX077	SO	5/2/2011	FIELD
8N	SL-022-SA8N-SB-9.0-10.0	DX077	SO	5/2/2011	FIELD
8N	SL-023-SA8N-SB-4.0-5.0	DX077	SO	5/2/2011	FIELD
8N	SL-023-SA8N-SB-9.0-10.0	DX077	SO	5/2/2011	FIELD
8N	SL-050-SA8N-SB-4.0-5.0	DX077	SO	5/2/2011	FIELD
8N	SL-050-SA8N-SB-9.0-10.0	DX077	SO	5/2/2011	FIELD
8N	DUP06-SA8N-QC-042911	DX078	SO	4/29/2011	FIELD
8N	SL-013-SA8N-SB-2.0-3.0	DX078	SO	4/29/2011	FIELD
8N	SL-014-SA8N-SB-4.0-5.0	DX078	SO	4/29/2011	FIELD
8N	SL-017-SA8N-SB-4.0-5.0	DX078	SO	4/29/2011	FIELD
8N	SL-017-SA8N-SB-7.0-8.0	DX078	SO	4/29/2011	FIELD
8N	SL-040-SA8N-SB-4.0-5.0	DX078	SO	4/29/2011	FIELD
8N	SL-040-SA8N-SB-9.0-10.0	DX078	SO	4/29/2011	FIELD
8N	SL-049-SA8N-SB-4.0-5.0	DX078	SO	4/29/2011	FIELD
8N	SL-049-SA8N-SB-8.0-9.0	DX078	SO	4/29/2011	FIELD
8N	DUP07-SA8N-QC-050311	DX079	SO	5/3/2011	FIELD
8N	EB08-SA8N-SB-050311	DX079	WQ	5/3/2011	FIELD
8N	EB09-SA8N-SB-051011	DX079	WQ	5/10/2011	FIELD
8N	SL-015-SA8N-SB-4.0-5.0	DX079	SO	5/3/2011	FIELD
8N	SL-016-SA8N-SB-3.0-4.0	DX079	SO	5/3/2011	FIELD
8N	SL-018-SA8N-SB-4.0-5.0	DX079	SO	5/3/2011	FIELD
8N	SL-019-SA8N-SB-4.0-5.0	DX079	SO	5/3/2011	FIELD
8N	SL-020-SA8N-SB-4.0-5.0	DX079	SO	5/3/2011	FIELD
8N	SL-020-SA8N-SB-9.0-10.0	DX079	SO	5/3/2011	FIELD
8N	SL-056-SA8N-SB-4.0-5.0	DX079	SO	5/5/2011	FIELD
8N	SL-056-SA8N-SB-7.0-8.0	DX079	SO	5/5/2011	FIELD
8N	SL-057-SA8N-SB-4.0-5.0	DX079	SO	5/5/2011	FIELD
8N	SL-057-SA8N-SB-7.0-8.0	DX079	SO	5/5/2011	FIELD
8N	SL-062-SA8N-SB-4.0-5.0	DX079	SO	5/5/2011	FIELD
8N	SL-086-SA8N-SB-6.5-7.5	DX079	SO	5/6/2011	FIELD
8N	SL-105-SA8N-SB-4.0-5.0	DX079	SO	5/10/2011	FIELD
8N	SL-127-SA8N-SB-4.0-5.0	DX079	SO	5/10/2011	FIELD

Appendix C. Samples by SDG for 8 North

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
8N	SL-128-SA8N-SB-2.5-3.5	DX079	SO	5/10/2011	FIELD
8N	SL-129-SA8N-SB-4.0-5.0	DX079	SO	5/10/2011	FIELD
8N	SL-137-SA8N-SB-4.0-5.0	DX079	SO	5/10/2011	FIELD
8N	SL-137-SA8N-SB-9.0-10.0	DX079	SO	5/10/2011	FIELD
8N	DUP08-SA8N-QC-050911	DX080	SO	5/9/2011	FIELD
8N	SL-078-SA8N-SB-4.0-5.0	DX080	SO	5/9/2011	FIELD
8N	SL-087-SA8N-SB-4.0-5.0	DX080	SO	5/9/2011	FIELD
8N	SL-087-SA8N-SB-9.0-10.0	DX080	SO	5/9/2011	FIELD
8N	SL-088-SA8N-SB-3.0-4.0	DX080	SO	5/9/2011	FIELD
8N	SL-097-SA8N-SB-4.0-5.0	DX080	SO	5/12/2011	FIELD
8N	SL-098-SA8N-SB-4.0-5.0	DX080	SO	5/12/2011	FIELD
8N	SL-098-SA8N-SB-9.0-10.0	DX080	SO	5/12/2011	FIELD
8N	SL-099-SA8N-SB-4.0-5.0	DX080	SO	5/12/2011	FIELD
8N	SL-101-SA8N-SB-4.0-5.0	DX080	SO	5/12/2011	FIELD
8N	SL-101-SA8N-SB-7.0-8.0	DX080	SO	5/12/2011	FIELD
8N	SL-103-SA8N-SB-3.0-4.0	DX080	SO	5/12/2011	FIELD
8N	SL-120-SA8N-SB-4.0-5.0	DX080	SO	5/11/2011	FIELD
8N	SL-120-SA8N-SB-9.0-10.0	DX080	SO	5/11/2011	FIELD
8N	SL-135-SA8N-SB-2.0-3.0	DX080	SO	5/9/2011	FIELD
8N	SL-136-SA8N-SB-4.0-5.0	DX080	SO	5/11/2011	FIELD
8N	SL-136-SA8N-SB-9.0-10.0	DX080	SO	5/11/2011	FIELD
8N	SL-141-SA8N-SB-4.0-5.0	DX080	SO	5/9/2011	FIELD
8N	SL-094-SA8N-SB-4.0-5.0	DX081	SO	5/13/2011	FIELD
8N	SL-094-SA8N-SB-7.5-8.5	DX081	SO	5/13/2011	FIELD
8N	SL-095-SA8N-SB-4.0-5.0	DX081	SO	5/13/2011	FIELD
8N	SL-096-SA8N-SB-4.0-5.0	DX081	SO	5/13/2011	FIELD
8N	SL-096-SA8N-SB-9.0-10.0	DX081	SO	5/13/2011	FIELD
8N	SL-104-SA8N-SB-4.0-5.0	DX081	SO	5/13/2011	FIELD
8N	SL-104-SA8N-SB-9.0-10.0	DX081	SO	5/13/2011	FIELD
8N	SL-001-SA8N-SB-4.0-5.0	DX091	SO	5/26/2011	FIELD
8N	SL-001-SA8N-SB-9.0-10.0	DX091	SO	5/26/2011	FIELD
8N	DUP09-SA8N-QC-052611	DX093	SO	5/26/2011	FIELD
8N	EB11-SA8N-SB-052611	DX093	WQ	5/26/2011	FIELD
8N	SL-002-SA8N-SB-4.0-5.0	DX093	SO	5/26/2011	FIELD
8N	SL-002-SA8N-SB-9.0-10.0	DX093	SO	5/26/2011	FIELD
8N	SL-008-SA8N-SB-4.0-5.0	DX093	SO	5/26/2011	FIELD
8N	SL-008-SA8N-SB-9.0-10.0	DX093	SO	5/26/2011	FIELD
8N	SL-003-SA8N-SB-4.0-5.0	DX094	SO	5/27/2011	FIELD
8N	SL-003-SA8N-SB-9.0-10.0	DX094	SO	5/27/2011	FIELD
8N	SL-071-SA8N-SB-2.0-3.0	DX099	SO	6/7/2011	FIELD
8N	SL-079-SA8N-SB-4.0-5.0	DX099	SO	6/6/2011	FIELD
8N	SL-079-SA8N-SB-9.0-10.0	DX099	SO	6/6/2011	FIELD
8N	SL-122-SA8N-SB-2.0-3.0	DX099	SO	6/7/2011	FIELD
8N	SL-133-SA8N-SB-4.0-5.0	DX099	SO	6/6/2011	FIELD
8N	SL-133-SA8N-SB-7.0-8.0	DX099	SO	6/6/2011	FIELD
8N	SL-140-SA8N-SB-3.0-4.0	DX099	SO	6/7/2011	FIELD
8N	DUP10-SA8N-QC-060811	DX100	SO	6/8/2011	FIELD
8N	EB16-SA8N-SB-060811	DX100	WQ	6/8/2011	FIELD
8N	SL-076-SA8N-SB-4.0-5.0	DX100	SO	6/8/2011	FIELD
8N	SL-076-SA8N-SB-7.5-8.5	DX100	SO	6/8/2011	FIELD
8N	SL-106-SA8N-SB-2.5-3.5	DX100	SO	6/8/2011	FIELD

Appendix C. Samples by SDG for 8 North

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
8N	SL-109-SA8N-SB-4.0-5.0	DX100	SO	6/8/2011	FIELD
8N	SL-109-SA8N-SB-9.0-10.0	DX100	SO	6/8/2011	FIELD
8N	SL-111-SA8N-SB-3.0-4.0	DX101	SO	6/10/2011	FIELD
8N	SL-116-SA8N-SB-4.0-5.0	DX101	SO	6/9/2011	FIELD
8N	SL-051-SA8N-SB-7.5-8.5	DX103	SO	6/17/2011	FIELD

Appendix C. Samples by SDG for 8 South

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
8S	DUP01-SA8S-QC-092911	DE258	SO	9/29/2011	FIELD
8S	SL-001-SA8S-SS-0.0-0.5	DE258	SO	9/29/2011	FIELD
8S	SL-003-SA8S-SS-0.0-0.5	DE258	SO	9/29/2011	FIELD
8S	SL-005-SA8S-SS-0.0-0.5	DE258	SO	9/29/2011	FIELD
8S	SL-007-SA8S-SS-0.0-0.5	DE258	SO	9/29/2011	FIELD
8S	SL-013-SA8S-SS-0.0-0.5	DE258	SO	9/29/2011	FIELD
8S	SL-014-SA8S-SS-0.0-0.5	DE258	SO	9/29/2011	FIELD
8S	SL-015-SA8S-SS-0.0-0.5	DE258	SO	9/29/2011	FIELD
8S	SL-024-SA8S-SS-0.0-0.5	DE258	SO	9/29/2011	FIELD
	TB-092911	DE258	AQ	9/29/2011	FIELD
8S	SL-008-SA8S-SS-0.0-0.5	DE259	SO	9/30/2011	FIELD
8S	SL-009-SA8S-SS-0.0-0.5	DE259	SO	9/30/2011	FIELD
8S	SL-010-SA8S-SS-0.0-0.5	DE259	SO	9/30/2011	FIELD
8S	SL-011-SA8S-SS-0.0-0.5	DE259	SO	9/30/2011	FIELD
8S	SL-012-SA8S-SS-0.0-0.5	DE259	SO	9/30/2011	FIELD
8S	SL-016-SA8S-SS-0.0-0.5	DE259	SO	9/30/2011	FIELD
8S	SL-017-SA8S-SS-0.0-0.5	DE259	SO	9/30/2011	FIELD
8S	SL-018-SA8S-SS-0.0-0.5	DE259	SO	9/30/2011	FIELD
8S	SL-019-SA8S-SS-0.0-0.5	DE259	SO	9/30/2011	FIELD
8S	SL-020-SA8S-SS-0.0-0.5	DE259	SO	9/30/2011	FIELD
8S	SL-021-SA8S-SS-0.0-0.5	DE259	SO	9/30/2011	FIELD
8S	SL-022-SA8S-SS-0.0-0.5	DE259	SO	9/30/2011	FIELD
8S	SL-023-SA8S-SS-0.0-0.5	DE259	SO	9/30/2011	FIELD
	TB-092911	DE259	AQ	9/29/2011	FIELD
8S	SL-016-SA8S-SB-4.0-5.0	DE273	SO	10/20/2011	FIELD
	TB-102011	DE273	AQ	10/20/2011	FIELD
8S	DUP02-SA8S-QC-102111	DE277	SO	10/21/2011	FIELD
8S	SL-014-SA8S-SB-4.0-5.0	DE277	SO	10/21/2011	FIELD
8S	SL-014-SA8S-SB-7.0-8.0	DE277	SO	10/21/2011	FIELD
8S	SL-015-SA8S-SB-4.0-5.0	DE277	SO	10/21/2011	FIELD
8S	SL-015-SA8S-SB-9.0-10.0	DE277	SO	10/21/2011	FIELD
8S	SL-017-SA8S-SB-4.0-5.0	DE277	SO	10/21/2011	FIELD
8S	SL-018-SA8S-SB-4.0-5.0	DE277	SO	10/21/2011	FIELD
8S	SL-018-SA8S-SB-7.5-8.5	DE277	SO	10/21/2011	FIELD
8S	SL-013-SA8S-SB-4.0-5.0	DE286	SO	11/14/2011	FIELD
8S	SL-005-SA8S-SB-3.5-4.5	DE287	SO	11/15/2011	FIELD
8S	SL-007-SA8S-SB-4.0-5.0	DE287	SO	11/15/2011	FIELD
8S	SL-009-SA8S-SB-4.0-5.0	DE287	SO	11/16/2011	FIELD
8S	SL-009-SA8S-SB-7.0-8.0	DE287	SO	11/16/2011	FIELD
8S	SL-024-SA8S-SB-4.0-5.0	DE287	SO	11/16/2011	FIELD
8S	SL-024-SA8S-SB-7.0-8.0	DE287	SO	11/16/2011	FIELD
8S	EB-SA8S-SB-111711	DE288	WQ	11/17/2011	FIELD
8S	SL-008-SA8S-SB-2.0-3.0	DE288	SO	11/17/2011	FIELD
8S	SL-010-SA8S-SB-4.0-5.0	DE288	SO	11/16/2011	FIELD
8S	SL-010-SA8S-SB-8.5-9.5	DE288	SO	11/16/2011	FIELD
8S	SL-011-SA8S-SB-4.0-5.0	DE288	SO	11/17/2011	FIELD
8S	SL-001-SA8S-SB-4.0-5.0	DE289	SO	11/18/2011	FIELD
8S	SL-012-SA8S-SB-4.0-5.0	DE289	SO	11/18/2011	FIELD
8S	SL-022-SA8S-SB-4.0-5.0	DE291	SO	12/1/2011	FIELD
8S	SL-022-SA8S-SB-8.0-9.0	DE291	SO	12/1/2011	FIELD
8S	SL-023-SA8S-SB-4.0-5.0	DE291	SO	12/1/2011	FIELD
8S	SL-023-SA8S-SB-9.0-10.0	DE291	SO	12/1/2011	FIELD
8S	DUP02-SA8S-QC-120211	DE292	SO	12/2/2011	FIELD
8S	SL-019-SA8S-SB-4.0-5.0	DE292	SO	12/2/2011	FIELD

Appendix C. Samples by SDG for 8 South

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
8S	SL-020-SA8S-SB-4.0-5.0	DE292	SO	12/2/2011	FIELD
8S	SL-020-SA8S-SB-9.0-10.0	DE292	SO	12/2/2011	FIELD
8S	SL-021-SA8S-SB-4.0-5.0	DE292	SO	12/2/2011	FIELD
8S	SL-021-SA8S-SB-9.0-10.0	DE292	SO	12/2/2011	FIELD
8S	SL-008-SA8S-SS-0.0-0.5	DX145	SO	9/30/2011	FIELD
8S	SL-009-SA8S-SS-0.0-0.5	DX145	SO	9/30/2011	FIELD
8S	SL-010-SA8S-SS-0.0-0.5	DX145	SO	9/30/2011	FIELD
8S	SL-011-SA8S-SS-0.0-0.5	DX145	SO	9/30/2011	FIELD
8S	SL-012-SA8S-SS-0.0-0.5	DX145	SO	9/30/2011	FIELD
8S	SL-016-SA8S-SS-0.0-0.5	DX145	SO	9/30/2011	FIELD
8S	SL-017-SA8S-SS-0.0-0.5	DX145	SO	9/30/2011	FIELD
8S	SL-018-SA8S-SS-0.0-0.5	DX145	SO	9/30/2011	FIELD
8S	SL-019-SA8S-SS-0.0-0.5	DX145	SO	9/30/2011	FIELD
8S	SL-020-SA8S-SS-0.0-0.5	DX145	SO	9/30/2011	FIELD
8S	SL-021-SA8S-SS-0.0-0.5	DX145	SO	9/30/2011	FIELD
8S	SL-022-SA8S-SS-0.0-0.5	DX146	SO	9/30/2011	FIELD
8S	SL-023-SA8S-SS-0.0-0.5	DX146	SO	9/30/2011	FIELD
8S	DUP01-SA8S-QC-092911	DX147	SO	9/29/2011	FIELD
8S	SL-001-SA8S-SS-0.0-0.5	DX147	SO	9/29/2011	FIELD
8S	SL-003-SA8S-SS-0.0-0.5	DX147	SO	9/29/2011	FIELD
8S	SL-005-SA8S-SS-0.0-0.5	DX147	SO	9/29/2011	FIELD
8S	SL-007-SA8S-SS-0.0-0.5	DX147	SO	9/29/2011	FIELD
8S	SL-013-SA8S-SS-0.0-0.5	DX147	SO	9/29/2011	FIELD
8S	SL-014-SA8S-SS-0.0-0.5	DX147	SO	9/29/2011	FIELD
8S	SL-015-SA8S-SS-0.0-0.5	DX147	SO	9/29/2011	FIELD
8S	SL-024-SA8S-SS-0.0-0.5	DX147	SO	9/29/2011	FIELD
8S	SL-016-SA8S-SB-4.0-5.0	DX150	SO	10/20/2011	FIELD
8S	DUP02-SA8S-QC-102111	DX152	SO	10/21/2011	FIELD
8S	SL-014-SA8S-SB-4.0-5.0	DX152	SO	10/21/2011	FIELD
8S	SL-014-SA8S-SB-7.0-8.0	DX152	SO	10/21/2011	FIELD
8S	SL-015-SA8S-SB-4.0-5.0	DX152	SO	10/21/2011	FIELD
8S	SL-015-SA8S-SB-9.0-10.0	DX152	SO	10/21/2011	FIELD
8S	SL-017-SA8S-SB-4.0-5.0	DX152	SO	10/21/2011	FIELD
8S	SL-018-SA8S-SB-4.0-5.0	DX152	SO	10/21/2011	FIELD
8S	SL-018-SA8S-SB-7.5-8.5	DX152	SO	10/21/2011	FIELD
8S	EB-SA8S-SB-111711	DX155	WQ	11/17/2011	FIELD
8S	SL-001-SA8S-SB-4.0-5.0	DX155	SO	11/18/2011	FIELD
8S	SL-005-SA8S-SB-3.5-4.5	DX155	SO	11/15/2011	FIELD
8S	SL-007-SA8S-SB-4.0-5.0	DX155	SO	11/15/2011	FIELD
8S	SL-008-SA8S-SB-2.0-3.0	DX155	SO	11/17/2011	FIELD
8S	SL-009-SA8S-SB-4.0-5.0	DX155	SO	11/16/2011	FIELD
8S	SL-009-SA8S-SB-7.0-8.0	DX155	SO	11/16/2011	FIELD
8S	SL-010-SA8S-SB-4.0-5.0	DX155	SO	11/16/2011	FIELD
8S	SL-010-SA8S-SB-8.5-9.5	DX155	SO	11/16/2011	FIELD
8S	SL-011-SA8S-SB-4.0-5.0	DX155	SO	11/17/2011	FIELD
8S	SL-012-SA8S-SB-4.0-5.0	DX155	SO	11/18/2011	FIELD
8S	SL-013-SA8S-SB-4.0-5.0	DX155	SO	11/14/2011	FIELD
8S	SL-024-SA8S-SB-4.0-5.0	DX155	SO	11/16/2011	FIELD
8S	SL-024-SA8S-SB-7.0-8.0	DX155	SO	11/16/2011	FIELD
8S	SL-022-SA8S-SB-4.0-5.0	DX156	SO	12/1/2011	FIELD
8S	SL-022-SA8S-SB-8.0-9.0	DX156	SO	12/1/2011	FIELD
8S	SL-023-SA8S-SB-4.0-5.0	DX156	SO	12/1/2011	FIELD
8S	SL-023-SA8S-SB-9.0-10.0	DX156	SO	12/1/2011	FIELD
8S	DUP02-SA8S-QC-120211	DX157	SO	12/2/2011	FIELD

Appendix C. Samples by SDG for 8 South

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
8S	SL-019-SA8S-SB-4.0-5.0	DX157	SO	12/2/2011	FIELD
8S	SL-020-SA8S-SB-4.0-5.0	DX157	SO	12/2/2011	FIELD
8S	SL-020-SA8S-SB-9.0-10.0	DX157	SO	12/2/2011	FIELD
8S	SL-021-SA8S-SB-4.0-5.0	DX157	SO	12/2/2011	FIELD
8S	SL-021-SA8S-SB-9.0-10.0	DX157	SO	12/2/2011	FIELD

SAMPLE DELIVERY GROUP

DE124

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-Apr-2011	SL-001-SA8N-SS-0.0-0.5	6255783	N	3050B	6010B	III
11-Apr-2011	SL-001-SA8N-SS-0.0-0.5	6255783	N	3050B	6020	III
11-Apr-2011	SL-001-SA8N-SS-0.0-0.5	6255783	N	3060A	7199	III
11-Apr-2011	SL-001-SA8N-SS-0.0-0.5	6255783	N	3550B	8082	III
11-Apr-2011	SL-001-SA8N-SS-0.0-0.5	6255783	N	3550B	8270C	III
11-Apr-2011	SL-001-SA8N-SS-0.0-0.5	6255783	N	3550B	8270C SIM	III
11-Apr-2011	SL-001-SA8N-SS-0.0-0.5	6255783	N	Gen Prep	9045M	III
11-Apr-2011	SL-001-SA8N-SS-0.0-0.5	6255783	N	METHOD	300.0	III
11-Apr-2011	SL-001-SA8N-SS-0.0-0.5	6255783	N	METHOD	314.0	III
11-Apr-2011	SL-001-SA8N-SS-0.0-0.5	6255783	N	METHOD	7471A	III
11-Apr-2011	SL-001-SA8N-SS-0.0-0.5	6255783	N	METHOD	8015M	III
11-Apr-2011	SL-002-SA8N-SS-0.0-0.5	6255784	N	3050B	6010B	III
11-Apr-2011	SL-002-SA8N-SS-0.0-0.5	6255784	N	3050B	6020	III
11-Apr-2011	SL-002-SA8N-SS-0.0-0.5	6255784	N	3060A	7199	III
11-Apr-2011	SL-002-SA8N-SS-0.0-0.5	6255784	N	3550B	8082	III
11-Apr-2011	SL-002-SA8N-SS-0.0-0.5	6255784	N	3550B	8270C	III
11-Apr-2011	SL-002-SA8N-SS-0.0-0.5	6255784	N	3550B	8270C SIM	III
11-Apr-2011	SL-002-SA8N-SS-0.0-0.5	6255784	N	Gen Prep	9045M	III
11-Apr-2011	SL-002-SA8N-SS-0.0-0.5	6255784	N	METHOD	300.0	III
11-Apr-2011	SL-002-SA8N-SS-0.0-0.5	6255784	N	METHOD	314.0	III
11-Apr-2011	SL-002-SA8N-SS-0.0-0.5	6255784	N	METHOD	6850	III
11-Apr-2011	SL-002-SA8N-SS-0.0-0.5	6255784	N	METHOD	7471A	III
11-Apr-2011	SL-002-SA8N-SS-0.0-0.5	6255784	N	METHOD	8015M	III
11-Apr-2011	SL-002-SA8N-SS-0.0-0.5MSD	P255784M241143A	MSD	METHOD	6850	III
11-Apr-2011	SL-002-SA8N-SS-0.0-0.5MS	P255784R241137A	MS	METHOD	6850	III
11-Apr-2011	SL-003-SA8N-SS-0.0-0.5	6255785	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
11-Apr-2011	SL-003-SA8N-SS-0.0-0.5	6255785	N	3050B	6020	III
11-Apr-2011	SL-003-SA8N-SS-0.0-0.5	6255785	N	3060A	7199	III
11-Apr-2011	SL-003-SA8N-SS-0.0-0.5	6255785	N	3550B	8082	III
11-Apr-2011	SL-003-SA8N-SS-0.0-0.5	6255785	N	3550B	8270C	III
11-Apr-2011	SL-003-SA8N-SS-0.0-0.5	6255785	N	3550B	8270C SIM	III
11-Apr-2011	SL-003-SA8N-SS-0.0-0.5	6255785	N	Gen Prep	9045M	III
11-Apr-2011	SL-003-SA8N-SS-0.0-0.5	6255785	N	METHOD	300.0	III
11-Apr-2011	SL-003-SA8N-SS-0.0-0.5	6255785	N	METHOD	314.0	III
11-Apr-2011	SL-003-SA8N-SS-0.0-0.5	6255785	N	METHOD	7471A	III
11-Apr-2011	SL-003-SA8N-SS-0.0-0.5	6255785	N	METHOD	8015M	III
11-Apr-2011	SL-004-SA8N-SS-0.0-0.5	6255786	N	3050B	6010B	III
11-Apr-2011	SL-004-SA8N-SS-0.0-0.5	6255786	N	3050B	6020	III
11-Apr-2011	SL-004-SA8N-SS-0.0-0.5	6255786	N	3060A	7199	III
11-Apr-2011	SL-004-SA8N-SS-0.0-0.5	6255786	N	3550B	8082	III
11-Apr-2011	SL-004-SA8N-SS-0.0-0.5	6255786	N	3550B	8270C	III
11-Apr-2011	SL-004-SA8N-SS-0.0-0.5	6255786	N	3550B	8270C SIM	III
11-Apr-2011	SL-004-SA8N-SS-0.0-0.5	6255786	N	8330	8330A	III
11-Apr-2011	SL-004-SA8N-SS-0.0-0.5	6255786	N	Gen Prep	9045M	III
11-Apr-2011	SL-004-SA8N-SS-0.0-0.5	6255786	N	METHOD	300.0	III
11-Apr-2011	SL-004-SA8N-SS-0.0-0.5	6255786	N	METHOD	314.0	III
11-Apr-2011	SL-004-SA8N-SS-0.0-0.5	6255786	N	METHOD	7471A	III
11-Apr-2011	SL-004-SA8N-SS-0.0-0.5	6255786	N	METHOD	8015M	III
11-Apr-2011	SL-005-SA8N-SS-0.0-0.5	6255787	N	3050B	6010B	III
11-Apr-2011	SL-005-SA8N-SS-0.0-0.5	6255787	N	3050B	6020	III
11-Apr-2011	SL-005-SA8N-SS-0.0-0.5	6255787	N	3060A	7199	III
11-Apr-2011	SL-005-SA8N-SS-0.0-0.5	6255787	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-Apr-2011	SL-005-SA8N-SS-0.0-0.5	6255787	N	3550B	8270C	III
11-Apr-2011	SL-005-SA8N-SS-0.0-0.5	6255787	N	3550B	8270C SIM	III
11-Apr-2011	SL-005-SA8N-SS-0.0-0.5	6255787	N	8330	8330A	III
11-Apr-2011	SL-005-SA8N-SS-0.0-0.5	6255787	N	Gen Prep	9045M	III
11-Apr-2011	SL-005-SA8N-SS-0.0-0.5	6255787	N	METHOD	300.0	III
11-Apr-2011	SL-005-SA8N-SS-0.0-0.5	6255787	N	METHOD	314.0	III
11-Apr-2011	SL-005-SA8N-SS-0.0-0.5	6255787	N	METHOD	7471A	III
11-Apr-2011	SL-005-SA8N-SS-0.0-0.5	6255787	N	METHOD	8015M	III
11-Apr-2011	SL-006-SA8N-SS-0.0-0.5	6255788	N	3050B	6010B	III
11-Apr-2011	SL-006-SA8N-SS-0.0-0.5	6255788	N	3050B	6020	III
11-Apr-2011	SL-006-SA8N-SS-0.0-0.5	6255788	N	3060A	7199	III
11-Apr-2011	SL-006-SA8N-SS-0.0-0.5	6255788	N	3550B	8082	III
11-Apr-2011	SL-006-SA8N-SS-0.0-0.5	6255788	N	3550B	8270C	III
11-Apr-2011	SL-006-SA8N-SS-0.0-0.5	6255788	N	3550B	8270C SIM	III
11-Apr-2011	SL-006-SA8N-SS-0.0-0.5	6255788	N	8330	8330A	III
11-Apr-2011	SL-006-SA8N-SS-0.0-0.5	6255788	N	Gen Prep	9045M	III
11-Apr-2011	SL-006-SA8N-SS-0.0-0.5	6255788	N	METHOD	300.0	III
11-Apr-2011	SL-006-SA8N-SS-0.0-0.5	6255788	N	METHOD	314.0	III
11-Apr-2011	SL-006-SA8N-SS-0.0-0.5	6255788	N	METHOD	7471A	III
11-Apr-2011	SL-006-SA8N-SS-0.0-0.5	6255788	N	METHOD	8015M	III
11-Apr-2011	SL-007-SA8N-SS-0.0-0.5	6255789	N	3050B	6010B	III
11-Apr-2011	SL-007-SA8N-SS-0.0-0.5	6255789	N	3050B	6020	III
11-Apr-2011	SL-007-SA8N-SS-0.0-0.5	6255789	N	3060A	7199	III
11-Apr-2011	SL-007-SA8N-SS-0.0-0.5	6255789	N	3550B	8082	III
11-Apr-2011	SL-007-SA8N-SS-0.0-0.5	6255789	N	3550B	8270C	III
11-Apr-2011	SL-007-SA8N-SS-0.0-0.5	6255789	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
11-Apr-2011	SL-007-SA8N-SS-0.0-0.5	6255789	N	Gen Prep	9045M	III
11-Apr-2011	SL-007-SA8N-SS-0.0-0.5	6255789	N	METHOD	300.0	III
11-Apr-2011	SL-007-SA8N-SS-0.0-0.5	6255789	N	METHOD	314.0	III
11-Apr-2011	SL-007-SA8N-SS-0.0-0.5	6255789	N	METHOD	7471A	III
11-Apr-2011	SL-007-SA8N-SS-0.0-0.5	6255789	N	METHOD	8015M	III
11-Apr-2011	SL-008-SA8N-SS-0.0-0.5	6255790	N	3050B	6010B	III
11-Apr-2011	SL-008-SA8N-SS-0.0-0.5	6255790	N	3050B	6020	III
11-Apr-2011	SL-008-SA8N-SS-0.0-0.5	6255790	N	3060A	7199	III
11-Apr-2011	SL-008-SA8N-SS-0.0-0.5	6255790	N	3550B	8082	III
11-Apr-2011	SL-008-SA8N-SS-0.0-0.5	6255790	N	3550B	8270C	III
11-Apr-2011	SL-008-SA8N-SS-0.0-0.5	6255790	N	3550B	8270C SIM	III
11-Apr-2011	SL-008-SA8N-SS-0.0-0.5	6255790	N	Gen Prep	9045M	III
11-Apr-2011	SL-008-SA8N-SS-0.0-0.5	6255790	N	METHOD	300.0	III
11-Apr-2011	SL-008-SA8N-SS-0.0-0.5	6255790	N	METHOD	314.0	III
11-Apr-2011	SL-008-SA8N-SS-0.0-0.5	6255790	N	METHOD	7471A	III
11-Apr-2011	SL-008-SA8N-SS-0.0-0.5	6255790	N	METHOD	8015M	III
11-Apr-2011	SL-009-SA8N-SS-0.0-0.5	6255791	N	3050B	6010B	III
11-Apr-2011	SL-009-SA8N-SS-0.0-0.5	6255791	N	3050B	6020	III
11-Apr-2011	SL-009-SA8N-SS-0.0-0.5	6255791	N	3060A	7199	III
11-Apr-2011	SL-009-SA8N-SS-0.0-0.5	6255791	N	3550B	8082	III
11-Apr-2011	SL-009-SA8N-SS-0.0-0.5	6255791	N	3550B	8270C	III
11-Apr-2011	SL-009-SA8N-SS-0.0-0.5	6255791	N	3550B	8270C SIM	III
11-Apr-2011	SL-009-SA8N-SS-0.0-0.5	6255791	N	8330	8330A	III
11-Apr-2011	SL-009-SA8N-SS-0.0-0.5	6255791	N	Gen Prep	9045M	III
11-Apr-2011	SL-009-SA8N-SS-0.0-0.5	6255791	N	METHOD	300.0	III
11-Apr-2011	SL-009-SA8N-SS-0.0-0.5	6255791	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
11-Apr-2011	SL-009-SA8N-SS-0.0-0.5	6255791	N	METHOD	7471A	III
11-Apr-2011	SL-009-SA8N-SS-0.0-0.5	6255791	N	METHOD	8015M	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	3050B	6010B	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	3050B	6020	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	3060A	7199	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	3546	1625C	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	3550B	8015B	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	3550B	8015M	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	3550B	8082	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	3550B	8270C	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	3550B	8270C SIM	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	8330	8330A	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	Gen Prep	9045M	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	METHOD	300.0	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	METHOD	314.0	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	METHOD	7471A	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	METHOD	8015B	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	METHOD	8015M	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	METHOD	8315A	III
11-Apr-2011	SL-010-SA8N-SS-0.0-0.5	6255792	N	METHOD	9012B	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	3050B	6010B	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	3050B	6020	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	3060A	7199	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	3546	1625C	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	3550B	8015B	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	3550B	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
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	3550B	8082	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	3550B	8270C	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	3550B	8270C SIM	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	8330	8330A	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	Gen Prep	9045M	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	METHOD	300.0	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	METHOD	314.0	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	METHOD	6850	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	METHOD	7471A	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	METHOD	8015B	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	METHOD	8015M	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	METHOD	8315A	III
11-Apr-2011	SL-011-SA8N-SS-0.0-0.5	6255793	N	METHOD	9012B	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	3050B	6010B	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	3050B	6020	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	3060A	7199	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	3546	1625C	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	3550B	8015B	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	3550B	8015M	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	3550B	8082	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	3550B	8270C	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	3550B	8270C SIM	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	8330	8330A	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	Gen Prep	9045M	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	METHOD	300.0	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	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
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	METHOD	7471A	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	METHOD	8015B	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	METHOD	8015M	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	METHOD	8315A	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5	6255800	N	METHOD	9012B	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5DUP	P255800D271417A	DUP	METHOD	300.0	III
11-Apr-2011	SL-049-SA8N-SS-0.0-0.5MS	P255800R271432A	MS	METHOD	300.0	III
11-Apr-2011	DUP01-SA8N-QC-041111	6255782	FD	3050B	6010B	III
11-Apr-2011	DUP01-SA8N-QC-041111	6255782	FD	3050B	6020	III
11-Apr-2011	DUP01-SA8N-QC-041111	6255782	FD	3060A	7199	III
11-Apr-2011	DUP01-SA8N-QC-041111	6255782	FD	3550B	8082	III
11-Apr-2011	DUP01-SA8N-QC-041111	6255782	FD	3550B	8270C	III
11-Apr-2011	DUP01-SA8N-QC-041111	6255782	FD	3550B	8270C SIM	III
11-Apr-2011	DUP01-SA8N-QC-041111	6255782	FD	Gen Prep	9045M	III
11-Apr-2011	DUP01-SA8N-QC-041111	6255782	FD	METHOD	300.0	III
11-Apr-2011	DUP01-SA8N-QC-041111	6255782	FD	METHOD	314.0	III
11-Apr-2011	DUP01-SA8N-QC-041111	6255782	FD	METHOD	7471A	III
11-Apr-2011	DUP01-SA8N-QC-041111	6255782	FD	METHOD	8015M	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5	6255794	N	3050B	6010B	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5	6255794	N	3050B	6020	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5	6255794	N	3060A	7199	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5	6255794	N	3550B	8082	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5	6255794	N	3550B	8270C	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5	6255794	N	3550B	8270C SIM	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5	6255794	N	Gen Prep	9045M	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5	6255794	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
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5	6255794	N	METHOD	314.0	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5	6255794	N	METHOD	7471A	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5	6255794	N	METHOD	8015M	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MS	6255795	MS	3050B	6010B	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MS	6255795	MS	3050B	6020	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MS	6255795	MS	3060A	7199	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MS	6255795	MS	3550B	8082	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MS	6255795	MS	3550B	8270C	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MS	6255795	MS	3550B	8270C SIM	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MS	6255795	MS	METHOD	300.0	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MS	6255795	MS	METHOD	314.0	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MS	6255795	MS	METHOD	7471A	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MS	6255795	MS	METHOD	8015M	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MSD	6255796	MSD	3050B	6010B	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MSD	6255796	MSD	3050B	6020	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MSD	6255796	MSD	3550B	8082	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MSD	6255796	MSD	3550B	8270C	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MSD	6255796	MSD	3550B	8270C SIM	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MSD	6255796	MSD	METHOD	7471A	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5MSD	6255796	MSD	METHOD	8015M	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5DUP	6255797	DUP	3050B	6010B	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5DUP	6255797	DUP	3050B	6020	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5DUP	6255797	DUP	3060A	7199	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5DUP	6255797	DUP	Gen Prep	9045M	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5DUP	6255797	DUP	METHOD	300.0	III
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5DUP	6255797	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
11-Apr-2011	SL-013-SA8N-SS-0.0-0.5DUP	6255797	DUP	METHOD	7471A	III
11-Apr-2011	DUP01-SA8N-QC-041111DUP	P255782D271301A	DUP	METHOD	300.0	III
11-Apr-2011	DUP01-SA8N-QC-041111MS	P255782R271315A	MS	METHOD	300.0	III
11-Apr-2011	SL-014-SA8N-SS-0.0-0.5	6255798	N	3050B	6010B	III
11-Apr-2011	SL-014-SA8N-SS-0.0-0.5	6255798	N	3050B	6020	III
11-Apr-2011	SL-014-SA8N-SS-0.0-0.5	6255798	N	3060A	7199	III
11-Apr-2011	SL-014-SA8N-SS-0.0-0.5	6255798	N	3550B	8082	III
11-Apr-2011	SL-014-SA8N-SS-0.0-0.5	6255798	N	3550B	8270C	III
11-Apr-2011	SL-014-SA8N-SS-0.0-0.5	6255798	N	3550B	8270C SIM	III
11-Apr-2011	SL-014-SA8N-SS-0.0-0.5	6255798	N	Gen Prep	9045M	III
11-Apr-2011	SL-014-SA8N-SS-0.0-0.5	6255798	N	METHOD	300.0	III
11-Apr-2011	SL-014-SA8N-SS-0.0-0.5	6255798	N	METHOD	314.0	III
11-Apr-2011	SL-014-SA8N-SS-0.0-0.5	6255798	N	METHOD	7471A	III
11-Apr-2011	SL-014-SA8N-SS-0.0-0.5	6255798	N	METHOD	8015M	III
11-Apr-2011	SL-014-SA8N-SS-0.0-0.5MSD	P255798M321716A	MSD	METHOD	8015M	III
11-Apr-2011	SL-014-SA8N-SS-0.0-0.5MS	P255798R321641A	MS	METHOD	8015M	III
11-Apr-2011	SL-017-SA8N-SS-0.0-0.5	6255799	N	3050B	6010B	III
11-Apr-2011	SL-017-SA8N-SS-0.0-0.5	6255799	N	3050B	6020	III
11-Apr-2011	SL-017-SA8N-SS-0.0-0.5	6255799	N	3060A	7199	III
11-Apr-2011	SL-017-SA8N-SS-0.0-0.5	6255799	N	3550B	8082	III
11-Apr-2011	SL-017-SA8N-SS-0.0-0.5	6255799	N	3550B	8270C	III
11-Apr-2011	SL-017-SA8N-SS-0.0-0.5	6255799	N	3550B	8270C SIM	III
11-Apr-2011	SL-017-SA8N-SS-0.0-0.5	6255799	N	Gen Prep	9045M	III
11-Apr-2011	SL-017-SA8N-SS-0.0-0.5	6255799	N	METHOD	300.0	III
11-Apr-2011	SL-017-SA8N-SS-0.0-0.5	6255799	N	METHOD	314.0	III
11-Apr-2011	SL-017-SA8N-SS-0.0-0.5	6255799	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
11-Apr-2011	SL-017-SA8N-SS-0.0-0.5	6255799	N	METHOD	8015M	III
11-Apr-2011	SL-017-SA8N-SS-0.0-0.5DUP	P255799D270139A	DUP	METHOD	314.0	III
11-Apr-2011	SL-017-SA8N-SS-0.0-0.5DUP	P255799D291415A	DUP	Gen Prep	9045M	III
11-Apr-2011	SL-017-SA8N-SS-0.0-0.5MS	P255799R270201A	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*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: DUP01-SA8N-QC-041111 ***Collected:*** 4/11/2011 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	1.9		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-001-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
FLUORIDE	1.3		1.0	MDL	1.3	PQL	mg/Kg	J	Q

Sample ID: SL-002-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	1.7		0.99	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-003-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	1.6		1.0	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-004-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 9:55:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-005-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	0.84	U	0.84	MDL	1.1	PQL	mg/Kg	UJ	Q

Sample ID: SL-006-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	3.1		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-007-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	1.6		0.97	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-008-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 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	2.4		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-009-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 12:45:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.7		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-010-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 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	2.1		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-011-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 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	2.9		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-013-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 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	1.5		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-014-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 2:30:00 **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		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-017-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 2:50:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.3		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-049-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 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
Nitrate-NO3	1.3	J	0.90	MDL	1.7	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-049-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	5.6		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: DUP01-SA8N-QC-041111 ***Collected:*** 4/11/2011 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
PHOSPHORUS	428		0.641	MDL	11.5	PQL	mg/Kg	J	E
POTASSIUM	3320		20.6	MDL	57.3	PQL	mg/Kg	J	Q
SODIUM	84.0	J	42.7	MDL	115	PQL	mg/Kg	J	Z
TIN	2.62	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	2.49	J	0.962	MDL	5.73	PQL	mg/Kg	J	Z

Sample ID: SL-001-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
PHOSPHORUS	698		0.685	MDL	12.2	PQL	mg/Kg	J	E
POTASSIUM	6590		22.0	MDL	61.1	PQL	mg/Kg	J	Q
SODIUM	99.4	J	45.6	MDL	122	PQL	mg/Kg	J	Z
TIN	2.91	J	1.22	MDL	12.2	PQL	mg/Kg	U	B
Zirconium	2.53	J	1.03	MDL	6.11	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
PHOSPHORUS	536		0.674	MDL	12.0	PQL	mg/Kg	J	E
POTASSIUM	5810		21.7	MDL	60.2	PQL	mg/Kg	J	Q
SODIUM	92.6	J	44.9	MDL	120	PQL	mg/Kg	J	Z
TIN	4.08	J	1.20	MDL	12.0	PQL	mg/Kg	U	B
Zirconium	3.26	J	1.01	MDL	6.02	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: DE124 **Laboratory:** LL

EDD Filename: DE124_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-003-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
PHOSPHORUS	559		0.690	MDL	12.3	PQL	mg/Kg	J	E
POTASSIUM	5140		22.2	MDL	61.6	PQL	mg/Kg	J	Q
SODIUM	106	J	45.9	MDL	123	PQL	mg/Kg	J	Z
TIN	3.03	J	1.23	MDL	12.3	PQL	mg/Kg	U	B
Zirconium	3.36	J	1.03	MDL	6.16	PQL	mg/Kg	J	Z

Sample ID: SL-004-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 9:55:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	639		0.622	MDL	11.1	PQL	mg/Kg	J	E
POTASSIUM	4740		20.0	MDL	55.5	PQL	mg/Kg	J	Q
SODIUM	107	J	41.4	MDL	111	PQL	mg/Kg	J	Z
TIN	2.54	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	3.10	J	0.933	MDL	5.55	PQL	mg/Kg	J	Z

Sample ID: SL-005-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
PHOSPHORUS	3620		1.15	MDL	20.5	PQL	mg/Kg	J	E

Sample ID: SL-005-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
POTASSIUM	3140		18.5	MDL	51.3	PQL	mg/Kg	J	Q
TIN	2.59	J	1.03	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	0.929	J	0.861	MDL	5.13	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
PHOSPHORUS	410		0.620	MDL	11.1	PQL	mg/Kg	J	E
POTASSIUM	3040		19.9	MDL	55.3	PQL	mg/Kg	J	Q
SODIUM	85.8	J	41.3	MDL	111	PQL	mg/Kg	J	Z
TIN	2.90	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	3.69	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-007-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
PHOSPHORUS	664		0.662	MDL	11.8	PQL	mg/Kg	J	E
POTASSIUM	6380		21.3	MDL	59.1	PQL	mg/Kg	J	Q
SODIUM	88.0	J	44.1	MDL	118	PQL	mg/Kg	J	Z
TIN	3.03	J	1.18	MDL	11.8	PQL	mg/Kg	U	B
Zirconium	2.67	J	0.993	MDL	5.91	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
PHOSPHORUS	441		0.596	MDL	10.6	PQL	mg/Kg	J	E
POTASSIUM	3900		19.2	MDL	53.2	PQL	mg/Kg	J	Q
SODIUM	91.3	J	39.7	MDL	106	PQL	mg/Kg	J	Z
TIN	2.95	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	1.91	J	0.894	MDL	5.32	PQL	mg/Kg	J	Z

Sample ID: SL-009-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 12:45:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	306		0.658	MDL	11.8	PQL	mg/Kg	J	E
POTASSIUM	3850		21.2	MDL	58.8	PQL	mg/Kg	J	Q
TIN	2.91	J	1.18	MDL	11.8	PQL	mg/Kg	U	B
Zirconium	3.49	J	0.988	MDL	5.88	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
PHOSPHORUS	461		0.650	MDL	11.6	PQL	mg/Kg	J	E
POTASSIUM	4690		20.9	MDL	58.1	PQL	mg/Kg	J	Q
SODIUM	83.8	J	43.3	MDL	116	PQL	mg/Kg	J	Z
TIN	3.00	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	3.39	J	0.976	MDL	5.81	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-011-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 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
PHOSPHORUS	574		0.648	MDL	11.6	PQL	mg/Kg	J	E
POTASSIUM	4760		20.8	MDL	57.9	PQL	mg/Kg	J	Q
SODIUM	100	J	43.2	MDL	116	PQL	mg/Kg	J	Z
TIN	2.93	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	3.21	J	0.972	MDL	5.79	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 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
PHOSPHORUS	533		0.644	MDL	11.5	PQL	mg/Kg	J	E
POTASSIUM	3140		20.7	MDL	57.5	PQL	mg/Kg	J	Q
SODIUM	90.9	J	42.9	MDL	115	PQL	mg/Kg	J	Z
TIN	2.86	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	1.85	J	0.966	MDL	5.75	PQL	mg/Kg	J	Z

Sample ID: SL-014-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 2:30:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	388		0.644	MDL	11.5	PQL	mg/Kg	J	E
POTASSIUM	2130		20.7	MDL	57.5	PQL	mg/Kg	J	Q
SODIUM	91.1	J	42.9	MDL	115	PQL	mg/Kg	J	Z
TIN	2.73	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	1.58	J	0.966	MDL	5.75	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 2:50:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	294		0.599	MDL	10.7	PQL	mg/Kg	J	E
POTASSIUM	2980		19.3	MDL	53.5	PQL	mg/Kg	J	Q
SODIUM	102	J	39.9	MDL	107	PQL	mg/Kg	J	Z
TIN	2.95	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	2.79	J	0.898	MDL	5.35	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-049-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 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
PHOSPHORUS	326		0.622	MDL	11.1	PQL	mg/Kg	J	E
POTASSIUM	2640		20.0	MDL	55.5	PQL	mg/Kg	J	Q
TIN	3.07	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.81	J	0.932	MDL	5.55	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: DUP01-SA8N-QC-041111 **Collected:** 4/11/2011 2:00:00 **Analysis Type:** REA **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	29.3		0.113	MDL	0.454	PQL	mg/Kg	J	Q, E
SILVER	0.0613	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z

Sample ID: DUP01-SA8N-QC-041111 **Collected:** 4/11/2011 2:00:00 **Analysis Type:** REA2 **Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	331		1.59	MDL	8.51	PQL	mg/Kg	J	E, E

Sample ID: DUP01-SA8N-QC-041111 **Collected:** 4/11/2011 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
SELENIUM	0.131	J	0.0454	MDL	0.454	PQL	mg/Kg	J	Z

Sample ID: DUP01-SA8N-QC-041111 **Collected:** 4/11/2011 2:00:00 **Analysis Type:** REA6 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	15.5		0.0763	MDL	0.463	PQL	mg/Kg	J	A

Sample ID: DUP01-SA8N-QC-041111 **Collected:** 4/11/2011 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	0.0937	J	0.0681	MDL	0.227	PQL	mg/Kg	J	Z, Q
ARSENIC	5.41		0.0907	MDL	0.454	PQL	mg/Kg	J	Q, E
CADMIUM	0.609		0.0454	MDL	0.113	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **DUP01-SA8N-QC-041111** ***Collected:*** **4/11/2011 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
CHROMIUM	23.4		0.136	MDL	0.454	PQL	mg/Kg	J	Q
COBALT	12.6		0.0227	MDL	0.113	PQL	mg/Kg	J	E
LEAD	13.0		0.0118	MDL	0.227	PQL	mg/Kg	J	Q
VANADIUM	42.4		0.0250	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: **SL-001-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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
NICKEL	25.9		0.126	MDL	0.504	PQL	mg/Kg	J	Q, E
SILVER	0.0297	J	0.0151	MDL	0.126	PQL	mg/Kg	J	Z

Sample ID: **SL-001-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 9:15:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.437	J	0.0504	MDL	0.504	PQL	mg/Kg	J	Z

Sample ID: **SL-001-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 9:15:00** ***Analysis Type:*** **REA6** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	19.3		0.0815	MDL	0.494	PQL	mg/Kg	J	A

Sample ID: **SL-001-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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	0.409		0.0756	MDL	0.252	PQL	mg/Kg	J	Q
ARSENIC	13.1		0.101	MDL	0.504	PQL	mg/Kg	J	Q, E
CADMIUM	0.471		0.0504	MDL	0.126	PQL	mg/Kg	J	Q, E
CHROMIUM	38.1		0.151	MDL	0.504	PQL	mg/Kg	J	Q
COBALT	12.6		0.0252	MDL	0.126	PQL	mg/Kg	J	E
LEAD	33.6		0.0131	MDL	0.252	PQL	mg/Kg	J	Q
VANADIUM	79.4		0.0277	MDL	0.126	PQL	mg/Kg	J	Q
ZINC	86.1		0.705	MDL	3.78	PQL	mg/Kg	J	E, 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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-002-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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
NICKEL	21.9		0.124	MDL	0.496	PQL	mg/Kg	J	Q, E
SILVER	0.0326	J	0.0149	MDL	0.124	PQL	mg/Kg	J	Z

Sample ID: **SL-002-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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
SELENIUM	0.227	J	0.0496	MDL	0.496	PQL	mg/Kg	J	Z

Sample ID: **SL-002-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 9:30:00** ***Analysis Type:*** **REA6** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	20.2		0.0810	MDL	0.491	PQL	mg/Kg	J	A

Sample ID: **SL-002-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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	0.420		0.0743	MDL	0.248	PQL	mg/Kg	J	Q
ARSENIC	7.28		0.0991	MDL	0.496	PQL	mg/Kg	J	Q, E
CADMIUM	0.414		0.0496	MDL	0.124	PQL	mg/Kg	J	Q, E
CHROMIUM	31.7		0.149	MDL	0.496	PQL	mg/Kg	J	Q
COBALT	10.9		0.0248	MDL	0.124	PQL	mg/Kg	J	E
LEAD	48.7		0.0129	MDL	0.248	PQL	mg/Kg	J	Q
VANADIUM	56.1		0.0273	MDL	0.124	PQL	mg/Kg	J	Q
ZINC	78.2		0.694	MDL	3.72	PQL	mg/Kg	J	E, E

Sample ID: **SL-003-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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
NICKEL	21.3		0.124	MDL	0.498	PQL	mg/Kg	J	Q, E
SILVER	0.0491	J	0.0149	MDL	0.124	PQL	mg/Kg	J	Z

Sample ID: **SL-003-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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
SELENIUM	0.225	J	0.0498	MDL	0.498	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-003-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 9:40:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	18.3		0.0813	MDL	0.493	PQL	mg/Kg	J	A

Sample ID: SL-003-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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	0.350		0.0746	MDL	0.249	PQL	mg/Kg	J	Q
ARSENIC	6.89		0.0995	MDL	0.498	PQL	mg/Kg	J	Q, E
CADMIUM	0.318		0.0498	MDL	0.124	PQL	mg/Kg	J	Q, E
CHROMIUM	29.4		0.149	MDL	0.498	PQL	mg/Kg	J	Q
COBALT	10.6		0.0249	MDL	0.124	PQL	mg/Kg	J	E
LEAD	31.7		0.0129	MDL	0.249	PQL	mg/Kg	J	Q
VANADIUM	53.1		0.0274	MDL	0.124	PQL	mg/Kg	J	Q
ZINC	72.5		0.697	MDL	3.73	PQL	mg/Kg	J	E, E

Sample ID: SL-004-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 9:55:00 *Analysis Type:* REA *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	121		0.0294	MDL	0.566	PQL	mg/Kg	J	Q

Sample ID: SL-004-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 9:55:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	18.2		0.113	MDL	0.453	PQL	mg/Kg	J	Q, E
SILVER	0.0343	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z

Sample ID: SL-004-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 9:55:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.196	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

Sample ID: SL-004-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 9:55:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	16.5		0.0733	MDL	0.444	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-004-SA8N-SS-0.0-0.5 **Collected: 4/11/2011 9:55:00** **Analysis Type: RES** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.957		0.0679	MDL	0.226	PQL	mg/Kg	J	Q
ARSENIC	7.59		0.0906	MDL	0.453	PQL	mg/Kg	J	Q, E
CADMIUM	0.304		0.0453	MDL	0.113	PQL	mg/Kg	J	Q, E
CHROMIUM	28.4		0.136	MDL	0.453	PQL	mg/Kg	J	Q
COBALT	9.94		0.0226	MDL	0.113	PQL	mg/Kg	J	E
VANADIUM	49.1		0.0249	MDL	0.113	PQL	mg/Kg	J	Q
ZINC	66.6		0.634	MDL	3.40	PQL	mg/Kg	J	E, E

Sample ID: SL-005-SA8N-SS-0.0-0.5 **Collected: 4/11/2011 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
NICKEL	13.2		0.104	MDL	0.414	PQL	mg/Kg	J	Q, E

Sample ID: SL-005-SA8N-SS-0.0-0.5 **Collected: 4/11/2011 10:10:00** **Analysis Type: REA2** **Dilution: 500**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	9920		2.69	MDL	51.8	PQL	mg/Kg	J	Q

Sample ID: SL-005-SA8N-SS-0.0-0.5 **Collected: 4/11/2011 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	0.226	J	0.0414	MDL	0.414	PQL	mg/Kg	J	Z

Sample ID: SL-005-SA8N-SS-0.0-0.5 **Collected: 4/11/2011 10:10:00** **Analysis Type: REA6** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	13.7		0.0683	MDL	0.414	PQL	mg/Kg	J	A

Sample ID: SL-005-SA8N-SS-0.0-0.5 **Collected: 4/11/2011 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	87.0		0.0621	MDL	0.207	PQL	mg/Kg	J	Q
ARSENIC	78.4		0.0828	MDL	0.414	PQL	mg/Kg	J	Q, E
CADMIUM	0.905		0.0414	MDL	0.104	PQL	mg/Kg	J	Q, E
CHROMIUM	20.0		0.124	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-005-SA8N-SS-0.0-0.5 **Collected: 4/11/2011 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
COBALT	11.1		0.0207	MDL	0.104	PQL	mg/Kg	J	E
VANADIUM	43.2		0.0228	MDL	0.104	PQL	mg/Kg	J	Q
ZINC	68.2		0.580	MDL	3.11	PQL	mg/Kg	J	E, E

Sample ID: SL-006-SA8N-SS-0.0-0.5 **Collected: 4/11/2011 10:25:00** **Analysis Type: REA** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.368		0.0684	MDL	0.228	PQL	mg/Kg	J	Q
CADMIUM	0.231		0.0456	MDL	0.114	PQL	mg/Kg	J	Q, E
NICKEL	20.7		0.114	MDL	0.456	PQL	mg/Kg	J	Q, E
SILVER	0.0193	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA8N-SS-0.0-0.5 **Collected: 4/11/2011 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
SELENIUM	0.0851	J	0.0456	MDL	0.456	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA8N-SS-0.0-0.5 **Collected: 4/11/2011 10:25:00** **Analysis Type: REA6** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	17.3		0.0752	MDL	0.456	PQL	mg/Kg	J	A

Sample ID: SL-006-SA8N-SS-0.0-0.5 **Collected: 4/11/2011 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
ARSENIC	7.59		0.0911	MDL	0.456	PQL	mg/Kg	J	Q, E
CHROMIUM	32.6		0.137	MDL	0.456	PQL	mg/Kg	J	Q
COBALT	10.7		0.0228	MDL	0.114	PQL	mg/Kg	J	E
LEAD	12.8		0.0118	MDL	0.228	PQL	mg/Kg	J	Q
VANADIUM	56.2		0.0251	MDL	0.114	PQL	mg/Kg	J	Q
ZINC	65.0		0.638	MDL	3.42	PQL	mg/Kg	J	E, 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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-007-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
CADMIUM	0.447		0.0487	MDL	0.122	PQL	mg/Kg	J	Q, E
NICKEL	20.8		0.122	MDL	0.487	PQL	mg/Kg	J	Q, E
SILVER	0.0394	J	0.0146	MDL	0.122	PQL	mg/Kg	J	Z

Sample ID: SL-007-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
SELENIUM	0.194	J	0.0487	MDL	0.487	PQL	mg/Kg	J	Z

Sample ID: SL-007-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 10:40:00 ***Analysis Type:*** REA6 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	19.4		0.0773	MDL	0.468	PQL	mg/Kg	J	A

Sample ID: SL-007-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	0.186	J	0.0731	MDL	0.244	PQL	mg/Kg	J	Z, Q
ARSENIC	6.53		0.0974	MDL	0.487	PQL	mg/Kg	J	Q, E
CHROMIUM	29.5		0.146	MDL	0.487	PQL	mg/Kg	J	Q
COBALT	10.2		0.0244	MDL	0.122	PQL	mg/Kg	J	E
LEAD	15.7		0.0127	MDL	0.244	PQL	mg/Kg	J	Q
VANADIUM	52.9		0.0268	MDL	0.122	PQL	mg/Kg	J	Q
ZINC	102		0.682	MDL	3.65	PQL	mg/Kg	J	E, E

Sample ID: SL-008-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
NICKEL	16.4		0.110	MDL	0.439	PQL	mg/Kg	J	Q, E
SILVER	0.0385	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	0.0905	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-008-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
COPPER	13.3		0.0717	MDL	0.434	PQL	mg/Kg	J	A

Sample ID: SL-008-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	0.110	J	0.0658	MDL	0.219	PQL	mg/Kg	J	Z, Q
ARSENIC	5.69		0.0877	MDL	0.439	PQL	mg/Kg	J	Q, E
CADMIUM	0.226		0.0439	MDL	0.110	PQL	mg/Kg	J	Q, E
CHROMIUM	23.3		0.132	MDL	0.439	PQL	mg/Kg	J	Q
COBALT	8.43		0.0219	MDL	0.110	PQL	mg/Kg	J	E
LEAD	12.6		0.0114	MDL	0.219	PQL	mg/Kg	J	Q
VANADIUM	41.3		0.0241	MDL	0.110	PQL	mg/Kg	J	Q
ZINC	100		0.614	MDL	3.29	PQL	mg/Kg	J	E, E

Sample ID: SL-009-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 12:45:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	23.4		0.114	MDL	0.457	PQL	mg/Kg	J	Q, E
SILVER	0.0497	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-009-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 12:45:00 ***Analysis Type:*** REA2 ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	240		1.60	MDL	8.56	PQL	mg/Kg	J	E, E

Sample ID: SL-009-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 12:45:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0965	J	0.0457	MDL	0.457	PQL	mg/Kg	J	Z

Sample ID: SL-009-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 12:45:00 ***Analysis Type:*** REA6 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	18.4		0.0776	MDL	0.470	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-009-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 12:45:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.140	J	0.0685	MDL	0.228	PQL	mg/Kg	J	Z, Q
ARSENIC	7.00		0.0914	MDL	0.457	PQL	mg/Kg	J	Q, E
CADMIUM	0.406		0.0457	MDL	0.114	PQL	mg/Kg	J	Q, E
CHROMIUM	31.7		0.137	MDL	0.457	PQL	mg/Kg	J	Q
COBALT	12.2		0.0228	MDL	0.114	PQL	mg/Kg	J	E
LEAD	11.5		0.0119	MDL	0.228	PQL	mg/Kg	J	Q
VANADIUM	55.2		0.0251	MDL	0.114	PQL	mg/Kg	J	Q

Sample ID: SL-010-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
NICKEL	18.8		0.117	MDL	0.469	PQL	mg/Kg	J	Q, E
SILVER	0.0339	J	0.0141	MDL	0.117	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	0.138	J	0.0469	MDL	0.469	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 12:55:00 ***Analysis Type:*** REA6 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	18.2		0.0774	MDL	0.469	PQL	mg/Kg	J	A

Sample ID: SL-010-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	0.117	J	0.0704	MDL	0.235	PQL	mg/Kg	J	Z, Q
ARSENIC	6.62		0.0938	MDL	0.469	PQL	mg/Kg	J	Q, E
CADMIUM	0.248		0.0469	MDL	0.117	PQL	mg/Kg	J	Q, E
CHROMIUM	27.8		0.141	MDL	0.469	PQL	mg/Kg	J	Q
COBALT	9.96		0.0235	MDL	0.117	PQL	mg/Kg	J	E
LEAD	11.2		0.0122	MDL	0.235	PQL	mg/Kg	J	Q
VANADIUM	49.2		0.0258	MDL	0.117	PQL	mg/Kg	J	Q
ZINC	94.3		0.657	MDL	3.52	PQL	mg/Kg	J	E, 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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-011-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
SILVER	0.0530	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z

Sample ID: SL-011-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
NICKEL	19.1		0.116	MDL	0.463	PQL	mg/Kg	J	Q, E

Sample ID: SL-011-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
SELENIUM	0.191	J	0.0463	MDL	0.463	PQL	mg/Kg	J	Z

Sample ID: SL-011-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 1:10:00 ***Analysis Type:*** REA6 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	18.3		0.0757	MDL	0.459	PQL	mg/Kg	J	A

Sample ID: SL-011-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	0.157	J	0.0694	MDL	0.231	PQL	mg/Kg	J	Z, Q
ARSENIC	6.92		0.0926	MDL	0.463	PQL	mg/Kg	J	Q, E
CADMIUM	0.343		0.0463	MDL	0.116	PQL	mg/Kg	J	Q, E
CHROMIUM	28.7		0.139	MDL	0.463	PQL	mg/Kg	J	Q
COBALT	10.1		0.0231	MDL	0.116	PQL	mg/Kg	J	E
LEAD	12.0		0.0120	MDL	0.231	PQL	mg/Kg	J	Q
VANADIUM	50.6		0.0255	MDL	0.116	PQL	mg/Kg	J	Q
ZINC	82.0		0.648	MDL	3.47	PQL	mg/Kg	J	E, E

Sample ID: SL-013-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 2:00:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	28.6		0.113	MDL	0.451	PQL	mg/Kg	J	Q, E
SILVER	0.0679	J	0.0135	MDL	0.113	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: **SL-013-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 2:00:00** ***Analysis Type:*** **REA2** ***Dilution:*** **5**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	260		1.58	MDL	8.46	PQL	mg/Kg	J	E, E

Sample ID: **SL-013-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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
SELENIUM	0.142	J	0.0451	MDL	0.451	PQL	mg/Kg	J	Z

Sample ID: **SL-013-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 2:00:00** ***Analysis Type:*** **REA6** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	15.0		0.0752	MDL	0.455	PQL	mg/Kg	J	A

Sample ID: **SL-013-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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	0.130	J	0.0677	MDL	0.226	PQL	mg/Kg	J	Z, Q
ARSENIC	5.33		0.0902	MDL	0.451	PQL	mg/Kg	J	Q, E
CADMIUM	0.854		0.0451	MDL	0.113	PQL	mg/Kg	J	Q, E
CHROMIUM	27.8		0.135	MDL	0.451	PQL	mg/Kg	J	Q
COBALT	11.4		0.0226	MDL	0.113	PQL	mg/Kg	J	E
LEAD	12.3		0.0117	MDL	0.226	PQL	mg/Kg	J	Q
VANADIUM	41.7		0.0248	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: **SL-014-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 2:30:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	14.0		0.114	MDL	0.455	PQL	mg/Kg	J	Q, E
SILVER	0.0284	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: **SL-014-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 2:30:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0838	J	0.0455	MDL	0.455	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-014-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 2:30:00 **Analysis Type:** REA6 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	11.6		0.0737	MDL	0.447	PQL	mg/Kg	J	A

Sample ID: SL-014-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 2:30:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0786	J	0.0683	MDL	0.228	PQL	mg/Kg	J	Z, Q
ARSENIC	4.70		0.0911	MDL	0.455	PQL	mg/Kg	J	Q, E
CADMIUM	0.168		0.0455	MDL	0.114	PQL	mg/Kg	J	Q, E
CHROMIUM	20.1		0.137	MDL	0.455	PQL	mg/Kg	J	Q
COBALT	6.37		0.0228	MDL	0.114	PQL	mg/Kg	J	E
LEAD	5.91		0.0118	MDL	0.228	PQL	mg/Kg	J	Q
VANADIUM	36.9		0.0251	MDL	0.114	PQL	mg/Kg	J	Q
ZINC	50.0		0.638	MDL	3.42	PQL	mg/Kg	J	E, E

Sample ID: SL-017-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 2:50:00 **Analysis Type:** REA **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.232		0.0432	MDL	0.108	PQL	mg/Kg	J	Q, E
NICKEL	18.2		0.108	MDL	0.432	PQL	mg/Kg	J	Q, E
SILVER	0.0435	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 2:50:00 **Analysis Type:** REA3 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.151	J	0.0432	MDL	0.432	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 2:50:00 **Analysis Type:** REA6 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	15.7		0.0706	MDL	0.428	PQL	mg/Kg	J	A

Sample ID: SL-017-SA8N-SS-0.0-0.5 **Collected:** 4/11/2011 2:50:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.211	J	0.0648	MDL	0.216	PQL	mg/Kg	J	Z, 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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-017-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 2:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.46		0.0864	MDL	0.432	PQL	mg/Kg	J	Q, E
CHROMIUM	25.2		0.130	MDL	0.432	PQL	mg/Kg	J	Q
COBALT	9.94		0.0216	MDL	0.108	PQL	mg/Kg	J	E
LEAD	14.1		0.0112	MDL	0.216	PQL	mg/Kg	J	Q
VANADIUM	45.8		0.0238	MDL	0.108	PQL	mg/Kg	J	Q
ZINC	65.5		0.605	MDL	3.24	PQL	mg/Kg	J	E, E

Sample ID: **SL-049-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 1:20:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	16.8		0.111	MDL	0.444	PQL	mg/Kg	J	Q, E
SILVER	0.0373	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: **SL-049-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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
SELENIUM	0.0872	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

Sample ID: **SL-049-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 1:20:00** ***Analysis Type:*** **REA6** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	13.8		0.0711	MDL	0.431	PQL	mg/Kg	J	A

Sample ID: **SL-049-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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	0.0804	J	0.0666	MDL	0.222	PQL	mg/Kg	J	Z, Q
ARSENIC	6.34		0.0888	MDL	0.444	PQL	mg/Kg	J	Q, E
CADMIUM	0.211		0.0444	MDL	0.111	PQL	mg/Kg	J	Q, E
CHROMIUM	24.9		0.133	MDL	0.444	PQL	mg/Kg	J	Q
COBALT	8.17		0.0222	MDL	0.111	PQL	mg/Kg	J	E
LEAD	8.62		0.0115	MDL	0.222	PQL	mg/Kg	J	Q
VANADIUM	44.7		0.0244	MDL	0.111	PQL	mg/Kg	J	Q
ZINC	69.4		0.622	MDL	3.33	PQL	mg/Kg	J	E, 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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: DUP01-SA8N-QC-041111 ***Collected:*** 4/11/2011 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
HEXAVALENT CHROMIUM	0.78	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	0.54	J	0.25	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-003-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	0.57	J	0.25	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	0.87	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	0.80	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	0.46	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-011-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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	0.50	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
HEXAVALENT CHROMIUM	0.94	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-017-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 2:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.82	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-049-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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	0.43	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: DUP01-SA8N-QC-041111 *Collected:* 4/11/2011 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	0.0032	U	0.0032	MDL	0.111	PQL	mg/Kg	UJ	FD

Sample ID: SL-008-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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	0.0052	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: SL-009-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0293	J	0.0033	MDL	0.116	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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	0.0099	J	0.0033	MDL	0.117	PQL	mg/Kg	J	Z

Sample ID: SL-011-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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	0.112	J	0.0033	MDL	0.115	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-013-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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	0.0037	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z, FD

Sample ID: SL-017-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 2:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0241	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-011-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 1:10:00 *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	380	J	197	MDL	394	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 6850 **Matrix: SO**

Sample ID: SL-011-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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
PERCHLORATE	3.2	J	2.5	MDL	5.9	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-013-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 2:00:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLENE GLYCOL	5.8	U	5.8	MDL	15	PQL	mg/Kg	UJ	Q
Propylene glycol	5.8	U	5.8	MDL	15	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-049-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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
EFH (C12-C14)	0.48	J	0.45	MDL	1.3	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: DUP01-SA8N-QC-041111 *Collected:* 4/11/2011 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 1248	1.8	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z, FD
Aroclor 5460	10		1.2	MDL	3.9	PQL	ug/Kg	J	FD

Sample ID: SL-001-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 9:15:00 *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	8.0	J	2.1	MDL	11	PQL	ug/Kg	J	Z
AROCLOR 1260	4.4	J	2.5	MDL	11	PQL	ug/Kg	J	Z
Aroclor 5460	8.4	J	6.3	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-002-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 9:30:00 *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	4.7	J	2.0	MDL	11	PQL	ug/Kg	J	Z
AROCLOR 1260	4.9	J	2.4	MDL	11	PQL	ug/Kg	J	Z

Sample ID: SL-003-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 9:40:00 *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 1254	7.1	J	2.1	MDL	11	PQL	ug/Kg	J	Z
AROCLOR 1260	3.7	J	2.4	MDL	11	PQL	ug/Kg	J	Z

Sample ID: SL-004-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 9:55:00 *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	9.5	J	3.8	MDL	20	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **SL-005-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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	1.6	J	0.70	MDL	3.6	PQL	ug/Kg	J	Z
AROCLOR 1260	3.1	J	0.82	MDL	3.6	PQL	ug/Kg	J	Z
Aroclor 5460	4.0	J	2.1	MDL	7.0	PQL	ug/Kg	J	Z

Sample ID: **SL-006-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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 1268	0.72	J	0.38	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: **SL-007-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 10:40:00** ***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	2.5	J	0.80	MDL	4.1	PQL	ug/Kg	J	Z
Aroclor 1268	3.1	J	0.80	MDL	4.1	PQL	ug/Kg	J	Z

Sample ID: **SL-008-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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
AROCLOR 1254	1.0	J	0.36	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 1268	1.6	J	0.36	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-009-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 12:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 1268	1.4	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5460	1.7	J	1.2	MDL	3.9	PQL	ug/Kg	J	Z

Sample ID: **SL-010-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 12:55:00** ***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		0.78	MDL	4.0	PQL	ug/Kg	J	S
Aroclor 1268	29		0.78	MDL	4.0	PQL	ug/Kg	J	S
Aroclor 5460	30		2.4	MDL	7.8	PQL	ug/Kg	J	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-011-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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 1254	75		0.78	MDL	4.0	PQL	ug/Kg	J	S
Aroclor 1268	11		0.78	MDL	4.0	PQL	ug/Kg	J	S
Aroclor 5460	13		2.4	MDL	7.8	PQL	ug/Kg	J	S

Sample ID: SL-013-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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 1248	0.38	U	0.38	MDL	2.0	PQL	ug/Kg	UJ	FD
Aroclor 5460	20		1.2	MDL	3.8	PQL	ug/Kg	J	FD

Sample ID: SL-014-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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
AROCLOR 1260	0.56	J	0.45	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-049-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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
AROCLOR 1254	1.7	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
AROCLOR 1260	0.99	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: DUP01-SA8N-QC-041111 *Collected:* 4/11/2011 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	23	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-001-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	25	J	21	MDL	420	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-002-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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	23	J	20	MDL	410	PQL	ug/Kg	J	Z

Sample ID: **SL-003-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	24	J	21	MDL	410	PQL	ug/Kg	J	Z

Sample ID: **SL-004-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 9:55:00** ***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	25	J	19	MDL	380	PQL	ug/Kg	J	Z
N-NITROSODIPHENYLAMINE	26	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: **SL-005-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	79	J	17	MDL	350	PQL	ug/Kg	J	Z

Sample ID: **SL-006-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	20	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: **SL-007-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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	30	J	20	MDL	400	PQL	ug/Kg	J	Z

Sample ID: **SL-008-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	31	J	18	MDL	360	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-011-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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	42	J	19	MDL	390	PQL	ug/Kg	J	Z
CHRYSENE	28	J	19	MDL	190	PQL	ug/Kg	J	Z
PYRENE	25	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: SL-013-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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-CHLOROPHENYL-PHENYLETHER	38	U	38	MDL	190	PQL	ug/Kg	UJ	Q
BENZIDINE	1300	U	1300	MDL	3800	PQL	ug/Kg	UJ	Q
BIS(2-ETHYLHEXYL)PHTHALATE	31	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-014-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	51	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-049-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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	29	J	19	MDL	370	PQL	ug/Kg	J	Z

Method Category: SVOA

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

Sample ID: DUP01-SA8N-QC-041111 *Collected:* 4/11/2011 2:00:00 *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)PYRENE	3.9	J	3.8	MDL	9.6	PQL	ug/Kg	J	Z, FD
BENZO(B)FLUORANTHENE	6.2	J	3.8	MDL	9.6	PQL	ug/Kg	J	Z, FD
CHRYSENE	4.7	J	1.9	MDL	9.6	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	5.7	J	3.8	MDL	9.6	PQL	ug/Kg	J	Z, FD
PYRENE	5.8	J	3.8	MDL	9.6	PQL	ug/Kg	J	Z, FD

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-001-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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(B)FLUORANTHENE	1.6	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z
CHRYSENE	1.4	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
NAPHTHALENE	0.87	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z
PHENANTHRENE	0.87	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z
PYRENE	1.2	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z

Sample ID: SL-002-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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
BENZO(B)FLUORANTHENE	1.8	J	0.82	MDL	2.1	PQL	ug/Kg	J	Z
CHRYSENE	1.5	J	0.41	MDL	2.1	PQL	ug/Kg	J	Z
NAPHTHALENE	1.1	J	0.82	MDL	2.1	PQL	ug/Kg	J	Z
PHENANTHRENE	1.4	J	0.82	MDL	2.1	PQL	ug/Kg	J	Z
PYRENE	1.6	J	0.82	MDL	2.1	PQL	ug/Kg	J	Z

Sample ID: SL-003-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 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
BENZO(A)ANTHRACENE	0.84	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.0	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.8	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z
CHRYSENE	1.8	J	0.41	MDL	2.0	PQL	ug/Kg	J	Z
PHENANTHRENE	1.3	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z
PYRENE	1.7	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-004-SA8N-SS-0.0-0.5 *Collected:* 4/11/2011 9:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.96	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.4	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.0	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.2	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.2	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.5	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: **SL-005-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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(B)FLUORANTHENE	1.0	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.0	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
Di-n-octylphthalate	12	J	6.3	MDL	19	PQL	ug/Kg	J	Z
PHENANTHRENE	0.92	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.4	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-006-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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
BENZO(A)ANTHRACENE	1.5	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.5	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.1	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.5	J	6.8	MDL	21	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.94	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-007-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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	1.3	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.2	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.1	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.0	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.84	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	10	J	7.3	MDL	22	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.87	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
NAPHTHALENE	1.6	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: **SL-008-SA8N-SS-0.0-0.5** ***Collected:*** **4/11/2011 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
2-METHYLNAPHTHALENE	0.90	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.1	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	1.5	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	1.4	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: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-008-SA8N-SS-0.0-0.5 **Collected: 4/11/2011 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
NAPHTHALENE	1.1	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	0.86	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	0.96	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-010-SA8N-SS-0.0-0.5 **Collected: 4/11/2011 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
CHRYSENE	0.87	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-011-SA8N-SS-0.0-0.5 **Collected: 4/11/2011 1:10:00** **Analysis Type: RES-BASE/NEUTRAL** **Dilution: 5**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	7.9	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	6.7	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z
PHENANTHRENE	7.9	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z

Sample ID: SL-013-SA8N-SS-0.0-0.5 **Collected: 4/11/2011 2:00:00** **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)PYRENE	3.8	U	3.8	MDL	9.6	PQL	ug/Kg	UJ	FD
BENZO(B)FLUORANTHENE	3.8	U	3.8	MDL	9.6	PQL	ug/Kg	UJ	FD
CHRYSENE	1.9	U	1.9	MDL	9.6	PQL	ug/Kg	UJ	FD
FLUORANTHENE	3.8	U	3.8	MDL	9.6	PQL	ug/Kg	UJ	FD
PYRENE	3.8	U	3.8	MDL	9.6	PQL	ug/Kg	UJ	FD

Sample ID: SL-014-SA8N-SS-0.0-0.5 **Collected: 4/11/2011 2:30:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.1	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.5	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.8	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.2	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.2	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.8	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE124 **Laboratory: LL**

EDD Filename: DE124_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-017-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
2-METHYLNAPHTHALENE	1.3	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	0.53	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	1.5	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-049-SA8N-SS-0.0-0.5 ***Collected:*** 4/11/2011 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
2-METHYLNAPHTHALENE	1.5	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.6	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.7	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.3	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.6	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.8	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE124 **Laboratory: LL**

EDD Filename: DE124_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: DE124 **Laboratory: LL**

EDD Filename: DE124_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: DE124 **Laboratory: LL**

EDD Filename: DE124_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

DE124

Method Blank Outlier Report

Lab Reporting Batch ID: DE124

Laboratory: LL

EDD Filename: DE124_v1

eQAPP Name: CDM_SSFL_110509

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10408CB221600	4/22/2011 4:00:00 PM	CALCIUM	6.33 mg/Kg	DUP01-SA8N-QC-041111
		PHOSPHORUS	1.92 mg/Kg	SL-001-SA8N-SS-0.0-0.5
		TIN	1.97 mg/Kg	SL-002-SA8N-SS-0.0-0.5
				SL-003-SA8N-SS-0.0-0.5
				SL-004-SA8N-SS-0.0-0.5
				SL-005-SA8N-SS-0.0-0.5
				SL-006-SA8N-SS-0.0-0.5
				SL-007-SA8N-SS-0.0-0.5
				SL-008-SA8N-SS-0.0-0.5
				SL-009-SA8N-SS-0.0-0.5
				SL-010-SA8N-SS-0.0-0.5
				SL-011-SA8N-SS-0.0-0.5
				SL-013-SA8N-SS-0.0-0.5
				SL-014-SA8N-SS-0.0-0.5
				SL-017-SA8N-SS-0.0-0.5
				SL-049-SA8N-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-SA8N-QC-041111(RES)	TIN	2.62 mg/Kg	2.62U mg/Kg
SL-001-SA8N-SS-0.0-0.5(RES)	TIN	2.91 mg/Kg	2.91U mg/Kg
SL-002-SA8N-SS-0.0-0.5(RES)	TIN	4.08 mg/Kg	4.08U mg/Kg
SL-003-SA8N-SS-0.0-0.5(RES)	TIN	3.03 mg/Kg	3.03U mg/Kg
SL-004-SA8N-SS-0.0-0.5(RES)	TIN	2.54 mg/Kg	2.54U mg/Kg
SL-005-SA8N-SS-0.0-0.5(RES)	TIN	2.59 mg/Kg	2.59U mg/Kg
SL-006-SA8N-SS-0.0-0.5(RES)	TIN	2.90 mg/Kg	2.90U mg/Kg
SL-007-SA8N-SS-0.0-0.5(RES)	TIN	3.03 mg/Kg	3.03U mg/Kg
SL-008-SA8N-SS-0.0-0.5(RES)	TIN	2.95 mg/Kg	2.95U mg/Kg
SL-009-SA8N-SS-0.0-0.5(RES)	TIN	2.91 mg/Kg	2.91U mg/Kg
SL-010-SA8N-SS-0.0-0.5(RES)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-011-SA8N-SS-0.0-0.5(RES)	TIN	2.93 mg/Kg	2.93U mg/Kg
SL-013-SA8N-SS-0.0-0.5(RES)	TIN	2.86 mg/Kg	2.86U mg/Kg
SL-014-SA8N-SS-0.0-0.5(RES)	TIN	2.73 mg/Kg	2.73U mg/Kg
SL-017-SA8N-SS-0.0-0.5(RES)	TIN	2.95 mg/Kg	2.95U mg/Kg
SL-049-SA8N-SS-0.0-0.5(RES)	TIN	3.07 mg/Kg	3.07U mg/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE124

Laboratory: LL

EDD Filename: DE124_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-013-SA8N-SS-0.0-0.5MSD (DUP01-SA8N-QC-041111 SL-001-SA8N-SS-0.0-0.5 SL-002-SA8N-SS-0.0-0.5 SL-003-SA8N-SS-0.0-0.5 SL-004-SA8N-SS-0.0-0.5 SL-005-SA8N-SS-0.0-0.5 SL-006-SA8N-SS-0.0-0.5 SL-007-SA8N-SS-0.0-0.5 SL-008-SA8N-SS-0.0-0.5 SL-009-SA8N-SS-0.0-0.5 SL-010-SA8N-SS-0.0-0.5 SL-011-SA8N-SS-0.0-0.5 SL-013-SA8N-SS-0.0-0.5 SL-014-SA8N-SS-0.0-0.5 SL-017-SA8N-SS-0.0-0.5 SL-049-SA8N-SS-0.0-0.5)	VANADIUM	-	147	75.00-125.00	-	VANADIUM	J (all detects)
SL-013-SA8N-SS-0.0-0.5MS **SL-013-SA8N-SS-0.0-0.5MSD** (DUP01-SA8N-QC-041111 SL-001-SA8N-SS-0.0-0.5 SL-002-SA8N-SS-0.0-0.5 SL-003-SA8N-SS-0.0-0.5 SL-004-SA8N-SS-0.0-0.5 SL-005-SA8N-SS-0.0-0.5 SL-006-SA8N-SS-0.0-0.5 SL-007-SA8N-SS-0.0-0.5 SL-008-SA8N-SS-0.0-0.5 SL-009-SA8N-SS-0.0-0.5 SL-010-SA8N-SS-0.0-0.5 SL-011-SA8N-SS-0.0-0.5 SL-013-SA8N-SS-0.0-0.5 SL-014-SA8N-SS-0.0-0.5 SL-017-SA8N-SS-0.0-0.5 SL-049-SA8N-SS-0.0-0.5)	ANTIMONY	16	13	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects) Post Spike %R = 110%
SL-013-SA8N-SS-0.0-0.5MS **SL-013-SA8N-SS-0.0-0.5MSD** (DUP01-SA8N-QC-041111 SL-001-SA8N-SS-0.0-0.5 SL-002-SA8N-SS-0.0-0.5 SL-003-SA8N-SS-0.0-0.5 SL-004-SA8N-SS-0.0-0.5 SL-005-SA8N-SS-0.0-0.5 SL-006-SA8N-SS-0.0-0.5 SL-007-SA8N-SS-0.0-0.5 SL-008-SA8N-SS-0.0-0.5 SL-009-SA8N-SS-0.0-0.5 SL-010-SA8N-SS-0.0-0.5 SL-011-SA8N-SS-0.0-0.5 SL-013-SA8N-SS-0.0-0.5 SL-014-SA8N-SS-0.0-0.5 SL-017-SA8N-SS-0.0-0.5 SL-049-SA8N-SS-0.0-0.5)	ARSENIC CADMIUM CHROMIUM LEAD NICKEL ZINC	- - 55 - - -	241 68 - 56 49 1385	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	31 (20.00) - - - - 42 (20.00)	ARSENIC CADMIUM CHROMIUM LEAD NICKEL ZINC	J(all detects) UJ(all non-detects) Zn No Qual %R, >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: DE124

EDD Filename: DE124_v1

Laboratory: LL

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-013-SA8N-SS-0.0-0.5MS **SL-013-SA8N-SS-0.0-0.5MSD** (DUP01-SA8N-QC-041111 SL-001-SA8N-SS-0.0-0.5 SL-002-SA8N-SS-0.0-0.5 SL-003-SA8N-SS-0.0-0.5 SL-004-SA8N-SS-0.0-0.5 SL-005-SA8N-SS-0.0-0.5 SL-006-SA8N-SS-0.0-0.5 SL-007-SA8N-SS-0.0-0.5 SL-008-SA8N-SS-0.0-0.5 SL-009-SA8N-SS-0.0-0.5 SL-010-SA8N-SS-0.0-0.5 SL-011-SA8N-SS-0.0-0.5 SL-013-SA8N-SS-0.0-0.5 SL-014-SA8N-SS-0.0-0.5 SL-017-SA8N-SS-0.0-0.5 SL-049-SA8N-SS-0.0-0.5)	BARIUM	306	132	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-013-SA8N-SS-0.0-0.5MS **SL-013-SA8N-SS-0.0-0.5MSD** (DUP01-SA8N-QC-041111 SL-001-SA8N-SS-0.0-0.5 SL-002-SA8N-SS-0.0-0.5 SL-003-SA8N-SS-0.0-0.5 SL-004-SA8N-SS-0.0-0.5 SL-005-SA8N-SS-0.0-0.5 SL-006-SA8N-SS-0.0-0.5 SL-007-SA8N-SS-0.0-0.5 SL-008-SA8N-SS-0.0-0.5 SL-009-SA8N-SS-0.0-0.5 SL-010-SA8N-SS-0.0-0.5 SL-011-SA8N-SS-0.0-0.5 SL-013-SA8N-SS-0.0-0.5 SL-014-SA8N-SS-0.0-0.5 SL-017-SA8N-SS-0.0-0.5 SL-049-SA8N-SS-0.0-0.5)	ALUMINUM IRON MAGNESIUM MANGANESE POTASSIUM	1995 1656 719 140 198	2742 2141 409 147 164	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	ALUMINUM IRON MAGNESIUM MANGANESE POTASSIUM	J(all detects) Al, Fe, Mg, Mn No Qual. >4x
SL-013-SA8N-SS-0.0-0.5MS **SL-013-SA8N-SS-0.0-0.5MSD** (DUP01-SA8N-QC-041111 SL-001-SA8N-SS-0.0-0.5 SL-002-SA8N-SS-0.0-0.5 SL-003-SA8N-SS-0.0-0.5 SL-004-SA8N-SS-0.0-0.5 SL-005-SA8N-SS-0.0-0.5 SL-006-SA8N-SS-0.0-0.5 SL-007-SA8N-SS-0.0-0.5 SL-008-SA8N-SS-0.0-0.5 SL-009-SA8N-SS-0.0-0.5 SL-010-SA8N-SS-0.0-0.5 SL-011-SA8N-SS-0.0-0.5 SL-013-SA8N-SS-0.0-0.5 SL-014-SA8N-SS-0.0-0.5 SL-017-SA8N-SS-0.0-0.5 SL-049-SA8N-SS-0.0-0.5)	CALCIUM PHOSPHORUS	-362 52	-374 -25	75.00-125.00 75.00-125.00	- -	CALCIUM PHOSPHORUS	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: DE124

EDD Filename: DE124_v1

Laboratory: LL

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-013-SA8N-SS-0.0-0.5MSD (SL-013-SA8N-SS-0.0-0.5)	2,4-DINITROPHENOL	-	-	20.00-143.00	34 (30.00)	2,4-DINITROPHENOL	J(all detects)
SL-013-SA8N-SS-0.0-0.5MS	4-CHLOROPHENYL-PHENYLET	78	-	80.00-109.00	-	4-CHLOROPHENYL-PHENYLE	J(all detects)
SL-013-SA8N-SS-0.0-0.5MSD (SL-013-SA8N-SS-0.0-0.5)	BENZIDINE	30	17	35.00-141.00	54 (30.00)	BENZIDINE	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-013-SA8N-SS-0.0-0.5MS	ACENAPHTHENE	110	-	63.00-105.00	-	ACENAPHTHENE	No Qual, Diluted Out
SL-013-SA8N-SS-0.0-0.5MSD	BENZO(A)PYRENE	-	-	45.00-138.00	31 (30.00)	BENZO(A)PYRENE	
(SL-013-SA8N-SS-0.0-0.5)	BENZO(G,H,I)PERYLENE	-	-	33.00-141.00	33 (30.00)	BENZO(G,H,I)PERYLENE	
	BENZO(K)FLUORANTHENE	-	-	42.00-144.00	40 (30.00)	BENZO(K)FLUORANTHENE	
	BIS(2-ETHYLHEXYL)PHTHALAT	173	-	39.00-167.00	-	BIS(2-ETHYLHEXYL)PHTHALA	
	Di-n-octylphthalate	231	200	40.00-192.00	-	Di-n-octylphthalate	
	NAPHTHALENE	104	-	61.00-102.00	-	NAPHTHALENE	
SL-013-SA8N-SS-0.0-0.5MSD	Diethylphthalate	-	0	70.00-136.00	200 (30.00)	Diethylphthalate	No Qual Diluted Out
(SL-013-SA8N-SS-0.0-0.5)	Dimethylphthalate	-	0	74.00-118.00	200 (30.00)	Dimethylphthalate	

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-013-SA8N-SS-0.0-0.5MS	ETHYLENE GLYCOL	58	-	63.00-107.00	-	ETHYLENE GLYCOL	J(all detects) UJ(all non-detects)
SL-013-SA8N-SS-0.0-0.5MSD	Propylene glycol	62	-	63.00-107.00	23 (20.00)	Propylene glycol	
(SL-013-SA8N-SS-0.0-0.5)							

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE124

Laboratory: LL

EDD Filename: DE124_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-013-SA8N-SS-0.0-0.5MS **SL-013-SA8N-SS-0.0-0.5MSD** (DUP01-SA8N-QC-041111 SL-001-SA8N-SS-0.0-0.5 SL-002-SA8N-SS-0.0-0.5 SL-003-SA8N-SS-0.0-0.5 SL-004-SA8N-SS-0.0-0.5 SL-005-SA8N-SS-0.0-0.5 SL-006-SA8N-SS-0.0-0.5 SL-007-SA8N-SS-0.0-0.5 SL-008-SA8N-SS-0.0-0.5 SL-009-SA8N-SS-0.0-0.5 SL-010-SA8N-SS-0.0-0.5 SL-011-SA8N-SS-0.0-0.5 SL-013-SA8N-SS-0.0-0.5 SL-014-SA8N-SS-0.0-0.5 SL-017-SA8N-SS-0.0-0.5 SL-049-SA8N-SS-0.0-0.5)	TITANIUM	224	225	75.00-125.00	-	TITANIUM	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
DUP01-SA8N-QC-041111MS (DUP01-SA8N-QC-041111 SL-001-SA8N-SS-0.0-0.5 SL-002-SA8N-SS-0.0-0.5 SL-003-SA8N-SS-0.0-0.5 SL-004-SA8N-SS-0.0-0.5 SL-005-SA8N-SS-0.0-0.5 SL-006-SA8N-SS-0.0-0.5 SL-007-SA8N-SS-0.0-0.5 SL-008-SA8N-SS-0.0-0.5 SL-009-SA8N-SS-0.0-0.5)	FLUORIDE	65	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-013-SA8N-SS-0.0-0.5MS (SL-010-SA8N-SS-0.0-0.5 SL-011-SA8N-SS-0.0-0.5 SL-013-SA8N-SS-0.0-0.5 SL-014-SA8N-SS-0.0-0.5 SL-017-SA8N-SS-0.0-0.5 SL-049-SA8N-SS-0.0-0.5)	FLUORIDE	72	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE124

Laboratory: LL

EDD Filename: DE124_v1

eQAPP Name: CDM_SSFL_110509

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-013-SA8N-SS-0.0-0.5DUP (SL-010-SA8N-SS-0.0-0.5 SL -011-SA8N-SS-0.0-0.5 SL -013-SA8N-SS-0.0-0.5 SL -014-SA8N-SS-0.0-0.5 SL -017-SA8N-SS-0.0-0.5 SL -049-SA8N-SS-0.0-0.5)	FLUORIDE	44	20.00	No Qual OK by difference

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-013-SA8N-SS-0.0-0.5DUP (DUP01-SA8N-QC-041111 SL -001-SA8N-SS-0.0-0.5 SL -002-SA8N-SS-0.0-0.5 SL -003-SA8N-SS-0.0-0.5 SL -004-SA8N-SS-0.0-0.5 SL -005-SA8N-SS-0.0-0.5 SL -006-SA8N-SS-0.0-0.5 SL -007-SA8N-SS-0.0-0.5 SL -008-SA8N-SS-0.0-0.5 SL -009-SA8N-SS-0.0-0.5 SL -010-SA8N-SS-0.0-0.5 SL -011-SA8N-SS-0.0-0.5 SL -013-SA8N-SS-0.0-0.5 SL -014-SA8N-SS-0.0-0.5 SL -017-SA8N-SS-0.0-0.5 SL -049-SA8N-SS-0.0-0.5)	PHOSPHORUS Zirconium	25 63	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-013-SA8N-SS-0.0-0.5DUP (DUP01-SA8N-QC-041111 SL -001-SA8N-SS-0.0-0.5 SL -002-SA8N-SS-0.0-0.5 SL -003-SA8N-SS-0.0-0.5 SL -004-SA8N-SS-0.0-0.5 SL -005-SA8N-SS-0.0-0.5 SL -006-SA8N-SS-0.0-0.5 SL -007-SA8N-SS-0.0-0.5 SL -008-SA8N-SS-0.0-0.5 SL -009-SA8N-SS-0.0-0.5 SL -010-SA8N-SS-0.0-0.5 SL -011-SA8N-SS-0.0-0.5 SL -013-SA8N-SS-0.0-0.5 SL -014-SA8N-SS-0.0-0.5 SL -017-SA8N-SS-0.0-0.5 SL -049-SA8N-SS-0.0-0.5)	ANTIMONY CADMIUM COBALT NICKEL ZINC	40 0.3113 39 39 23	20.00 0.2910 mg/Kg 20.00 20.00 20.00	J(all detects) UJ(all non-detects) Sb 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: DE124

Laboratory: LL

EDD Filename: DE124_v1

eQAPP Name: CDM_SSFL_110509

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-013-SA8N-SS-0.0-0.5DUP (DUP01-SA8N-QC-041111 SL-001-SA8N-SS-0.0-0.5 SL-002-SA8N-SS-0.0-0.5 SL-003-SA8N-SS-0.0-0.5 SL-004-SA8N-SS-0.0-0.5 SL-005-SA8N-SS-0.0-0.5 SL-006-SA8N-SS-0.0-0.5 SL-007-SA8N-SS-0.0-0.5 SL-008-SA8N-SS-0.0-0.5 SL-009-SA8N-SS-0.0-0.5 SL-010-SA8N-SS-0.0-0.5 SL-011-SA8N-SS-0.0-0.5 SL-013-SA8N-SS-0.0-0.5 SL-014-SA8N-SS-0.0-0.5 SL-017-SA8N-SS-0.0-0.5 SL-049-SA8N-SS-0.0-0.5)	HEXAVALENT CHROMIUM	73	20.00	No Qual OK by difference

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-013-SA8N-SS-0.0-0.5DUP (DUP01-SA8N-QC-041111 SL-001-SA8N-SS-0.0-0.5 SL-002-SA8N-SS-0.0-0.5 SL-003-SA8N-SS-0.0-0.5 SL-004-SA8N-SS-0.0-0.5 SL-005-SA8N-SS-0.0-0.5 SL-006-SA8N-SS-0.0-0.5 SL-007-SA8N-SS-0.0-0.5 SL-008-SA8N-SS-0.0-0.5 SL-009-SA8N-SS-0.0-0.5 SL-010-SA8N-SS-0.0-0.5 SL-011-SA8N-SS-0.0-0.5 SL-013-SA8N-SS-0.0-0.5 SL-014-SA8N-SS-0.0-0.5 SL-017-SA8N-SS-0.0-0.5 SL-049-SA8N-SS-0.0-0.5)	MERCURY	200	20.00	No Qual OK by difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE124

Laboratory: LL

EDD Filename: DE124_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
P10426CQ221600A (DUP01-SA8N-QC-041111 SL-001-SA8N-SS-0.0-0.5 SL-002-SA8N-SS-0.0-0.5 SL-003-SA8N-SS-0.0-0.5 SL-004-SA8N-SS-0.0-0.5 SL-005-SA8N-SS-0.0-0.5 SL-006-SA8N-SS-0.0-0.5 SL-007-SA8N-SS-0.0-0.5 SL-008-SA8N-SS-0.0-0.5 SL-009-SA8N-SS-0.0-0.5 SL-010-SA8N-SS-0.0-0.5 SL-011-SA8N-SS-0.0-0.5 SL-013-SA8N-SS-0.0-0.5 SL-014-SA8N-SS-0.0-0.5 SL-017-SA8N-SS-0.0-0.5 SL-049-SA8N-SS-0.0-0.5)	ANTIMONY	62	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Method: 8330A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11080AQ242114A (SL-004-SA8N-SS-0.0-0.5 SL-005-SA8N-SS-0.0-0.5 SL-006-SA8N-SS-0.0-0.5 SL-009-SA8N-SS-0.0-0.5 SL-010-SA8N-SS-0.0-0.5 SL-011-SA8N-SS-0.0-0.5 SL-049-SA8N-SS-0.0-0.5)	PETN	126	-	80.00-120.00	-	PETN	J(all detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE124

Laboratory: LL

EDD Filename: DE124_v1

eQAPP Name: CDM_SSFL_110509

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-004-SA8N-SS-0.0-0.5	DECACHLOROBIPHENYL	121	45.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-010-SA8N-SS-0.0-0.5	DECACHLOROBIPHENYL	274	45.00-120.00	All Target Analytes	J(all detects)
SL-011-SA8N-SS-0.0-0.5	DECACHLOROBIPHENYL	148	45.00-120.00	All Target Analytes	J(all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE124

Laboratory: LL

EDD Filename: DE124_v1

eQAPP Name: CDM_SSFL_110509

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-013-SA8N-SS-0.0-0.5	DUP01-SA8N-QC-041111			
MOISTURE	13.9	14.4	4		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-013-SA8N-SS-0.0-0.5	DUP01-SA8N-QC-041111			
FLUORIDE	1.5	1.9	24	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-013-SA8N-SS-0.0-0.5	DUP01-SA8N-QC-041111			
ALUMINUM	19000	18300	4	50.00	No Qualifiers Applied
BORON	12.0	11.2	7	50.00	
CALCIUM	16400	17800	8	50.00	
IRON	24000	22400	7	50.00	
LITHIUM	23.4	21.5	8	50.00	
MAGNESIUM	5320	5330	0	50.00	
MANGANESE	322	310	4	50.00	
PHOSPHORUS	533	428	22	50.00	
POTASSIUM	3140	3320	6	50.00	
SODIUM	90.9	84.0	8	50.00	
STRONTIUM	30.4	30.8	1	50.00	
TIN	2.86	2.62	9	50.00	
TITANIUM	1340	1270	5	50.00	
Zirconium	1.85	2.49	29	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-013-SA8N-SS-0.0-0.5	DUP01-SA8N-QC-041111			
ANTIMONY	0.130	0.0937	32	50.00	No Qualifiers Applied
ARSENIC	5.33	5.41	1	50.00	
BARIUM	95.5	94.3	1	50.00	
BERYLLIUM	0.640	0.646	1	50.00	
CADMIUM	0.854	0.609	33	50.00	
CHROMIUM	27.8	23.4	17	50.00	
COBALT	11.4	12.6	10	50.00	
COPPER	15.0	15.5	3	50.00	
LEAD	12.3	13.0	6	50.00	
MOLYBDENUM	0.468	0.656	33	50.00	
NICKEL	28.6	29.3	2	50.00	
SELENIUM	0.142	0.131	8	50.00	
SILVER	0.0679	0.0613	10	50.00	
THALLIUM	0.274	0.289	5	50.00	
VANADIUM	41.7	42.4	2	50.00	
ZINC	260	331	24	50.00	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE124

Laboratory: LL

EDD Filename: DE124_v1

eQAPP Name: CDM_SSFL_110509

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-013-SA8N-SS-0.0-0.5	DUP01-SA8N-QC-041111			
HEXAVALENT CHROMIUM	0.94	0.78	19	50.00	No Qualifiers Applied

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-013-SA8N-SS-0.0-0.5	DUP01-SA8N-QC-041111			
MERCURY	0.0037	0.111 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-013-SA8N-SS-0.0-0.5	DUP01-SA8N-QC-041111			
AROCLOR 1254	5.7	5.0	13	50.00	No Qualifiers Applied
AROCLOR 1260	22	20	10	50.00	
AROCLOR 1248	2.0 U	1.8	200	50.00	J(all detects) UJ(all non-detects)
Aroclor 5460	20	10	67	50.00	

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-013-SA8N-SS-0.0-0.5	DUP01-SA8N-QC-041111			
BENZO(A)PYRENE	9.6 U	3.9	200	50.00	J(all detects) UJ(all non-detects)
BENZO(B)FLUORANTHENE	9.6 U	6.2	200	50.00	
CHRYSENE	9.6 U	4.7	200	50.00	
FLUORANTHENE	9.6 U	5.7	200	50.00	
PYRENE	9.6 U	5.8	200	50.00	

Method: 8270C
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-013-SA8N-SS-0.0-0.5	DUP01-SA8N-QC-041111			
BIS(2-ETHYLHEXYL)PHTHALATE	31	23	30	50.00	No Qualifiers Applied

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-013-SA8N-SS-0.0-0.5	DUP01-SA8N-QC-041111			
PH	8.01	7.87	2	50.00	No Qualifiers Applied

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE124

Laboratory: LL

EDD Filename: DE124_v1

eQAPP Name: CDM_SSFL_110509

Method: ASTM D1498

Matrix: SO

Analyte	*Concentration (mV)*		*Sample RPD*	*eQAPP RPD*	*Flag*
	SL-013-SA8N-SS-0.0-0.5	DUP01-SA8N-QC-041111			
Oxidation Reduction Potential	379	411	8		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE124

Laboratory: LL

EDD Filename: DE124_v1

eQAPP Name: CDM_SSFL_110509

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-011-SA8N-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	380	394	PQL	ng/Kg	J (all detects)

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-049-SA8N-SS-0.0-0.5	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
DUP01-SA8N-QC-041111	SODIUM	J	84.0	115	PQL	mg/Kg	J (all detects)
	TIN	J	2.62	11.5	PQL	mg/Kg	
	Zirconium	J	2.49	5.73	PQL	mg/Kg	
SL-001-SA8N-SS-0.0-0.5	SODIUM	J	99.4	122	PQL	mg/Kg	J (all detects)
	TIN	J	2.91	12.2	PQL	mg/Kg	
	Zirconium	J	2.53	6.11	PQL	mg/Kg	
SL-002-SA8N-SS-0.0-0.5	SODIUM	J	92.6	120	PQL	mg/Kg	J (all detects)
	TIN	J	4.08	12.0	PQL	mg/Kg	
	Zirconium	J	3.26	6.02	PQL	mg/Kg	
SL-003-SA8N-SS-0.0-0.5	SODIUM	J	106	123	PQL	mg/Kg	J (all detects)
	TIN	J	3.03	12.3	PQL	mg/Kg	
	Zirconium	J	3.36	6.16	PQL	mg/Kg	
SL-004-SA8N-SS-0.0-0.5	SODIUM	J	107	111	PQL	mg/Kg	J (all detects)
	TIN	J	2.54	11.1	PQL	mg/Kg	
	Zirconium	J	3.10	5.55	PQL	mg/Kg	
SL-005-SA8N-SS-0.0-0.5	TIN	J	2.59	10.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	0.929	5.13	PQL	mg/Kg	
SL-006-SA8N-SS-0.0-0.5	SODIUM	J	85.8	111	PQL	mg/Kg	J (all detects)
	TIN	J	2.90	11.1	PQL	mg/Kg	
	Zirconium	J	3.69	5.53	PQL	mg/Kg	
SL-007-SA8N-SS-0.0-0.5	SODIUM	J	88.0	118	PQL	mg/Kg	J (all detects)
	TIN	J	3.03	11.8	PQL	mg/Kg	
	Zirconium	J	2.67	5.91	PQL	mg/Kg	
SL-008-SA8N-SS-0.0-0.5	SODIUM	J	91.3	106	PQL	mg/Kg	J (all detects)
	TIN	J	2.95	10.6	PQL	mg/Kg	
	Zirconium	J	1.91	5.32	PQL	mg/Kg	
SL-009-SA8N-SS-0.0-0.5	TIN	J	2.91	11.8	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.49	5.88	PQL	mg/Kg	
SL-010-SA8N-SS-0.0-0.5	SODIUM	J	83.8	116	PQL	mg/Kg	J (all detects)
	TIN	J	3.00	11.6	PQL	mg/Kg	
	Zirconium	J	3.39	5.81	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE124

Laboratory: LL

EDD Filename: DE124_v1

eQAPP Name: CDM_SSFL_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-011-SA8N-SS-0.0-0.5	SODIUM	J	100	116	PQL	mg/Kg	J (all detects)
	TIN	J	2.93	11.6	PQL	mg/Kg	
	Zirconium	J	3.21	5.79	PQL	mg/Kg	
SL-013-SA8N-SS-0.0-0.5	SODIUM	J	90.9	115	PQL	mg/Kg	J (all detects)
	TIN	J	2.86	11.5	PQL	mg/Kg	
	Zirconium	J	1.85	5.75	PQL	mg/Kg	
SL-014-SA8N-SS-0.0-0.5	SODIUM	J	91.1	115	PQL	mg/Kg	J (all detects)
	TIN	J	2.73	11.5	PQL	mg/Kg	
	Zirconium	J	1.58	5.75	PQL	mg/Kg	
SL-017-SA8N-SS-0.0-0.5	SODIUM	J	102	107	PQL	mg/Kg	J (all detects)
	TIN	J	2.95	10.7	PQL	mg/Kg	
	Zirconium	J	2.79	5.35	PQL	mg/Kg	
SL-049-SA8N-SS-0.0-0.5	TIN	J	3.07	11.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.81	5.55	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA8N-QC-041111	ANTIMONY	J	0.0937	0.227	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.131	0.454	PQL	mg/Kg	
	SILVER	J	0.0613	0.113	PQL	mg/Kg	
SL-001-SA8N-SS-0.0-0.5	SELENIUM	J	0.437	0.504	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0297	0.126	PQL	mg/Kg	
SL-002-SA8N-SS-0.0-0.5	SELENIUM	J	0.227	0.496	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0326	0.124	PQL	mg/Kg	
SL-003-SA8N-SS-0.0-0.5	SELENIUM	J	0.225	0.498	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0491	0.124	PQL	mg/Kg	
SL-004-SA8N-SS-0.0-0.5	SELENIUM	J	0.196	0.453	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0343	0.113	PQL	mg/Kg	
SL-005-SA8N-SS-0.0-0.5	SELENIUM	J	0.226	0.414	PQL	mg/Kg	J (all detects)
SL-006-SA8N-SS-0.0-0.5	SELENIUM	J	0.0851	0.456	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0193	0.114	PQL	mg/Kg	
SL-007-SA8N-SS-0.0-0.5	ANTIMONY	J	0.186	0.244	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.194	0.487	PQL	mg/Kg	
	SILVER	J	0.0394	0.122	PQL	mg/Kg	
SL-008-SA8N-SS-0.0-0.5	ANTIMONY	J	0.110	0.219	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0905	0.439	PQL	mg/Kg	
	SILVER	J	0.0385	0.110	PQL	mg/Kg	
SL-009-SA8N-SS-0.0-0.5	ANTIMONY	J	0.140	0.228	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0965	0.457	PQL	mg/Kg	
	SILVER	J	0.0497	0.114	PQL	mg/Kg	
SL-010-SA8N-SS-0.0-0.5	ANTIMONY	J	0.117	0.235	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.138	0.469	PQL	mg/Kg	
	SILVER	J	0.0339	0.117	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE124

Laboratory: LL

EDD Filename: DE124_v1

eQAPP Name: CDM_SSFL_110509

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-011-SA8N-SS-0.0-0.5	ANTIMONY	J	0.157	0.231	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.191	0.463	PQL	mg/Kg	
	SILVER	J	0.0530	0.116	PQL	mg/Kg	
SL-013-SA8N-SS-0.0-0.5	ANTIMONY	J	0.130	0.226	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.142	0.451	PQL	mg/Kg	
	SILVER	J	0.0679	0.113	PQL	mg/Kg	
SL-014-SA8N-SS-0.0-0.5	ANTIMONY	J	0.0786	0.228	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0838	0.455	PQL	mg/Kg	
	SILVER	J	0.0284	0.114	PQL	mg/Kg	
SL-017-SA8N-SS-0.0-0.5	ANTIMONY	J	0.211	0.216	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.151	0.432	PQL	mg/Kg	
	SILVER	J	0.0435	0.108	PQL	mg/Kg	
SL-049-SA8N-SS-0.0-0.5	ANTIMONY	J	0.0804	0.222	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0872	0.444	PQL	mg/Kg	
	SILVER	J	0.0373	0.111	PQL	mg/Kg	

Method: 6850

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-011-SA8N-SS-0.0-0.5	PERCHLORATE	J	3.2	5.9	PQL	ug/Kg	J (all detects)

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA8N-QC-041111	HEXAVALENT CHROMIUM	J	0.78	1.2	PQL	mg/Kg	J (all detects)
SL-002-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.54	1.2	PQL	mg/Kg	J (all detects)
SL-003-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.57	1.2	PQL	mg/Kg	J (all detects)
SL-006-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.87	1.2	PQL	mg/Kg	J (all detects)
SL-008-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.80	1.1	PQL	mg/Kg	J (all detects)
SL-010-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.46	1.2	PQL	mg/Kg	J (all detects)
SL-011-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.50	1.2	PQL	mg/Kg	J (all detects)
SL-013-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.94	1.2	PQL	mg/Kg	J (all detects)
SL-017-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.82	1.1	PQL	mg/Kg	J (all detects)
SL-049-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.43	1.1	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE124

Laboratory: LL

EDD Filename: DE124_v1

eQAPP Name: CDM_SSFL_110509

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA8N-SS-0.0-0.5	MERCURY	J	0.0052	0.105	PQL	mg/Kg	J (all detects)
SL-009-SA8N-SS-0.0-0.5	MERCURY	J	0.0293	0.116	PQL	mg/Kg	J (all detects)
SL-010-SA8N-SS-0.0-0.5	MERCURY	J	0.0099	0.117	PQL	mg/Kg	J (all detects)
SL-011-SA8N-SS-0.0-0.5	MERCURY	J	0.112	0.115	PQL	mg/Kg	J (all detects)
SL-013-SA8N-SS-0.0-0.5	MERCURY	J	0.0037	0.112	PQL	mg/Kg	J (all detects)
SL-017-SA8N-SS-0.0-0.5	MERCURY	J	0.0241	0.105	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-049-SA8N-SS-0.0-0.5	EFH (C12-C14)	J	0.48	1.3	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA8N-QC-041111	AROCLOR 1248	J	1.8	2.0	PQL	ug/Kg	J (all detects)
SL-001-SA8N-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	8.0 4.4 8.4	11 11 21	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-002-SA8N-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260	J J	4.7 4.9	11 11	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-003-SA8N-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260	J J	7.1 3.7	11 11	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-004-SA8N-SS-0.0-0.5	AROCLOR 1254	J	9.5	20	PQL	ug/Kg	J (all detects)
SL-005-SA8N-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	1.6 3.1 4.0	3.6 3.6 7.0	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-006-SA8N-SS-0.0-0.5	Aroclor 1268	J	0.72	2.0	PQL	ug/Kg	J (all detects)
SL-007-SA8N-SS-0.0-0.5	AROCLOR 1254 Aroclor 1268	J J	2.5 3.1	4.1 4.1	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-008-SA8N-SS-0.0-0.5	AROCLOR 1254 Aroclor 1268	J J	1.0 1.6	1.9 1.9	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-009-SA8N-SS-0.0-0.5	Aroclor 1268 Aroclor 5460	J J	1.4 1.7	2.0 3.9	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-014-SA8N-SS-0.0-0.5	AROCLOR 1260	J	0.56	2.0	PQL	ug/Kg	J (all detects)
SL-049-SA8N-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260	J J	1.7 0.99	1.9 1.9	PQL PQL	ug/Kg ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE124

Laboratory: LL

EDD Filename: DE124_v1

eQAPP Name: CDM_SSFL_110509

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA8N-QC-041111	BIS(2-ETHYLHEXYL)PHTHALATE	J	23	380	PQL	ug/Kg	J (all detects)
SL-001-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	420	PQL	ug/Kg	J (all detects)
SL-002-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	23	410	PQL	ug/Kg	J (all detects)
SL-003-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	410	PQL	ug/Kg	J (all detects)
SL-004-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE N-NITROSODIPHENYLAMINE	J J	25 26	380 190	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-005-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	79	350	PQL	ug/Kg	J (all detects)
SL-006-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	380	PQL	ug/Kg	J (all detects)
SL-007-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	30	400	PQL	ug/Kg	J (all detects)
SL-008-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	31	360	PQL	ug/Kg	J (all detects)
SL-011-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE CHRYSENE PYRENE	J J J	42 28 25	390 190 190	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-013-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	31	380	PQL	ug/Kg	J (all detects)
SL-014-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	51	380	PQL	ug/Kg	J (all detects)
SL-049-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	29	370	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA8N-QC-041111	BENZO(A)PYRENE BENZO(B)FLUORANTHENE CHRYSENE FLUORANTHENE PYRENE	J J J J J	3.9 6.2 4.7 5.7 5.8	9.6 9.6 9.6 9.6 9.6	PQL PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)
SL-001-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE CHRYSENE FLUORANTHENE NAPHTHALENE PHENANTHRENE PYRENE	J J J J J J	1.6 1.4 1.3 0.87 0.87 1.2	2.1 2.1 2.1 2.1 2.1 2.1	PQL PQL PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)
SL-002-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE CHRYSENE NAPHTHALENE PHENANTHRENE PYRENE	J J J J J	1.8 1.5 1.1 1.4 1.6	2.1 2.1 2.1 2.1 2.1	PQL PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)
SL-003-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE CHRYSENE PHENANTHRENE PYRENE	J J J J J J	0.84 1.0 1.8 1.8 1.3 1.7	2.0 2.0 2.0 2.0 2.0 2.0	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: DE124

Laboratory: LL

EDD Filename: DE124_v1

eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-004-SA8N-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.96	1.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.4	1.9	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.0	1.9	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.2	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.2	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.5	1.9	PQL	ug/Kg	
SL-005-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.0	1.7	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	1.0	1.7	PQL	ug/Kg	
	Di-n-octylphthalate	J	12	19	PQL	ug/Kg	
	PHENANTHRENE	J	0.92	1.7	PQL	ug/Kg	
	PYRENE	J	1.4	1.7	PQL	ug/Kg	
SL-006-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.5	1.9	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.5	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.2	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.1	1.9	PQL	ug/Kg	
	Di-n-octylphthalate	J	9.5	21	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.94	1.9	PQL	ug/Kg	
SL-007-SA8N-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	1.3	2.0	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	1.2	2.0	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.1	2.0	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.0	2.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.84	2.0	PQL	ug/Kg	
	Di-n-octylphthalate	J	10	22	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.87	2.0	PQL	ug/Kg	
	NAPHTHALENE	J	1.6	2.0	PQL	ug/Kg	
SL-008-SA8N-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.90	1.8	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.1	1.8	PQL	ug/Kg	
	CHRYSENE	J	1.5	1.8	PQL	ug/Kg	
	FLUORANTHENE	J	1.4	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	0.86	1.8	PQL	ug/Kg	
	PYRENE	J	0.96	1.8	PQL	ug/Kg	
SL-010-SA8N-SS-0.0-0.5	CHRYSENE	J	0.87	2.0	PQL	ug/Kg	J (all detects)
SL-011-SA8N-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	7.9	9.7	PQL	ug/Kg	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	6.7	9.7	PQL	ug/Kg	
	PHENANTHRENE	J	7.9	9.7	PQL	ug/Kg	
SL-014-SA8N-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	1.1	1.9	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	1.5	1.9	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.8	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.2	1.9	PQL	ug/Kg	
	BENZO(K)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	1.8	1.9	PQL	ug/Kg	
SL-017-SA8N-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	1.3	1.8	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.53	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	1.5	1.8	PQL	ug/Kg	
SL-049-SA8N-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	1.5	1.9	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.6	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.7	1.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.3	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.6	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.8	1.9	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE124

Laboratory: LL

EDD Filename: DE124_v1

eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag

LDC #: 25916F4
SDG #: DE124
Laboratory: Lancaster Laboratories

VALIDATION COMPLETENESS WORKSHEET
ADR

Date: 8-31

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, P, Ti, Zn >4X)
VII.	Duplicate Sample Analysis	N	D (Sb, Cd, Hg ≤5x RL)
VIII.	Laboratory Control Samples (LCS)	A	LCS LCS out by difference (0.3113 ≤ 0.29 [0.07]) 10
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Cu: 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	DUP01-SA8N-QC-041111 D	11	SL-010-SA8N-SS-0.0-0.5	21		31	
2	SL-001-SA8N-SS-0.0-0.5	12	SL-011-SA8N-SS-0.0-0.5	22		32	
3	SL-002-SA8N-SS-0.0-0.5	13	SL-013-SA8N-SS-0.0-0.5 D	23		33	
4	SL-003-SA8N-SS-0.0-0.5	14	SL-014-SA8N-SS-0.0-0.5	24		34	
5	SL-004-SA8N-SS-0.0-0.5	15	SL-017-SA8N-SS-0.0-0.5	25		35	
6	SL-005-SA8N-SS-0.0-0.5	16	SL-049-SA8N-SS-0.0-0.5	26		36	
7	SL-006-SA8N-SS-0.0-0.5	17	SL-013-SA8N-SS-0.0-0.5MS	27		37	
8	SL-007-SA8N-SS-0.0-0.5	18	SL-013-SA8N-SS-0.0-0.5MSD	28		38	
9	SL-008-SA8N-SS-0.0-0.5	19	SL-013-SA8N-SS-0.0-0.5DUP	29		39	
10	SL-009-SA8N-SS-0.0-0.5	20		30		40	

Notes:

SAMPLE DELIVERY GROUP

DE125

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
12-Apr-2011	TB-041211	6256879	TB	5030B	8260B	IV
12-Apr-2011	TB-041211	6256879	TB	5030B	8260B SIM	IV
12-Apr-2011	SL-018-SA8N-SS-0.0-0.5	6256862	N	3050B	6010B	IV
12-Apr-2011	SL-018-SA8N-SS-0.0-0.5	6256862	N	3050B	6020	IV
12-Apr-2011	SL-018-SA8N-SS-0.0-0.5	6256862	N	3060A	7199	IV
12-Apr-2011	SL-018-SA8N-SS-0.0-0.5	6256862	N	3550B	8082	IV
12-Apr-2011	SL-018-SA8N-SS-0.0-0.5	6256862	N	3550B	8270C	IV
12-Apr-2011	SL-018-SA8N-SS-0.0-0.5	6256862	N	3550B	8270C SIM	IV
12-Apr-2011	SL-018-SA8N-SS-0.0-0.5	6256862	N	Gen Prep	9045M	IV
12-Apr-2011	SL-018-SA8N-SS-0.0-0.5	6256862	N	METHOD	300.0	IV
12-Apr-2011	SL-018-SA8N-SS-0.0-0.5	6256862	N	METHOD	314.0	IV
12-Apr-2011	SL-018-SA8N-SS-0.0-0.5	6256862	N	METHOD	7471A	IV
12-Apr-2011	SL-228-SA5A-SB-3.0-4.0	6256878	N	3050B	6010B	IV
12-Apr-2011	SL-228-SA5A-SB-3.0-4.0	6256878	N	3050B	6020	IV
12-Apr-2011	SL-228-SA5A-SB-3.0-4.0	6256878	N	3060A	7199	IV
12-Apr-2011	SL-228-SA5A-SB-3.0-4.0	6256878	N	3550B	8082	IV
12-Apr-2011	SL-228-SA5A-SB-3.0-4.0	6256878	N	3550B	8270C	IV
12-Apr-2011	SL-228-SA5A-SB-3.0-4.0	6256878	N	3550B	8270C SIM	IV
12-Apr-2011	SL-228-SA5A-SB-3.0-4.0	6256878	N	5035	8260B	IV
12-Apr-2011	SL-228-SA5A-SB-3.0-4.0	6256878	N	5035	8260B SIM	IV
12-Apr-2011	SL-228-SA5A-SB-3.0-4.0	6256878	N	Gen Prep	9045M	IV
12-Apr-2011	SL-228-SA5A-SB-3.0-4.0	6256878	N	METHOD	300.0	IV
12-Apr-2011	SL-228-SA5A-SB-3.0-4.0	6256878	N	METHOD	314.0	IV
12-Apr-2011	SL-228-SA5A-SB-3.0-4.0	6256878	N	METHOD	6850	IV
12-Apr-2011	SL-228-SA5A-SB-3.0-4.0	6256878	N	METHOD	7471A	IV
12-Apr-2011	SL-016-SA8N-SS-0.0-0.5	6256861	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
12-Apr-2011	SL-016-SA8N-SS-0.0-0.5	6256861	N	3050B	6020	IV
12-Apr-2011	SL-016-SA8N-SS-0.0-0.5	6256861	N	3060A	7199	IV
12-Apr-2011	SL-016-SA8N-SS-0.0-0.5	6256861	N	3550B	8082	IV
12-Apr-2011	SL-016-SA8N-SS-0.0-0.5	6256861	N	3550B	8270C	IV
12-Apr-2011	SL-016-SA8N-SS-0.0-0.5	6256861	N	3550B	8270C SIM	IV
12-Apr-2011	SL-016-SA8N-SS-0.0-0.5	6256861	N	Gen Prep	9045M	IV
12-Apr-2011	SL-016-SA8N-SS-0.0-0.5	6256861	N	METHOD	300.0	IV
12-Apr-2011	SL-016-SA8N-SS-0.0-0.5	6256861	N	METHOD	314.0	IV
12-Apr-2011	SL-016-SA8N-SS-0.0-0.5	6256861	N	METHOD	6850	IV
12-Apr-2011	SL-016-SA8N-SS-0.0-0.5	6256861	N	METHOD	7471A	IV
12-Apr-2011	SL-016-SA8N-SS-0.0-0.5	6256861	N	METHOD	8015M	IV
12-Apr-2011	SL-015-SA8N-SS-0.0-0.5	6256860	N	3050B	6010B	IV
12-Apr-2011	SL-015-SA8N-SS-0.0-0.5	6256860	N	3050B	6020	IV
12-Apr-2011	SL-015-SA8N-SS-0.0-0.5	6256860	N	3060A	7199	IV
12-Apr-2011	SL-015-SA8N-SS-0.0-0.5	6256860	N	3550B	8082	IV
12-Apr-2011	SL-015-SA8N-SS-0.0-0.5	6256860	N	3550B	8270C	IV
12-Apr-2011	SL-015-SA8N-SS-0.0-0.5	6256860	N	3550B	8270C SIM	IV
12-Apr-2011	SL-015-SA8N-SS-0.0-0.5	6256860	N	Gen Prep	9045M	IV
12-Apr-2011	SL-015-SA8N-SS-0.0-0.5	6256860	N	METHOD	300.0	IV
12-Apr-2011	SL-015-SA8N-SS-0.0-0.5	6256860	N	METHOD	314.0	IV
12-Apr-2011	SL-015-SA8N-SS-0.0-0.5	6256860	N	METHOD	7471A	IV
12-Apr-2011	SL-015-SA8N-SS-0.0-0.5	6256860	N	METHOD	8015M	IV
12-Apr-2011	SL-227-SA5A-SB-3.0-4.0	6256877	N	3050B	6010B	IV
12-Apr-2011	SL-227-SA5A-SB-3.0-4.0	6256877	N	3050B	6020	IV
12-Apr-2011	SL-227-SA5A-SB-3.0-4.0	6256877	N	3060A	7199	IV
12-Apr-2011	SL-227-SA5A-SB-3.0-4.0	6256877	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
12-Apr-2011	SL-227-SA5A-SB-3.0-4.0	6256877	N	3550B	8270C	IV
12-Apr-2011	SL-227-SA5A-SB-3.0-4.0	6256877	N	3550B	8270C SIM	IV
12-Apr-2011	SL-227-SA5A-SB-3.0-4.0	6256877	N	5035	8260B	IV
12-Apr-2011	SL-227-SA5A-SB-3.0-4.0	6256877	N	5035	8260B SIM	IV
12-Apr-2011	SL-227-SA5A-SB-3.0-4.0	6256877	N	Gen Prep	9045M	IV
12-Apr-2011	SL-227-SA5A-SB-3.0-4.0	6256877	N	METHOD	300.0	IV
12-Apr-2011	SL-227-SA5A-SB-3.0-4.0	6256877	N	METHOD	314.0	IV
12-Apr-2011	SL-227-SA5A-SB-3.0-4.0	6256877	N	METHOD	7471A	IV
12-Apr-2011	SL-227-SA5A-SB-3.0-4.0DUP	P256877D271448A	DUP	3060A	7199	IV
12-Apr-2011	SL-227-SA5A-SB-3.0-4.0MS	P256877R271040A	MS	3060A	7199	IV
12-Apr-2011	SL-048-SA8N-SS-0.0-0.5	6256870	N	3050B	6010B	IV
12-Apr-2011	SL-048-SA8N-SS-0.0-0.5	6256870	N	3050B	6020	IV
12-Apr-2011	SL-048-SA8N-SS-0.0-0.5	6256870	N	3060A	7199	IV
12-Apr-2011	SL-048-SA8N-SS-0.0-0.5	6256870	N	3550B	8082	IV
12-Apr-2011	SL-048-SA8N-SS-0.0-0.5	6256870	N	3550B	8270C	IV
12-Apr-2011	SL-048-SA8N-SS-0.0-0.5	6256870	N	3550B	8270C SIM	IV
12-Apr-2011	SL-048-SA8N-SS-0.0-0.5	6256870	N	Gen Prep	9045M	IV
12-Apr-2011	SL-048-SA8N-SS-0.0-0.5	6256870	N	METHOD	300.0	IV
12-Apr-2011	SL-048-SA8N-SS-0.0-0.5	6256870	N	METHOD	314.0	IV
12-Apr-2011	SL-048-SA8N-SS-0.0-0.5	6256870	N	METHOD	7471A	IV
12-Apr-2011	SL-048-SA8N-SS-0.0-0.5	6256870	N	METHOD	8015M	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	3050B	6010B	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	3050B	6020	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	3060A	7199	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	3546	1625C	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	3550B	8015B	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
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	3550B	8015M	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	3550B	8082	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	3550B	8270C	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	3550B	8270C SIM	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	8330	8330A	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	Gen Prep	9045M	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	METHOD	300.0	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	METHOD	314.0	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	METHOD	7471A	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	METHOD	8015B	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	METHOD	8015M	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	METHOD	8315A	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5	6256859	N	METHOD	9012B	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5DUP	P256859D220657	DUP	METHOD	7471A	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5DUP	P256859D221029	DUP	3050B	6010B	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5DUP	P256859D271632A	DUP	METHOD	314.0	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5DUP	P256859D271910A	DUP	METHOD	300.0	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5MSD	P256859M220659	MSD	METHOD	7471A	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5MSD	P256859M221037	MSD	3050B	6010B	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5MSD	P256859M241644A	MSD	3550B	8082	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5MSD	P256859M260032	MSD	3550B	8270C SIM	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5MSD	P256859M262215	MSD	3550B	8270C	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5MS	P256859R220658	MS	METHOD	7471A	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5MS	P256859R221033	MS	3050B	6010B	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5MS	P256859R241626A	MS	3550B	8082	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5MS	P256859R260000	MS	3550B	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
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5MS	P256859R262151	MS	3550B	8270C	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5MS	P256859R271654A	MS	METHOD	314.0	IV
12-Apr-2011	SL-012-SA8N-SS-0.0-0.5MS	P256859R271924A	MS	METHOD	300.0	IV
12-Apr-2011	SL-050-SA8N-SS-0.0-0.5	6256871	N	3050B	6010B	IV
12-Apr-2011	SL-050-SA8N-SS-0.0-0.5	6256871	N	3050B	6020	IV
12-Apr-2011	SL-050-SA8N-SS-0.0-0.5	6256871	N	3060A	7199	IV
12-Apr-2011	SL-050-SA8N-SS-0.0-0.5	6256871	N	3550B	8082	IV
12-Apr-2011	SL-050-SA8N-SS-0.0-0.5	6256871	N	3550B	8270C	IV
12-Apr-2011	SL-050-SA8N-SS-0.0-0.5	6256871	N	3550B	8270C SIM	IV
12-Apr-2011	SL-050-SA8N-SS-0.0-0.5	6256871	N	Gen Prep	9045M	IV
12-Apr-2011	SL-050-SA8N-SS-0.0-0.5	6256871	N	METHOD	300.0	IV
12-Apr-2011	SL-050-SA8N-SS-0.0-0.5	6256871	N	METHOD	314.0	IV
12-Apr-2011	SL-050-SA8N-SS-0.0-0.5	6256871	N	METHOD	6850	IV
12-Apr-2011	SL-050-SA8N-SS-0.0-0.5	6256871	N	METHOD	7471A	IV
12-Apr-2011	SL-050-SA8N-SS-0.0-0.5	6256871	N	METHOD	8015M	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	3050B	6010B	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	3050B	6020	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	3060A	7199	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	3546	1625C	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	3550B	8015B	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	3550B	8015M	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	3550B	8082	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	3550B	8270C	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	3550B	8270C SIM	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	8330	8330A	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	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
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	METHOD	300.0	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	METHOD	314.0	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	METHOD	7471A	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	METHOD	8015B	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	METHOD	8015M	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	METHOD	8315A	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5	6256863	N	METHOD	9012B	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5DUP	P256863D271833B	DUP	METHOD	9012B	IV
12-Apr-2011	SL-019-SA8N-SS-0.0-0.5MS	P256863R271834B	MS	METHOD	9012B	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	3050B	6010B	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	3050B	6020	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	3060A	7199	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	3546	1625C	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	3550B	8015B	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	3550B	8015M	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	3550B	8082	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	3550B	8270C	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	3550B	8270C SIM	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	8330	8330A	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	Gen Prep	9045M	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	METHOD	300.0	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	METHOD	314.0	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	METHOD	7471A	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	METHOD	8015B	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	METHOD	8015M	IV
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	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
12-Apr-2011	SL-020-SA8N-SS-0.0-0.5	6256864	N	METHOD	9012B	IV
12-Apr-2011	SL-207-SA5A-SB-3.0-4.0	6256876	N	3050B	6010B	IV
12-Apr-2011	SL-207-SA5A-SB-3.0-4.0	6256876	N	3050B	6020	IV
12-Apr-2011	SL-207-SA5A-SB-3.0-4.0	6256876	N	3060A	7199	IV
12-Apr-2011	SL-207-SA5A-SB-3.0-4.0	6256876	N	3550B	8082	IV
12-Apr-2011	SL-207-SA5A-SB-3.0-4.0	6256876	N	3550B	8270C	IV
12-Apr-2011	SL-207-SA5A-SB-3.0-4.0	6256876	N	3550B	8270C SIM	IV
12-Apr-2011	SL-207-SA5A-SB-3.0-4.0	6256876	N	5035	8260B	IV
12-Apr-2011	SL-207-SA5A-SB-3.0-4.0	6256876	N	5035	8260B SIM	IV
12-Apr-2011	SL-207-SA5A-SB-3.0-4.0	6256876	N	Gen Prep	9045M	IV
12-Apr-2011	SL-207-SA5A-SB-3.0-4.0	6256876	N	METHOD	300.0	IV
12-Apr-2011	SL-207-SA5A-SB-3.0-4.0	6256876	N	METHOD	314.0	IV
12-Apr-2011	SL-207-SA5A-SB-3.0-4.0	6256876	N	METHOD	7471A	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	3050B	6010B	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	3050B	6020	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	3060A	7199	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	3546	1625C	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	3550B	8015B	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	3550B	8015M	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	3550B	8082	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	3550B	8270C	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	3550B	8270C SIM	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	8330	8330A	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	Gen Prep	9045M	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	METHOD	300.0	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	METHOD	314.0	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
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	METHOD	6850	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	METHOD	7471A	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	METHOD	8015B	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	METHOD	8015M	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	METHOD	8315A	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5	6256865	N	METHOD	9012B	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5DUP	P256865D220845A	DUP	3050B	6020	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5DUP	P256865D220845B	DUP	3050B	6020	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5DUP	P256865D220845D	DUP	3050B	6020	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5DUP	P256865D221324C	DUP	3050B	6020	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5DUP	P256865D291630B	DUP	Gen Prep	9045M	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5MSD	P256865M220851A	MSD	3050B	6020	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5MSD	P256865M220851B	MSD	3050B	6020	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5MSD	P256865M220851C	MSD	3050B	6020	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5MSD	P256865M220851D	MSD	3050B	6020	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5MS	P256865R220848A	MS	3050B	6020	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5MS	P256865R220848B	MS	3050B	6020	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5MS	P256865R220848C	MS	3050B	6020	IV
12-Apr-2011	SL-021-SA8N-SS-0.0-0.5MS	P256865R220848D	MS	3050B	6020	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	3050B	6010B	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	3050B	6020	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	3060A	7199	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	3546	1625C	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	3550B	8015B	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	3550B	8015M	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	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
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	3550B	8270C	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	3550B	8270C SIM	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	8330	8330A	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	Gen Prep	9045M	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	METHOD	300.0	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	METHOD	314.0	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	METHOD	7471A	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	METHOD	8015B	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	METHOD	8015M	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	METHOD	8315A	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5	6256869	N	METHOD	9012B	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5DUP	P256869D272125B	DUP	METHOD	314.0	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5DUP	P256869D272228B	DUP	METHOD	300.0	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5MS	P256869R272210B	MS	METHOD	314.0	IV
12-Apr-2011	SL-047-SA8N-SS-0.0-0.5MS	P256869R272243B	MS	METHOD	300.0	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	3050B	6010B	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	3050B	6020	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	3060A	7199	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	3546	1625C	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	3550B	8015B	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	3550B	8015M	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	3550B	8082	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	3550B	8270C	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	3550B	8270C SIM	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	8330	8330A	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	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
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	METHOD	300.0	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	METHOD	314.0	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	METHOD	7471A	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	METHOD	8015B	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	METHOD	8015M	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	METHOD	8315A	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5	6256866	N	METHOD	9012B	IV
12-Apr-2011	SL-022-SA8N-SS-0.0-0.5DUP	P256866D290915A	DUP	Gen Prep	9045M	IV
12-Apr-2011	SL-023-SA8N-SS-0.0-0.5	6256867	N	3050B	6010B	IV
12-Apr-2011	SL-023-SA8N-SS-0.0-0.5	6256867	N	3050B	6020	IV
12-Apr-2011	SL-023-SA8N-SS-0.0-0.5	6256867	N	3060A	7199	IV
12-Apr-2011	SL-023-SA8N-SS-0.0-0.5	6256867	N	3550B	8082	IV
12-Apr-2011	SL-023-SA8N-SS-0.0-0.5	6256867	N	3550B	8270C	IV
12-Apr-2011	SL-023-SA8N-SS-0.0-0.5	6256867	N	3550B	8270C SIM	IV
12-Apr-2011	SL-023-SA8N-SS-0.0-0.5	6256867	N	Gen Prep	9045M	IV
12-Apr-2011	SL-023-SA8N-SS-0.0-0.5	6256867	N	METHOD	300.0	IV
12-Apr-2011	SL-023-SA8N-SS-0.0-0.5	6256867	N	METHOD	314.0	IV
12-Apr-2011	SL-023-SA8N-SS-0.0-0.5	6256867	N	METHOD	7471A	IV
12-Apr-2011	SL-202-SA5A-SB-3.0-4.0	6256874	N	3050B	6010B	IV
12-Apr-2011	SL-202-SA5A-SB-3.0-4.0	6256874	N	3050B	6020	IV
12-Apr-2011	SL-202-SA5A-SB-3.0-4.0	6256874	N	3060A	7199	IV
12-Apr-2011	SL-202-SA5A-SB-3.0-4.0	6256874	N	3550B	8082	IV
12-Apr-2011	SL-202-SA5A-SB-3.0-4.0	6256874	N	3550B	8270C	IV
12-Apr-2011	SL-202-SA5A-SB-3.0-4.0	6256874	N	3550B	8270C SIM	IV
12-Apr-2011	SL-202-SA5A-SB-3.0-4.0	6256874	N	5035	8260B	IV
12-Apr-2011	SL-202-SA5A-SB-3.0-4.0	6256874	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
12-Apr-2011	SL-202-SA5A-SB-3.0-4.0	6256874	N	Gen Prep	9045M	IV
12-Apr-2011	SL-202-SA5A-SB-3.0-4.0	6256874	N	METHOD	300.0	IV
12-Apr-2011	SL-202-SA5A-SB-3.0-4.0	6256874	N	METHOD	314.0	IV
12-Apr-2011	SL-202-SA5A-SB-3.0-4.0	6256874	N	METHOD	7471A	IV
12-Apr-2011	SL-036-SA8N-SS-0.0-0.5	6256868	N	3050B	6010B	IV
12-Apr-2011	SL-036-SA8N-SS-0.0-0.5	6256868	N	3050B	6020	IV
12-Apr-2011	SL-036-SA8N-SS-0.0-0.5	6256868	N	3060A	7199	IV
12-Apr-2011	SL-036-SA8N-SS-0.0-0.5	6256868	N	3550B	8015M	IV
12-Apr-2011	SL-036-SA8N-SS-0.0-0.5	6256868	N	3550B	8082	IV
12-Apr-2011	SL-036-SA8N-SS-0.0-0.5	6256868	N	3550B	8270C	IV
12-Apr-2011	SL-036-SA8N-SS-0.0-0.5	6256868	N	3550B	8270C SIM	IV
12-Apr-2011	SL-036-SA8N-SS-0.0-0.5	6256868	N	Gen Prep	9045M	IV
12-Apr-2011	SL-036-SA8N-SS-0.0-0.5	6256868	N	METHOD	300.0	IV
12-Apr-2011	SL-036-SA8N-SS-0.0-0.5	6256868	N	METHOD	314.0	IV
12-Apr-2011	SL-036-SA8N-SS-0.0-0.5	6256868	N	METHOD	7471A	IV
12-Apr-2011	SL-131-SA8N-SS-0.0-0.5	6256872	N	3050B	6010B	IV
12-Apr-2011	SL-131-SA8N-SS-0.0-0.5	6256872	N	3050B	6020	IV
12-Apr-2011	SL-131-SA8N-SS-0.0-0.5	6256872	N	3060A	7199	IV
12-Apr-2011	SL-131-SA8N-SS-0.0-0.5	6256872	N	3550B	8082	IV
12-Apr-2011	SL-131-SA8N-SS-0.0-0.5	6256872	N	3550B	8270C	IV
12-Apr-2011	SL-131-SA8N-SS-0.0-0.5	6256872	N	3550B	8270C SIM	IV
12-Apr-2011	SL-131-SA8N-SS-0.0-0.5	6256872	N	Gen Prep	9045M	IV
12-Apr-2011	SL-131-SA8N-SS-0.0-0.5	6256872	N	METHOD	300.0	IV
12-Apr-2011	SL-131-SA8N-SS-0.0-0.5	6256872	N	METHOD	314.0	IV
12-Apr-2011	SL-131-SA8N-SS-0.0-0.5	6256872	N	METHOD	7471A	IV
12-Apr-2011	SL-206-SA5A-SB-4.0-5.0	6256875	N	3050B	6010B	IV

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Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
12-Apr-2011	SL-206-SA5A-SB-4.0-5.0	6256875	N	3050B	6020	IV
12-Apr-2011	SL-206-SA5A-SB-4.0-5.0	6256875	N	3060A	7199	IV
12-Apr-2011	SL-206-SA5A-SB-4.0-5.0	6256875	N	3550B	8082	IV
12-Apr-2011	SL-206-SA5A-SB-4.0-5.0	6256875	N	3550B	8270C	IV
12-Apr-2011	SL-206-SA5A-SB-4.0-5.0	6256875	N	3550B	8270C SIM	IV
12-Apr-2011	SL-206-SA5A-SB-4.0-5.0	6256875	N	5035	8260B	IV
12-Apr-2011	SL-206-SA5A-SB-4.0-5.0	6256875	N	5035	8260B SIM	IV
12-Apr-2011	SL-206-SA5A-SB-4.0-5.0	6256875	N	Gen Prep	9045M	IV
12-Apr-2011	SL-206-SA5A-SB-4.0-5.0	6256875	N	METHOD	300.0	IV
12-Apr-2011	SL-206-SA5A-SB-4.0-5.0	6256875	N	METHOD	314.0	IV
12-Apr-2011	SL-206-SA5A-SB-4.0-5.0	6256875	N	METHOD	6850	IV
12-Apr-2011	SL-206-SA5A-SB-4.0-5.0	6256875	N	METHOD	7471A	IV
12-Apr-2011	EB01-SA8N-041211	6256873	EB	3005A	6010B	IV
12-Apr-2011	EB01-SA8N-041211	6256873	EB	3020A	6020	IV
12-Apr-2011	EB01-SA8N-041211	6256873	EB	3510C	8082	IV
12-Apr-2011	EB01-SA8N-041211	6256873	EB	3510C	8270C	IV
12-Apr-2011	EB01-SA8N-041211	6256873	EB	3510C	8270C SIM	IV
12-Apr-2011	EB01-SA8N-041211	6256873	EB	Gen Prep	300.0	IV
12-Apr-2011	EB01-SA8N-041211	6256873	EB	Gen Prep	314.0	IV
12-Apr-2011	EB01-SA8N-041211	6256873	EB	Gen Prep	7199	IV
12-Apr-2011	EB01-SA8N-041211	6256873	EB	Gen Prep	9040B	IV
12-Apr-2011	EB01-SA8N-041211	6256873	EB	METHOD	7470A	IV

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Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: EM

Method: 9040B **Matrix: AQ**

Sample ID: EB01-SA8N-041211 *Collected:* 4/12/2011 4:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PH	5.7		0.010	MDL	0.010	PQL	pH unit	J	H

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-012-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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	2.7		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-015-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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	3.0		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-016-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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
FLUORIDE	2.9		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-018-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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
FLUORIDE	2.9		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-019-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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		0.96	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-020-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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	2.8		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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-021-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 1:15:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.2		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-022-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 1:50:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.8		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-023-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 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	1.8		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-036-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 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	1.5		0.97	MDL	1.2	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-012-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 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
MANGANESE	426		0.0867	MDL	0.556	PQL	mg/Kg	J	A
SODIUM	98.9	J	41.5	MDL	111	PQL	mg/Kg	J	Z
STRONTIUM	42.9		0.0689	MDL	0.556	PQL	mg/Kg	J	A
TIN	2.54	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	2.73	J	0.934	MDL	5.56	PQL	mg/Kg	J	Z

Sample ID: SL-015-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 9:35:00 ***Analysis Type:*** REA ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	485		0.0886	MDL	0.568	PQL	mg/Kg	J	A
SODIUM	102	J	42.4	MDL	114	PQL	mg/Kg	J	Z
STRONTIUM	37.6		0.0704	MDL	0.568	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-015-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 9:35:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.58	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	3.23	J	0.954	MDL	5.68	PQL	mg/Kg	J	Z

Sample ID: **SL-016-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 9:15:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	399		0.0857	MDL	0.549	PQL	mg/Kg	J	A
SODIUM	100	J	41.0	MDL	110	PQL	mg/Kg	J	Z
STRONTIUM	26.6		0.0681	MDL	0.549	PQL	mg/Kg	J	A
TIN	2.56	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	2.69	J	0.923	MDL	5.49	PQL	mg/Kg	J	Z

Sample ID: **SL-018-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 9:00:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	414		0.0901	MDL	0.578	PQL	mg/Kg	J	A
STRONTIUM	64.9		0.0716	MDL	0.578	PQL	mg/Kg	J	A
TIN	2.54	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	3.13	J	0.970	MDL	5.78	PQL	mg/Kg	J	Z

Sample ID: **SL-019-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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
MANGANESE	463		0.0896	MDL	0.574	PQL	mg/Kg	J	A
SODIUM	112	J	42.8	MDL	115	PQL	mg/Kg	J	Z
STRONTIUM	36.9		0.0712	MDL	0.574	PQL	mg/Kg	J	A
TIN	2.45	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	3.76	J	0.965	MDL	5.74	PQL	mg/Kg	J	Z

Sample ID: **SL-020-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 11:25:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	428		0.0903	MDL	0.579	PQL	mg/Kg	J	A
SODIUM	104	J	43.2	MDL	116	PQL	mg/Kg	J	Z
STRONTIUM	48.3		0.0718	MDL	0.579	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-020-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 11:25:00** **Analysis Type: REA** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.71	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	3.19	J	0.972	MDL	5.79	PQL	mg/Kg	J	Z

Sample ID: SL-021-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 1:15:00** **Analysis Type: REA** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	374		0.0856	MDL	0.549	PQL	mg/Kg	J	A
STRONTIUM	41.7		0.0680	MDL	0.549	PQL	mg/Kg	J	A
TIN	2.43	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	2.42	J	0.922	MDL	5.49	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 1:50:00** **Analysis Type: REA** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	406		0.0904	MDL	0.580	PQL	mg/Kg	J	A
SODIUM	92.9	J	43.2	MDL	116	PQL	mg/Kg	J	Z
STRONTIUM	37.5		0.0719	MDL	0.580	PQL	mg/Kg	J	A
TIN	2.71	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	2.90	J	0.974	MDL	5.80	PQL	mg/Kg	J	Z

Sample ID: SL-023-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 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
MANGANESE	491		0.0892	MDL	0.572	PQL	mg/Kg	J	A
SODIUM	88.1	J	42.7	MDL	114	PQL	mg/Kg	J	Z
STRONTIUM	29.0		0.0709	MDL	0.572	PQL	mg/Kg	J	A
TIN	2.59	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	3.19	J	0.961	MDL	5.72	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 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
MANGANESE	477		0.0940	MDL	0.602	PQL	mg/Kg	J	A
SODIUM	85.3	J	44.9	MDL	120	PQL	mg/Kg	J	Z
STRONTIUM	33.3		0.0747	MDL	0.602	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-036-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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	1.20	MDL	12.0	PQL	mg/Kg	U	B
Zirconium	3.14	J	1.01	MDL	6.02	PQL	mg/Kg	J	Z

Sample ID: **SL-047-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 1:30:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	416		0.0902	MDL	0.578	PQL	mg/Kg	J	A
STRONTIUM	71.3		0.0717	MDL	0.578	PQL	mg/Kg	J	A
TIN	2.62	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	2.33	J	0.971	MDL	5.78	PQL	mg/Kg	J	Z

Sample ID: **SL-048-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 10:15:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	445		0.0991	MDL	0.635	PQL	mg/Kg	J	A
STRONTIUM	36.6		0.0788	MDL	0.635	PQL	mg/Kg	J	A
TIN	2.75	J	1.27	MDL	12.7	PQL	mg/Kg	U	B
Zirconium	3.40	J	1.07	MDL	6.35	PQL	mg/Kg	J	Z

Sample ID: **SL-050-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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
MANGANESE	440		0.0946	MDL	0.607	PQL	mg/Kg	J	A
SODIUM	109	J	45.3	MDL	121	PQL	mg/Kg	J	Z
STRONTIUM	48.4		0.0752	MDL	0.607	PQL	mg/Kg	J	A
TIN	2.69	J	1.21	MDL	12.1	PQL	mg/Kg	U	B
Zirconium	2.73	J	1.02	MDL	6.07	PQL	mg/Kg	J	Z

Sample ID: **SL-131-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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
MANGANESE	452		0.0882	MDL	0.565	PQL	mg/Kg	J	A
SODIUM	93.2	J	42.2	MDL	113	PQL	mg/Kg	J	Z
STRONTIUM	31.7		0.0701	MDL	0.565	PQL	mg/Kg	J	A
TIN	2.84	J	1.13	MDL	11.3	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-131-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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
Zirconium	2.98	J	0.950	MDL	5.65	PQL	mg/Kg	J	Z

Sample ID: SL-202-SA5A-SB-3.0-4.0 *Collected:* 4/12/2011 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
MANGANESE	370		0.0882	MDL	0.565	PQL	mg/Kg	J	A
STRONTIUM	22.4		0.0701	MDL	0.565	PQL	mg/Kg	J	A
TIN	2.84	J	1.13	MDL	11.3	PQL	mg/Kg	U	B

Sample ID: SL-206-SA5A-SB-4.0-5.0 *Collected:* 4/12/2011 3:25:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	354		0.0867	MDL	0.556	PQL	mg/Kg	J	A
STRONTIUM	23.5		0.0690	MDL	0.556	PQL	mg/Kg	J	A
TIN	2.87	J	1.11	MDL	11.1	PQL	mg/Kg	U	B

Sample ID: SL-207-SA5A-SB-3.0-4.0 *Collected:* 4/12/2011 12:03:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	215		0.0831	MDL	0.533	PQL	mg/Kg	J	A
STRONTIUM	16.3		0.0661	MDL	0.533	PQL	mg/Kg	J	A
TIN	2.82	J	1.07	MDL	10.7	PQL	mg/Kg	U	B

Sample ID: SL-227-SA5A-SB-3.0-4.0 *Collected:* 4/12/2011 10:13:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	238		0.0861	MDL	0.552	PQL	mg/Kg	J	A
STRONTIUM	20.5		0.0684	MDL	0.552	PQL	mg/Kg	J	A
TIN	2.66	J	1.10	MDL	11.0	PQL	mg/Kg	U	B

Sample ID: SL-228-SA5A-SB-3.0-4.0 *Collected:* 4/12/2011 9:06:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	116		0.0888	MDL	0.569	PQL	mg/Kg	J	A
STRONTIUM	16.1		0.0706	MDL	0.569	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-228-SA5A-SB-3.0-4.0 *Collected:* 4/12/2011 9:06:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.75	J	1.14	MDL	11.4	PQL	mg/Kg	U	B

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-012-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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
ANTIMONY	0.187	J	0.0667	MDL	0.222	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.23		0.0889	MDL	0.445	PQL	mg/Kg	J	Q
CHROMIUM	30.4		0.133	MDL	0.445	PQL	mg/Kg	J	A
COPPER	14.7		0.0734	MDL	0.445	PQL	mg/Kg	J	A
LEAD	11.7		0.0116	MDL	0.222	PQL	mg/Kg	J	A
NICKEL	16.6		0.111	MDL	0.445	PQL	mg/Kg	J	A
SILVER	0.0554	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z
VANADIUM	52.7		0.0245	MDL	0.111	PQL	mg/Kg	J	A
ZINC	77.9		0.622	MDL	3.33	PQL	mg/Kg	J	A

Sample ID: SL-012-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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
SELENIUM	0.229	J	0.0445	MDL	0.445	PQL	mg/Kg	J	Z

Sample ID: SL-015-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 9:35:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.182	J	0.0668	MDL	0.223	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.88		0.0891	MDL	0.446	PQL	mg/Kg	J	Q
CHROMIUM	29.2		0.134	MDL	0.446	PQL	mg/Kg	J	A
COPPER	15.7		0.0735	MDL	0.446	PQL	mg/Kg	J	A
LEAD	11.1		0.0116	MDL	0.223	PQL	mg/Kg	J	A
NICKEL	16.5		0.111	MDL	0.446	PQL	mg/Kg	J	A
SILVER	0.0593	J	0.0134	MDL	0.111	PQL	mg/Kg	J	Z
VANADIUM	51.8		0.0245	MDL	0.111	PQL	mg/Kg	J	A
ZINC	69.3		0.624	MDL	3.34	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-015-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 9:35:00** ***Analysis Type:*** **REA6** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.227	J	0.0446	MDL	0.446	PQL	mg/Kg	J	Z

Sample ID: **SL-016-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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
ANTIMONY	0.0815	J	0.0679	MDL	0.226	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.11		0.0905	MDL	0.453	PQL	mg/Kg	J	Q
CHROMIUM	26.5		0.136	MDL	0.453	PQL	mg/Kg	J	A
COPPER	13.4		0.0747	MDL	0.453	PQL	mg/Kg	J	A
LEAD	13.1		0.0118	MDL	0.226	PQL	mg/Kg	J	A
NICKEL	15.1		0.113	MDL	0.453	PQL	mg/Kg	J	A
SILVER	0.0593	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	46.3		0.0249	MDL	0.113	PQL	mg/Kg	J	A
ZINC	68.1		0.634	MDL	3.39	PQL	mg/Kg	J	A

Sample ID: **SL-016-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 9:15:00** ***Analysis Type:*** **REA6** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.191	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

Sample ID: **SL-018-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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
ANTIMONY	0.0903	J	0.0680	MDL	0.227	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.87		0.0906	MDL	0.453	PQL	mg/Kg	J	Q
CHROMIUM	29.3		0.136	MDL	0.453	PQL	mg/Kg	J	A
COPPER	14.0		0.0748	MDL	0.453	PQL	mg/Kg	J	A
LEAD	12.9		0.0118	MDL	0.227	PQL	mg/Kg	J	A
NICKEL	16.2		0.113	MDL	0.453	PQL	mg/Kg	J	A
SILVER	0.0421	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	51.0		0.0249	MDL	0.113	PQL	mg/Kg	J	A
ZINC	68.6		0.634	MDL	3.40	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-018-SA8N-SS-0.0-0.5 **Collected:** 4/12/2011 9:00:00 **Analysis Type:** REA6 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.236	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

Sample ID: SL-019-SA8N-SS-0.0-0.5 **Collected:** 4/12/2011 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	0.142	J	0.0703	MDL	0.234	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.50		0.0937	MDL	0.469	PQL	mg/Kg	J	Q
CHROMIUM	31.4		0.141	MDL	0.469	PQL	mg/Kg	J	A
COPPER	13.8		0.0773	MDL	0.469	PQL	mg/Kg	J	A
LEAD	12.2		0.0122	MDL	0.234	PQL	mg/Kg	J	A
NICKEL	17.7		0.117	MDL	0.469	PQL	mg/Kg	J	A
SILVER	0.0541	J	0.0141	MDL	0.117	PQL	mg/Kg	J	Z
VANADIUM	55.4		0.0258	MDL	0.117	PQL	mg/Kg	J	A
ZINC	71.9		0.656	MDL	3.51	PQL	mg/Kg	J	A

Sample ID: SL-019-SA8N-SS-0.0-0.5 **Collected:** 4/12/2011 11:05:00 **Analysis Type:** REA6 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.196	J	0.0469	MDL	0.469	PQL	mg/Kg	J	Z

Sample ID: SL-020-SA8N-SS-0.0-0.5 **Collected:** 4/12/2011 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
ANTIMONY	0.220	J	0.0694	MDL	0.231	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.43		0.0926	MDL	0.463	PQL	mg/Kg	J	Q
CHROMIUM	30.9		0.139	MDL	0.463	PQL	mg/Kg	J	A
COPPER	15.4		0.0764	MDL	0.463	PQL	mg/Kg	J	A
LEAD	11.9		0.0120	MDL	0.231	PQL	mg/Kg	J	A
NICKEL	17.5		0.116	MDL	0.463	PQL	mg/Kg	J	A
SILVER	0.0536	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z
VANADIUM	54.0		0.0255	MDL	0.116	PQL	mg/Kg	J	A
ZINC	74.6		0.648	MDL	3.47	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-020-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 11:25:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.242	J	0.0463	MDL	0.463	PQL	mg/Kg	J	Z

Sample ID: SL-021-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 1:15:00 *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	0.0671	MDL	0.224	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.84		0.0895	MDL	0.448	PQL	mg/Kg	J	Q
CHROMIUM	26.7		0.134	MDL	0.448	PQL	mg/Kg	J	A
COPPER	13.5		0.0738	MDL	0.448	PQL	mg/Kg	J	A
LEAD	9.14		0.0116	MDL	0.224	PQL	mg/Kg	J	A
NICKEL	15.6		0.112	MDL	0.448	PQL	mg/Kg	J	A
SILVER	0.0370	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z
VANADIUM	48.3		0.0246	MDL	0.112	PQL	mg/Kg	J	A
ZINC	80.9		0.627	MDL	3.36	PQL	mg/Kg	J	A

Sample ID: SL-021-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 1:15:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.271	J	0.0448	MDL	0.448	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 1:50:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.115	J	0.0703	MDL	0.234	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.45		0.0937	MDL	0.468	PQL	mg/Kg	J	Q
CHROMIUM	32.1		0.141	MDL	0.468	PQL	mg/Kg	J	A
COPPER	17.2		0.0773	MDL	0.468	PQL	mg/Kg	J	A
LEAD	12.1		0.0122	MDL	0.234	PQL	mg/Kg	J	A
NICKEL	17.9		0.117	MDL	0.468	PQL	mg/Kg	J	A
SILVER	0.0456	J	0.0141	MDL	0.117	PQL	mg/Kg	J	Z
VANADIUM	56.1		0.0258	MDL	0.117	PQL	mg/Kg	J	A
ZINC	82.2		0.656	MDL	3.51	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-022-SA8N-SS-0.0-0.5 **Collected:** 4/12/2011 1:50:00 **Analysis Type:** REA6 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.183	J	0.0468	MDL	0.468	PQL	mg/Kg	J	Z

Sample ID: SL-023-SA8N-SS-0.0-0.5 **Collected:** 4/12/2011 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
ANTIMONY	0.109	J	0.0680	MDL	0.227	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.37		0.0906	MDL	0.453	PQL	mg/Kg	J	Q
CHROMIUM	31.7		0.136	MDL	0.453	PQL	mg/Kg	J	A
COPPER	17.0		0.0748	MDL	0.453	PQL	mg/Kg	J	A
LEAD	13.9		0.0118	MDL	0.227	PQL	mg/Kg	J	A
NICKEL	18.1		0.113	MDL	0.453	PQL	mg/Kg	J	A
SILVER	0.0501	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	55.0		0.0249	MDL	0.113	PQL	mg/Kg	J	A
ZINC	83.7		0.634	MDL	3.40	PQL	mg/Kg	J	A

Sample ID: SL-023-SA8N-SS-0.0-0.5 **Collected:** 4/12/2011 2:10:00 **Analysis Type:** REA6 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.257	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA8N-SS-0.0-0.5 **Collected:** 4/12/2011 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	0.248		0.0709	MDL	0.236	PQL	mg/Kg	J	Q, E
ARSENIC	6.63		0.0945	MDL	0.472	PQL	mg/Kg	J	Q
CHROMIUM	33.0		0.142	MDL	0.472	PQL	mg/Kg	J	A
COPPER	16.7		0.0780	MDL	0.472	PQL	mg/Kg	J	A
LEAD	14.7		0.0123	MDL	0.236	PQL	mg/Kg	J	A
NICKEL	18.9		0.118	MDL	0.472	PQL	mg/Kg	J	A
SILVER	0.0529	J	0.0142	MDL	0.118	PQL	mg/Kg	J	Z
VANADIUM	59.2		0.0260	MDL	0.118	PQL	mg/Kg	J	A
ZINC	83.4		0.661	MDL	3.54	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-036-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 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
SELENIUM	0.227	J	0.0472	MDL	0.472	PQL	mg/Kg	J	Z

Sample ID: SL-047-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 1:30:00 ***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	0.0701	MDL	0.234	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.56		0.0934	MDL	0.467	PQL	mg/Kg	J	Q
CHROMIUM	30.5		0.140	MDL	0.467	PQL	mg/Kg	J	A
COPPER	14.1		0.0771	MDL	0.467	PQL	mg/Kg	J	A
LEAD	9.97		0.0121	MDL	0.234	PQL	mg/Kg	J	A
NICKEL	16.6		0.117	MDL	0.467	PQL	mg/Kg	J	A
SILVER	0.0228	J	0.0140	MDL	0.117	PQL	mg/Kg	J	Z
VANADIUM	55.6		0.0257	MDL	0.117	PQL	mg/Kg	J	A
ZINC	76.6		0.654	MDL	3.50	PQL	mg/Kg	J	A

Sample ID: SL-047-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 1:30:00 ***Analysis Type:*** REA6 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.216	J	0.0467	MDL	0.467	PQL	mg/Kg	J	Z

Sample ID: SL-048-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 10:15:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.184	J	0.0755	MDL	0.252	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.27		0.101	MDL	0.503	PQL	mg/Kg	J	Q
CHROMIUM	28.3		0.151	MDL	0.503	PQL	mg/Kg	J	A
COPPER	14.6		0.0830	MDL	0.503	PQL	mg/Kg	J	A
LEAD	11.0		0.0131	MDL	0.252	PQL	mg/Kg	J	A
NICKEL	15.2		0.126	MDL	0.503	PQL	mg/Kg	J	A
SILVER	0.0411	J	0.0151	MDL	0.126	PQL	mg/Kg	J	Z
VANADIUM	50.0		0.0277	MDL	0.126	PQL	mg/Kg	J	A
ZINC	66.8		0.705	MDL	3.77	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-048-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 10:15:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.238	J	0.0503	MDL	0.503	PQL	mg/Kg	J	Z

Sample ID: SL-050-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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	0.200	J	0.0707	MDL	0.236	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.39		0.0943	MDL	0.471	PQL	mg/Kg	J	Q
CHROMIUM	32.2		0.141	MDL	0.471	PQL	mg/Kg	J	A
COPPER	15.7		0.0778	MDL	0.471	PQL	mg/Kg	J	A
LEAD	11.8		0.0123	MDL	0.236	PQL	mg/Kg	J	A
NICKEL	17.7		0.118	MDL	0.471	PQL	mg/Kg	J	A
SILVER	0.0288	J	0.0141	MDL	0.118	PQL	mg/Kg	J	Z
VANADIUM	56.3		0.0259	MDL	0.118	PQL	mg/Kg	J	A
ZINC	74.3		0.660	MDL	3.54	PQL	mg/Kg	J	A

Sample ID: SL-050-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 10:45:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.244	J	0.0471	MDL	0.471	PQL	mg/Kg	J	Z

Sample ID: SL-131-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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
ANTIMONY	0.155	J	0.0678	MDL	0.226	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.95		0.0905	MDL	0.452	PQL	mg/Kg	J	Q
CHROMIUM	29.6		0.136	MDL	0.452	PQL	mg/Kg	J	A
COPPER	16.1		0.0746	MDL	0.452	PQL	mg/Kg	J	A
LEAD	17.7		0.0118	MDL	0.226	PQL	mg/Kg	J	A
NICKEL	17.4		0.113	MDL	0.452	PQL	mg/Kg	J	A
SILVER	0.0658	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	52.8		0.0249	MDL	0.113	PQL	mg/Kg	J	A
ZINC	90.8		0.633	MDL	3.39	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-131-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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
SELENIUM	0.221	J	0.0452	MDL	0.452	PQL	mg/Kg	J	Z

Sample ID: **SL-202-SA5A-SB-3.0-4.0** ***Collected:*** **4/12/2011 2:14:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0882	J	0.0692	MDL	0.231	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.06		0.0922	MDL	0.461	PQL	mg/Kg	J	Q
CADMIUM	0.0912	J	0.0461	MDL	0.115	PQL	mg/Kg	J	Z
CHROMIUM	25.7		0.138	MDL	0.461	PQL	mg/Kg	J	A
COPPER	11.5		0.0761	MDL	0.461	PQL	mg/Kg	J	A
LEAD	8.45		0.0120	MDL	0.231	PQL	mg/Kg	J	A
NICKEL	17.1		0.115	MDL	0.461	PQL	mg/Kg	J	A
SILVER	0.0517	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	48.1		0.0254	MDL	0.115	PQL	mg/Kg	J	A
ZINC	68.5		0.645	MDL	3.46	PQL	mg/Kg	J	A

Sample ID: **SL-202-SA5A-SB-3.0-4.0** ***Collected:*** **4/12/2011 2:14:00** ***Analysis Type:*** **REA6** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.160	J	0.0461	MDL	0.461	PQL	mg/Kg	J	Z

Sample ID: **SL-206-SA5A-SB-4.0-5.0** ***Collected:*** **4/12/2011 3:25:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.103	J	0.0687	MDL	0.229	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.02		0.0916	MDL	0.458	PQL	mg/Kg	J	Q
CADMIUM	0.0474	J	0.0458	MDL	0.115	PQL	mg/Kg	J	Z
CHROMIUM	24.1		0.137	MDL	0.458	PQL	mg/Kg	J	A
COPPER	9.63		0.0756	MDL	0.458	PQL	mg/Kg	J	A
LEAD	6.40		0.0119	MDL	0.229	PQL	mg/Kg	J	A
NICKEL	13.4		0.115	MDL	0.458	PQL	mg/Kg	J	A
SILVER	0.0606	J	0.0137	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	42.5		0.0252	MDL	0.115	PQL	mg/Kg	J	A
ZINC	52.9		0.641	MDL	3.44	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-206-SA5A-SB-4.0-5.0 **Collected: 4/12/2011 3:25:00** **Analysis Type: REA6** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0852	J	0.0458	MDL	0.458	PQL	mg/Kg	J	Z

Sample ID: SL-207-SA5A-SB-3.0-4.0 **Collected: 4/12/2011 12:03:00** **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	0.0659	MDL	0.220	PQL	mg/Kg	J	Z, Q, E
ARSENIC	8.07		0.0878	MDL	0.439	PQL	mg/Kg	J	Q
CADMIUM	0.0820	J	0.0439	MDL	0.110	PQL	mg/Kg	J	Z
CHROMIUM	25.3		0.132	MDL	0.439	PQL	mg/Kg	J	A
COPPER	10.6		0.0724	MDL	0.439	PQL	mg/Kg	J	A
LEAD	11.0		0.0114	MDL	0.220	PQL	mg/Kg	J	A
NICKEL	14.0		0.110	MDL	0.439	PQL	mg/Kg	J	A
SILVER	0.0540	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z
VANADIUM	46.8		0.0241	MDL	0.110	PQL	mg/Kg	J	A
ZINC	57.8		0.615	MDL	3.29	PQL	mg/Kg	J	A

Sample ID: SL-207-SA5A-SB-3.0-4.0 **Collected: 4/12/2011 12:03:00** **Analysis Type: REA6** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.181	J	0.0439	MDL	0.439	PQL	mg/Kg	J	Z

Sample ID: SL-227-SA5A-SB-3.0-4.0 **Collected: 4/12/2011 10:13:00** **Analysis Type: REA4** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0825	J	0.0689	MDL	0.230	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.56		0.0918	MDL	0.459	PQL	mg/Kg	J	Q
CADMIUM	0.102	J	0.0459	MDL	0.115	PQL	mg/Kg	J	Z
CHROMIUM	23.3		0.138	MDL	0.459	PQL	mg/Kg	J	A
COPPER	8.29		0.0758	MDL	0.459	PQL	mg/Kg	J	A
LEAD	5.48		0.0119	MDL	0.230	PQL	mg/Kg	J	A
NICKEL	14.3		0.115	MDL	0.459	PQL	mg/Kg	J	A
SILVER	0.0515	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	41.1		0.0253	MDL	0.115	PQL	mg/Kg	J	A
ZINC	53.5		0.643	MDL	3.44	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-227-SA5A-SB-3.0-4.0 *Collected:* 4/12/2011 10:13:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0478	J	0.0459	MDL	0.459	PQL	mg/Kg	J	Z

Sample ID: SL-228-SA5A-SB-3.0-4.0 *Collected:* 4/12/2011 9:06:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0676	U	0.0676	MDL	0.225	PQL	mg/Kg	R	Q
ARSENIC	5.66		0.0902	MDL	0.451	PQL	mg/Kg	J	Q
CADMIUM	0.0660	J	0.0451	MDL	0.113	PQL	mg/Kg	J	Z
CHROMIUM	18.7		0.135	MDL	0.451	PQL	mg/Kg	J	A
COPPER	6.85		0.0744	MDL	0.451	PQL	mg/Kg	J	A
LEAD	4.81		0.0117	MDL	0.225	PQL	mg/Kg	J	A
NICKEL	9.37		0.113	MDL	0.451	PQL	mg/Kg	J	A
SILVER	0.0469	J	0.0135	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	35.2		0.0248	MDL	0.113	PQL	mg/Kg	J	A
ZINC	38.0		0.631	MDL	3.38	PQL	mg/Kg	J	A

Sample ID: SL-228-SA5A-SB-3.0-4.0 *Collected:* 4/12/2011 9:06:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0453	J	0.0451	MDL	0.451	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-015-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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	0.50	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-018-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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
HEXAVALENT CHROMIUM	1.1	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-019-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 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	0.53	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-020-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 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	0.45	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 1:50:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.47	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-047-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 1:30:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.39	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-048-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 10:15:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.47	J	0.25	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-131-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 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	0.44	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-202-SA5A-SB-3.0-4.0 **Collected: 4/12/2011 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	0.75	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-206-SA5A-SB-4.0-5.0 **Collected: 4/12/2011 3:25:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.38	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-207-SA5A-SB-3.0-4.0 **Collected: 4/12/2011 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	0.56	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-228-SA5A-SB-3.0-4.0 **Collected: 4/12/2011 9:06:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.41	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-012-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 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	0.0249	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-015-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 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	0.0250	J	0.0033	MDL	0.116	PQL	mg/Kg	J	Z

Sample ID: SL-018-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 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	0.0408	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-019-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 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	0.0499	J	0.0033	MDL	0.116	PQL	mg/Kg	J	Z

Sample ID: SL-020-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 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	0.0375	J	0.0031	MDL	0.107	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: **SL-021-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 1:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0475	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: **SL-022-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 1:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0452	J	0.0033	MDL	0.116	PQL	mg/Kg	J	Z

Sample ID: **SL-023-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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	0.0223	J	0.0032	MDL	0.113	PQL	mg/Kg	J	Z

Sample ID: **SL-036-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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	0.0163	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z

Sample ID: **SL-047-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 1:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0430	J	0.0033	MDL	0.116	PQL	mg/Kg	J	Z

Sample ID: **SL-048-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 10:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0143	J	0.0036	MDL	0.124	PQL	mg/Kg	J	Z

Sample ID: **SL-050-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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	0.0174	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z

Sample ID: **SL-131-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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	0.0326	J	0.0033	MDL	0.114	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: DE125 **Laboratory:** LL

EDD Filename: DE125_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: SL-202-SA5A-SB-3.0-4.0 **Collected:** 4/12/2011 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	0.0061	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-206-SA5A-SB-4.0-5.0 **Collected:** 4/12/2011 3:25:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0091	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-207-SA5A-SB-3.0-4.0 **Collected:** 4/12/2011 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	0.0059	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-227-SA5A-SB-3.0-4.0 **Collected:** 4/12/2011 10:13:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0109	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-228-SA5A-SB-3.0-4.0 **Collected:** 4/12/2011 9:06:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0065	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix:** SO

Sample ID: SL-020-SA8N-SS-0.0-0.5 **Collected:** 4/12/2011 11:25:00 **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	368	J	193	MDL	386	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA
Method: 6850 **Matrix: SO**

Sample ID: SL-021-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 1:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	3.8	J	2.4	MDL	5.6	PQL	ug/Kg	J	Z

Method Category: SVOA
Method: 8015M **Matrix: SO**

Sample ID: SL-020-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 11:25:00 *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)	1.3	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 1:50:00 *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)	1.3	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z

Method Category: SVOA
Method: 8082 **Matrix: SO**

Sample ID: SL-012-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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
Aroclor 5460	1.9	J	1.1	MDL	3.7	PQL	ug/Kg	J	Z

Sample ID: SL-015-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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
Aroclor 5460	2.5	J	1.2	MDL	3.9	PQL	ug/Kg	J	Z

Sample ID: SL-018-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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
Aroclor 5460	2.2	J	1.2	MDL	3.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **SL-022-SA8N-SS-0.0-0.5** *Collected:* **4/12/2011 1:50:00** *Analysis Type:* **RES** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	3.7	J	2.3	MDL	7.7	PQL	ug/Kg	J	Z

Sample ID: **SL-023-SA8N-SS-0.0-0.5** *Collected:* **4/12/2011 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 1254	1.8	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 1268	0.61	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5460	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	C

Sample ID: **SL-036-SA8N-SS-0.0-0.5** *Collected:* **4/12/2011 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	1.5	J	0.40	MDL	2.1	PQL	ug/Kg	J	Z, *XIII
AROCLOR 1260	1.1	J	0.47	MDL	2.1	PQL	ug/Kg	J	Z
Aroclor 5460	3.6	J	1.2	MDL	4.0	PQL	ug/Kg	J	Z, C

Sample ID: **SL-047-SA8N-SS-0.0-0.5** *Collected:* **4/12/2011 1:30:00** *Analysis Type:* **RES** *Dilution:* **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	1.6	J	1.2	MDL	3.9	PQL	ug/Kg	J	Z, C

Sample ID: **SL-048-SA8N-SS-0.0-0.5** *Collected:* **4/12/2011 10:15:00** *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	1.1	J	0.42	MDL	2.2	PQL	ug/Kg	J	Z
Aroclor 5460	1.3	U	1.3	MDL	4.2	PQL	ug/Kg	UJ	C

Sample ID: **SL-050-SA8N-SS-0.0-0.5** *Collected:* **4/12/2011 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	0.48	MDL	2.1	PQL	ug/Kg	J	Z
Aroclor 5460	2.7	J	1.2	MDL	4.0	PQL	ug/Kg	J	Z, C

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-131-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 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	31		0.76	MDL	3.9	PQL	ug/Kg	J	S
Aroclor 1268	9.4		0.76	MDL	3.9	PQL	ug/Kg	J	S
Aroclor 5432	2.3	U	2.3	MDL	7.6	PQL	ug/Kg	UJ	C
Aroclor 5460	14		2.3	MDL	7.6	PQL	ug/Kg	J	S, C

Sample ID: SL-202-SA5A-SB-3.0-4.0 ***Collected:*** 4/12/2011 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
Aroclor 5460	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	C

Sample ID: SL-206-SA5A-SB-4.0-5.0 ***Collected:*** 4/12/2011 3:25:00 ***Analysis Type:*** RES ***Dilution:*** 1

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

Sample ID: SL-207-SA5A-SB-3.0-4.0 ***Collected:*** 4/12/2011 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
Aroclor 5460	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	C

Sample ID: SL-227-SA5A-SB-3.0-4.0 ***Collected:*** 4/12/2011 10:13:00 ***Analysis Type:*** RES ***Dilution:*** 1

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

Sample ID: SL-228-SA5A-SB-3.0-4.0 ***Collected:*** 4/12/2011 9:06:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	1.1	U	1.1	MDL	3.8	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-012-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
4-CHLOROANILINE	76	U	76	MDL	190	PQL	ug/Kg	UJ	Q
BENZIDINE	1300	U	1300	MDL	3800	PQL	ug/Kg	UJ	Q
BIS(2-ETHYLHEXYL)PHTHALATE	28	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: **SL-015-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	25	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: **SL-016-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: **SL-018-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	21	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: **SL-019-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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
1,2-DICHLOROBENZENE	20	U	20	MDL	200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	39	J	20	MDL	400	PQL	ug/Kg	J	Z

Sample ID: **SL-020-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	25	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-021-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 1:15:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-022-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 1:50:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	25	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-023-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	22	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-036-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 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
1,2-DICHLOROBENZENE	20	U	20	MDL	200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	160	J	20	MDL	400	PQL	ug/Kg	J	Z

Sample ID: SL-047-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 1:30:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	36	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-048-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 10:15:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DICHLOROBENZENE	21	U	21	MDL	210	PQL	ug/Kg	UJ	L

Sample ID: SL-050-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 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
1,2-DICHLOROBENZENE	20	U	20	MDL	200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	27	J	20	MDL	410	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: DE125 **Laboratory:** LL

EDD Filename: DE125_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-131-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 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
1,2-DICHLOROBENZENE	96	U	96	MDL	960	PQL	ug/Kg	UJ	L

Sample ID: SL-202-SA5A-SB-3.0-4.0 ***Collected:*** 4/12/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	25	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-206-SA5A-SB-4.0-5.0 ***Collected:*** 4/12/2011 3:25:00 ***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-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	21	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-207-SA5A-SB-3.0-4.0 ***Collected:*** 4/12/2011 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
1,2-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	23	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-227-SA5A-SB-3.0-4.0 ***Collected:*** 4/12/2011 10:13:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-228-SA5A-SB-3.0-4.0 ***Collected:*** 4/12/2011 9:06:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: AQ**

Sample ID: EB01-SA8N-041211 ***Collected:*** 4/12/2011 4:00:00 ***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	0.011	U	0.011	MDL	0.053	PQL	ug/L	UJ	C
Diethylphthalate	0.13	J	0.053	MDL	1.1	PQL	ug/L	J	Z
Di-n-butylphthalate	0.51	J	0.053	MDL	1.1	PQL	ug/L	J	Z
Di-n-octylphthalate	4.7		0.053	MDL	1.1	PQL	ug/L	J	L, C

Method Category: SVOA

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

Sample ID: SL-012-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 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(A)ANTHRACENE	1.1	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.1	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	2.0		0.75	MDL	1.9	PQL	ug/Kg	J	C
BENZO(G,H,I)PERYLENE	1.5	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.84	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.3	J	6.8	MDL	20	PQL	ug/Kg	UJ	F, C
PHENANTHRENE	1.1	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-015-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 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
BENZO(B)FLUORANTHENE	1.0	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z, C
Di-n-octylphthalate	9.7	J	7.0	MDL	21	PQL	ug/Kg	UJ	F, C
FLUORANTHENE	1.1	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	0.90	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-016-SA8N-SS-0.0-0.5 ***Collected:*** 4/12/2011 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
ANTHRACENE	0.83	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	5.2		0.76	MDL	1.9	PQL	ug/Kg	J	C
BENZO(G,H,I)PERYLENE	1.5	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.9	J	6.9	MDL	21	PQL	ug/Kg	UJ	F, C
INDENO(1,2,3-CD)PYRENE	1.3	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-016-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 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
NAPHTHALENE	1.1	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-018-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 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
BENZO(A)ANTHRACENE	0.80	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.7	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z, C
Di-n-octylphthalate	9.6	J	7.0	MDL	21	PQL	ug/Kg	UJ	F, C
NAPHTHALENE	0.96	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.1	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-019-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 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
BENZO(A)ANTHRACENE	1.4	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.4	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	3.1		0.79	MDL	2.0	PQL	ug/Kg	J	C
BENZO(G,H,I)PERYLENE	1.1	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.4	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	10	J	7.1	MDL	21	PQL	ug/Kg	UJ	F, C
NAPHTHALENE	1.1	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
PHENANTHRENE	1.6	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-020-SA8N-SS-0.0-0.5 **Collected: 4/12/2011 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
ANTHRACENE	1.2	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	60		0.76	MDL	1.9	PQL	ug/Kg	J	C
Di-n-butylphthalate	8.5	J	6.9	MDL	21	PQL	ug/Kg	U	F
Di-n-octylphthalate	9.7	J	6.9	MDL	21	PQL	ug/Kg	UJ	F, C
NAPHTHALENE	1.2	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: **SL-021-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 1:15:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.51	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	11		0.75	MDL	1.9	PQL	ug/Kg	J	C
BIS(2-ETHYLHEXYL)PHTHALATE	28		6.7	MDL	20	PQL	ug/Kg	U	F, Z
Di-n-octylphthalate	9.5	J	6.7	MDL	20	PQL	ug/Kg	UJ	F, C
NAPHTHALENE	0.81	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-022-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 1:50:00** ***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	1.5	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	34		0.78	MDL	2.0	PQL	ug/Kg	J	C
DIBENZO(A,H)ANTHRACENE	1.8	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	12	J	7.0	MDL	21	PQL	ug/Kg	UJ	F, C
NAPHTHALENE	0.96	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: **SL-023-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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	1.1	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	12		0.77	MDL	1.9	PQL	ug/Kg	J	C
Di-n-octylphthalate	13	J	7.0	MDL	21	PQL	ug/Kg	UJ	F, C
INDENO(1,2,3-CD)PYRENE	1.4	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-036-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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
ANTHRACENE	0.43	J	0.40	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.2	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.3	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	3.6		0.81	MDL	2.0	PQL	ug/Kg	J	C
BENZO(G,H,I)PERYLENE	1.4	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.0	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	7.3	U	7.3	MDL	22	PQL	ug/Kg	UJ	C
INDENO(1,2,3-CD)PYRENE	1.1	J	0.81	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-036-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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
NAPHTHALENE	1.8	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-047-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 1:30:00 *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	0.65	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.3	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.6	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	6.1		0.78	MDL	2.0	PQL	ug/Kg	J	C
BENZO(G,H,I)PERYLENE	1.2	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	7.0	U	7.0	MDL	21	PQL	ug/Kg	UJ	C
INDENO(1,2,3-CD)PYRENE	1.1	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
NAPHTHALENE	0.81	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-048-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 10:15:00 *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(B)FLUORANTHENE	1.6	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z, C
CHRYSENE	2.0	J	0.42	MDL	2.1	PQL	ug/Kg	J	Z
Di-n-octylphthalate	7.6	U	7.6	MDL	23	PQL	ug/Kg	UJ	C
FLUORANTHENE	1.6	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z
NAPHTHALENE	1.2	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z
PHENANTHRENE	1.2	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z
PYRENE	1.5	J	0.84	MDL	2.1	PQL	ug/Kg	J	Z

Sample ID: SL-050-SA8N-SS-0.0-0.5 *Collected:* 4/12/2011 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	1.6	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.4	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	3.1		0.82	MDL	2.0	PQL	ug/Kg	J	C
BENZO(G,H,I)PERYLENE	0.88	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.91	J	0.82	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	7.4	U	7.4	MDL	22	PQL	ug/Kg	UJ	C
INDENO(1,2,3-CD)PYRENE	0.90	J	0.82	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: **SL-131-SA8N-SS-0.0-0.5** ***Collected:*** **4/12/2011 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
1-METHYLNAPHTHALENE	1.1	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.8	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	1.0	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	140		0.76	MDL	1.9	PQL	ug/Kg	J	C
BIS(2-ETHYLHEXYL)PHTHALATE	34		6.9	MDL	21	PQL	ug/Kg	U	F, Z
Butylbenzylphthalate	18	J	6.9	MDL	21	PQL	ug/Kg	J	Z
Di-n-octylphthalate	6.9	U	6.9	MDL	21	PQL	ug/Kg	UJ	C

Sample ID: **SL-202-SA5A-SB-3.0-4.0** ***Collected:*** **4/12/2011 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)PYRENE	1.7	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	3.0		0.77	MDL	1.9	PQL	ug/Kg	J	C
Di-n-octylphthalate	6.9	U	6.9	MDL	21	PQL	ug/Kg	UJ	C
NAPHTHALENE	0.82	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-206-SA5A-SB-4.0-5.0** ***Collected:*** **4/12/2011 3:25:00** ***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	0.75	U	0.75	MDL	1.9	PQL	ug/Kg	UJ	C
Di-n-octylphthalate	6.8	U	6.8	MDL	20	PQL	ug/Kg	UJ	C

Sample ID: **SL-207-SA5A-SB-3.0-4.0** ***Collected:*** **4/12/2011 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
BENZO(B)FLUORANTHENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	C
Di-n-octylphthalate	6.6	U	6.6	MDL	20	PQL	ug/Kg	UJ	C

Sample ID: **SL-227-SA5A-SB-3.0-4.0** ***Collected:*** **4/12/2011 10:13:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.76	U	0.76	MDL	1.9	PQL	ug/Kg	UJ	C
Di-n-octylphthalate	6.8	U	6.8	MDL	20	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: **SL-228-SA5A-SB-3.0-4.0** ***Collected:*** **4/12/2011 9:06:00** ***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(B)FLUORANTHENE	0.76	U	0.76	MDL	1.9	PQL	ug/Kg	UJ	C
Di-n-octylphthalate	6.8	U	6.8	MDL	20	PQL	ug/Kg	UJ	C

Method Category: VOA

Method: 8260B **Matrix: AQ**

Sample ID: **TB-041211** ***Collected:*** **4/12/2011 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
2-Chloro-1,1,1-trifluoroethane	2	U	2	MDL	5	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, C
TRICHLOROFLUOROMETHANE	2	U	2	MDL	5	PQL	ug/L	UJ	C

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: **SL-202-SA5A-SB-3.0-4.0** ***Collected:*** **4/12/2011 2:14:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **0.88**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DIBROMO-3-CHLOROPROPANE	0.71	U	0.71	MDL	4.1	PQL	ug/Kg	UJ	C
2-HEXANONE	1.6	U	1.6	MDL	8.2	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.40	U	0.40	MDL	8.2	PQL	ug/Kg	UJ	C
BROMOCHLOROMETHANE	0.34	U	0.34	MDL	4.1	PQL	ug/Kg	UJ	C
ETHYLBENZENE	0.10	J	0.06	MDL	4.1	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	2.9	J	0.25	MDL	4.1	PQL	ug/Kg	U	B
N-BUTYLBENZENE	2.2	J	0.12	MDL	4.1	PQL	ug/Kg	J	Z
N-PROPYLBENZENE	0.24	J	0.07	MDL	4.1	PQL	ug/Kg	J	Z
SEC-BUTYLBENZENE	2.1	J	0.06	MDL	4.1	PQL	ug/Kg	J	Z

Sample ID: **SL-206-SA5A-SB-4.0-5.0** ***Collected:*** **4/12/2011 3:25:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **0.9**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DIBROMO-3-CHLOROPROPANE	0.72	U	0.72	MDL	4.1	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: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: **SL-206-SA5A-SB-4.0-5.0** ***Collected:*** **4/12/2011 3:25:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.9**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-HEXANONE	1.6	U	1.6	MDL	8.2	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.40	U	0.40	MDL	8.2	PQL	ug/Kg	UJ	C
BROMOCHLOROMETHANE	0.34	U	0.34	MDL	4.1	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	0.56	J	0.25	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: **SL-207-SA5A-SB-3.0-4.0** ***Collected:*** **4/12/2011 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
1,2-DIBROMO-3-CHLOROPROPANE	0.77	U	0.77	MDL	4.4	PQL	ug/Kg	UJ	C
2-HEXANONE	1.8	U	1.8	MDL	8.8	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.43	U	0.43	MDL	8.8	PQL	ug/Kg	UJ	C
BROMOCHLOROMETHANE	0.36	U	0.36	MDL	4.4	PQL	ug/Kg	UJ	C
ISOPROPYLBENZENE	0.21	J	0.07	MDL	4.4	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.60	J	0.26	MDL	4.4	PQL	ug/Kg	U	B

Sample ID: **SL-227-SA5A-SB-3.0-4.0** ***Collected:*** **4/12/2011 10:13:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **0.97**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DIBROMO-3-CHLOROPROPANE	0.78	U	0.78	MDL	4.5	PQL	ug/Kg	UJ	C
2-HEXANONE	1.8	U	1.8	MDL	8.9	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.44	U	0.44	MDL	8.9	PQL	ug/Kg	UJ	C
BROMOCHLOROMETHANE	0.37	U	0.37	MDL	4.5	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	1.3	J	0.27	MDL	4.5	PQL	ug/Kg	U	B

Sample ID: **SL-228-SA5A-SB-3.0-4.0** ***Collected:*** **4/12/2011 9:06:00** ***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-DIBROMO-3-CHLOROPROPANE	0.69	U	0.69	MDL	3.9	PQL	ug/Kg	UJ	C
2-HEXANONE	1.6	U	1.6	MDL	7.9	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.38	U	0.38	MDL	7.9	PQL	ug/Kg	UJ	C
BROMOCHLOROMETHANE	0.33	U	0.33	MDL	3.9	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	4.2		0.24	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: DE125

EDD Filename: DE125_v1

Laboratory: LL

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: DE125

Laboratory: LL

EDD Filename: DE125_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: DE125 **Laboratory: LL**

EDD Filename: DE125_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

DE125

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE125
EDD Filename: DE125_v1

Laboratory: LL
eQAPP Name: CDM_SSFL_110509

Method: 9040B **Preparation Method: Gen Prep**
Matrix: AQ

Sample ID	*Type*	*Actual*	*Criteria*	*Units*	*Flag*
EB01-SA8N-041211 (RES)	Sampling To Analysis	54.00	48.00	HOURS	J (all detects) UJ (all non-detects)

Method Blank Outlier Report

Lab Reporting Batch ID: DE125

Laboratory: LL

EDD Filename: DE125_v1

eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11008BB221923	4/22/2011 7:23:00 PM	PHOSPHORUS TIN	1.41 mg/Kg 1.40 mg/Kg	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-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-012-SA8N-SS-0.0-0.5(REA)	TIN	2.54 mg/Kg	2.54U mg/Kg
SL-015-SA8N-SS-0.0-0.5(REA)	TIN	2.58 mg/Kg	2.58U mg/Kg
SL-016-SA8N-SS-0.0-0.5(REA)	TIN	2.56 mg/Kg	2.56U mg/Kg
SL-018-SA8N-SS-0.0-0.5(REA)	TIN	2.54 mg/Kg	2.54U mg/Kg
SL-019-SA8N-SS-0.0-0.5(REA)	TIN	2.45 mg/Kg	2.45U mg/Kg
SL-020-SA8N-SS-0.0-0.5(REA)	TIN	2.71 mg/Kg	2.71U mg/Kg
SL-021-SA8N-SS-0.0-0.5(REA)	TIN	2.43 mg/Kg	2.43U mg/Kg
SL-022-SA8N-SS-0.0-0.5(REA)	TIN	2.71 mg/Kg	2.71U mg/Kg
SL-023-SA8N-SS-0.0-0.5(REA)	TIN	2.59 mg/Kg	2.59U mg/Kg
SL-036-SA8N-SS-0.0-0.5(REA)	TIN	2.85 mg/Kg	2.85U mg/Kg
SL-047-SA8N-SS-0.0-0.5(REA)	TIN	2.62 mg/Kg	2.62U mg/Kg
SL-048-SA8N-SS-0.0-0.5(REA)	TIN	2.75 mg/Kg	2.75U mg/Kg
SL-050-SA8N-SS-0.0-0.5(REA)	TIN	2.69 mg/Kg	2.69U mg/Kg
SL-131-SA8N-SS-0.0-0.5(REA)	TIN	2.84 mg/Kg	2.84U mg/Kg
SL-202-SA5A-SB-3.0-4.0(REA)	TIN	2.84 mg/Kg	2.84U mg/Kg
SL-206-SA5A-SB-4.0-5.0(REA)	TIN	2.87 mg/Kg	2.87U mg/Kg
SL-207-SA5A-SB-3.0-4.0(REA)	TIN	2.82 mg/Kg	2.82U mg/Kg
SL-227-SA5A-SB-3.0-4.0(REA)	TIN	2.66 mg/Kg	2.66U mg/Kg
SL-228-SA5A-SB-3.0-4.0(REA)	TIN	2.75 mg/Kg	2.75U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE125

Laboratory: LL

EDD Filename: DE125_v1

eQAPP Name: CDM_SSFL_110509

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11026AB220833A	4/21/2011 8:33:00 AM	COPPER	0.276 mg/Kg	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P09092AB320241A	4/28/2011 2:41:00 AM	EFH (C21-C30) EFH (C30-C40)	0.93 mg/Kg 0.92 mg/Kg	SL-012-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB23B211418A	4/13/2011 2:18:00 PM	METHYLENE CHLORIDE	1.3 ug/Kg	SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-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-202-SA5A-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	2.9 ug/Kg	4.1U ug/Kg
SL-206-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.56 ug/Kg	4.1U ug/Kg
SL-207-SA5A-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	0.60 ug/Kg	4.4U ug/Kg
SL-227-SA5A-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	1.3 ug/Kg	4.5U ug/Kg
SL-228-SA5A-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	4.2 ug/Kg	4.2U ug/Kg

Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

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

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB01-SA8N-041211(RES)	4/12/2011 4:00:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	4.9 ug/L	SL-012-SA8N-SS-0.0-0.5
		Diethylphthalate	0.13 ug/L	SL-015-SA8N-SS-0.0-0.5
		Di-n-butylphthalate	0.51 ug/L	SL-016-SA8N-SS-0.0-0.5
		Di-n-octylphthalate	4.7 ug/L	SL-018-SA8N-SS-0.0-0.5
				SL-019-SA8N-SS-0.0-0.5
				SL-020-SA8N-SS-0.0-0.5
				SL-021-SA8N-SS-0.0-0.5
				SL-022-SA8N-SS-0.0-0.5
				SL-023-SA8N-SS-0.0-0.5
				SL-036-SA8N-SS-0.0-0.5
				SL-047-SA8N-SS-0.0-0.5
				SL-048-SA8N-SS-0.0-0.5
				SL-050-SA8N-SS-0.0-0.5
				SL-131-SA8N-SS-0.0-0.5
				SL-202-SA5A-SB-3.0-4.0
				SL-206-SA5A-SB-4.0-5.0
				SL-207-SA5A-SB-3.0-4.0
				SL-227-SA5A-SB-3.0-4.0
				SL-228-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-012-SA8N-SS-0.0-0.5(RES)	Di-n-octylphthalate	9.3 ug/Kg	20U ug/Kg
SL-015-SA8N-SS-0.0-0.5(RES)	Di-n-octylphthalate	9.7 ug/Kg	21U ug/Kg
SL-016-SA8N-SS-0.0-0.5(RES)	Di-n-octylphthalate	9.9 ug/Kg	21U ug/Kg
SL-018-SA8N-SS-0.0-0.5(RES)	Di-n-octylphthalate	9.6 ug/Kg	21U ug/Kg
SL-019-SA8N-SS-0.0-0.5(RES)	Di-n-octylphthalate	10 ug/Kg	21U ug/Kg
SL-020-SA8N-SS-0.0-0.5(RES)	Di-n-butylphthalate	8.5 ug/Kg	21U ug/Kg
SL-020-SA8N-SS-0.0-0.5(RES)	Di-n-octylphthalate	9.7 ug/Kg	21U ug/Kg
SL-021-SA8N-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	28 ug/Kg	28U ug/Kg
SL-021-SA8N-SS-0.0-0.5(RES)	Di-n-octylphthalate	9.5 ug/Kg	20U ug/Kg
SL-022-SA8N-SS-0.0-0.5(RES)	Di-n-octylphthalate	12 ug/Kg	21U ug/Kg
SL-023-SA8N-SS-0.0-0.5(RES)	Di-n-octylphthalate	13 ug/Kg	21U ug/Kg
SL-131-SA8N-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	34 ug/Kg	34U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE125

Laboratory: LL

EDD Filename: DE125_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-012-SA8N-SS-0.0-0.5MSD (SL-012-SA8N-SS-0.0-0.5)	3,3'-DICHLOROBENZIDINE	-	-	16.00-119.00	43 (30.00)	3,3'-DICHLOROBENZIDINE	J (all detects)
	ANILINE	-	-	35.00-95.00	46 (30.00)	ANILINE	
SL-012-SA8N-SS-0.0-0.5MS **SL-012-SA8N-SS-0.0-0.5MSD** (SL-012-SA8N-SS-0.0-0.5)	4-CHLOROANILINE	-	19	23.00-95.00	93 (30.00)	4-CHLOROANILINE	J(all detects) UJ(all non-detects)
	BENZIDINE	33	-	35.00-141.00	-	BENZIDINE	

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-012-SA8N-SS-0.0-0.5MS (SL-012-SA8N-SS-0.0-0.5)	ACENAPHTHENE	106	-	63.00-105.00	-	ACENAPHTHENE	J(all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-021-SA8N-SS-0.0-0.5MS **SL-021-SA8N-SS-0.0-0.5MSD** (SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0)	VANADIUM	131	145	75.00-125.00	-	VANADIUM	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: DE125

Laboratory: LL

EDD Filename: DE125_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-SA8N-SS-0.0-0.5MS **SL-021-SA8N-SS-0.0-0.5MSD** (SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0)	ANTIMONY	26	18	75.00-125.00	26 (20.00)	ANTIMONY	J(all detects) R(all non-detects)
SL-021-SA8N-SS-0.0-0.5MS **SL-021-SA8N-SS-0.0-0.5MSD** (SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0)	ARSENIC ZINC	- 56	70 61	75.00-125.00 75.00-125.00	- -	ARSENIC ZINC	J(all detects) UJ(all non-detects) Zn No Qual, >4x
SL-021-SA8N-SS-0.0-0.5MS (SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0)	BARIUM	21	-	75.00-125.00	-	BARIUM	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE125

Laboratory: LL

EDD Filename: DE125_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-012-SA8N-SS-0.0-0.5MS **SL-012-SA8N-SS-0.0-0.5MSD** (SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0)	ALUMINUM IRON MAGNESIUM PHOSPHORUS POTASSIUM TITANIUM	2690 1265 378 - 151 367	2738 1019 270 140 135 323	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 IRON MAGNESIUM PHOSPHORUS POTASSIUM TITANIUM	No Qual, >4x
SL-012-SA8N-SS-0.0-0.5MS **SL-012-SA8N-SS-0.0-0.5MSD** (SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0)	CALCIUM	-226	168	75.00-125.00	-	CALCIUM	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-012-SA8N-SS-0.0-0.5MS (SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5)	FLUORIDE	60	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE125 **Laboratory: LL**

EDD Filename: DE125_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-021-SA8N-SS-0.0-0.5DUP (SL-012-SA8N-SS-0.0-0.5 SL -015-SA8N-SS-0.0-0.5 SL -016-SA8N-SS-0.0-0.5 SL -018-SA8N-SS-0.0-0.5 SL -019-SA8N-SS-0.0-0.5 SL -020-SA8N-SS-0.0-0.5 SL -021-SA8N-SS-0.0-0.5 SL -022-SA8N-SS-0.0-0.5 SL -023-SA8N-SS-0.0-0.5 SL -036-SA8N-SS-0.0-0.5 SL -047-SA8N-SS-0.0-0.5 SL -048-SA8N-SS-0.0-0.5 SL -050-SA8N-SS-0.0-0.5 SL -131-SA8N-SS-0.0-0.5 SL -202-SA5A-SB-3.0-4.0 SL -206-SA5A-SB-4.0-5.0 SL -207-SA5A-SB-3.0-4.0 SL -227-SA5A-SB-3.0-4.0 SL -228-SA5A-SB-3.0-4.0)	SELENIUM	32	20.00	No Qual OK by difference

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-012-SA8N-SS-0.0-0.5DUP (SL-012-SA8N-SS-0.0-0.5 SL -015-SA8N-SS-0.0-0.5 SL -016-SA8N-SS-0.0-0.5 SL -018-SA8N-SS-0.0-0.5 SL -019-SA8N-SS-0.0-0.5 SL -020-SA8N-SS-0.0-0.5 SL -021-SA8N-SS-0.0-0.5 SL -022-SA8N-SS-0.0-0.5 SL -023-SA8N-SS-0.0-0.5 SL -036-SA8N-SS-0.0-0.5 SL -047-SA8N-SS-0.0-0.5 SL -048-SA8N-SS-0.0-0.5 SL -050-SA8N-SS-0.0-0.5 SL -131-SA8N-SS-0.0-0.5 SL -202-SA5A-SB-3.0-4.0 SL -206-SA5A-SB-4.0-5.0 SL -207-SA5A-SB-3.0-4.0 SL -227-SA5A-SB-3.0-4.0 SL -228-SA5A-SB-3.0-4.0)	Zirconium	28	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: DE125

Laboratory: LL

EDD Filename: DE125_v1

eQAPP Name: CDM_SSFL_110509

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-012-SA8N-SS-0.0-0.5DUP (SL-012-SA8N-SS-0.0-0.5 SL -015-SA8N-SS-0.0-0.5 SL -016-SA8N-SS-0.0-0.5 SL -018-SA8N-SS-0.0-0.5 SL -019-SA8N-SS-0.0-0.5 SL -020-SA8N-SS-0.0-0.5 SL -021-SA8N-SS-0.0-0.5 SL -022-SA8N-SS-0.0-0.5 SL -023-SA8N-SS-0.0-0.5 SL -036-SA8N-SS-0.0-0.5 SL -047-SA8N-SS-0.0-0.5 SL -048-SA8N-SS-0.0-0.5 SL -050-SA8N-SS-0.0-0.5 SL -131-SA8N-SS-0.0-0.5 SL -202-SA5A-SB-3.0-4.0 SL -206-SA5A-SB-4.0-5.0 SL -207-SA5A-SB-3.0-4.0 SL -227-SA5A-SB-3.0-4.0 SL -228-SA5A-SB-3.0-4.0)	MERCURY	92	20.00	No Qual OK by difference

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-227-SA5A-SB-3.0-4.0DUP (SL-012-SA8N-SS-0.0-0.5 SL -015-SA8N-SS-0.0-0.5 SL -016-SA8N-SS-0.0-0.5 SL -018-SA8N-SS-0.0-0.5 SL -019-SA8N-SS-0.0-0.5 SL -020-SA8N-SS-0.0-0.5 SL -021-SA8N-SS-0.0-0.5 SL -022-SA8N-SS-0.0-0.5 SL -023-SA8N-SS-0.0-0.5 SL -036-SA8N-SS-0.0-0.5 SL -047-SA8N-SS-0.0-0.5 SL -048-SA8N-SS-0.0-0.5 SL -050-SA8N-SS-0.0-0.5 SL -131-SA8N-SS-0.0-0.5 SL -202-SA5A-SB-3.0-4.0 SL -206-SA5A-SB-4.0-5.0 SL -207-SA5A-SB-3.0-4.0 SL -227-SA5A-SB-3.0-4.0 SL -228-SA5A-SB-3.0-4.0)	HEXAVALENT CHROMIUM	200	20.00	No Qual OK by difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE125

Laboratory: LL

EDD Filename: DE125_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
P6WDLCSQ262022 (EB01-SA8N-041211)	ACENAPHTHENE	116	-	74.00-109.00	-	ACENAPHTHENE	J(all detects)
	Di-n-octylphthalate	154	-	57.00-145.00	-	Di-n-octylphthalate	

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P8WCLCSY261402 (EB01-SA8N-041211)	1,2-Diphenylhydrazine/Azobenzen	-	118	78.00-116.00	-	1,2-Diphenylhydrazine/Azobenz	J(all detects)

Method: 8082
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11047AQ240032A P11047AY240013A (EB01-SA8N-041211)	Aroclor 5442	90	92	35.00-84.00	-	Aroclor 5432, 5442, 5460	J(all detects)

Method: 8260B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS1Y14Q210248A LCS1Y14Y210309A (TB-041211)	2-Chloro-1,1,1-trifluoroethane	123	124	77.00-120.00	-	2-Chloro-1,1,1-trifluoroethane	J(all detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE125
EDD Filename: DE125_v1

Laboratory: LL
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
P6LALCSQ262101 (SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0)	1,2-DICHLOROBENZENE	78	-	79.00-102.00	-	1,2-DICHLOROBENZENE	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
P11026AQ220836A (SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0)	ANTIMONY	65	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Method: 8330A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11080AQ242114A (SL-012-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5)	PETN	126	-	80.00-120.00	-	PETN	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: DE125

Laboratory: LL

EDD Filename: DE125_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
P11164AQ240658A (SL-022-SA8N-SS-0.0-0.5)	NITROBENZENE PETN	124 124	- -	80.00-120.00 80.00-120.00	- -	NITROBENZENE PETN	J(all detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE125

Laboratory: LL

EDD Filename: DE125_v1

eQAPP Name: CDM_SSFL_110509

Method: 1625C
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-022-SA8N-SS-0.0-0.5	N-Nitrosodimethylamine-d6	183	50.00-150.00	All Target Analytes	J (all detects)

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-131-SA8N-SS-0.0-0.5	DECACHLOROBIPHENYL	129	45.00-120.00	All Target Analytes	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE125

Laboratory: LL

EDD Filename: DE125_v1

eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB01-SA8N-041211	Diethylphthalate	J	0.13	1.1	PQL	ug/L	J (all detects)
	Di-n-butylphthalate	J	0.51	1.1	PQL	ug/L	

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA8N-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	368	386	PQL	ng/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA8N-SS-0.0-0.5	SODIUM	J	98.9	111	PQL	mg/Kg	J (all detects)
	TIN	J	2.54	11.1	PQL	mg/Kg	
	Zirconium	J	2.73	5.56	PQL	mg/Kg	
SL-015-SA8N-SS-0.0-0.5	SODIUM	J	102	114	PQL	mg/Kg	J (all detects)
	TIN	J	2.58	11.4	PQL	mg/Kg	
	Zirconium	J	3.23	5.68	PQL	mg/Kg	
SL-016-SA8N-SS-0.0-0.5	SODIUM	J	100	110	PQL	mg/Kg	J (all detects)
	TIN	J	2.56	11.0	PQL	mg/Kg	
	Zirconium	J	2.69	5.49	PQL	mg/Kg	
SL-018-SA8N-SS-0.0-0.5	TIN	J	2.54	11.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.13	5.78	PQL	mg/Kg	
SL-019-SA8N-SS-0.0-0.5	SODIUM	J	112	115	PQL	mg/Kg	J (all detects)
	TIN	J	2.45	11.5	PQL	mg/Kg	
	Zirconium	J	3.76	5.74	PQL	mg/Kg	
SL-020-SA8N-SS-0.0-0.5	SODIUM	J	104	116	PQL	mg/Kg	J (all detects)
	TIN	J	2.71	11.6	PQL	mg/Kg	
	Zirconium	J	3.19	5.79	PQL	mg/Kg	
SL-021-SA8N-SS-0.0-0.5	TIN	J	2.43	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.42	5.49	PQL	mg/Kg	
SL-022-SA8N-SS-0.0-0.5	SODIUM	J	92.9	116	PQL	mg/Kg	J (all detects)
	TIN	J	2.71	11.6	PQL	mg/Kg	
	Zirconium	J	2.90	5.80	PQL	mg/Kg	
SL-023-SA8N-SS-0.0-0.5	SODIUM	J	88.1	114	PQL	mg/Kg	J (all detects)
	TIN	J	2.59	11.4	PQL	mg/Kg	
	Zirconium	J	3.19	5.72	PQL	mg/Kg	
SL-036-SA8N-SS-0.0-0.5	SODIUM	J	85.3	120	PQL	mg/Kg	J (all detects)
	TIN	J	2.85	12.0	PQL	mg/Kg	
	Zirconium	J	3.14	6.02	PQL	mg/Kg	
SL-047-SA8N-SS-0.0-0.5	TIN	J	2.62	11.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.33	5.78	PQL	mg/Kg	
SL-048-SA8N-SS-0.0-0.5	TIN	J	2.75	12.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.40	6.35	PQL	mg/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE125

Laboratory: LL

EDD Filename: DE125_v1

eQAPP Name: CDM_SSFL_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-050-SA8N-SS-0.0-0.5	SODIUM	J	109	121	PQL	mg/Kg	J (all detects)
	TIN	J	2.69	12.1	PQL	mg/Kg	
	Zirconium	J	2.73	6.07	PQL	mg/Kg	
SL-131-SA8N-SS-0.0-0.5	SODIUM	J	93.2	113	PQL	mg/Kg	J (all detects)
	TIN	J	2.84	11.3	PQL	mg/Kg	
	Zirconium	J	2.98	5.65	PQL	mg/Kg	
SL-202-SA5A-SB-3.0-4.0	TIN	J	2.84	11.3	PQL	mg/Kg	J (all detects)
SL-206-SA5A-SB-4.0-5.0	TIN	J	2.87	11.1	PQL	mg/Kg	J (all detects)
SL-207-SA5A-SB-3.0-4.0	TIN	J	2.82	10.7	PQL	mg/Kg	J (all detects)
SL-227-SA5A-SB-3.0-4.0	TIN	J	2.66	11.0	PQL	mg/Kg	J (all detects)
SL-228-SA5A-SB-3.0-4.0	TIN	J	2.75	11.4	PQL	mg/Kg	J (all detects)

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA8N-SS-0.0-0.5	ANTIMONY	J	0.187	0.222	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.229	0.445	PQL	mg/Kg	
	SILVER	J	0.0554	0.111	PQL	mg/Kg	
SL-015-SA8N-SS-0.0-0.5	ANTIMONY	J	0.182	0.223	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.227	0.446	PQL	mg/Kg	
	SILVER	J	0.0593	0.111	PQL	mg/Kg	
SL-016-SA8N-SS-0.0-0.5	ANTIMONY	J	0.0815	0.226	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.191	0.453	PQL	mg/Kg	
	SILVER	J	0.0593	0.113	PQL	mg/Kg	
SL-018-SA8N-SS-0.0-0.5	ANTIMONY	J	0.0903	0.227	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.236	0.453	PQL	mg/Kg	
	SILVER	J	0.0421	0.113	PQL	mg/Kg	
SL-019-SA8N-SS-0.0-0.5	ANTIMONY	J	0.142	0.234	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.196	0.469	PQL	mg/Kg	
	SILVER	J	0.0541	0.117	PQL	mg/Kg	
SL-020-SA8N-SS-0.0-0.5	ANTIMONY	J	0.220	0.231	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.242	0.463	PQL	mg/Kg	
	SILVER	J	0.0536	0.116	PQL	mg/Kg	
SL-021-SA8N-SS-0.0-0.5	ANTIMONY	J	0.141	0.224	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.271	0.448	PQL	mg/Kg	
	SILVER	J	0.0370	0.112	PQL	mg/Kg	
SL-022-SA8N-SS-0.0-0.5	ANTIMONY	J	0.115	0.234	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.183	0.468	PQL	mg/Kg	
	SILVER	J	0.0456	0.117	PQL	mg/Kg	
SL-023-SA8N-SS-0.0-0.5	ANTIMONY	J	0.109	0.227	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.257	0.453	PQL	mg/Kg	
	SILVER	J	0.0501	0.113	PQL	mg/Kg	
SL-036-SA8N-SS-0.0-0.5	SELENIUM	J	0.227	0.472	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0529	0.118	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE125

Laboratory: LL

EDD Filename: DE125_v1

eQAPP Name: CDM_SSFL_110509

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-047-SA8N-SS-0.0-0.5	ANTIMONY	J	0.141	0.234	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.216	0.467	PQL	mg/Kg	
	SILVER	J	0.0228	0.117	PQL	mg/Kg	
SL-048-SA8N-SS-0.0-0.5	ANTIMONY	J	0.184	0.252	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.238	0.503	PQL	mg/Kg	
	SILVER	J	0.0411	0.126	PQL	mg/Kg	
SL-050-SA8N-SS-0.0-0.5	ANTIMONY	J	0.200	0.236	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.244	0.471	PQL	mg/Kg	
	SILVER	J	0.0288	0.118	PQL	mg/Kg	
SL-131-SA8N-SS-0.0-0.5	ANTIMONY	J	0.155	0.226	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.221	0.452	PQL	mg/Kg	
	SILVER	J	0.0658	0.113	PQL	mg/Kg	
SL-202-SA5A-SB-3.0-4.0	ANTIMONY	J	0.0882	0.231	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0912	0.115	PQL	mg/Kg	
	SELENIUM	J	0.160	0.461	PQL	mg/Kg	
	SILVER	J	0.0517	0.115	PQL	mg/Kg	
SL-206-SA5A-SB-4.0-5.0	ANTIMONY	J	0.103	0.229	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0474	0.115	PQL	mg/Kg	
	SELENIUM	J	0.0852	0.458	PQL	mg/Kg	
	SILVER	J	0.0606	0.115	PQL	mg/Kg	
SL-207-SA5A-SB-3.0-4.0	ANTIMONY	J	0.139	0.220	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0820	0.110	PQL	mg/Kg	
	SELENIUM	J	0.181	0.439	PQL	mg/Kg	
	SILVER	J	0.0540	0.110	PQL	mg/Kg	
SL-227-SA5A-SB-3.0-4.0	ANTIMONY	J	0.0825	0.230	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.102	0.115	PQL	mg/Kg	
	SELENIUM	J	0.0478	0.459	PQL	mg/Kg	
	SILVER	J	0.0515	0.115	PQL	mg/Kg	
SL-228-SA5A-SB-3.0-4.0	CADMIUM	J	0.0660	0.113	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0453	0.451	PQL	mg/Kg	
	SILVER	J	0.0469	0.113	PQL	mg/Kg	

Method: 6850

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA8N-SS-0.0-0.5	PERCHLORATE	J	3.8	5.6	PQL	ug/Kg	J (all detects)

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-015-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.50	1.2	PQL	mg/Kg	J (all detects)
SL-018-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	1.1	1.2	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE125

Laboratory: LL

EDD Filename: DE125_v1

eQAPP Name: CDM_SSFL_110509

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-019-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.53	1.2	PQL	mg/Kg	J (all detects)
SL-020-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.45	1.2	PQL	mg/Kg	J (all detects)
SL-022-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.47	1.2	PQL	mg/Kg	J (all detects)
SL-047-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.39	1.2	PQL	mg/Kg	J (all detects)
SL-048-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.47	1.3	PQL	mg/Kg	J (all detects)
SL-131-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.44	1.2	PQL	mg/Kg	J (all detects)
SL-202-SA5A-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.75	1.2	PQL	mg/Kg	J (all detects)
SL-206-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.38	1.1	PQL	mg/Kg	J (all detects)
SL-207-SA5A-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.56	1.1	PQL	mg/Kg	J (all detects)
SL-228-SA5A-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.41	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA8N-SS-0.0-0.5	MERCURY	J	0.0249	0.112	PQL	mg/Kg	J (all detects)
SL-015-SA8N-SS-0.0-0.5	MERCURY	J	0.0250	0.116	PQL	mg/Kg	J (all detects)
SL-018-SA8N-SS-0.0-0.5	MERCURY	J	0.0408	0.114	PQL	mg/Kg	J (all detects)
SL-019-SA8N-SS-0.0-0.5	MERCURY	J	0.0499	0.116	PQL	mg/Kg	J (all detects)
SL-020-SA8N-SS-0.0-0.5	MERCURY	J	0.0375	0.107	PQL	mg/Kg	J (all detects)
SL-021-SA8N-SS-0.0-0.5	MERCURY	J	0.0475	0.109	PQL	mg/Kg	J (all detects)
SL-022-SA8N-SS-0.0-0.5	MERCURY	J	0.0452	0.116	PQL	mg/Kg	J (all detects)
SL-023-SA8N-SS-0.0-0.5	MERCURY	J	0.0223	0.113	PQL	mg/Kg	J (all detects)
SL-036-SA8N-SS-0.0-0.5	MERCURY	J	0.0163	0.115	PQL	mg/Kg	J (all detects)
SL-047-SA8N-SS-0.0-0.5	MERCURY	J	0.0430	0.116	PQL	mg/Kg	J (all detects)
SL-048-SA8N-SS-0.0-0.5	MERCURY	J	0.0143	0.124	PQL	mg/Kg	J (all detects)
SL-050-SA8N-SS-0.0-0.5	MERCURY	J	0.0174	0.115	PQL	mg/Kg	J (all detects)
SL-131-SA8N-SS-0.0-0.5	MERCURY	J	0.0326	0.114	PQL	mg/Kg	J (all detects)
SL-202-SA5A-SB-3.0-4.0	MERCURY	J	0.0061	0.114	PQL	mg/Kg	J (all detects)
SL-206-SA5A-SB-4.0-5.0	MERCURY	J	0.0091	0.107	PQL	mg/Kg	J (all detects)
SL-207-SA5A-SB-3.0-4.0	MERCURY	J	0.0059	0.107	PQL	mg/Kg	J (all detects)
SL-227-SA5A-SB-3.0-4.0	MERCURY	J	0.0109	0.107	PQL	mg/Kg	J (all detects)
SL-228-SA5A-SB-3.0-4.0	MERCURY	J	0.0065	0.112	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE125

Laboratory: LL

EDD Filename: DE125_v1

eQAPP Name: CDM_SSFL_110509

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA8N-SS-0.0-0.5	EFH (C15-C20)	J	1.3	1.4	PQL	mg/Kg	J (all detects)
SL-022-SA8N-SS-0.0-0.5	EFH (C15-C20)	J	1.3	1.4	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA8N-SS-0.0-0.5	Aroclor 5460	J	1.9	3.7	PQL	ug/Kg	J (all detects)
SL-015-SA8N-SS-0.0-0.5	Aroclor 5460	J	2.5	3.9	PQL	ug/Kg	J (all detects)
SL-018-SA8N-SS-0.0-0.5	Aroclor 5460	J	2.2	3.9	PQL	ug/Kg	J (all detects)
SL-022-SA8N-SS-0.0-0.5	Aroclor 5460	J	3.7	7.7	PQL	ug/Kg	J (all detects)
SL-023-SA8N-SS-0.0-0.5	AROCLOR 1254 Aroclor 1268	J J	1.8 0.61	2.0 2.0	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-036-SA8N-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	1.5 1.1 3.6	2.1 2.1 4.0	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-047-SA8N-SS-0.0-0.5	Aroclor 5460	J	1.6	3.9	PQL	ug/Kg	J (all detects)
SL-048-SA8N-SS-0.0-0.5	AROCLOR 1254	J	1.1	2.2	PQL	ug/Kg	J (all detects)
SL-050-SA8N-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J J	1.7 2.7	2.1 4.0	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-202-SA5A-SB-3.0-4.0	ETHYLBENZENE METHYLENE CHLORIDE N-BUTYLBENZENE N-PROPYLBENZENE SEC-BUTYLBENZENE	J J J J J	0.10 2.9 2.2 0.24 2.1	4.1 4.1 4.1 4.1 4.1	PQL PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)
SL-206-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.56	4.1	PQL	ug/Kg	J (all detects)
SL-207-SA5A-SB-3.0-4.0	ISOPROPYLBENZENE METHYLENE CHLORIDE	J J	0.21 0.60	4.4 4.4	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-227-SA5A-SB-3.0-4.0	METHYLENE CHLORIDE	J	1.3	4.5	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE125

Laboratory: LL

EDD Filename: DE125_v1

eQAPP Name: CDM_SSFL_110509

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	28	380	PQL	ug/Kg	J (all detects)
SL-015-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	390	PQL	ug/Kg	J (all detects)
SL-018-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	21	390	PQL	ug/Kg	J (all detects)
SL-019-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	39	400	PQL	ug/Kg	J (all detects)
SL-020-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	380	PQL	ug/Kg	J (all detects)
SL-022-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	390	PQL	ug/Kg	J (all detects)
SL-023-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	22	390	PQL	ug/Kg	J (all detects)
SL-036-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	160	400	PQL	ug/Kg	J (all detects)
SL-047-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	36	390	PQL	ug/Kg	J (all detects)
SL-050-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	410	PQL	ug/Kg	J (all detects)
SL-202-SA5A-SB-3.0-4.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	390	PQL	ug/Kg	J (all detects)
SL-206-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	21	380	PQL	ug/Kg	J (all detects)
SL-207-SA5A-SB-3.0-4.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	23	360	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.1	1.9	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.1	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.5	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.84	1.9	PQL	ug/Kg	
	Di-n-octylphthalate	J	9.3	20	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.9	PQL	ug/Kg	
SL-015-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.0	1.9	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	9.7	21	PQL	ug/Kg	
	FLUORANTHENE	J	1.1	1.9	PQL	ug/Kg	
	PYRENE	J	0.90	1.9	PQL	ug/Kg	
SL-016-SA8N-SS-0.0-0.5	ANTHRACENE	J	0.83	1.9	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.5	1.9	PQL	ug/Kg	
	Di-n-octylphthalate	J	9.9	21	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.3	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	1.9	PQL	ug/Kg	
SL-018-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.80	1.9	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.7	1.9	PQL	ug/Kg	
	Di-n-octylphthalate	J	9.6	21	PQL	ug/Kg	
	NAPHTHALENE	J	0.96	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.9	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE125

Laboratory: LL

EDD Filename: DE125_v1

eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-019-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.4	2.0	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.4	2.0	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.1	2.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.4	2.0	PQL	ug/Kg	
	Di-n-octylphthalate	J	10	21	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	2.0	PQL	ug/Kg	
	PHENANTHRENE	J	1.6	2.0	PQL	ug/Kg	
SL-020-SA8N-SS-0.0-0.5	ANTHRACENE	J	1.2	1.9	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	8.5	21	PQL	ug/Kg	
	Di-n-octylphthalate	J	9.7	21	PQL	ug/Kg	
	NAPHTHALENE	J	1.2	1.9	PQL	ug/Kg	
SL-021-SA8N-SS-0.0-0.5	ANTHRACENE	J	0.51	1.9	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	9.5	20	PQL	ug/Kg	
	NAPHTHALENE	J	0.81	1.9	PQL	ug/Kg	
SL-022-SA8N-SS-0.0-0.5	ANTHRACENE	J	1.5	2.0	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	1.8	2.0	PQL	ug/Kg	
	Di-n-octylphthalate	J	12	21	PQL	ug/Kg	
	NAPHTHALENE	J	0.96	2.0	PQL	ug/Kg	
SL-023-SA8N-SS-0.0-0.5	ANTHRACENE	J	1.1	1.9	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	13	21	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.4	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.3	1.9	PQL	ug/Kg	
SL-036-SA8N-SS-0.0-0.5	ANTHRACENE	J	0.43	2.0	PQL	ug/Kg	J (all detects)
	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	1.4	2.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.0	2.0	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	2.0	PQL	ug/Kg	
	NAPHTHALENE	J	1.8	2.0	PQL	ug/Kg	
SL-047-SA8N-SS-0.0-0.5	ANTHRACENE	J	0.65	2.0	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	1.3	2.0	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.6	2.0	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.2	2.0	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	2.0	PQL	ug/Kg	
	NAPHTHALENE	J	0.81	2.0	PQL	ug/Kg	
SL-048-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.6	2.1	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	2.0	2.1	PQL	ug/Kg	
	FLUORANTHENE	J	1.6	2.1	PQL	ug/Kg	
	NAPHTHALENE	J	1.2	2.1	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	2.1	PQL	ug/Kg	
	PYRENE	J	1.5	2.1	PQL	ug/Kg	
SL-050-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.6	2.0	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.4	2.0	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.88	2.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.91	2.0	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.90	2.0	PQL	ug/Kg	
SL-131-SA8N-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	1.1	1.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.8	1.9	PQL	ug/Kg	
	ACENAPHTHYLENE	J	1.0	1.9	PQL	ug/Kg	
	Butylbenzylphthalate	J	18	21	PQL	ug/Kg	
SL-202-SA5A-SB-3.0-4.0	BENZO(A)PYRENE	J	1.7	1.9	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	0.82	1.9	PQL	ug/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE125

EDD Filename: DE125_v1

Laboratory: LL

eQAPP Name: CDM_SSFL_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag

Enclosure II

EPA Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: April 12, 2011

LDC Report Date: August 10, 2011

Matrix: Soil/Water

Parameters: Volatiles

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE125

Sample Identification

SL-202-SA5A-SB-3.0-4.0
SL-206-SA5A-SB-4.0-5.0
SL-207-SA5A-SB-3.0-4.0
SL-227-SA5A-SB-3.0-4.0
SL-228-SA5A-SB-3.0-4.0
TB-041211

Introduction

This data review covers 5 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
4/13/11 (ba13c02)	4-Methyl-2-pentanone 2-Hexanone 1,2-Dibromo-3-chloropropane	26 33 30	SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0 VBLKB23	J (all detects) UJ (all non-detects)	A
4/18/11 (ya18c01)	Dichlorodifluoromethane Trichlorofluoromethane	28 30	TB-041211 VBLKY14	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A

Date	Compound	%D	Associated Samples	Flag	A or P
4/18/11 (ya18c02)	Freon-133a	26	TB-041211 VBLKY14	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 (bm01v02)	Bromochloromethane	36	SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0 VBLKB23	J (all detects) UJ (all non-detects)	A
2/10/11 (yf10v20)	Dichlorodifluoromethane Acetone	30 28	TB-041211 VBLKY14	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
VBLKB23	4/13/11	Methylene chloride	1.3 ug/Kg	All soil samples in SDG DE125

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-202-SA5A-SB-3.0-4.0	Methylene chloride	2.9 ug/Kg	4.1U ug/Kg
SL-206-SA5A-SB-4.0-5.0	Methylene chloride	0.56 ug/Kg	4.1U ug/Kg

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
SL-207-SA5A-SB-3.0-4.0	Methylene chloride	0.60 ug/Kg	4.4U ug/Kg
SL-227-SA5A-SB-3.0-4.0	Methylene chloride	1.3 ug/Kg	4.5U ug/Kg
SL-228-SA5A-SB-3.0-4.0	Methylene chloride	4.2 ug/Kg	4.2U ug/Kg

Sample TB-041211 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 with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
LCS/DY14 (TB-041211 VBLKY14)	Freon-133a	123 (77-120)	124 (77-120)	-	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 DE125	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 DE125

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE125	SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0	4-Methyl-2-pentanone 2-Hexanone 1,2-Dibromo-3-chloropropane	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE125	TB-041211	Dichlorodifluoromethane Trichlorofluoromethane Freon-133a	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE125	SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0	Bromochloromethane	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE125	TB-041211	Dichlorodifluoromethane Acetone	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE125	TB-041211	Freon-133a	J (all detects)	P	Laboratory control samples (%R) (L)
DE125	SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0 TB-041211	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 DE125

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE125	SL-202-SA5A-SB-3.0-4.0	Methylene chloride	4.1U ug/Kg	A	B
DE125	SL-206-SA5A-SB-4.0-5.0	Methylene chloride	4.1U ug/Kg	A	B
DE125	SL-207-SA5A-SB-3.0-4.0	Methylene chloride	4.4U ug/Kg	A	B
DE125	SL-227-SA5A-SB-3.0-4.0	Methylene chloride	4.5U ug/Kg	A	B
DE125	SL-228-SA5A-SB-3.0-4.0	Methylene chloride	4.2U ug/Kg	A	B

Santa Susana Field Laboratory
Volatiles - Field Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

LDC #: 25916G1a **VALIDATION COMPLETENESS WORKSHEET** Date: 8/08/11
SDG #: DE125 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: MG
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	A	Sampling dates: 4/12/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30 % rr
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	SW	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation ~~CRQLs~~ RLs	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 = 6

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-202-SA5A-SB-3.0-4.0 S	11	VBLKB23	21		31	
2	SL-206-SA5A-SB-4.0-5.0	12	VBLKY14	22		32	
3	SL-207-SA5A-SB-3.0-4.0	13		23		33	
4	SL-227-SA5A-SB-3.0-4.0	14		24		34	
5	SL-228-SA5A-SB-3.0-4.0	15		25		35	
6	TB-041211 W	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 25916 G1a

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 ≥ 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 #: 25916 G1a

VALIDATION FINDINGS CHECKLIST

Reviewer: JVG
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. Freon 133a
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 #: 25916 G1a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: JVG
2nd Reviewer:

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		All S, VBLKB23	J/UJ/A (C)
	4/13/11	ba13c02 (CCV)	Y	26			
			Z	33			
			MM	30			
	4/18/11	ya18c01 (CCV)	JJ	28		6, VBLKY14	
			KK	30			
		ya18c02 (CCV)	NNNN	26			
	2/10/11	yf10v20 (ICV)	JJ	30			
			F	28			

LDC #: 25916 G1a

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: SVG
2nd Reviewer: CA

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: 4/13/11
Conc. units: ug/kg
Associated Samples: All S Code: B

Compound	Blank ID	Sample Identification								
	VBLKB23	1	2	3	4	5				
Methylene chloride	1.3	2.9/4.1U	0.50/4.1U	0.60/4.4U	1.3/4.5U	4.2/U				
Acetone										
CRQL										

Blank analysis date:
Conc. units:
Associated Samples:

Compound	Blank ID	Sample Identification								
Methylene chloride										
Acetone										
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 #: 25916 G1a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: JVG
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 LCS required?
Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	LCS/D Y14	NNNN	123 (77-120)	124 (77-120)	( )	6, VBLK Y14	J det/p (L)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		

LDC #: 25916 G1a

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 #: 25916 G1Q

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
	HP09355		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 # 25916 G1a

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	ba13c02	4/13/11	Methylene chloride (FBZ)	0.3108	0.3366	0.3366	8	8
	HP09953		Toluene (CBZ)	0.8282	0.8466	0.8466	2	2
			1,1,2,2-TCA (DCB)	0.6201	0.6871	0.6871	11	11
2	ya18c01	4/18/11	Acetone (FBZ)	0.0429	0.0399	0.0399	7	7
	HP09355		Toluene (CBZ)	0.9969	1.0134	1.0134	2	2
			1,1,2,2-TCA (DCB)	0.9569	0.9601	0.9601	0	0

CCV1

Cis/Cx	Compound	Ax	Ais
50/50	Methylene chloride (FBZ)	434840	1291701
50/50	Toluene (CBZ)	804188	949877
50/50	1,1,2,2-TCA (DCB)	394431	574053

CCV2

Cis/Cx	Compound	Ax	Ais
50/100	Acetone (FBZ)	86267	1080675
50/50	Toluene (CBZ)	809545	798862
50/50	1,1,2,2-TCA (DCB)	496805	517465

LDC #: 25916 61A

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	50	50.23	100	100	0
Bromofluorobenzene		47.09	94	94	
1,2-Dichloroethane-d4		48.85	98	98	
Dibromofluoromethane		46.7	93	93	

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 #: 25916 G19

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Page: 1 of 1
Reviewer: JV6
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 B23

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	20	20.58	20.37	103	103	103	103	1	1
Trichloroethene			20.81	20.35	104	104	102	102	2	2
Benzene			20.87	20.74	104	104	104	104	1	1
Toluene			20.16	20.22	101	101	101	101	0	0
Chlorobenzene			20.89	20.59	104	104	103	103	1	1

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 #: 25916 G1A

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: JVG
2nd reviewer: A

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. #5, E:

Conc. = $\frac{(34835)(50)(5\ ml)}{(1303279)(0.3108)(5.84g)(0.87)}$

= ~~3.68~~ 4.23 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: April 12, 2011

LDC Report Date: August 10, 2011

Matrix: Soil/Water

Parameters: 1,4-Dioxane

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE125

Sample Identification

SL-202-SA5A-SB-3.0-4.0
SL-206-SA5A-SB-4.0-5.0
SL-207-SA5A-SB-3.0-4.0
SL-227-SA5A-SB-3.0-4.0
SL-228-SA5A-SB-3.0-4.0
TB-041211

Introduction

This data review covers 5 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-041211 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 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 DE125	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 DE125

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE125	SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0 TB-041211	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 DE125

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
1,4-Dioxane - Field Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

LDC #: 25916G1b **VALIDATION COMPLETENESS WORKSHEET** Date: 8/08/11
SDG #: DE125 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: JV6
2nd Reviewer:

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: 4/12/11
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~~ RLs	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 = 6

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-202-SA5A-SB-3.0-4.0 S	11	VBLKE9Y	21		31	
2	SL-206-SA5A-SB-4.0-5.0	12	VBLKE91	22		32	
3	SL-207-SA5A-SB-3.0-4.0	13		23		33	
4	SL-227-SA5A-SB-3.0-4.0	14		24		34	
5	SL-228-SA5A-SB-3.0-4.0	15		25		35	
6	TB-041211 W	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 25916 G16

VALIDATION FINDINGS CHECKLIST

Reviewer: JM
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 > 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 #: 25916 G16

VALIDATION FINDINGS CHECKLIST

Reviewer: JVG
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.	✓			

LDC # 25916 6L

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer: A

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 # 25916 G1b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer: A

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 # 25916G1L

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B-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)

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	ea13c51	4/13/11	1,4-Dioxane (1,4-D-d8)	1.3219	1.3567	1.3567	3	3
	HP15648							
2	ea14c01	4/14/11	1,4-Dioxane (1,4-D-d8)	1.3396	1.4732	1.4732	10	10
	HP15648							

	Compound (IS)	Cis/Cx	Ax	Ais
CCV1	1,4-Dioxane (1,4-D-d8)	10/10	21091	15546
CCV2	1,4-Dioxane (1,4-D-d8)	10/10	29681	20147

LDC #: 25916 GLb

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

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	9.641	96	96	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 #: 25916 G1b

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Reviewer: JV6
2nd Reviewer: A

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 = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS ID: LCS/D E 9✓

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	141.63	137.61	113	113	110	110	3	3
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.

LDC #: 25916 G1b

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. _____ , MD

Conc. = $\frac{(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)}$

=

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: April 12, 2011

LDC Report Date: August 11, 2011

Matrix: Soil/Water

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE125

Sample Identification

SL-012-SA8N-SS-0.0-0.5
SL-015-SA8N-SS-0.0-0.5
SL-016-SA8N-SS-0.0-0.5
SL-018-SA8N-SS-0.0-0.5
SL-019-SA8N-SS-0.0-0.5
SL-020-SA8N-SS-0.0-0.5
SL-021-SA8N-SS-0.0-0.5
SL-022-SA8N-SS-0.0-0.5
SL-023-SA8N-SS-0.0-0.5
SL-036-SA8N-SS-0.0-0.5
SL-047-SA8N-SS-0.0-0.5
SL-048-SA8N-SS-0.0-0.5
SL-050-SA8N-SS-0.0-0.5
SL-131-SA8N-SS-0.0-0.5
EB01-SA8N-041211
SL-202-SA5A-SB-3.0-4.0
SL-206-SA5A-SB-4.0-5.0
SL-207-SA5A-SB-3.0-4.0
SL-227-SA5A-SB-3.0-4.0
SL-228-SA5A-SB-3.0-4.0

SL-012-SA8N-SS-0.0-0.5MS
SL-012-SA8N-SS-0.0-0.5MSD

Introduction

This data review covers 21 soil samples and one water 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.

Sample EB01-SA8N-041211 was identified as an equipment blank. No semivolatile 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-012-SA8N-SS-0.0-0.5MS/MSD (SL-012-SA8N-SS-0.0-0.5)	Aniline 3,3'-Dichlorobenzidine	- -	- -	46 (≤30) 43 (≤30)	J (all detects) J (all detects)	A
SL-012-SA8N-SS-0.0-0.5MS/MSD (SL-012-SA8N-SS-0.0-0.5)	4-Chloroaniline Benzidine	- 33 (35-141)	19 (23-95) -	93 (≤30) -	J (all detects) UJ (all non-detects) 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
106LALCS (SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0 SBLKLA106)	1,2-Dichlorobenzene	78 (79-102)	-	-	J (all detects) UJ (all non-detects)	P

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
108WCLCS/D (EB01-SA8N-041211 SBLKWC108)	1,2-Diphenyl hydrazine	-	118 (78-116)	-	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 DE125	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 DE125

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE125	SL-012-SA8N-SS-0.0-0.5	Aniline 3,3'-Dichlorobenzidine	J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (RPD) (Q)
DE125	SL-012-SA8N-SS-0.0-0.5	4-Chloroaniline	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q)
DE125	SL-012-SA8N-SS-0.0-0.5	Benzidine	J (all detects) UJ (all non-detects)		Matrix spike/Matrix spike duplicate (%R) (Q)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0	1,2-Dichlorobenzene	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L)
DE125	EB01-SA8N-041211	1,2-Diphenyl hydrazine	J (all detects)	P	Laboratory control samples (%R) (L)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 EB01-SA8N-041211 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0	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 DE125

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

LDC #: 25916G2a **VALIDATION COMPLETENESS WORKSHEET** Date: 8/09/11
SDG #: DE125 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: JM
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: 4/12/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30% rr
IV.	Continuing calibration/ICV	A	CCV/ICV ≤ 25%
V.	Blanks	A	
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~~ RLs	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	EB = 15

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-012-SA8N-SS-0.0-0.5 S	11	SL-047-SA8N-SS-0.0-0.5 S	21	1 MS	31	SBLKLA106	
2	SL-015-SA8N-SS-0.0-0.5	12	SL-048-SA8N-SS-0.0-0.5	22	1 MSD	32	SBLKWG108	
3	SL-016-SA8N-SS-0.0-0.5	13	SL-050-SA8N-SS-0.0-0.5	23		33		
4	SL-018-SA8N-SS-0.0-0.5	14	SL-131-SA8N-SS-0.0-0.5	24		34		
5	SL-019-SA8N-SS-0.0-0.5	15	EB01-SA8N-041211 W	25		35		
6	SL-020-SA8N-SS-0.0-0.5	16	SL-202-SA5A-SB-3.0-4.0 S	26		36		
7	SL-021-SA8N-SS-0.0-0.5	17	SL-206-SA5A-SB-4.0-5.0	27		37		
8	SL-022-SA8N-SS-0.0-0.5	18	SL-207-SA5A-SB-3.0-4.0	28		38		
9	SL-023-SA8N-SS-0.0-0.5	19	SL-227-SA5A-SB-3.0-4.0	29		39		
10	SL-036-SA8N-SS-0.0-0.5	20	SL-228-SA5A-SB-3.0-4.0	30		40		

LDC #: 25916 G2a

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 $\geq$ 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 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 #: 45916G29

VALIDATION FINDINGS CHECKLIST

Reviewer: JV
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/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. 1,2-Diphenyl hydrazine
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 #: 25916 G 2a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: JW
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

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
		21/22	NNN	( )	( )	46 (30)	1	J dets/A (Q)
			T	( )	19 (23-95)	93 ( )		J/UJ/A
			SSS	33 (35-141)	( )	( )		
			BBB	( )	( )	43 ( )		J dets/A
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)		Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
A.	Phenol	26-90%	≤ 35%	12-110%	≤ 42%	GG	Acenaphthene	31-137%	≤ 19%	46-118%	≤ 31%
C.	2-Chlorophenol	25-102%	≤ 50%	27-123%	≤ 40%	II.	4-Nitrophenol	11-114%	≤ 50%	10-80%	≤ 50%
E.	1,4-Dichlorobenzene	28-104%	≤ 27%	36-97%	≤ 28%	KK.	2,4-Dinitrotoluene	28-89%	≤ 47%	24-96%	≤ 38%
J.	N-Nitroso-di-n-propylamine	41-126%	≤ 38%	41-116%	≤ 38%	TT.	Pentachlorophenol	17-109%	≤ 47%	9-103%	≤ 50%
R.	1,2,4-Trichlorobenzene	38-107%	≤ 23%	39-98%	≤ 28%	ZZ.	Pyrene	35-142%	≤ 36%	26-127%	≤ 31%
V.	4-Chloro-3-methylphenol	26-103%	≤ 33%	23-97%	≤ 42%						

LDC #: 25916 G 2a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Reviewer: JVG
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

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/LCSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	106LALCS	F	78 (79-102)	( )	( )	All soils, SBLKLA106	J/UJ/p (L)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
	108WC LCS/D	TTT	( )	118 (78-116)	( )	15, SBLKWC108	J dets/p (L)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		

LDC #: 25916 62A

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	04/05/11	Phenol (IS1)	2.906	2.906	2.808	2.808	8	8
			2,4-Dichlorophenol (IS2)	0.335	0.335	0.323	0.323	7	7
	HP09572		2,4,5-Trichlorophenol (IS3)	0.400	0.400	0.390	0.390	7	7
			Pentachlorophenol (IS4)	0.128	0.128	0.119	0.119	12	11
			Benzidine (IS5)	0.858	0.858	0.780	0.780	11	11

Cis/Cx	Ax	Ais
40/50	780259	214805
40/50	404436	966036
40/50	345153	691030
40/50	193159	1207144
40/150	3846865	1196118

Conc	Phenol	2,4-DCP	2,4,5-TCP	PCP	Benzidine
5	2.398	0.280	0.338	0.098	0.608
15	2.798	0.317	0.387	0.107	0.772
30	2.863	0.334	0.403	0.118	0.817
50	2.906	0.335	0.400	0.128	0.858
80	2.994	0.340	0.408	0.129	0.828
120	2.891	0.333	0.404	0.131	0.798
X =	2.808	0.323	0.390	0.119	0.780
S =	0.211	0.023	0.026	0.013	0.089

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 #: 05916 G2c

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 50 std)	Recalculated RRF (RRF 50 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	04/01/11	Phenol (IS1)	3.124	3.124	3.056	3.056	6	6
			2,4-Dichlorophenol (IS2)	0.305	0.305	0.298	0.298	5	5
	HP11165		2,4,5-Trichlorophenol (IS3)	0.389	0.389	0.378	0.379	6	6
			Pentachlorophenol (IS4)	0.158	0.158	0.156	0.156	12	6
			Bis(2-ethex)phthalate (IS5)	0.747	0.747	0.715	0.715	7	7

Cis/Cx	Ax	Ais
40/50	580122	148556
40/50	281006	738203
40/50	222855	458423
40/50	155692	789411
40/50	730092	781794

Conc	Phenol	2,4-DCP	2,4,5-TCP	PCP	Bis(2-eh)phtha
5	2.732	0.270	0.334	0.142	0.633
15	3.093	0.302	0.377	0.151	0.682
30	3.195	0.308	0.384	0.154	0.736
50	3.124	0.305	0.389	0.158	0.747
80	3.173	0.310	0.398	0.163	0.746
120	3.018	0.295	0.389	0.167	0.743
X =	3.056	0.298	0.379	0.156	0.715
S =	0.171	0.015	0.023	0.009	0.047

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 # 25916 G2a

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	ed0881	04/20/11	Phenol (IS1)	2.808	2.844	2.844	1	1
			2,4-Dichlorophenol (IS2)	0.323	0.330	0.330	2	2
	HP09572		2,4,5-Trichlorophenol (IS3)	0.390	0.400	0.400	3	3
			Pentachlorophenol (IS4)	0.119	0.133	0.133	12	12
			Benzidine (IS5)	0.780	0.874	0.874	12	12

CCV1

Compound (IS)	Cis/Cx	Ax	Ais
Phenol (IS1)	40/80	1078250	189547
2,4-Dichlorophenol (IS2)	40/80	569650	862959
2,4,5-Trichlorophenol (IS3)	40/80	485230	606184
Pentachlorophenol (IS4)	40/80	281373	1058314
Benzidine (IS5)	40/240	5013772	956480

LDC # 45916 G2a

VALIDATION FINDINGS WORSHEET
Continuing Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer: A

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	gd0741	04/18/11	Phenol (IS1)	3.056	3.199	3.199	5	5
			2,4-Dichlorophenol (IS2)	0.298	0.299	0.299	0	0
	HP11165		2,4,5-Trichlorophenol (IS3)	0.378	0.383	0.383	1	1
			Pentachlorophenol (IS4)	0.156	0.137	0.137	12	12
			Bis(2-ethex)phthalate (IS5)	0.715	0.817	0.817	14	14

CCV1

Compound (IS)	Cis/Cx	Ax	Ais
Phenol (IS1)	40/50	768756	192224
2,4-Dichlorophenol (IS2)	40/50	348445	930805
2,4,5-Trichlorophenol (IS3)	40/50	267376	559115
Pentachlorophenol (IS4)	40/50	166510	973603
Bis(2-ethex)phthalate (IS5)	40/50	1015611	994726

LDC #: 25916 G2a

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: JVG
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	87.66	88	88	0
2-Fluorobiphenyl	↓	88.34	88	88	
Terphenyl-d14	↓	85.88	86	86	
Phenol-d5	200	177.95	89	89	
2-Fluorophenol	↓	188.95	94	94	
2,4,6-Tribromophenol	↓	175.15	88	88	↓
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 #: 25916 G2C

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: JVG
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

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: 21/27

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	0	1360.88	1443.29	87	87	87	87	6	6
N-Nitroso-di-n-propylamine				1388.44	1458.53	83	83	88	88	5	5
4-Chloro-3-methylphenol				1415.3	1455.89	85	85	88	88	3	3
~~Acenaphthene~~											
Pentachlorophenol				1150.08	1210.85	69	69	73	73	5	5
~~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 #: YS916G2A

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: JVC
2nd Reviewer:

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: 106 LA 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	1324.94	NA	79	79				
N-Nitroso-di-n-propylamine			1349.09		81	81				
4-Chloro-3-methylphenol			1380.97		83	83				
~~Acenaphthene~~										
Pentachlorophenol			1158.54		70	90				
~~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 #: 25916 62a

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: JVG
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. 1 , EEE

Conc. = $\frac{(1014\,0)(40)(1\text{ m/})(1000)(\quad)}{(757830)(0.715)(30\text{ g})(0.857)(\quad)}$

= 28 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: April 12, 2011

LDC Report Date: August 11, 2011

Matrix: Soil/Water

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: Lancaster laboratories

Sample Delivery Group (SDG): DE125

Sample Identification

SL-012-SA8N-SS-0.0-0.5
SL-015-SA8N-SS-0.0-0.5
SL-016-SA8N-SS-0.0-0.5
SL-018-SA8N-SS-0.0-0.5
SL-019-SA8N-SS-0.0-0.5
SL-020-SA8N-SS-0.0-0.5
SL-021-SA8N-SS-0.0-0.5
SL-022-SA8N-SS-0.0-0.5
SL-023-SA8N-SS-0.0-0.5
SL-036-SA8N-SS-0.0-0.5
SL-047-SA8N-SS-0.0-0.5
SL-048-SA8N-SS-0.0-0.5
SL-050-SA8N-SS-0.0-0.5
SL-131-SA8N-SS-0.0-0.5
EB01-SA8N-041211
SL-202-SA5A-SB-3.0-4.0
SL-206-SA5A-SB-4.0-5.0
SL-207-SA5A-SB-3.0-4.0
SL-227-SA5A-SB-3.0-4.0
SL-228-SA5A-SB-3.0-4.0
SL-012-SA8N-SS-0.0-0.5MS
SL-012-SA8N-SS-0.0-0.5MSD

Introduction

This data review covers 21 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.

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 with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
4/15/11	Di-n-octylphthalate	26	All samples in SDG DE125	J (all detects) UJ (all non-detects)	A
	Benzo(b)fluoranthene	30		J (all detects) UJ (all non-detects)	

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 semivolatiles were found in the method blanks.

Sample EB01-SA8N-041211 was identified as an equipment blank. No semivolatiles were found with the following exceptions:

Equipment Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB01-SA8N-041211	4/12/11	Di-n-butylphthalate Diethylphthalate Di-n-octylphthalate Bis(2-ethylhexyl)phthalate	0.51 ug/L 0.13 ug/L 4.7 ug/L 4.9 ug/L	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5

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 with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-012-SA8N-SS-0.0-0.5	Di-n-octylphthalate	9.3 ug/Kg	20U ug/Kg
SL-015-SA8N-SS-0.0-0.5	Di-n-octylphthalate	9.7 ug/Kg	21U ug/Kg
SL-016-SA8N-SS-0.0-0.5	Di-n-octylphthalate	9.9 ug/Kg	21U ug/Kg
SL-018-SA8N-SS-0.0-0.5	Di-n-octylphthalate	9.6 ug/Kg	21U ug/Kg
SL-019-SA8N-SS-0.0-0.5	Di-n-octylphthalate	10 ug/Kg	21U ug/Kg
SL-020-SA8N-SS-0.0-0.5	Di-n-butylphthalate Di-n-octylphthalate	8.5 ug/Kg 9.7 ug/Kg	21U ug/Kg 21U ug/Kg
SL-021-SA8N-SS-0.0-0.5	Di-n-octylphthalate Bis(2-ethylhexyl)phthalate	9.5 ug/Kg 28 ug/Kg	20U ug/Kg 28U ug/Kg
SL-022-SA8N-SS-0.0-0.5	Di-n-octylphthalate	12 ug/Kg	21U ug/Kg

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-023-SA8N-SS-0.0-0.5	Di-n-octylphthalate	13 ug/Kg	21U ug/Kg
SL-131-SA8N-SS-0.0-0.5	Bis(2-ethylhexyl)phthalate	34 ug/Kg	34U ug/Kg

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-012-SA8N-SS-0.0-0.5MS/MSD (SL-012-SA8N-SS-0.0-0.5)	Acenaphthene	106 (63-105)	-	-	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
106WDLCS/D (EB01-SA8N-041211 5BLKWD106)	Acenaphthene Di-n-octylphthalate	116 (74-109) 154 (57-145)	- -	- -	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 DE125	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 DE125

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 EB01-SA8N-041211 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0	Di-n-octylphthalate Benzo(b)fluoranthene	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE125	SL-012-SA8N-SS-0.0-0.5	Acenaphthene	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE125	EB01-SA8N-041211	Acenaphthene Di-n-octylphthalate	J (all detects) J (all detects)	P	Laboratory control samples (%R) (L)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 EB01-SA8N-041211 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0	All TCL compounds	J (all detects)	A	Compound quantitation and CRQLs (Z)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG DE125

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE125	SL-012-SA8N-SS-0.0-0.5	Di-n-octylphthalate	20U ug/Kg	A	F
DE125	SL-015-SA8N-SS-0.0-0.5	Di-n-octylphthalate	21U ug/Kg	A	F
DE125	SL-016-SA8N-SS-0.0-0.5	Di-n-octylphthalate	21U ug/Kg	A	F
DE125	SL-018-SA8N-SS-0.0-0.5	Di-n-octylphthalate	21U ug/Kg	A	F
DE125	SL-019-SA8N-SS-0.0-0.5	Di-n-octylphthalate	21U ug/Kg	A	F
DE125	SL-020-SA8N-SS-0.0-0.5	Di-n-butylphthalate Di-n-octylphthalate	21U ug/Kg 21U ug/Kg	A	F
DE125	SL-021-SA8N-SS-0.0-0.5	Di-n-octylphthalate Bis(2-ethylhexyl)phthalate	20U ug/Kg 28U ug/Kg	A	F
DE125	SL-022-SA8N-SS-0.0-0.5	Di-n-octylphthalate	21U ug/Kg	A	F
DE125	SL-023-SA8N-SS-0.0-0.5	Di-n-octylphthalate	21U ug/Kg	A	F
DE125	SL-131-SA8N-SS-0.0-0.5	Bis(2-ethylhexyl)phthalate	34U ug/Kg	A	F

LDC #: 25916G2b **VALIDATION COMPLETENESS WORKSHEET** Date: 8/09/11
SDG #: DE125 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: DV6
SVOA 2nd Reviewer: A

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: 4/12/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤ 30% rr
IV.	Continuing calibration/ICV	SW	CCV/ICV ≤ 25%
V.	Blanks	A	
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~~ RLs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	SW	EB = 15

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-012-SA8N-SS-0.0-0.5 S	11	SL-047-SA8N-SS-0.0-0.5 S	21	1 MS	31	SBLK LD108	
2	SL-015-SA8N-SS-0.0-0.5	12	SL-048-SA8N-SS-0.0-0.5	22	1 MSD	32	SBLK WD106	
3	SL-016-SA8N-SS-0.0-0.5	13	SL-050-SA8N-SS-0.0-0.5	23		33		
4	SL-018-SA8N-SS-0.0-0.5	14	SL-131-SA8N-SS-0.0-0.5	24		34		
5	SL-019-SA8N-SS-0.0-0.5	15	EB01-SA8N-041211 W	25		35		
6	SL-020-SA8N-SS-0.0-0.5	16	SL-202-SA5A-SB-3.0-4.0 S	26		36		
7	SL-021-SA8N-SS-0.0-0.5	17	SL-206-SA5A-SB-4.0-5.0	27		37		
8	SL-022-SA8N-SS-0.0-0.5	18	SL-207-SA5A-SB-3.0-4.0	28		38		
9	SL-023-SA8N-SS-0.0-0.5	19	SL-227-SA5A-SB-3.0-4.0	29		39		
10	SL-036-SA8N-SS-0.0-0.5	20	SL-228-SA5A-SB-3.0-4.0	30		40		

LDC #: 25916 G 26

VALIDATION FINDINGS CHECKLIST

Reviewer: JVR
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.	✓			

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 #: 25916 G 26

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: MG
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

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
	4/15/11	id0341i (ICV)	FFF	26		All	J/UJ/A (c)
			GGG	30			

CONCAL.wpd

LDC #: 25916 G 26

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of ___
Reviewer: JV
2nd Reviewer: C

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: 9/12/11
Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: ~~All Soils~~ 1 - 14 Code: F

Compound	Blank ID	Sample Identification										
	15	1	2	3	4	5	6	7	8	9	~~14~~	14
XX	0.51						8.5/21 U					
LL	0.13											
FFF	4.7	9.3/20U	9.7/21 U	9.9/21 U	9.6/21 U	10/21 U	9.7/21 U	9.5/20U	12/21 U	13/21 U		
EEE	4.9							28/U				34/U

Blank units: ug /L **Associated sample units:** ug /kg
Sampling date: 9/12/11
Field blank type: (circle one) Field Blank / Rinsate / Other: ___ Associated Samples: ~~7, 14, 18, 19, 20~~ Code: ~~F~~

Compound	Blank ID	Sample Identification								
	~~15~~	~~7~~	~~14~~							
~~EEE~~	~~4.9~~	~~28/U~~ cl	~~34/U~~							

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 #: 25916 G 26

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: JVG
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

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
		21/22	GG	106 (63-105)	( )	( )	1	5 dets/A (Q)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)		Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
A.	Phenol	26-90%	≤ 35%	12-110%	≤ 42%	GG	Acenaphthene	31-137%	≤ 19%	46-118%	≤ 31%
C.	2-Chlorophenol	25-102%	≤ 50%	27-123%	≤ 40%	II.	4-Nitrophenol	11-114%	≤ 50%	10-80%	≤ 50%
E.	1,4-Dichlorobenzene	28-104%	≤ 27%	36-97%	≤ 28%	KK.	2,4-Dinitrotoluene	28-89%	≤ 47%	24-96%	≤ 38%
J.	N-Nitroso-di-n-propylamine	41-126%	≤ 38%	41-116%	≤ 38%	TT.	Pentachlorophenol	17-109%	≤ 47%	9-103%	≤ 50%
R.	1,2,4-Trichlorobenzene	38-107%	≤ 23%	39-98%	≤ 28%	ZZ.	Pyrene	35-142%	≤ 36%	26-127%	≤ 31%
V.	4-Chloro-3-methylphenol	26-103%	≤ 33%	23-97%	≤ 42%						

LDC #: 25916 G26

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Reviewer: DM
2nd Reviewer: C

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

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/LCSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	106WDLCS/D	GG	116 (74-109)	( )	( )	15, SBLKWD106	J dets/p (L)
		FFF	154 (57-145)	( )	( )	↓	↓
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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LDC #: 25916 G 26

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	04/15/11	NDMA (IS1)	0.885	0.719	0.844	0.844	4	4
			Naphthalene (IS2)	1.061	0.758	1.029	1.029	4	4
	HP10976		Diethylphthalate (IS3)	1.313	0.829	1.401	1.401	12	12
			Phenanthrene (IS4)	1.115	0.772	1.106	1.106	6	6
			Chrysene (IS5)	1.188	0.779	1.146	1.146	4	4
			Benzo(a)pyrene (IS6)	1.092	0.680	1.034	1.034	12	11

Cis/Cx	Ax	Ais
1/1	84069	116860
1/1	343632	453172
1/1	230725	278432
1/1	371146	480903
1/1	404794	519775
1/1	356552	524029

Conc	NDMA	Naphthalene	Diethylphthalate	Phenanthrene	Chrysene	Benzo(a)py
0.05	0.778	0.995		1.029	1.090	0.848
0.20	0.842	1.024	1.466	1.106	1.153	0.973
0.50	0.831	0.969	1.660	1.038	1.085	1.002
1.00	0.885	1.061	1.313	1.115	1.188	1.092
5.00	0.857	1.034	1.245	1.131	1.148	1.101
10.00	0.870	1.092	1.320	1.216	1.210	1.187
X =	0.8438	1.029	1.401	1.106	1.146	1.034
S =	0.038	0.044	0.166	0.068	0.051	0.119

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 # 25916 S26

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	id0401	04/18/11	NDMA (IS1)	0.844	0.876	0.876	4	4
			Naphthalene (IS2)	1.029	1.016	1.016	1	1
	HP10976		Diethylphthalate (IS3)	1.401	1.229	1.229	12	12
			Phenanthrene (IS4)	1.106	1.104	1.104	0	0
			Chrysene (IS5)	1.146	1.146	1.146	0	0
			Benzo(a)pyrene (IS6)	1.034	1.116	1.116	8	8
2	id0451	04/19/11	NDMA (IS1)	0.844	0.906	0.906	7	7
			Naphthalene (IS2)	1.029	1.054	1.054	2	2
	HP10976		Diethylphthalate (IS3)	1.401	1.396	1.396	0	0
			Phenanthrene (IS4)	1.106	1.115	1.115	1	1
			Chrysene (IS5)	1.146	1.189	1.189	4	4
			Benzo(a)pyrene (IS6)	1.034	1.108	1.108	7	7
3	id0491	04/20/11	NDMA (IS1)	0.844	0.847	0.847	0	0
			Naphthalene (IS2)	1.029	1.014	1.014	1	1
	HP10976		Diethylphthalate (IS3)	1.401	1.197	1.197	15	15
			Phenanthrene (IS4)	1.106	1.115	1.115	1	1
			Chrysene (IS5)	1.146	1.113	1.113	3	3
			Benzo(a)pyrene (IS6)	1.034	1.087	1.087	5	5

	CCV1 (1/5)		CCV2 (1/1)		CCV3 (1/5)	
Compound (IS)	Ax	Ais	Ax	Ais	Ax	Ais
NDMA	357715	81660	81447	89907	366458	86572
Naphthalene	1620263	318912	377208	357764	1727888	340859
Diethylphthalate	1173273	190854	304982	218521	1233878	206237
Phenanthrene	1817213	329262	413741	370986	1970370	353325
Chrysene	2236994	390382	467770	393351	2212246	397471
Benzo(a)pyrene	2170848	389195	431224	389118	2103711	387038

LDC #: 25916 G26

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: JM
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	1.00	1.044	104	104	0
2-Fluorobiphenyl	↓	0.986	99	99	
Terphenyl-d14	↓	1.05 ✓	105	105	↓
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 #: 59165G26

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: SVG
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 = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 111085LD026

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	36.36	NA	109	109				
Pentachlorophenol		↓		↓						
Pyrene	33.33	↓	35.4	↓	106	106				

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 #: 25916 G26

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: JM
2nd reviewer: JM

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. #1, DDD

Conc. = $\frac{(53821)(1.0)(1.0\,ml)(1\,ml)(\quad)}{(451045)(1.146)(30.1\,g)(0.88\,r)(\quad)}$

= 3.9 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: April 12, 2011

LDC Report Date: August 10, 2011

Matrix: Soil

Parameters: N-Nitrosodimethylamine

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE125

Sample Identification

SL-012-SA8N-SS-0.0-0.5
SL-019-SA8N-SS-0.0-0.5
SL-020-SA8N-SS-0.0-0.5
SL-021-SA8N-SS-0.0-0.5
SL-022-SA8N-SS-0.0-0.5
SL-047-SA8N-SS-0.0-0.5

Introduction

This data review covers 6 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% for calibration all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 30.0% for all compounds.

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 with the following exceptions:

Sample	Surrogate	%R (Limits)	Compound	Flag	A or P
SL-022-SA8N-SS-0.0-0.5	N-nitrosodimethylamine-d6	183 (50-150)	N-nitrosodimethylamine	J (all detects)	P

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 DE125	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 DE125

SDG	Sample	Compound	Flag	A or P	Reason
DE125	SL-022-SA8N-SS-0.0-0.5	N-nitrosodimethylamine	J (all detects)	P	Surrogate spikes (%R) (S)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5	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 DE125

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Field Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

LDC #: 25916G2c **VALIDATION COMPLETENESS WORKSHEET** Date: 8/02/11
SDG #: DE125 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: JVG
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: 4/12/11
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	A	%RSD ≤ 30%
IV.	Continuing calibration/ICV	A	~~CCAL~~ %D ≤ 30% CCV ≤ 20%
V.	Blanks	A	
VI.	Surrogate spikes	SW	
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~~ RLs	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-012-SA8N-SS-0.0-0.5	11	SBLK LA 1081	21		31	
2	SL-019-SA8N-SS-0.0-0.5	12		22		32	
3	SL-020-SA8N-SS-0.0-0.5	13		23		33	
4	SL-021-SA8N-SS-0.0-0.5	14		24		34	
5	SL-022-SA8N-SS-0.0-0.5	15		25		35	
6	SL-047-SA8N-SS-0.0-0.5	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 25716 G2C

VALIDATION FINDINGS CHECKLIST

Reviewer: JVR
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 #: 25916 62C

VALIDATION FINDINGS CHECKLIST

Reviewer: JV6
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/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 #: 25916 G2c

VALIDATION FINDINGS WORKSHEET
Surrogate Recovery

Reviewer: OV6
2nd Reviewer: C

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

Please see qualification below for all questions answered "N". Not applicable questions are identified as "N/A".

Y (N) N/A Were percent recoveries (%R) for surrogates within QC limits?

Y (N) N/A If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?

Y N (N/A) If any %R was less than 10 percent, was a reanalysis performed to confirm %R?

#	Date	Sample ID	Surrogate	%R (Limits)	Qualifications
		5	NDMA -d6	183 (50-150)	J det+ / p (S)
				( )	
				( )	
				( )	
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* QC limits are advisory	QC Limits (Soil)	QC Limits (Water)
S1 (NBZ) = Nitrobenzene-d5	23-120	35-114
S2 (FBP) = 2-Fluorobiphenyl	30-115	43-116
S3 (TPH) = Terphenyl-d14	18-137	33-141
S4 (PHL) = Phenol-d5	24-113	10-94
S5 (2FP)= 2-Fluorophenol	25-121	21-100
S6 (TBP) = 2,4,6-Tribromophenol	19-122	10-123
S7 (2CP) = 2-Chlorophenol-d4	20-130*	33-110*
S8 (DCB) = 1,2-Dichlorobenzene-d4	20-130*	16-110*

LDC #25916 6 2C

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	4/20/2011	NDMA (NDMA-d6)	1.489	1.489	1.5197	1.5197	9	9
	TE16311								

Cis/Cx	Ax	Ax
25/25	203162	136472

Conc	RRF
1.0	1.788
5.0	1.424
10.0	1.502
25.0	1.489
50.0	1.484
100.0	1.431
X =	1.5197
S =	0.1353

LDC #: 25916 G2C

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: JVG
2nd Reviewer: CA

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 = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: _____

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	751.66	NA	90	90				
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 #: 25916G2C

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: JM
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. 3, ND MA

Conc. = $\frac{(8267)(25)(1ml)(10)(\quad)}{(142524)(1.5197)(30.0g)(0.86\%)(\quad)}$

= 0.368 mg/kg (1000)

= 370 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: April 12, 2011

LDC Report Date: August 11, 2011

Matrix: Soil/Water

Parameters: Polychlorinated Biphenyls

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE125

Sample Identification

SL-012-SA8N-SS-0.0-0.5
SL-015-SA8N-SS-0.0-0.5
SL-016-SA8N-SS-0.0-0.5
SL-018-SA8N-SS-0.0-0.5
SL-019-SA8N-SS-0.0-0.5
SL-020-SA8N-SS-0.0-0.5
SL-021-SA8N-SS-0.0-0.5
SL-022-SA8N-SS-0.0-0.5
SL-023-SA8N-SS-0.0-0.5
SL-036-SA8N-SS-0.0-0.5
SL-047-SA8N-SS-0.0-0.5
SL-048-SA8N-SS-0.0-0.5
SL-050-SA8N-SS-0.0-0.5
SL-131-SA8N-SS-0.0-0.5
EB01-SA8N-041211
SL-202-SA5A-SB-3.0-4.0
SL-206-SA5A-SB-4.0-5.0
SL-207-SA5A-SB-3.0-4.0
SL-227-SA5A-SB-3.0-4.0
SL-228-SA5A-SB-3.0-4.0
SL-012-SA8N-SS-0.0-0.5MS
SL-012-SA8N-SS-0.0-0.5MSD

Introduction

This data review covers 21 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
4/20/11	3C20104B.30R	ZB-MR2	Aroclor-5460	27.8	SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0	Aroclor-5460	J (all detects) UJ (all non-detects)	A
4/21/11	4C20104B.05R	ZB-MR2	Aroclor-5432 Aroclor-5460	22.1 24.1	SL-131-SA8N-SS-0.0-0.5	Aroclor-5432 Aroclor-5460	J (all detects) UJ (all non-detects) 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.

Sample EB01-SA8N-041211 was identified as an equipment blank. No polychlorinated biphenyl 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 with the following exceptions:

Sample	Surrogate	%R (Limits)	Compound	Flag	A or P
SL-131-SA8N-SS-0.0-0.5	Decachlorobiphenyl	129 (45-120)	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 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 with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Affected Compounds	Flag	A or P
LCS/D07104 (EB01-SA8N-041211 PBLK07104)	Aroclor-5442	90 (35-84)	92 (35-84)	-	Aroclor-5460 Aroclor-5432 Aroclor-5442	J (all detects) J (all detects) J (all 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 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-036-SA8N-SS-0.0-0.5	Aroclor-1254	61.22	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE125	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 DE125

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE125	SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0	Aroclor-5460	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE125	SL-131-SA8N-SS-0.0-0.5	Aroclor-5432 Aroclor-5460	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE125	SL-131-SA8N-SS-0.0-0.5	All TCL compounds	J (all detects)	A	Surrogate spikes (%R) (S)
DE125	EB01-SA8N-041211	Aroclor-5460 Aroclor-5432 Aroclor-5442	J (all detects) J (all detects) J (all detects)	P	Laboratory control samples (%R) (L)
DE125	SL-036-SA8N-SS-0.0-0.5	Aroclor-1254	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 EB01-SA8N-041211 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

LDC #: 25916G3b **VALIDATION COMPLETENESS WORKSHEET** Date: 8/09/11
SDG #: DE125 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: JVC
2nd Reviewer: [illegible]

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: 4/12/11
II.	GC/ECD Instrument Performance Check	N	
III.	Initial calibration	A	%RSD ≤ 20%
IV.	Continuing calibration/ICV	SW	CCV/ICV ≤ 20%
V.	Blanks	A	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	A	
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~~ RL's	SW	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	Field blanks	ND	EB = 15

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-012-SA8N-SS-0.0-0.5 S	11	SL-047-SA8N-SS-0.0-0.5 S	21	1 MS	31 1	PBLK 12108
2	SL-015-SA8N-SS-0.0-0.5	12	SL-048-SA8N-SS-0.0-0.5	22	1 MSD	32 2	PBLK 07104
3	SL-016-SA8N-SS-0.0-0.5	13	SL-050-SA8N-SS-0.0-0.5	23		33	
4	SL-018-SA8N-SS-0.0-0.5	14	SL-131-SA8N-SS-0.0-0.5 W	24		34	
5	SL-019-SA8N-SS-0.0-0.5	15	EB01-SA8N-041211	25		35	
6	SL-020-SA8N-SS-0.0-0.5	16	SL-202-SA5A-SB-3.0-4.0 S	26		36	
7	SL-021-SA8N-SS-0.0-0.5	17	SL-206-SA5A-SB-4.0-5.0	27		37	
8	SL-022-SA8N-SS-0.0-0.5	18	SL-207-SA5A-SB-3.0-4.0	28		38	
9	SL-023-SA8N-SS-0.0-0.5	19	SL-227-SA5A-SB-3.0-4.0	29		39	
10	SL-036-SA8N-SS-0.0-0.5	20	SL-228-SA5A-SB-3.0-4.0	30		40	

Notes: _____

LDC #: 25916 636

VALIDATION FINDINGS CHECKLIST

Reviewer: JVG
2nd Reviewer: C

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) ≤ 20%.0 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?			✓	

LDC #: 25916G3b

VALIDATION FINDINGS CHECKLIST

Reviewer: JVG
2nd Reviewer: C

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. 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. Arochlor 1262
D. gamma-BHC	L. Endosulfan II	T. gamma-Chlordane	BB. Aroclor-1260	JJ. Arochlor 1268
E. Heptachlor	M. 4,4'-DDD	U. Toxaphene	CC. 2,4'-DDD	KK. oxy Chlordane
F. Aldrin	N. Endosulfan sulfate	V. Aroclor-1016	DD. 2,4'-DDE	LL. trans-Nonachlor
G. Heptachlor epoxide	O. 4,4'-DDT	W. Aroclor-1221	EE. 2,4'-DDT	MM. cis-Nonachlor
H. Endosulfan I	P. Methoxychlor	X. Aroclor-1232	FF. Hexachlorobenzene	NN. Aroclor-5460

OO. Aroclor-5432

PP. Aroclor-5442

Notes:_____

LDC #: 25916 G36

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: JV6
2nd Reviewer: A

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) / relative percent difference (RPD) criteria 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
	4/20/11	3C20104B.30R	ZB-MR2	NN	27.8	( )	9-13, 16-20	J/UJ/A (c)
						( )		
						( )		
						( )		
	4/21/11	4C20104B.05R	ZB-MR2	00	22.1	( )	14	
				NN	24.1	( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		

A. alpha-BHC	E. Heptachlor	I. Dieldrin	M. 4,4'-DDD	Q. Endrin ketone	U. Toxaphene	Y. Aroclor-1242	CC. DB 608	GG.	
B. beta-BHC	F. Aldrin	J. 4,4'-DDE	N. Endosulfan sulfate	R. Endrin aldehyde	V. Aroclor-1016	Z. Aroclor-1248	DD. DB 1701	HH.	
C. delta-BHC	G. Heptachlor epoxide	K. Endrin	O. 4,4'-DDT	S. alpha-Chlordane	W. Aroclor-1221	AA. Aroclor-1254	EE. Hexachlobenzene	II.	
D. gamma-BHC	H. Endosulfan I	L. Endosulfan II	P. Methoxychlor	T. gamma-Chlordane	X. Aroclor-1232	BB. Aroclor-1260	FF.	JJ.	

LDC #: 25916 G 36

VALIDATION FINDINGS WORKSHEET
Surrogate Spikes

Page: 1 of 1
Reviewer: JVG
2nd Reviewer: A

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Please see qualification below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were surrogates spiked into all samples, standards and blanks?
Y N N/A Did all surrogate percent recoveries (%R) meet the QC limits?

#	Date	Sample ID	Column	Surrogate Compound	%R (Limits)	Qualifications
		14		B	129 (45-120)	J dets/A (5)
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	
					( )	

Letter Designation	Surrogate Compound	Recovery QC Limits (Soil)	Recovery QC Limits (Water)	Comments
A	Tetrachloro-m-xylene			
B	Decachlorobiphenyl			

LDC #: 25916 G36
SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples

Page: 1 of 1
Reviewer: JV6
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 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 a LCS analyzed every 20 samples for each matrix or whenever a sample extraction was performed?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		LCS/D 07104	Aroclor 5442	90 (35-84)	92 (35-84)	( )	15, PBLK07104	J det / p (L)
				( )	( )	( )		(and, NN, OO, PP)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

LDC #: 25916 G3b

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Page: 1 of 1
Reviewer: MC
2nd Reviewer: A

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?
Y N N/A Did the percent difference of detected compounds between two columns./detectors ≤40%?
If no, please see findings bellow.

#	Compound Name	Sample ID	%RPD/%D Between Two Columns/Detectors Limit (≤ 40%)	Qualifications
	AA	10	61.22	J dets/A (##) (*x111)

Comments: See sample calculation verification worksheet for recalculations

LDC #: 25916 G3b

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:
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 (500 std)	Recalculated (500 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	4/14/2011	1260-4 (ZB-MR1)	77.09	77.1	77.2	77.2	7.8	7.8
	17342A		1260-4 (ZB-MR2)	340.49	340.5	341.1	341.1	5.6	5.6

C	H
500	38546
500	170246

Conc	1260-4 MR1	1260-4 MR2
50.0	86.80	366.98
100.0	74.36	341.91
200.0	77.13	343.25
500.0	77.09	340.49
1000.0	70.47	313.01
X=	77.17	341.13
S=	6.032	19.133

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 # 25916 G35

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: JVG
2nd Reviewer: A

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 (from Ave)	Recalculated Conc	Reported % D (from Ave)	Recalculated %D (from peak4)
1	2C20104.28R	4/18/2011	1260-4 (ZB-MR1)	200.00	205.97	205.37	3.0	2.7
			1260-4 (ZB-MR2)	200.00	224.57	228.88	12.3	14.4
2	3C20104.04R	4/20/2011	1260-4 (ZB-MR1)	200.00	194.18	199.81	2.9	0.1
			1260-4 (ZB-MR2)	200.00	216.15	226.01	8.1	13.0
3	3C20104.29R	4/20/2011	1260-4 (ZB-MR1)	200.00	196.67	198.95	1.7	0.5
			1260-4 (ZB-MR2)	200.00	221.95	229.90	11.0	15.0
4	4C20104.04R	4/21/2011	1260-4 (ZB-MR1)	200.00	195.29	200.90	1.7	0.4
			1260-4 (ZB-MR2)	200.00	227.48	230.37	11.0	15.2

		CCV1	CCV2	CCV3	CCV4
Compound	CF	Height	Height	Height	Height
1260-4 (ZB-MR1)	77.17	15848.02	15419.32	15352.64	15503.26
1260-4 (ZB-MR2)	341.129	78079.08	77097.30	78427.23	78586.34

LDC #: 25916G35

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: JVG
2nd reviewer:

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	ZB-MR2	1.04	1.204	116	116	0
Tetrachloro-m-xylene	↓	↓				↓
Decachlorobiphenyl	↓	↓	1.061	102	102	↓
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 #: 25916 636

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: JVG
2nd Reviewer:

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 = I MS - MSD I * 2/(MS + MSD)

MS = Matrix spike percent recovery; MSD = Matrix spike duplicate percent recovery

MS/MSD samples: 31 ✓

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											
4,4'-DDT											
Aroclor 1260	16.67	16.67	3.3	18.59	20.3	9 ✓	9 ✓	10 ✓	10 ✓	9	7

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 #: 25916 63b

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: OV6
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 = I LCS - LCSD I * 2/(LCS + LCSD) LCS = Laboratory control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS/D 07104

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.
gamma-BHC										
4,4'-DDT										
Aroclor 1260	5.0	5.0	4.7	4.9	94	94	98	98	K	K

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 #: 25916 63b

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: JVC
2nd reviewer: [signature]

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. #1 PCB-1260 MRL
PCB 1260-4
Conc. = $\frac{(700\ 6.9297)(2.0\ ml)}{(77.17)(60\ g)}$

= 3.0266

PCB 1260 Ave.

= $\frac{3.0266 + 4.788781 + 2.095884}{3}$

= 3.30378

final conc. = $\frac{3.30378}{(0.882)}$

= 3.7 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: April 12, 2011

LDC Report Date: August 2, 2011

Matrix: Soil/Water

Parameters: Metals

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE125

Sample Identification

SL-012-SA8N-SS-0.0-0.5
SL-015-SA8N-SS-0.0-0.5
SL-016-SA8N-SS-0.0-0.5
SL-018-SA8N-SS-0.0-0.5
SL-019-SA8N-SS-0.0-0.5
SL-020-SA8N-SS-0.0-0.5
SL-021-SA8N-SS-0.0-0.5
SL-022-SA8N-SS-0.0-0.5
SL-023-SA8N-SS-0.0-0.5
SL-036-SA8N-SS-0.0-0.5
SL-047-SA8N-SS-0.0-0.5
SL-048-SA8N-SS-0.0-0.5
SL-050-SA8N-SS-0.0-0.5
SL-131-SA8N-SS-0.0-0.5
EB01-SA8N-041211
SL-202-SA5A-SB-3.0-4.0
SL-206-SA5A-SB-4.0-5.0
SL-207-SA5A-SB-3.0-4.0
SL-227-SA5A-SB-3.0-4.0
SL-228-SA5A-SB-3.0-4.0
SL-012-SA8N-SS-0.0-0.5MS
SL-012-SA8N-SS-0.0-0.5MSD
SL-012-SA8N-SS-0.0-0.5DUP
SL-021-SA8N-SS-0.0-0.5MS
SL-021-SA8N-SS-0.0-0.5MSD
SL-021-SA8N-SS-0.0-0.5DUP

Introduction

This data review covers 25 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)	Copper Phosphorus Tin	0.276 mg/Kg 1.406 mg/Kg 1.404 mg/Kg	All soil samples in SDG DE125
ICB/CCB	Magnesium	39.6 ug/L	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5
ICB/CCB	Titanium	0.54 ug/L	SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0
ICB/CCB	Titanium	0.41 ug/L	SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
ICB/CCB	Vanadium	0.11 ug/L	SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5
ICB/CCB	Vanadium	0.13 ug/L	SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0

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-012-SA8N-SS-0.0-0.5	Tin	2.5 mg/Kg	2.5U mg/Kg
SL-015-SA8N-SS-0.0-0.5	Tin	2.6 mg/Kg	2.6U mg/Kg
SL-016-SA8N-SS-0.0-0.5	Tin	2.6 mg/Kg	2.6U mg/Kg
SL-018-SA8N-SS-0.0-0.5	Tin	2.5 mg/Kg	2.5U mg/Kg
SL-019-SA8N-SS-0.0-0.5	Tin	2.4 mg/Kg	2.4U mg/Kg
SL-020-SA8N-SS-0.0-0.5	Tin	2.7 mg/Kg	2.7U mg/Kg
SL-021-SA8N-SS-0.0-0.5	Tin	2.4 mg/Kg	2.4U mg/Kg
SL-022-SA8N-SS-0.0-0.5	Tin	2.7 mg/Kg	2.7U mg/Kg
SL-023-SA8N-SS-0.0-0.5	Tin	2.6 mg/Kg	2.6U mg/Kg
SL-036-SA8N-SS-0.0-0.5	Tin	2.9 mg/Kg	2.9U mg/Kg
SL-047-SA8N-SS-0.0-0.5	Tin	2.6 mg/Kg	2.6U mg/Kg

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-048-SA8N-SS-0.0-0.5	Tin	2.7 mg/Kg	2.7U mg/Kg
SL-050-SA8N-SS-0.0-0.5	Tin	2.7 mg/Kg	2.7U mg/Kg
SL-131-SA8N-SS-0.0-0.5	Tin	2.8 mg/Kg	2.8U mg/Kg
SL-202-SA5A-SB-3.0-4.0	Tin	2.8 mg/Kg	2.8U mg/Kg
SL-206-SA5A-SB-4.0-5.0	Tin	2.9 mg/Kg	2.9U mg/Kg
SL-207-SA5A-SB-3.0-4.0	Tin	2.8 mg/Kg	2.8U mg/Kg
SL-227-SA5A-SB-3.0-4.0	Tin	2.7 mg/Kg	2.7U mg/Kg
SL-228-SA5A-SB-3.0-4.0	Tin	2.8 mg/Kg	2.8U mg/Kg

Sample EB01-SA8N-041211 was identified as an equipment blank. No metal contaminants were found.

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-021-SA8N-SS-0.0-0.5MS/MSD (All soil samples in SDG DE125)	Antimony	26 (75-125)	18 (75-125)	-	J (all detects) R (all non-detects)	A
SL-021-SA8N-SS-0.0-0.5MS/MSD (All soil samples in SDG DE125)	Arsenic	-	70 (75-125)	-	J (all detects) UJ (all non-detects)	A
SL-021-SA8N-SS-0.0-0.5MS/MSD (All soil samples in SDG DE125)	Antimony	-	-	26 (≤20)	J (all detects) UJ (all non-detects)	A

VII. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results 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. 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-012-SA8N-SS-0.0-0.5	Manganese Strontium	12 (≤10) 11 (≤10)	All soil samples in SDG DE125	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A
SL-021-SA8N-SS-0.0-0.5	Chromium Copper Lead Nickel Vanadium Zinc	28 (≤10) 29 (≤10) 15 (≤10) 36 (≤10) 30 (≤10) 12 (≤10)	All soil samples in SDG DE125	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 DE125	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 DE125

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0	Antimony	J (all detects) R (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0	Arsenic	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0	Antimony	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (RPD) (E)

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0	Manganese Strontium Chromium Copper Lead Nickel Vanadium Zinc	J (all detects) UJ (all non-detects)	A	ICP serial dilution (%D) (A)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 EB01-SA8N-041211 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0	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 DE125

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE125	SL-012-SA8N-SS-0.0-0.5	Tin	2.5U mg/Kg	A	B
DE125	SL-015-SA8N-SS-0.0-0.5	Tin	2.6U mg/Kg	A	B
DE125	SL-016-SA8N-SS-0.0-0.5	Tin	2.6U mg/Kg	A	B
DE125	SL-018-SA8N-SS-0.0-0.5	Tin	2.5U mg/Kg	A	B
DE125	SL-019-SA8N-SS-0.0-0.5	Tin	2.4U mg/Kg	A	B

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE125	SL-020-SA8N-SS-0.0-0.5	Tin	2.7U mg/Kg	A	B
DE125	SL-021-SA8N-SS-0.0-0.5	Tin	2.4U mg/Kg	A	B
DE125	SL-022-SA8N-SS-0.0-0.5	Tin	2.7U mg/Kg	A	B
DE125	SL-023-SA8N-SS-0.0-0.5	Tin	2.6U mg/Kg	A	B
DE125	SL-036-SA8N-SS-0.0-0.5	Tin	2.9U mg/Kg	A	B
DE125	SL-047-SA8N-SS-0.0-0.5	Tin	2.6U mg/Kg	A	B
DE125	SL-048-SA8N-SS-0.0-0.5	Tin	2.7U mg/Kg	A	B
DE125	SL-050-SA8N-SS-0.0-0.5	Tin	2.7U mg/Kg	A	B
DE125	SL-131-SA8N-SS-0.0-0.5	Tin	2.8U mg/Kg	A	B
DE125	SL-202-SA5A-SB-3.0-4.0	Tin	2.8U mg/Kg	A	B
DE125	SL-206-SA5A-SB-4.0-5.0	Tin	2.9U mg/Kg	A	B
DE125	SL-207-SA5A-SB-3.0-4.0	Tin	2.8U mg/Kg	A	B
DE125	SL-227-SA5A-SB-3.0-4.0	Tin	2.7U mg/Kg	A	B
DE125	SL-228-SA5A-SB-3.0-4.0	Tin	2.8U mg/Kg	A	B

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

LDC #: 25916G4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-2-11

SDG #: DE125 Level IV Page: 1 of 1

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	A	Sampling dates: 4/12/11
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	A	DUP
VIII.	Laboratory Control Samples (LCS)	A	LCS/D
IX.	Internal Standard (ICP-MS)	A	
X.	Furnace Atomic Absorption QC	N	None in SDG
XI.	ICP Serial Dilution	SW	
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	N	
XV	Field Blanks	ND	EB=15

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 15=water

1	SL-012-SA8N-SS-0.0-0.5	11	SL-047-SA8N-SS-0.0-0.5	21	(#1) MS	31	
2	SL-015-SA8N-SS-0.0-0.5	12	SL-048-SA8N-SS-0.0-0.5	22	MSD	32	
3	SL-016-SA8N-SS-0.0-0.5	13	SL-050-SA8N-SS-0.0-0.5	23	DUP	33	
4	SL-018-SA8N-SS-0.0-0.5	14	SL-131-SA8N-SS-0.0-0.5	24	(#7) MS	34	
5	SL-019-SA8N-SS-0.0-0.5	15	EB01-SA8N-041211	25	MSD	35	
6	SL-020-SA8N-SS-0.0-0.5	16	SL-202-SA5A-SB-3.0-4.0	26	DUP	36	
7	SL-021-SA8N-SS-0.0-0.5	17	SL-206-SA5A-SB-4.0-5.0	27		37	
8	SL-022-SA8N-SS-0.0-0.5	18	SL-207-SA5A-SB-3.0-4.0	28		38	
9	SL-023-SA8N-SS-0.0-0.5	19	SL-227-SA5A-SB-3.0-4.0	29		39	
10	SL-036-SA8N-SS-0.0-0.5	20	SL-228-SA5A-SB-3.0-4.0	30		40	

Notes: _____

LDC #: 25911664

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: CR
2nd Reviewer:

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?	✓			

DC #: 25911664

VALIDATION FINDINGS CHECKLIST

Reviewer: AR
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%?	DNR ✓			
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 #: 25916G4

VALIDATION FINDINGS WORKSHEET
Sample Specific Element Reference

Reviewer: CR
2nd reviewer: W

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1-20		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
21-23		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
24-26		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
		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
		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
		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
		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
		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
		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
		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
		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
Analysis Method		
ICP		Al, B, Ca, Fe, Li, Mg, Mn, P, K, Na, Sr, Sn, Ti, Zr
ICP-MS		Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, Ag, Tl, V, Zn

Comments: Mercury by CVAA if performed

LDC #: 25916G4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

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: 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
Cu	0.276			1.38										
P	1.406			7.03										
Sn	1.404			7.02	2.5	2.6	2.6	2.5	2.4	2.7	2.4	2.7	2.6	2.9

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	11	12	13	14	16	17	18	19	20	
Cu	0.276			1.38										
P	1.406			7.03										
Sn	1.404			7.02	2.6	2.7	2.7	2.8	2.8	2.9	2.8	2.7	2.8	

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 1, 2

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	No Qualifiers									
Mg			39.6	19.8										

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 13, 14, 16-20

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	No Qualifiers									
Ti			0.54	0.27										

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 3-12

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	No Qualifiers									
Ti			0.41	0.205										

LDC #: 25916G4

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: mg/Kg
Associated Samples: 3-7, 9-13

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	No Qualifiers									
V			0.11	0.06										

Sample Concentration units, unless otherwise noted: mg/Kg
Associated Samples: 14, 16-20

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	No Qualifiers									
V			0.13	0.07										

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 #: 25916G4

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
	4/22/11	ICSA (19:07)	Mn	5	0.78	All Soil	No Qual (<10x)
	4/22/11	ICSA (21:33)	Mn	5	↓	↓	↓

Comments: _____

LDC #: 25916G4

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: QC
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
	24/25	S	Sb	26	18	~~25~~	all soil	J/R/A (Q) CPS=-32%
			As		70		↓	J/UJ/A (Q)
			Sb			26		J/UJ/A (E)

Comments:

LDC #: 25916G4

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	Mn	17	All Soil	J/UJ/A (A)
				Sr	11		
		7	S	Cr	28		
				Cu	29		
				Pb	15		
				Ni	36		
				V	30		
				Zn	12		

Comments: _____

SDILICPMS.wpd

LDC #: 25916G4

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

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 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)	Sn	579.18	600	96.5	96.5	Y
ICV	ICP/MS (Initial calibration)	Co	487	500	97.4	97.4	
ICV	CVAA (Initial calibration)	Hg	2.48	2.5	99.2	99.2	
CCV(20:04)	ICP (Continuing calibration)	Li	494.53	500	98.9	98.9	
CCV(09:41)	ICP/MS (Continuing calibration)	Tl	25.04	25	100.2	100.2	
CCV	CVAA (Continuing calibration)	Hg	1.03	1	103	103	
	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 #: 25916G4

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	Zn	18.3	20	91.5	91.5	Y
LCS	Laboratory control sample	P	9.984	1000	100	100	
24	Matrix spike	Tl	(SSR-SR) 0.4332	0.4346	100	100	
23	Duplicate	Li	22.0922	21.0929	5	5	
1	ICP serial dilution	Ti	10066.89	9536.8	9	9	

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 #: 2591664

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 3
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 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:

$$\frac{100mL\ (215.88699\ mg/L)}{0.882\ (1.02)} = 23997\ mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	Al	24000	24000	Y
		Sb	0.19	0.19	
		As	6.2	6.2	
		Ba	116	116	
		Be	0.76	0.76	
		B	16.1	16.1	
		Cd	033	0.33	
		Ca	19100	19100	
		Cr	30.4	30.4	
		Co	9.9	9.9	
		Cu	14.7	14.7	
		Fe	26600	26600	
		Pb	11.7	11.7	
		Li	22.1	22.1	
		Mg	6690	6690	
		Mn	426	426	
		Hg	0.025	0.025	
		Mo	0.50	0.56	
		Ni	16.6	16.6	
		P	465	465	

Note:

LDC #: 25916G 4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: AL
2nd reviewer: VV

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 Cr 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:

20= $\frac{(100mL)(2)(82.83ug/L)}{0.87\ (1.02g)(1000)} = 18.7 mg/kg$

#	Sample ID	Analyte	Reported Concentration mg/kg	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	K	5480	5480	Y
		Se	0.23	0.23	
		Ag	0.055	0.055	
		Na	98.9	98.9	
		Sr	42.9	42.9	
		Tl	0.32	0.32	
		Sn	2.5	2.5	
		Ti	1120	1120	
		V	52.7	52.7	
		Zn	77.9	77.9	
		Zr	2.7	2.7	
	20	Al	14900	14900	
		As	5.7	5.7	
		Ba	66.4	66.4	
		Be	0.65	0.65	
		B	8.6	8.6	
		Cd	0.066	0.066	
		Ca	2150	2150	
		Cr	18.7	18.7	
		Co	3.6	3.6	
		Cu	6.9	6.9	
		Fe	19500	19500	

LDC #: 25916G 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 = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)}$

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)
	20	Pb	4.8	4.8	Y
		Li	21.1	21.1	
		Mg	3650	3650	
		Na	116	116	
		Hg	0.0065	0.0065	
		Mo	0.34	0.34	
		Ni	9.4	9.4	
		P	179	179	
		K	1300	1300	
		Se	0.045	0.045	
		Ag	0.047	0.047	
		Na	179	179	
		Sr	16.1	16.1	
		Tl	0.23	0.23	
		Sn	2.8	2.8	
		Ti	903	903	
		V	35.2	35.2	
		Zr	38.0	38.0	

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: April 12, 2011

LDC Report Date: August 2, 2011

Matrix: Soil/Water

Parameters: Wet Chemistry

Validation Level: Level IV

Laboratory, Area IV: Lancaster Laboratories

Sample Delivery Group (SDG): DE125

Sample Identification

SL-012-SA8N-SS-0.0-0.5
SL-015-SA8N-SS-0.0-0.5
SL-016-SA8N-SS-0.0-0.5
SL-018-SA8N-SS-0.0-0.5
SL-019-SA8N-SS-0.0-0.5
SL-020-SA8N-SS-0.0-0.5
SL-021-SA8N-SS-0.0-0.5
SL-022-SA8N-SS-0.0-0.5
SL-023-SA8N-SS-0.0-0.5
SL-036-SA8N-SS-0.0-0.5
SL-047-SA8N-SS-0.0-0.5
SL-048-SA8N-SS-0.0-0.5
SL-050-SA8N-SS-0.0-0.5
SL-131-SA8N-SS-0.0-0.5
EB01-SA8N-041211
SL-202-SA5A-SB-3.0-4.0
SL-206-SA5A-SB-4.0-5.0
SL-207-SA5A-SB-3.0-4.0
SL-227-SA5A-SB-3.0-4.0
SL-228-SA5A-SB-3.0-4.0
SL-012-SA8N-SS-0.0-0.5MS
SL-012-SA8N-SS-0.0-0.5DUP
SL-019-SA8N-SS-0.0-0.5MS
SL-019-SA8N-SS-0.0-0.5DUP
SL-227-SA5A-SB-3.0-4.0MS
SL-227-SA5A-SB-3.0-4.0DUP

Introduction

This data review covers 25 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 9012B for Cyanide, EPA Method 300.0 for Nitrate and Fluoride, EPA SW 846 Method 7199 for Hexavalent Chromium, EPA SW 846 Methods 9045C and 9040B 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.

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 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
EB01-SA8N-041211	pH	54.25 hours	48 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.

Sample EB01-SA8N-041211 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-012-SA8N-SS-0.0-0.5MS (SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5)	Fluoride	60 (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 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 DE125	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 DE125

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE125	EB01-SA8N-041211	pH	J (all detects) UJ (all non-detects)	P	Technical holding times (H)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5	Fluoride	J (all detects) UJ (all non-detects)	A	Matrix spike analysis (%R) (Q)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-018-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-023-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-131-SA8N-SS-0.0-0.5 EB01-SA8N-041211 SL-202-SA5A-SB-3.0-4.0 SL-206-SA5A-SB-4.0-5.0 SL-207-SA5A-SB-3.0-4.0 SL-227-SA5A-SB-3.0-4.0 SL-228-SA5A-SB-3.0-4.0	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 DE125

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Wet Chemistry - Field Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

LDC #: 25916G6
SDG #: DE125
Laboratory: Lancaster Laboratories

VALIDATION COMPLETENESS WORKSHEET
Level IV

Date: 8-21
Page: 1 of 1
Reviewer: CC
2nd Reviewer: V

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/9040B), 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: 4/12/11
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/D
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X	Field blanks	ND	EB=15

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 15=water

1	SL-012-SA8N-SS-0.0-0.5	11	SL-047-SA8N-SS-0.0-0.5	21	(~~X~~1) MS	31	
2	SL-015-SA8N-SS-0.0-0.5	12	SL-048-SA8N-SS-0.0-0.5	22	↓ DUP	32	
3	SL-016-SA8N-SS-0.0-0.5	13	SL-050-SA8N-SS-0.0-0.5	23	(~~X~~5) MS	33	
4	SL-018-SA8N-SS-0.0-0.5	14	SL-131-SA8N-SS-0.0-0.5	24	↓ DUP	34	
5	SL-019-SA8N-SS-0.0-0.5	15	EB01-SA8N-041211	25	(~~X~~9) MS	35	
6	SL-020-SA8N-SS-0.0-0.5	16	SL-202-SA5A-SB-3.0-4.0	26	↓ DUP	36	
7	SL-021-SA8N-SS-0.0-0.5	17	SL-206-SA5A-SB-4.0-5.0	27		37	
8	SL-022-SA8N-SS-0.0-0.5	18	SL-207-SA5A-SB-3.0-4.0	28		38	
9	SL-023-SA8N-SS-0.0-0.5	19	SL-227-SA5A-SB-3.0-4.0	29		39	
10	SL-036-SA8N-SS-0.0-0.5	20	SL-228-SA5A-SB-3.0-4.0	30		40	

Notes:

LDC #: 2591666

VALIDATION FINDINGS CHECKLIST

Reviewer: CR
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 #: 25916G6

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Reviewer: CC
2nd reviewer: V

All circled methods are applicable to each sample.

Sample ID	Matrix	Parameter
1,5-8,11		(pH) TDS Cl (F) (NO3) (NO2) SO4 PO4 ALK (CN-) NH3 TKN TOC (CR6+) (ClO4)
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
2-4,9,10,12-20		(pH) TDS Cl (F) NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC (CR6+) (ClO4)
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F (NO3) NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ (ClO4)
@: 21,22		pH TDS Cl F NO3 NO2 SO4 PO4 ALK (CN-) NH3 TKN TOC CR6+ ClO4
23,24		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC (CR6+) ClO4
25,26		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4

LDC #: 259666

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:	9040B					
Parameters:	pH					
Technical holding time:	48hrs					

Sample ID	Sampling date	Analysis date	Analysis date	Analysis date	Analysis date	Analysis date	Qualifier
15	4/12/11 16:00	4/14/11 10:30	(7days (5d, 1 hr))				J/UJ/P (H)

LDC #: 25116G6

VALIDATION FINDINGS WORKSHEET
Matrix Spike Analysis

Reviewer: QR
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 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	Matrix	Analyte	%R	Associated Samples	Qualifications
		21	S	F	60 (80-120)	1-10	J/UJ/A (Q)

Comments:

LDC #: 2591666

Validation Findings Worksheet
Initial and Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd Reviewer: [illegible]

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of Cd was recalculated. Calibration date: 3/28/11

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	Cd	s1	2	0.004	*0.9999*	0.9999	
		s2	4.00	0.01			
		s3	10.00	0.025			
		s4	25.00	0.072			
		s5	100.00	0.292			
Calibration verification	F	CCV	1.5	1.4895	99	99	
Calibration verification	CN	↓	0.15	0.13570	90	90	
Calibration verification	C_6^{6+}	↓	200	198.6892	99	99	

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 #: 25911068

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:

$\%R = \frac{Found}{True} \times 100$ 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)
LCS	Laboratory control sample	Cl04	22.4	25	90	—	Y
19	Matrix spike sample	Cl04	(SSR-SR) 41.3	40	103	103	
22	Duplicate sample	F	3.1	3.0	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 #: 25966

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/F reported with a positive detect were recalculated and verified using the following equation:

Concentration =

Recalculation: 1: $NO_3 = \frac{\left(\frac{0.2+0.014}{0.7008} \times 50mL\right)}{4.92g(0.842)} = 3.5 mg/kg$

NO_3: $y = 0.7008x - 0.0140$

F: $y = 0.3444x - 0.0005$

2: $F = \frac{\left(\frac{0.086+0.0005}{0.3444} \times 50\right)}{4.92g(0.855)} = 3.0 mg/kg$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
0.842	1	F	2.7	2.7	Y
		NO_3	3.5	3.5	
		pH	7.90	7.90	
0.855	2	F	3.0	~~2.4~~ 3.0	
		Cr^{6+}	0.50	0.50	
		pH	7.99	7.99	

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: April 12, 2011

LDC Report Date: August 10, 2011

Matrix: Soil

Parameters: Total Petroleum Hydrocarbons as Extractables

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE125

Sample Identification

SL-012-SA8N-SS-0.0-0.5
SL-019-SA8N-SS-0.0-0.5
SL-020-SA8N-SS-0.0-0.5
SL-021-SA8N-SS-0.0-0.5
SL-022-SA8N-SS-0.0-0.5
SL-036-SA8N-SS-0.0-0.5
SL-047-SA8N-SS-0.0-0.5

Introduction

This data review covers 7 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
PBLK22109	4/20/11	EFH (C30-C40) EFH (C21-C30)	0.92 mg/Kg 0.93 mg/Kg	All samples in SDG DE125

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. 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 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 DE125	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 DE125

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-036-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5	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 DE125

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

LDC #: 25916G8 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/08/11
SDG #: DE125 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: JVG
2nd Reviewer:

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: 4/12/11
II	Initial calibration	A	%RSD ≤ 20 %
III.	Calibration verification/ICV	A	CCV/ICV ≤ 20 %
IV.	Blanks	SW	
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~~ RLs	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-012-SA8N-SS-0.0-0.5	11	PBLK 22109	21		31	
2	SL-019-SA8N-SS-0.0-0.5	12		22		32	
3	SL-020-SA8N-SS-0.0-0.5	13		23		33	
4	SL-021-SA8N-SS-0.0-0.5	14		24		34	
5	SL-022-SA8N-SS-0.0-0.5	15		25		35	
6	SL-036-SA8N-SS-0.0-0.5	16		26		36	
7	SL-047-SA8N-SS-0.0-0.5	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 25916 G8

VALIDATION FINDINGS CHECKLIST

Reviewer: JM
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?	✓			
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 #: 25916 G8

VALIDATION FINDINGS CHECKLIST

Reviewer: JM
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 #: 25916 G8

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: VV
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: 4/20/11 **Blank analysis date:** 4/28/11 **Associated samples:** All

Conc. units: mg/kg

	Compound	Blank ID	Sample Identification						
5x		PBLK22109	3						
4.6	EFH (C_{30} - C_{40})	0.92		All results > 5x blk					
4.7	EFH (C_{21} - C_{30})	0.93							

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 #: 25916 G 8

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 (2002 std)	Recalculated (2002 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	4/27/2011	EFH (C8-C40)	23757.59	23757.59	23827.72	23827.72	1.8	1.8
	H4623A								

C	A
288	6842185

Conc	EFH (C8-C40)
72.0	24287.83
144.0	24100.96
288.0	23757.59
576.0	23851.75
720.0	23140.47
X=	23827.72
S=	437.084

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 # 25916 G8

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: JVG
2nd Reviewer: C

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	J116.69R	4/28/2011	EFH (C8-C40)	287.98	310.37	310.37	7.8	7.8

	Compound	Area	CF
CCV1	EFH (C8-C40)	7395387	23827.72

LDC #: 25916 G8

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: JVC
2nd reviewer: [illegible]

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
CBZ	ZB-5	2.0	1.10	56	56	0
O-TPH	"	"	1.38	69	69	"

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 #: 25916G8

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
Reviewer: JVG
2nd Reviewer: [illegible]

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 22109

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)										
EFH (C_{30}-C_{40})	5.01	NA	4.28	NA	85	85	—		—	

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 #: 25916G8

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: JG
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. # 1 Compound Name EFH (C_{30}-C_{40}) (13.470 min - 15.420 min)

Concentration = $\frac{(4163990)(0.5\,ml)(\text{~~2~~})}{(23827.7x)(30.4\,g)(0.85x)} = 32.6$

≈ 33 mg/kg

#	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: April 12, 2011

LDC Report Date: August 11, 2011

Matrix: Soil

Parameters: Explosives

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE125

Sample Identification

SL-012-SA8N-SS-0.0-0.5
SL-019-SA8N-SS-0.0-0.5
SL-020-SA8N-SS-0.0-0.5
SL-021-SA8N-SS-0.0-0.5
SL-022-SA8N-SS-0.0-0.5
SL-047-SA8N-SS-0.0-0.5

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 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) 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
LCS10108 (SL-012-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 PBLK10108)	PETN	126 (80-120)	-	-	J (all detects)	P
LCS04116 (SL-022-SA8N-SS-0.0-0.5 PBLK04116)	Nitrobenzene PETN	124 (80-120) 124 (80-120)	- -	- -	J (all detects) J (all detects)	P

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.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE125	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 DE125

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5	PETN	J (all detects)	P	Laboratory control samples (%R) (L)
DE125	SL-022-SA8N-SS-0.0-0.5	Nitrobenzene PETN	J (all detects) J (all detects)	P	Laboratory control samples (%R) (L)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Explosives - Laboratory Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Explosives - Field Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

LDC #: 25916G40 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/08/11
SDG #: DE125 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: JV6
2nd Reviewer: C

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: 4/12/11
II	Initial calibration	A	%RSD ≤ 20 % r
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	SW	LCS/D
VIII.	Target compound identification	A	
IX.	Compound Quantitation and ~~CRQLs~~ RLs	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-012-SA8N-SS-0.0-0.5	11	PBLK 10108	21		31	
2	SL-019-SA8N-SS-0.0-0.5	12	PBLK 04116	22		32	
3	SL-020-SA8N-SS-0.0-0.5	13		23		33	
4	SL-021-SA8N-SS-0.0-0.5	14		24		34	
5	SL-022-SA8N-SS-0.0-0.5	15		25		35	
6	SL-047-SA8N-SS-0.0-0.5	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: (All results reported from chromjack.out)

LDC #: 25916 640

VALIDATION FINDINGS CHECKLIST

Reviewer: M
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?	✓			
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 FINDINGS CHECKLIST

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.			✓	

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-Dinitrotoluene	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. Famphur	
N. Naphthalene	N. 4-Nitrotoluene		N. Malathion	II. Phosmet	
O. Phenanthrene	O. Nitroglycerin		O. Chlorpyrifos	JJ. Tetrachlorvinphos	
P. Pyrene	P. PETN		P. Fenthion	KK. Demeton (total)	
Q.	Q		Q. Parathion-ethyl		
R.			R. Trichlornate		
S.			S. Merphos		
			T. Stirofos		
			U. Tokuthion		

Notes:_____

LDC #: 25916G40

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: SVG
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 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
	LCS 10108	P	126 (80-120)	( )	( )	1-4, 6, PBLK 10108	J dets/P (1)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
	LCS04116	F	124 (80-120)	( )	( )	5, PBLK 04116	
		P	124 ( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 25916 G40

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
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:
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 (2002 std)	Recalculated (2002 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	5/3/2011	RDX	86.39	86.39	92.776	92.776	12.3	12.3
	X6329A		2,4,6-TNT	194.06	194.07	195.53	195.53	3.2	3.2

C	A
498.5	43066.9
500.5	97129.6

Conc	RDX
29.6	112.02
99.7	94.49
498.5	86.39
997.0	85.92
1994.0	85.06
X=	92.78
S=	11.408

	2,4,6-TNT
30.03	187.99
100.10	205.59
500.50	194.06
1001.00	194.93
2002.00	195.09
X=	195.53
S=	6.340

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 # 25916 G40

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	2E12119.39R	5/3/2011	RDX	987.00	914.98	914.98	7.3	7.3
			2,4,6-TNT	1001.00	996.77	996.78	0.4	0.4
2	2E12119.51R	5/3/2011	RDX	493.50	461.76	461.76	6.4	6.4
			2,4,6-TNT	500.50	495.32	495.33	1.0	1.0
3	2E12119.63R	5/4/2011	RDX	987.00	926.36	926.36	6.1	6.1
			2,4,6-TNT	1001.00	1008.00	1008.00	0.7	0.7

		CCV1	CCV2	CCV3
Compound	CF	Area	Area	Area
RDX	92.776	84888	42840	85944
2,4,6-TNT	195.53	194902	96852	197097

LDC #: 25916 G 40

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	
2-Nitro-m-xylene	Chrompack	2000	2322.4	116	116	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 #: 25916 G40

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: SV6
2nd Reviewer:

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

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: LCS 10108

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)	2002.25	NA	2179.66	NA	109	109				
2,4,6-Trinitrotoluene (8330)	1999.2	↓	2370.83	↓	119	119				

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 #: 25916 G 90

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: JVC
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 MD

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: April 12, 2011

LDC Report Date: August 9, 2011

Matrix: Soil

Parameters: Terphenyls

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE125

Sample Identification

SL-012-SA8N-SS-0.0-0.5
SL-019-SA8N-SS-0.0-0.5
SL-020-SA8N-SS-0.0-0.5
SL-021-SA8N-SS-0.0-0.5
SL-022-SA8N-SS-0.0-0.5
SL-047-SA8N-SS-0.0-0.5

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 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 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 DE125	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 DE125

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5	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 DE125

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Terphenyls - Field Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

LDC #: 25916G41 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/08/11
SDG #: DE125 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: JVC
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: 4/12/11
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~~ RLs	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-012-SA8N-SS-0.0-0.5	11	PBLK 22104	21		31	
2	SL-019-SA8N-SS-0.0-0.5	12		22		32	
3	SL-020-SA8N-SS-0.0-0.5	13		23		33	
4	SL-021-SA8N-SS-0.0-0.5	14		24		34	
5	SL-022-SA8N-SS-0.0-0.5	15		25		35	
6	SL-047-SA8N-SS-0.0-0.5	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 25916 G41

VALIDATION FINDINGS CHECKLIST

Reviewer: JVG
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?	✓			
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 FINDINGS CHECKLIST

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 #: 25916 G41

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:
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 (15.52 std)	Recalculated (15.52 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	4/18/2011	m-Terphenyl	34216.47	34216.47	33038.04	33038.04	2.4	2.4
	H6611B								

C	A
15.52	531039.6

Conc	m-Terphenyl
3.88	32598.79
7.76	32453.61
15.52	34216.47
31.04	33538.43
38.80	32382.91
X=	33038.04
S=	806.657

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 # 25916 G41

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	R104.41R	4/19/2011	m-Terphenyl	31.04	31.66	31.66	2.0	2.0
2	R104.52R	4/20/2011	m-Terphenyl	31.04	32.09	32.09	3.4	3.4
3	R104.63R	4/20/2011	m-Terphenyl	31.04	32.13	32.13	3.5	3.5

	Compound	Area	CF
CCV1	m-Terphenyl	1045923	33038.04
CCV2	m-Terphenyl	1060351	33038.04
CCV3	m-Terphenyl	1061568	33038.04

LDC #: 25916 G4)

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: JVG
2nd reviewer: CA

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	
n-Tricontane-d62	ZB-5	0.33	0.296	89	89	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 #: 25916 G4

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
Reviewer: SG
2nd Reviewer: CK

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

RPD =(({SSCLCS - SSCLCSD} * 2) / (SSCLCS + SSCLCSD))*100

Where SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentration; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: LCS22104

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)										
m-Terphenyl (8015)	1.68	NA	1.38	NA	82 ✓	82 ✓				

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 #: 25916 G 41

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: JVG
2nd Reviewer: [signature]

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 VD

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: April 12, 2011

LDC Report Date: August 9, 2011

Matrix: Soil

Parameters: Alcohols

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE125

Sample Identification

SL-012-SA8N-SS-0.0-0.5
SL-019-SA8N-SS-0.0-0.5
SL-020-SA8N-SS-0.0-0.5
SL-021-SA8N-SS-0.0-0.5
SL-022-SA8N-SS-0.0-0.5
SL-047-SA8N-SS-0.0-0.5

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 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 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 DE125	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 DE125

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5	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 DE125

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Alcohols - Field Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

LDC #: 25916G43 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/08/11
SDG #: DE125 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: JVG
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: 4/12/11
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~~ RL	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-012-SA8N-SS-0.0-0.5	11	PBLK 32103	21		31	
2	SL-019-SA8N-SS-0.0-0.5	12		22		32	
3	SL-020-SA8N-SS-0.0-0.5	13		23		33	
4	SL-021-SA8N-SS-0.0-0.5	14		24		34	
5	SL-022-SA8N-SS-0.0-0.5	15		25		35	
6	SL-047-SA8N-SS-0.0-0.5	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 25916 G43

VALIDATION FINDINGS CHECKLIST

Reviewer: JV6
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?	✓			
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 FINDINGS CHECKLIST

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 #: 25916 G43

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 (CF 5000 std)	Recalculated (CF 5000 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/18/2011	Methanol	3.054	3.054	3.268	3.268	9.3	9.3
	H2739B								

C	H
5000	15272.39

Conc	Methanol
1000	3.325
2500	3.169
5000	3.054
10000	3.021
2.37	3.769
X=	3.268
S=	0.305

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 # 25916G93

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	4/13/2011	Methanol	2500	2382.57	2252.49	9.9	9.9
	H2739B							
2	0012	4/13/2011	Methanol	2500	2538.03	2538.03	1.5	1.5
	H2739B							
3	0025	4/13/2011	Methanol	2500	2382.57	2553.33	2.1	2.1
	H2739B							

	Compound	Height	CF
CCV1	Methanol	7360	3.268
CCV2	Methanol	8293	3.268
CCV3	Methanol	8343	3.268

LDC #: 25916G43

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	
Acetone	~~RTX-1~~	2500	1762.1	70	70	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 #: 25916 GF3

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: SV6
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

RPD =(({SSCLCS - SSCLCSD} * 2) / (SSCLCS + SSCLCSD))*100

Where SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentration; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: ECS3721/03

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)										
Methanol (8015)	2500	NA	2103.6	NA	84	84	—			

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 #: 25916 643

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: VC
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 MD

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: April 12, 2011

LDC Report Date: August 10, 2011

Matrix: Soil

Parameters: Glycols

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE125

Sample Identification

SL-012-SA8N-SS-0.0-0.5
SL-015-SA8N-SS-0.0-0.5
SL-016-SA8N-SS-0.0-0.5
SL-019-SA8N-SS-0.0-0.5
SL-020-SA8N-SS-0.0-0.5
SL-021-SA8N-SS-0.0-0.5
SL-022-SA8N-SS-0.0-0.5
SL-047-SA8N-SS-0.0-0.5
SL-048-SA8N-SS-0.0-0.5
SL-050-SA8N-SS-0.0-0.5

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 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 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 DE125	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 DE125

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-015-SA8N-SS-0.0-0.5 SL-016-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5 SL-048-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5	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 DE125

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Glycols - Field Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

LDC #: 916 25786G45 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/08/11
SDG #: DE125 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: JV
2nd Reviewer: A

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: 4/12/11
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~~ RL	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-012-SA8N-SS-0.0-0.5	11	PBLK21105	21		31	
2	SL-015-SA8N-SS-0.0-0.5	12	PBLK01109	22		32	
3	SL-016-SA8N-SS-0.0-0.5	13	PBLK03110	23		33	
4	SL-019-SA8N-SS-0.0-0.5	14		24		34	
5	SL-020-SA8N-SS-0.0-0.5	15		25		35	
6	SL-021-SA8N-SS-0.0-0.5	16		26		36	
7	SL-022-SA8N-SS-0.0-0.5	17		27		37	
8	SL-047-SA8N-SS-0.0-0.5	18		28		38	
9	SL-048-SA8N-SS-0.0-0.5	19		29		39	
10	SL-050-SA8N-SS-0.0-0.5	20		30		40	

Notes: _____

LDC #: 25916 G45

VALIDATION FINDINGS CHECKLIST

Reviewer: JVL
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?	✓			
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 #: 25916G45

VALIDATION FINDINGS CHECKLIST

Reviewer: JVB
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 #: 25916 G45

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:
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	4/18/2011	Ethylene glycol	285.9390	285.9389	286.1358	286.1358	14.2	14.2
	H6612A	(GLF108A)							
2	ICAL	4/19/2011	Ethylene glycol	263.403	263.403	268.077	268.077	15.50	15.50
	H6612B	(GLF109A)							
3	ICAL	4/20/2011	Ethylene glycol	270.764	270.764	268.751	268.751	17.70	17.70
	H6612A	(GLF110A)							

	C	H
ICAL 1	211.111	60364.84
ICAL 2	211.111	55607.25
ICAL 3	211.111	57161.27

	ICAL1	ICAL2	ICAL3
Conc	Ethylene glycol	Ethylene glycol	Ethylene glycol
52.778	229.670	213.977	204.675
105.556	266.975	248.010	242.796
211.111	285.939	263.403	270.764
316.667	314.273	293.111	299.586
527.778	333.822	321.883	325.935
X=	286.1358	268.077	268.7512
S=	40.685	41.452	47.445

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 # 25916G45

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	F108.0022	4/18/2011	Ethylene glycol	105.56	106.34	106.34	0.7	0.7
2	F109B.0012	4/19/2011	Ethylene glycol	302.10	333.75	333.75	10.5	10.5
3	F110.0013	4/20/2011	Ethylene glycol	302.10	340.94	340.94	12.9	12.9

	Height	CF
CCV1	30428	286.14
CCV2	89471	268.08
CCV3	91628	268.75

LDC #: 25916 G45

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
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	ZB-Wax	19	17	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 #: 25916 G45

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: LCS21105

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)										
E. glycol (8015)	198.16	NA	206.24	NA	101	104				

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 #: 25916G 95

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: DVG
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 MD

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: April 12, 2011

LDC Report Date: August 10, 2011

Matrix: Soil

Parameters: Formaldehyde

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE125

Sample Identification

SL-012-SA8N-SS-0.0-0.5
SL-019-SA8N-SS-0.0-0.5
SL-020-SA8N-SS-0.0-0.5
SL-021-SA8N-SS-0.0-0.5
SL-022-SA8N-SS-0.0-0.5
SL-047-SA8N-SS-0.0-0.5

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.

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 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 DE125	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 DE125

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE125	SL-012-SA8N-SS-0.0-0.5 SL-019-SA8N-SS-0.0-0.5 SL-020-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-022-SA8N-SS-0.0-0.5 SL-047-SA8N-SS-0.0-0.5	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 DE125

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Formaldehyde - Field Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

LDC #: 25916G71 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/08/11
SDG #: DE125 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: SW6
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: 4/12/11
II	Initial calibration	A	%RSD ≤ 20%
III.	Calibration verification/~~ICV~~	A	CW/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~~ RLs	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-012-SA8N-SS-0.0-0.5	11	PBLK04115	21		31	
2	SL-019-SA8N-SS-0.0-0.5	12		22		32	
3	SL-020-SA8N-SS-0.0-0.5	13		23		33	
4	SL-021-SA8N-SS-0.0-0.5	14		24		34	
5	SL-022-SA8N-SS-0.0-0.5	15		25		35	
6	SL-047-SA8N-SS-0.0-0.5	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 25916 G71

VALIDATION FINDINGS CHECKLIST

Reviewer: JB
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 #: 25916 G71

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
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 (2002 std)	Recalculated (2002 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	4/26/2011	Formaldehyde	62.42	62.42	59.00	59.00	4.0	4.0
	F6259A								

C	H
2002	124960.8

Conc	Ethylene glycol
500.5	56.45
1001.0	57.48
2002.0	62.42
6006.0	60.29
10010.0	58.38
X=	59.00
S=	2.375

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 # 25916 671

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	1F4117.20R	4/28/2011	Formaldehyde	2002.00	2148.13	2148.13	7.3	7.3

CCV1

Compound	Height	CF
Formaldehyde	126748	59.00

LDC #: 25916 G71

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: JVG
2nd reviewer: CA

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	
Butyraldehyde	SVP-PAH	4000	3536.5	89	88.4	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 #: 25916 G 71

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: JVG
2nd Reviewer: [illegible]

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 04 115

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 (8315A)	5010	NA	490 ± 1V	NA	98	98				

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 #: 25916 G71

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: MC
2nd Reviewer: A

METHOD: NA 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 ND

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: April 12, 2011

LDC Report Date: August 11, 2011

Matrix: Soil

Parameters: Perchlorate

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE125

Sample Identification

SL-016-SA8N-SS-0.0-0.5
SL-021-SA8N-SS-0.0-0.5
SL-050-SA8N-SS-0.0-0.5
SL-206-SA5A-SB-4.0-5.0
SL-228-SA5A-SB-3.0-4.0

Introduction

This data review covers 5 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 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 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 DE125	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 DE125

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE125	SL-016-SA8N-SS-0.0-0.5 SL-021-SA8N-SS-0.0-0.5 SL-050-SA8N-SS-0.0-0.5 SL-206-SA5A-SB-4.0-5.0 SL-228-SA5A-SB-3.0-4.0	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 DE125

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Perchlorate - Field Blank Data Qualification Summary - SDG DE125

No Sample Data Qualified in this SDG

LDC #: 25916G87 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/09/11

SDG #: DE125 Level IV Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: SVG

2nd Reviewer: A

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: 4/12/11
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	A	r
IV.	Continuing calibration/ICV	A	CCV/ICV ≤ 15% unlabeled ≤ 50% labeled LCDV ≤ 50
V.	Blanks	A	
VI.	Surrogate spikes	N	
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~~ RL's	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-016-SA8N-SS-0.0-0.5	11	PBLK18108	21		31	
2	SL-021-SA8N-SS-0.0-0.5	12		22		32	
3	SL-050-SA8N-SS-0.0-0.5	13		23		33	
4	SL-206-SA5A-SB-4.0-5.0	14		24		34	
5	SL-228-SA5A-SB-3.0-4.0	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 25916 G87

VALIDATION FINDINGS CHECKLIST

Reviewer: JVR
2nd Reviewer: A

Method: ~~Semivolatiles~~ (EPA SW 846 Method ~~8270C~~ 8270C / 8270D)

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. 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 # 24916 G87

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JV6
2nd Reviewer:

METHOD: EPA SW 846 Method 6850

Parameter: Perchlorate

Order of regression: Linear

Date	Instrument	Compound	Points	y area ratio	x conc ratio	RF
18-Feb-11	LCMS A5	Perchlorate	Point 1	0.019476	0.02	0.9738
			Point 2	0.040512	0.04	1.0128
			Point 3	0.100518	0.10	1.0052
			Point 4	0.202802	0.20	1.0140
			Point 5	0.394227	0.40	0.9856
			Point 6	1.023635	1.00	1.0236
			Point 7	2.552726	2.50	1.0211
						1.0052

Regression Output: Regression Output:		Reported WLR	
Constant	-0.00304	c =	-0.00300
Std Err of Y Est	0.04		
R Squared	0.99997	r^2 =	0.999970
No. of Observations	6.00		
Degrees of Freedom	4.00		
		m =	0.1022
X Coefficient(s)	1.02234		
Std Err of Coef.	0.01		

LDC # 28916G87

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Reviewer: JVL
2nd Reviewer:

METHOD:LCMS Perchlorate (EPA SW 846 Method 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 = (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)	CCV Conc	Reported Conc	Recalculated Conc	Reported % D	Recalculated %D
1	ms5p11010121	4/21/2011	Perchlorate (CLO4-18)	0.4	0.435	0.434	9	9
2	ms5p11010121	4/21/2011	Perchlorate (CLO4-18)	4	3.990	3.994	0	0

	y=mx+b Response(y)	m	b	Conc(x)	Final conc
Sample #2	0.031239831	0.102234	-0.003	0.3349	3.3492
CCV1	0.041414732	0.102234	-0.003	0.4344	
CCV2	0.405337113	0.102234	-0.003	3.9941	

LDC #: 25916 687

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: JH
2nd Reviewer: [illegible]

CLO4 6850
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 = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS 18108

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~~ CLO4	100	NA	103	NA	103	103				
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 #: 25916 G87

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: JVG
2nd reviewer: A

ClO4 6850
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 , ClO4:

Conc = $\frac{(288)(\text{tot})(\quad)(\quad)(\quad)(\quad)}{(9219)(\quad)+0.0003)(\quad)(\quad)(\quad)(10)}$

$\frac{}{(0.182724)}$

= 3.349 r

final conc. = $\frac{(3.349 r)}{(0.585)}$ = 3.8 ng/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

SAMPLE DELIVERY GROUP

DE126

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
13-Apr-2011	TB-041311	6257888	TB	5030B	8015M	III
13-Apr-2011	TB-041311	6257888	TB	5030B	8260B	III
13-Apr-2011	TB-041311	6257888	TB	5030B	8260B SIM	III
13-Apr-2011	SL-046-SA8N-SS-0.0-0.5	6257880	N	3050B	6010B	III
13-Apr-2011	SL-046-SA8N-SS-0.0-0.5	6257880	N	3050B	6020	III
13-Apr-2011	SL-046-SA8N-SS-0.0-0.5	6257880	N	3060A	7199	III
13-Apr-2011	SL-046-SA8N-SS-0.0-0.5	6257880	N	3550B	8015M	III
13-Apr-2011	SL-046-SA8N-SS-0.0-0.5	6257880	N	3550B	8082	III
13-Apr-2011	SL-046-SA8N-SS-0.0-0.5	6257880	N	3550B	8270C	III
13-Apr-2011	SL-046-SA8N-SS-0.0-0.5	6257880	N	3550B	8270C SIM	III
13-Apr-2011	SL-046-SA8N-SS-0.0-0.5	6257880	N	Gen Prep	9045M	III
13-Apr-2011	SL-046-SA8N-SS-0.0-0.5	6257880	N	METHOD	300.0	III
13-Apr-2011	SL-046-SA8N-SS-0.0-0.5	6257880	N	METHOD	314.0	III
13-Apr-2011	SL-046-SA8N-SS-0.0-0.5	6257880	N	METHOD	7471A	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	3050B	6010B	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	3050B	6020	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	3060A	7199	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	3546	1625C	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	3550B	8015B	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	3550B	8015M	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	3550B	8082	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	3550B	8270C	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	3550B	8270C SIM	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	5035	8015M	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	5035	8260B	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	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
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	8330	8330A	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	Gen Prep	9045M	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	METHOD	300.0	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	METHOD	314.0	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	METHOD	6850	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	METHOD	7471A	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	METHOD	8015B	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	METHOD	8015M	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	METHOD	8315A	III
13-Apr-2011	SL-204-SA5A-SB-4.0-5.0	6257885	N	METHOD	9012B	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5	6257874	N	3050B	6010B	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5	6257874	N	3050B	6020	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5	6257874	N	3060A	7199	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5	6257874	N	3550B	8015M	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5	6257874	N	3550B	8082	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5	6257874	N	3550B	8270C	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5	6257874	N	3550B	8270C SIM	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5	6257874	N	Gen Prep	9045M	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5	6257874	N	METHOD	300.0	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5	6257874	N	METHOD	314.0	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5	6257874	N	METHOD	7471A	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MS	6257875	MS	3050B	6010B	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MS	6257875	MS	3050B	6020	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MS	6257875	MS	3060A	7199	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MS	6257875	MS	3550B	8082	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MS	6257875	MS	3550B	8270C	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
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MS	6257875	MS	3550B	8270C SIM	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MS	6257875	MS	METHOD	300.0	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MS	6257875	MS	METHOD	314.0	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MS	6257875	MS	METHOD	7471A	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MSD	6257876	MSD	3050B	6010B	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MSD	6257876	MSD	3050B	6020	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MSD	6257876	MSD	3550B	8082	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MSD	6257876	MSD	3550B	8270C	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MSD	6257876	MSD	3550B	8270C SIM	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MSD	6257876	MSD	METHOD	7471A	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5DUP	6257877	DUP	3050B	6010B	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5DUP	6257877	DUP	3050B	6020	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5DUP	6257877	DUP	3060A	7199	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5DUP	6257877	DUP	Gen Prep	9045M	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5DUP	6257877	DUP	METHOD	300.0	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5DUP	6257877	DUP	METHOD	314.0	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5DUP	6257877	DUP	METHOD	7471A	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MSD	P257874M320922A	MSD	3550B	8015M	III
13-Apr-2011	SL-027-SA8N-SS-0.0-0.5MS	P257874R320857A	MS	3550B	8015M	III
13-Apr-2011	DUP02-SA8N-QC-041311	6257873	FD	3050B	6010B	III
13-Apr-2011	DUP02-SA8N-QC-041311	6257873	FD	3050B	6020	III
13-Apr-2011	DUP02-SA8N-QC-041311	6257873	FD	3060A	7199	III
13-Apr-2011	DUP02-SA8N-QC-041311	6257873	FD	3550B	8082	III
13-Apr-2011	DUP02-SA8N-QC-041311	6257873	FD	3550B	8270C	III
13-Apr-2011	DUP02-SA8N-QC-041311	6257873	FD	3550B	8270C SIM	III
13-Apr-2011	DUP02-SA8N-QC-041311	6257873	FD	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
13-Apr-2011	DUP02-SA8N-QC-041311	6257873	FD	METHOD	300.0	III
13-Apr-2011	DUP02-SA8N-QC-041311	6257873	FD	METHOD	314.0	III
13-Apr-2011	DUP02-SA8N-QC-041311	6257873	FD	METHOD	7471A	III
13-Apr-2011	DUP02-SA8N-QC-041311DUP	P257873D290915B	DUP	Gen Prep	9045M	III
13-Apr-2011	SL-028-SA8N-SS-0.0-0.5	6257878	N	3050B	6010B	III
13-Apr-2011	SL-028-SA8N-SS-0.0-0.5	6257878	N	3050B	6020	III
13-Apr-2011	SL-028-SA8N-SS-0.0-0.5	6257878	N	3060A	7199	III
13-Apr-2011	SL-028-SA8N-SS-0.0-0.5	6257878	N	3550B	8015M	III
13-Apr-2011	SL-028-SA8N-SS-0.0-0.5	6257878	N	3550B	8082	III
13-Apr-2011	SL-028-SA8N-SS-0.0-0.5	6257878	N	3550B	8270C	III
13-Apr-2011	SL-028-SA8N-SS-0.0-0.5	6257878	N	3550B	8270C SIM	III
13-Apr-2011	SL-028-SA8N-SS-0.0-0.5	6257878	N	Gen Prep	9045M	III
13-Apr-2011	SL-028-SA8N-SS-0.0-0.5	6257878	N	METHOD	300.0	III
13-Apr-2011	SL-028-SA8N-SS-0.0-0.5	6257878	N	METHOD	314.0	III
13-Apr-2011	SL-028-SA8N-SS-0.0-0.5	6257878	N	METHOD	7471A	III
13-Apr-2011	SL-205-SA5A-SB-4.0-5.0	6257886	N	3050B	6010B	III
13-Apr-2011	SL-205-SA5A-SB-4.0-5.0	6257886	N	3050B	6020	III
13-Apr-2011	SL-205-SA5A-SB-4.0-5.0	6257886	N	3060A	7199	III
13-Apr-2011	SL-205-SA5A-SB-4.0-5.0	6257886	N	3550B	8082	III
13-Apr-2011	SL-205-SA5A-SB-4.0-5.0	6257886	N	3550B	8270C	III
13-Apr-2011	SL-205-SA5A-SB-4.0-5.0	6257886	N	3550B	8270C SIM	III
13-Apr-2011	SL-205-SA5A-SB-4.0-5.0	6257886	N	5035	8260B	III
13-Apr-2011	SL-205-SA5A-SB-4.0-5.0	6257886	N	5035	8260B SIM	III
13-Apr-2011	SL-205-SA5A-SB-4.0-5.0	6257886	N	Gen Prep	9045M	III
13-Apr-2011	SL-205-SA5A-SB-4.0-5.0	6257886	N	METHOD	300.0	III
13-Apr-2011	SL-205-SA5A-SB-4.0-5.0	6257886	N	METHOD	314.0	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
13-Apr-2011	SL-205-SA5A-SB-4.0-5.0	6257886	N	METHOD	7471A	III
13-Apr-2011	SL-205-SA5A-SB-8.0-9.0	6257887	N	3050B	6010B	III
13-Apr-2011	SL-205-SA5A-SB-8.0-9.0	6257887	N	3050B	6020	III
13-Apr-2011	SL-205-SA5A-SB-8.0-9.0	6257887	N	3060A	7199	III
13-Apr-2011	SL-205-SA5A-SB-8.0-9.0	6257887	N	3550B	8082	III
13-Apr-2011	SL-205-SA5A-SB-8.0-9.0	6257887	N	3550B	8270C	III
13-Apr-2011	SL-205-SA5A-SB-8.0-9.0	6257887	N	3550B	8270C SIM	III
13-Apr-2011	SL-205-SA5A-SB-8.0-9.0	6257887	N	Gen Prep	9045M	III
13-Apr-2011	SL-205-SA5A-SB-8.0-9.0	6257887	N	METHOD	300.0	III
13-Apr-2011	SL-205-SA5A-SB-8.0-9.0	6257887	N	METHOD	314.0	III
13-Apr-2011	SL-205-SA5A-SB-8.0-9.0	6257887	N	METHOD	7471A	III
13-Apr-2011	SL-205-SA5A-SB-8.0-9.0DUP	P257887D270604B	DUP	METHOD	300.0	III
13-Apr-2011	SL-205-SA5A-SB-8.0-9.0DUP	P257887D271850B	DUP	METHOD	314.0	III
13-Apr-2011	SL-205-SA5A-SB-8.0-9.0DUP	P257887D291010B	DUP	Gen Prep	9045M	III
13-Apr-2011	SL-205-SA5A-SB-8.0-9.0MS	P257887R270618B	MS	METHOD	300.0	III
13-Apr-2011	SL-205-SA5A-SB-8.0-9.0MS	P257887R271912B	MS	METHOD	314.0	III
13-Apr-2011	EB02-SA8N-SS-041311	6257881	EB	3005A	6010B	III
13-Apr-2011	EB02-SA8N-SS-041311	6257881	EB	3020A	6020	III
13-Apr-2011	EB02-SA8N-SS-041311	6257881	EB	3510C	8082	III
13-Apr-2011	EB02-SA8N-SS-041311	6257881	EB	3510C	8270C	III
13-Apr-2011	EB02-SA8N-SS-041311	6257881	EB	3510C	8270C SIM	III
13-Apr-2011	EB02-SA8N-SS-041311	6257881	EB	Gen Prep	300.0	III
13-Apr-2011	EB02-SA8N-SS-041311	6257881	EB	Gen Prep	314.0	III
13-Apr-2011	EB02-SA8N-SS-041311	6257881	EB	Gen Prep	7199	III
13-Apr-2011	EB02-SA8N-SS-041311	6257881	EB	Gen Prep	8015M	III
13-Apr-2011	EB02-SA8N-SS-041311	6257881	EB	Gen Prep	9040B	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
13-Apr-2011	EB02-SA8N-SS-041311	6257881	EB	METHOD	7470A	III
13-Apr-2011	EB02-SA8N-SS-041311MSD	P257881M322309A	MSD	Gen Prep	8015M	III
13-Apr-2011	EB02-SA8N-SS-041311MS	P257881R322234A	MS	Gen Prep	8015M	III
13-Apr-2011	SL-032-SA8N-SS-0.0-0.5	6257879	N	3050B	6010B	III
13-Apr-2011	SL-032-SA8N-SS-0.0-0.5	6257879	N	3050B	6020	III
13-Apr-2011	SL-032-SA8N-SS-0.0-0.5	6257879	N	3060A	7199	III
13-Apr-2011	SL-032-SA8N-SS-0.0-0.5	6257879	N	3550B	8015M	III
13-Apr-2011	SL-032-SA8N-SS-0.0-0.5	6257879	N	3550B	8082	III
13-Apr-2011	SL-032-SA8N-SS-0.0-0.5	6257879	N	3550B	8270C	III
13-Apr-2011	SL-032-SA8N-SS-0.0-0.5	6257879	N	3550B	8270C SIM	III
13-Apr-2011	SL-032-SA8N-SS-0.0-0.5	6257879	N	Gen Prep	9045M	III
13-Apr-2011	SL-032-SA8N-SS-0.0-0.5	6257879	N	METHOD	300.0	III
13-Apr-2011	SL-032-SA8N-SS-0.0-0.5	6257879	N	METHOD	314.0	III
13-Apr-2011	SL-032-SA8N-SS-0.0-0.5	6257879	N	METHOD	6850	III
13-Apr-2011	SL-032-SA8N-SS-0.0-0.5	6257879	N	METHOD	7471A	III
13-Apr-2011	SL-061-SA5A-SB-4.0-5.0	6257884	N	3050B	6010B	III
13-Apr-2011	SL-061-SA5A-SB-4.0-5.0	6257884	N	3050B	6020	III
13-Apr-2011	SL-061-SA5A-SB-4.0-5.0	6257884	N	3060A	7199	III
13-Apr-2011	SL-061-SA5A-SB-4.0-5.0	6257884	N	3550B	8082	III
13-Apr-2011	SL-061-SA5A-SB-4.0-5.0	6257884	N	3550B	8270C	III
13-Apr-2011	SL-061-SA5A-SB-4.0-5.0	6257884	N	3550B	8270C SIM	III
13-Apr-2011	SL-061-SA5A-SB-4.0-5.0	6257884	N	5035	8260B	III
13-Apr-2011	SL-061-SA5A-SB-4.0-5.0	6257884	N	5035	8260B SIM	III
13-Apr-2011	SL-061-SA5A-SB-4.0-5.0	6257884	N	Gen Prep	9045M	III
13-Apr-2011	SL-061-SA5A-SB-4.0-5.0	6257884	N	METHOD	300.0	III
13-Apr-2011	SL-061-SA5A-SB-4.0-5.0	6257884	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
13-Apr-2011	SL-061-SA5A-SB-4.0-5.0	6257884	N	METHOD	7471A	III
13-Apr-2011	SL-060-SA5A-SB-4.0-5.0	6257882	N	3050B	6010B	III
13-Apr-2011	SL-060-SA5A-SB-4.0-5.0	6257882	N	3050B	6020	III
13-Apr-2011	SL-060-SA5A-SB-4.0-5.0	6257882	N	3060A	7199	III
13-Apr-2011	SL-060-SA5A-SB-4.0-5.0	6257882	N	3550B	8082	III
13-Apr-2011	SL-060-SA5A-SB-4.0-5.0	6257882	N	3550B	8270C	III
13-Apr-2011	SL-060-SA5A-SB-4.0-5.0	6257882	N	3550B	8270C SIM	III
13-Apr-2011	SL-060-SA5A-SB-4.0-5.0	6257882	N	5035	8260B	III
13-Apr-2011	SL-060-SA5A-SB-4.0-5.0	6257882	N	5035	8260B SIM	III
13-Apr-2011	SL-060-SA5A-SB-4.0-5.0	6257882	N	Gen Prep	9045M	III
13-Apr-2011	SL-060-SA5A-SB-4.0-5.0	6257882	N	METHOD	300.0	III
13-Apr-2011	SL-060-SA5A-SB-4.0-5.0	6257882	N	METHOD	314.0	III
13-Apr-2011	SL-060-SA5A-SB-4.0-5.0	6257882	N	METHOD	7471A	III
13-Apr-2011	SL-060-SA5A-SB-8.0-9.0	6257883	N	3050B	6010B	III
13-Apr-2011	SL-060-SA5A-SB-8.0-9.0	6257883	N	3050B	6020	III
13-Apr-2011	SL-060-SA5A-SB-8.0-9.0	6257883	N	3060A	7199	III
13-Apr-2011	SL-060-SA5A-SB-8.0-9.0	6257883	N	3550B	8082	III
13-Apr-2011	SL-060-SA5A-SB-8.0-9.0	6257883	N	3550B	8270C	III
13-Apr-2011	SL-060-SA5A-SB-8.0-9.0	6257883	N	3550B	8270C SIM	III
13-Apr-2011	SL-060-SA5A-SB-8.0-9.0	6257883	N	Gen Prep	9045M	III
13-Apr-2011	SL-060-SA5A-SB-8.0-9.0	6257883	N	METHOD	300.0	III
13-Apr-2011	SL-060-SA5A-SB-8.0-9.0	6257883	N	METHOD	314.0	III
13-Apr-2011	SL-060-SA5A-SB-8.0-9.0	6257883	N	METHOD	6850	III
13-Apr-2011	SL-060-SA5A-SB-8.0-9.0	6257883	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: DUP02-SA8N-QC-041311 **Collected: 4/13/2011 10:15:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-027-SA8N-SS-0.0-0.5 **Collected: 4/13/2011 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	2.6		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-028-SA8N-SS-0.0-0.5 **Collected: 4/13/2011 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	2.9		0.97	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-032-SA8N-SS-0.0-0.5 **Collected: 4/13/2011 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	2.2		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-046-SA8N-SS-0.0-0.5 **Collected: 4/13/2011 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	2.4		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-060-SA5A-SB-4.0-5.0 **Collected: 4/13/2011 4:05:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.9		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-060-SA5A-SB-8.0-9.0 **Collected: 4/13/2011 4:11:00** **Analysis Type: RES** **Dilution: 1**

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

Sample ID: SL-061-SA5A-SB-4.0-5.0 **Collected: 4/13/2011 2:28:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.2		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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-204-SA5A-SB-4.0-5.0 *Collected:* 4/13/2011 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
FLUORIDE	21.6		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-205-SA5A-SB-4.0-5.0 *Collected:* 4/13/2011 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	1.8		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-205-SA5A-SB-8.0-9.0 *Collected:* 4/13/2011 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	1.5		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: DUP02-SA8N-QC-041311 *Collected:* 4/13/2011 10:15:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.46	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

Sample ID: SL-027-SA8N-SS-0.0-0.5 *Collected:* 4/13/2011 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
TIN	3.09	J	1.18	MDL	11.8	PQL	mg/Kg	U	B

Sample ID: SL-028-SA8N-SS-0.0-0.5 *Collected:* 4/13/2011 10:30:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	4.91	J	1.01	MDL	5.99	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA8N-SS-0.0-0.5 *Collected:* 4/13/2011 10:30:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.74	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-032-SA8N-SS-0.0-0.5 **Collected:** 4/13/2011 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
Zirconium	3.82	J	0.898	MDL	5.35	PQL	mg/Kg	J	Z

Sample ID: SL-032-SA8N-SS-0.0-0.5 **Collected:** 4/13/2011 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
TIN	2.71	J	1.07	MDL	10.7	PQL	mg/Kg	U	B

Sample ID: SL-046-SA8N-SS-0.0-0.5 **Collected:** 4/13/2011 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
SODIUM	96.1	J	40.9	MDL	110	PQL	mg/Kg	J	Z

Sample ID: SL-046-SA8N-SS-0.0-0.5 **Collected:** 4/13/2011 8:40:00 **Analysis Type:** REA2 **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.22	J	1.10	MDL	11.0	PQL	mg/Kg	U	B

Sample ID: SL-060-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 4:05:00 **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	3.26	J	0.977	MDL	5.81	PQL	mg/Kg	J	Z

Sample ID: SL-060-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 4:05:00 **Analysis Type:** REA2 **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.57	J	1.03	MDL	5.81	PQL	mg/Kg	J	Z
TIN	3.50	J	1.16	MDL	11.6	PQL	mg/Kg	U	B

Sample ID: SL-060-SA5A-SB-8.0-9.0 **Collected:** 4/13/2011 4:11:00 **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	95.8	J	40.4	MDL	108	PQL	mg/Kg	J	Z
Zirconium	3.07	J	0.910	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-060-SA5A-SB-8.0-9.0** ***Collected:*** **4/13/2011 4:11:00** ***Analysis Type:*** **REA2** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.16	J	0.964	MDL	5.41	PQL	mg/Kg	J	Z
TIN	2.60	J	1.08	MDL	10.8	PQL	mg/Kg	U	B

Sample ID: **SL-061-SA5A-SB-4.0-5.0** ***Collected:*** **4/13/2011 2:28:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	113	J	42.6	MDL	114	PQL	mg/Kg	J	Z
Zirconium	3.33	J	0.960	MDL	5.71	PQL	mg/Kg	J	Z

Sample ID: **SL-061-SA5A-SB-4.0-5.0** ***Collected:*** **4/13/2011 2:28:00** ***Analysis Type:*** **REA2** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.20	J	1.02	MDL	5.71	PQL	mg/Kg	J	Z
TIN	2.84	J	1.14	MDL	11.4	PQL	mg/Kg	U	B

Sample ID: **SL-204-SA5A-SB-4.0-5.0** ***Collected:*** **4/13/2011 9:19:00** ***Analysis Type:*** **REA** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	3.72	J	0.949	MDL	5.65	PQL	mg/Kg	J	Z

Sample ID: **SL-204-SA5A-SB-4.0-5.0** ***Collected:*** **4/13/2011 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
BORON	2.68	J	1.01	MDL	5.65	PQL	mg/Kg	J	Z
TIN	2.73	J	1.13	MDL	11.3	PQL	mg/Kg	U	B

Sample ID: **SL-205-SA5A-SB-4.0-5.0** ***Collected:*** **4/13/2011 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
SODIUM	95.0	J	42.7	MDL	114	PQL	mg/Kg	J	Z
Zirconium	3.57	J	0.961	MDL	5.72	PQL	mg/Kg	J	Z

Sample ID: **SL-205-SA5A-SB-4.0-5.0** ***Collected:*** **4/13/2011 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	2.53	J	1.02	MDL	5.72	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-205-SA5A-SB-4.0-5.0 **Collected: 4/13/2011 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
TIN	2.62	J	1.14	MDL	11.4	PQL	mg/Kg	U	B

Sample ID: SL-205-SA5A-SB-8.0-9.0 **Collected: 4/13/2011 11:22:00** **Analysis Type: REA** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	106	J	41.9	MDL	112	PQL	mg/Kg	J	Z
Zirconium	2.86	J	0.943	MDL	5.62	PQL	mg/Kg	J	Z

Sample ID: SL-205-SA5A-SB-8.0-9.0 **Collected: 4/13/2011 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
BORON	1.78	J	0.999	MDL	5.62	PQL	mg/Kg	J	Z
TIN	2.70	J	1.12	MDL	11.2	PQL	mg/Kg	U	B

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: DUP02-SA8N-QC-041311 **Collected: 4/13/2011 10:15:00** **Analysis Type: REA4** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.738		0.0698	MDL	0.233	PQL	mg/Kg	J	Q
ARSENIC	6.75		0.0931	MDL	0.465	PQL	mg/Kg	J	Q
BERYLLIUM	0.895		0.0186	MDL	0.116	PQL	mg/Kg	J	E
CADMIUM	1.31		0.0465	MDL	0.116	PQL	mg/Kg	J	Q
CHROMIUM	36.1		0.140	MDL	0.465	PQL	mg/Kg	J	Q, E, A
COBALT	11.4		0.0233	MDL	0.116	PQL	mg/Kg	J	Q, E
COPPER	54.9		0.0768	MDL	0.465	PQL	mg/Kg	J	E
LEAD	29.3		0.0121	MDL	0.233	PQL	mg/Kg	J	E
NICKEL	26.0		0.116	MDL	0.465	PQL	mg/Kg	J	Q, E
SILVER	0.502		0.0140	MDL	0.116	PQL	mg/Kg	J	FD
THALLIUM	0.359		0.0349	MDL	0.116	PQL	mg/Kg	J	Q
VANADIUM	63.0		0.0256	MDL	0.116	PQL	mg/Kg	J	E
ZINC	188		0.652	MDL	3.49	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **DUP02-SA8N-QC-041311** *Collected:* **4/13/2011 10:15:00** *Analysis Type:* **REA6** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.200	J	0.0465	MDL	0.465	PQL	mg/Kg	J	Z

Sample ID: **DUP02-SA8N-QC-041311** *Collected:* **4/13/2011 10:15:00** *Analysis Type:* **REA7** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.630		0.0582	MDL	0.116	PQL	mg/Kg	J	E

Sample ID: **DUP02-SA8N-QC-041311** *Collected:* **4/13/2011 10:15:00** *Analysis Type:* **REA8** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	195		0.126	MDL	0.465	PQL	mg/Kg	J	E

Sample ID: **SL-027-SA8N-SS-0.0-0.5** *Collected:* **4/13/2011 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	0.678		0.0674	MDL	0.225	PQL	mg/Kg	J	Q
ARSENIC	7.19		0.0898	MDL	0.449	PQL	mg/Kg	J	Q
BERYLLIUM	0.970		0.0180	MDL	0.112	PQL	mg/Kg	J	E
CADMIUM	1.30		0.0449	MDL	0.112	PQL	mg/Kg	J	Q
CHROMIUM	39.7		0.135	MDL	0.449	PQL	mg/Kg	J	Q, E, A
COBALT	10.7		0.0225	MDL	0.112	PQL	mg/Kg	J	Q, E
COPPER	57.3		0.0741	MDL	0.449	PQL	mg/Kg	J	E
LEAD	31.2		0.0117	MDL	0.225	PQL	mg/Kg	J	E
NICKEL	28.5		0.112	MDL	0.449	PQL	mg/Kg	J	Q, E
SILVER	0.298		0.0135	MDL	0.112	PQL	mg/Kg	J	FD
THALLIUM	0.340		0.0337	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	65.4		0.0247	MDL	0.112	PQL	mg/Kg	J	E
ZINC	182		0.629	MDL	3.37	PQL	mg/Kg	J	E

Sample ID: **SL-027-SA8N-SS-0.0-0.5** *Collected:* **4/13/2011 10:10:00** *Analysis Type:* **REA6** *Dilution:* **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.216	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-027-SA8N-SS-0.0-0.5 **Collected:** 4/13/2011 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
MOLYBDENUM	0.779		0.0562	MDL	0.112	PQL	mg/Kg	J	E

Sample ID: SL-027-SA8N-SS-0.0-0.5 **Collected:** 4/13/2011 10:10:00 **Analysis Type:** REA8 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	198		0.121	MDL	0.449	PQL	mg/Kg	J	E

Sample ID: SL-028-SA8N-SS-0.0-0.5 **Collected:** 4/13/2011 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
ANTIMONY	0.240		0.0692	MDL	0.231	PQL	mg/Kg	J	Q
ARSENIC	5.05		0.0922	MDL	0.461	PQL	mg/Kg	J	Q
BERYLLIUM	0.630		0.0184	MDL	0.115	PQL	mg/Kg	J	E
CADMIUM	1.14		0.0461	MDL	0.115	PQL	mg/Kg	J	Q
CHROMIUM	25.0		0.138	MDL	0.461	PQL	mg/Kg	J	Q, E, A
COBALT	7.61		0.0231	MDL	0.115	PQL	mg/Kg	J	Q, E
COPPER	27.0		0.0761	MDL	0.461	PQL	mg/Kg	J	E
LEAD	22.8		0.0120	MDL	0.231	PQL	mg/Kg	J	E
NICKEL	17.5		0.115	MDL	0.461	PQL	mg/Kg	J	Q, E
SILVER	0.0961	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
THALLIUM	0.278		0.0346	MDL	0.115	PQL	mg/Kg	J	Q
VANADIUM	43.2		0.0254	MDL	0.115	PQL	mg/Kg	J	E
ZINC	125		0.646	MDL	3.46	PQL	mg/Kg	J	E

Sample ID: SL-028-SA8N-SS-0.0-0.5 **Collected:** 4/13/2011 10:30:00 **Analysis Type:** REA6 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.177	J	0.0461	MDL	0.461	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA8N-SS-0.0-0.5 **Collected:** 4/13/2011 10:30:00 **Analysis Type:** REA7 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.495		0.0577	MDL	0.115	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: **SL-028-SA8N-SS-0.0-0.5** ***Collected:*** **4/13/2011 10:30:00** ***Analysis Type:*** **REA8** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	114		0.125	MDL	0.461	PQL	mg/Kg	J	E

Sample ID: **SL-032-SA8N-SS-0.0-0.5** ***Collected:*** **4/13/2011 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
ANTIMONY	0.113	J	0.0642	MDL	0.214	PQL	mg/Kg	J	Z, Q
ARSENIC	7.70		0.0855	MDL	0.428	PQL	mg/Kg	J	Q
BERYLLIUM	0.894		0.0171	MDL	0.107	PQL	mg/Kg	J	E
CHROMIUM	28.9		0.128	MDL	0.428	PQL	mg/Kg	J	Q, E, A
COBALT	11.2		0.0214	MDL	0.107	PQL	mg/Kg	J	Q, E
COPPER	20.1		0.0706	MDL	0.428	PQL	mg/Kg	J	E
LEAD	15.2		0.0111	MDL	0.214	PQL	mg/Kg	J	E
NICKEL	19.8		0.107	MDL	0.428	PQL	mg/Kg	J	Q, E
SILVER	0.0537	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z
THALLIUM	0.475		0.0321	MDL	0.107	PQL	mg/Kg	J	Q
VANADIUM	52.9		0.0235	MDL	0.107	PQL	mg/Kg	J	E
ZINC	99.9		0.599	MDL	3.21	PQL	mg/Kg	J	E

Sample ID: **SL-032-SA8N-SS-0.0-0.5** ***Collected:*** **4/13/2011 12:55:00** ***Analysis Type:*** **REA5** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.274		0.0428	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: **SL-032-SA8N-SS-0.0-0.5** ***Collected:*** **4/13/2011 12:55:00** ***Analysis Type:*** **REA6** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.151	J	0.0428	MDL	0.428	PQL	mg/Kg	J	Z

Sample ID: **SL-032-SA8N-SS-0.0-0.5** ***Collected:*** **4/13/2011 12:55:00** ***Analysis Type:*** **REA7** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.687		0.0535	MDL	0.107	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-032-SA8N-SS-0.0-0.5 **Collected: 4/13/2011 12:55:00** **Analysis Type: REA8** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	137		0.115	MDL	0.428	PQL	mg/Kg	J	E

Sample ID: SL-046-SA8N-SS-0.0-0.5 **Collected: 4/13/2011 8:40:00** **Analysis Type: REA4** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.472		0.0639	MDL	0.213	PQL	mg/Kg	J	Q
ARSENIC	6.22		0.0853	MDL	0.426	PQL	mg/Kg	J	Q
BERYLLIUM	0.880		0.0171	MDL	0.107	PQL	mg/Kg	J	E
CADMIUM	0.450		0.0426	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	35.1		0.128	MDL	0.426	PQL	mg/Kg	J	Q, E, A
COBALT	11.7		0.0213	MDL	0.107	PQL	mg/Kg	J	Q, E
COPPER	22.1		0.0703	MDL	0.426	PQL	mg/Kg	J	E
LEAD	14.9		0.0111	MDL	0.213	PQL	mg/Kg	J	E
NICKEL	23.6		0.107	MDL	0.426	PQL	mg/Kg	J	Q, E
SILVER	0.0697	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z
THALLIUM	0.428		0.0320	MDL	0.107	PQL	mg/Kg	J	Q
VANADIUM	61.9		0.0234	MDL	0.107	PQL	mg/Kg	J	E
ZINC	93.7		0.597	MDL	3.20	PQL	mg/Kg	J	E

Sample ID: SL-046-SA8N-SS-0.0-0.5 **Collected: 4/13/2011 8:40:00** **Analysis Type: REA6** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.263	J	0.0426	MDL	0.426	PQL	mg/Kg	J	Z

Sample ID: SL-046-SA8N-SS-0.0-0.5 **Collected: 4/13/2011 8:40:00** **Analysis Type: REA7** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.665		0.0533	MDL	0.107	PQL	mg/Kg	J	E

Sample ID: SL-046-SA8N-SS-0.0-0.5 **Collected: 4/13/2011 8:40:00** **Analysis Type: REA8** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	130		0.115	MDL	0.426	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-060-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 4:05:00 **Analysis Type:** REA4 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0866	J	0.0691	MDL	0.230	PQL	mg/Kg	J	Z, Q
ARSENIC	16.9		0.0921	MDL	0.461	PQL	mg/Kg	J	Q
BERYLLIUM	1.40		0.0184	MDL	0.115	PQL	mg/Kg	J	E
CADMIUM	0.0696	J	0.0461	MDL	0.115	PQL	mg/Kg	J	Z, Q
CHROMIUM	41.5		0.138	MDL	0.461	PQL	mg/Kg	J	Q, E, A
COBALT	8.20		0.0230	MDL	0.115	PQL	mg/Kg	J	Q, E
COPPER	33.2		0.0760	MDL	0.461	PQL	mg/Kg	J	E
LEAD	16.4		0.0120	MDL	0.230	PQL	mg/Kg	J	E
NICKEL	27.0		0.115	MDL	0.461	PQL	mg/Kg	J	Q, E
SILVER	0.0443	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
THALLIUM	0.487		0.0345	MDL	0.115	PQL	mg/Kg	J	Q
VANADIUM	62.4		0.0253	MDL	0.115	PQL	mg/Kg	J	E
ZINC	106		0.645	MDL	3.45	PQL	mg/Kg	J	E

Sample ID: SL-060-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 4:05:00 **Analysis Type:** REA6 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.171	J	0.0461	MDL	0.461	PQL	mg/Kg	J	Z

Sample ID: SL-060-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 4:05:00 **Analysis Type:** REA7 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.04		0.0576	MDL	0.115	PQL	mg/Kg	J	E

Sample ID: SL-060-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 4:05:00 **Analysis Type:** REA8 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	134		0.124	MDL	0.461	PQL	mg/Kg	J	E

Sample ID: SL-060-SA5A-SB-8.0-9.0 **Collected:** 4/13/2011 4:11:00 **Analysis Type:** REA4 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0868	J	0.0650	MDL	0.217	PQL	mg/Kg	J	Z, Q
ARSENIC	8.20		0.0866	MDL	0.433	PQL	mg/Kg	J	Q
BERYLLIUM	0.886		0.0173	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-060-SA5A-SB-8.0-9.0 **Collected:** 4/13/2011 4:11:00 **Analysis Type:** REA4 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.172		0.0433	MDL	0.108	PQL	mg/Kg	J	Q
CHROMIUM	30.3		0.130	MDL	0.433	PQL	mg/Kg	J	Q, E, A
COBALT	9.45		0.0217	MDL	0.108	PQL	mg/Kg	J	Q, E
COPPER	17.7		0.0715	MDL	0.433	PQL	mg/Kg	J	E
LEAD	8.50		0.0113	MDL	0.217	PQL	mg/Kg	J	E
NICKEL	25.1		0.108	MDL	0.433	PQL	mg/Kg	J	Q, E
SILVER	0.0442	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z
THALLIUM	0.389		0.0325	MDL	0.108	PQL	mg/Kg	J	Q
VANADIUM	48.8		0.0238	MDL	0.108	PQL	mg/Kg	J	E
ZINC	72.0		0.606	MDL	3.25	PQL	mg/Kg	J	E

Sample ID: SL-060-SA5A-SB-8.0-9.0 **Collected:** 4/13/2011 4:11:00 **Analysis Type:** REA6 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.132	J	0.0433	MDL	0.433	PQL	mg/Kg	J	Z

Sample ID: SL-060-SA5A-SB-8.0-9.0 **Collected:** 4/13/2011 4:11:00 **Analysis Type:** REA7 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.869		0.0541	MDL	0.108	PQL	mg/Kg	J	E

Sample ID: SL-060-SA5A-SB-8.0-9.0 **Collected:** 4/13/2011 4:11:00 **Analysis Type:** REA8 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	136		0.117	MDL	0.433	PQL	mg/Kg	J	E

Sample ID: SL-061-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 2:28:00 **Analysis Type:** REA4 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0897	J	0.0659	MDL	0.220	PQL	mg/Kg	J	Z, Q
ARSENIC	8.78		0.0879	MDL	0.440	PQL	mg/Kg	J	Q
BERYLLIUM	1.03		0.0176	MDL	0.110	PQL	mg/Kg	J	E
CADMIUM	0.0835	J	0.0440	MDL	0.110	PQL	mg/Kg	J	Z, Q
CHROMIUM	33.5		0.132	MDL	0.440	PQL	mg/Kg	J	Q, E, A
COBALT	8.50		0.0220	MDL	0.110	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-061-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 2:28:00 **Analysis Type:** REA4 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	18.0		0.0725	MDL	0.440	PQL	mg/Kg	J	E
LEAD	9.84		0.0114	MDL	0.220	PQL	mg/Kg	J	E
NICKEL	24.9		0.110	MDL	0.440	PQL	mg/Kg	J	Q, E
SILVER	0.0526	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z
THALLIUM	0.351		0.0330	MDL	0.110	PQL	mg/Kg	J	Q
VANADIUM	52.0		0.0242	MDL	0.110	PQL	mg/Kg	J	E
ZINC	71.2		0.615	MDL	3.30	PQL	mg/Kg	J	E

Sample ID: SL-061-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 2:28:00 **Analysis Type:** REA6 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.144	J	0.0440	MDL	0.440	PQL	mg/Kg	J	Z

Sample ID: SL-061-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 2:28:00 **Analysis Type:** REA7 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.558		0.0549	MDL	0.110	PQL	mg/Kg	J	E

Sample ID: SL-061-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 2:28:00 **Analysis Type:** REA8 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	121		0.119	MDL	0.440	PQL	mg/Kg	J	E

Sample ID: SL-204-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 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
ANTIMONY	0.0691	J	0.0665	MDL	0.222	PQL	mg/Kg	J	Z, Q
ARSENIC	7.68		0.0886	MDL	0.443	PQL	mg/Kg	J	Q
BERYLLIUM	0.892		0.0177	MDL	0.111	PQL	mg/Kg	J	E
CADMIUM	0.0509	J	0.0443	MDL	0.111	PQL	mg/Kg	J	Z, Q
CHROMIUM	25.7		0.133	MDL	0.443	PQL	mg/Kg	J	Q, E, A
COBALT	7.86		0.0222	MDL	0.111	PQL	mg/Kg	J	Q, E
COPPER	9.83		0.0731	MDL	0.443	PQL	mg/Kg	J	E
LEAD	7.92		0.0115	MDL	0.222	PQL	mg/Kg	J	E
NICKEL	17.1		0.111	MDL	0.443	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-204-SA5A-SB-4.0-5.0** ***Collected:*** **4/13/2011 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
THALLIUM	0.297		0.0332	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	50.0		0.0244	MDL	0.111	PQL	mg/Kg	J	E
ZINC	54.9		0.620	MDL	3.32	PQL	mg/Kg	J	E

Sample ID: **SL-204-SA5A-SB-4.0-5.0** ***Collected:*** **4/13/2011 9:19:00** ***Analysis Type:*** **REA6** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0982	J	0.0443	MDL	0.443	PQL	mg/Kg	J	Z

Sample ID: **SL-204-SA5A-SB-4.0-5.0** ***Collected:*** **4/13/2011 9:19:00** ***Analysis Type:*** **REA7** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.371		0.0554	MDL	0.111	PQL	mg/Kg	J	E

Sample ID: **SL-204-SA5A-SB-4.0-5.0** ***Collected:*** **4/13/2011 9:19:00** ***Analysis Type:*** **REA8** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	93.7		0.120	MDL	0.443	PQL	mg/Kg	J	E

Sample ID: **SL-205-SA5A-SB-4.0-5.0** ***Collected:*** **4/13/2011 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	0.114	J	0.0673	MDL	0.224	PQL	mg/Kg	J	Z, Q
ARSENIC	8.97		0.0897	MDL	0.449	PQL	mg/Kg	J	Q
BERYLLIUM	1.19		0.0179	MDL	0.112	PQL	mg/Kg	J	E
CADMIUM	0.0767	J	0.0449	MDL	0.112	PQL	mg/Kg	J	Z, Q
CHROMIUM	29.7		0.135	MDL	0.449	PQL	mg/Kg	J	Q, E, A
COBALT	19.1		0.0224	MDL	0.112	PQL	mg/Kg	J	Q, E
COPPER	15.9		0.0740	MDL	0.449	PQL	mg/Kg	J	E
LEAD	10.9		0.0117	MDL	0.224	PQL	mg/Kg	J	E
NICKEL	25.3		0.112	MDL	0.449	PQL	mg/Kg	J	Q, E
SILVER	0.0751	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z
THALLIUM	0.365		0.0337	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	56.0		0.0247	MDL	0.112	PQL	mg/Kg	J	E
ZINC	69.4		0.628	MDL	3.37	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-205-SA5A-SB-4.0-5.0 *Collected:* 4/13/2011 11:14:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0597	J	0.0449	MDL	0.449	PQL	mg/Kg	J	Z

Sample ID: SL-205-SA5A-SB-4.0-5.0 *Collected:* 4/13/2011 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
MOLYBDENUM	0.995		0.0561	MDL	0.112	PQL	mg/Kg	J	E

Sample ID: SL-205-SA5A-SB-4.0-5.0 *Collected:* 4/13/2011 11:14:00 *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	160		0.121	MDL	0.449	PQL	mg/Kg	J	E

Sample ID: SL-205-SA5A-SB-8.0-9.0 *Collected:* 4/13/2011 11:22:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0776	J	0.0674	MDL	0.225	PQL	mg/Kg	J	Z, Q
ARSENIC	6.57		0.0898	MDL	0.449	PQL	mg/Kg	J	Q
BERYLLIUM	0.735		0.0180	MDL	0.112	PQL	mg/Kg	J	E
CHROMIUM	17.9		0.135	MDL	0.449	PQL	mg/Kg	J	Q, E, A
COBALT	5.45		0.0225	MDL	0.112	PQL	mg/Kg	J	Q, E
COPPER	10.7		0.0741	MDL	0.449	PQL	mg/Kg	J	E
LEAD	6.12		0.0117	MDL	0.225	PQL	mg/Kg	J	E
NICKEL	11.6		0.112	MDL	0.449	PQL	mg/Kg	J	Q, E
SILVER	0.0462	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z
THALLIUM	0.268		0.0337	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	37.1		0.0247	MDL	0.112	PQL	mg/Kg	J	E
ZINC	43.7		0.629	MDL	3.37	PQL	mg/Kg	J	E

Sample ID: SL-205-SA5A-SB-8.0-9.0 *Collected:* 4/13/2011 11:22:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0524	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-205-SA5A-SB-8.0-9.0 **Collected: 4/13/2011 11:22:00** **Analysis Type: REA7** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.446		0.0562	MDL	0.112	PQL	mg/Kg	J	E

Sample ID: SL-205-SA5A-SB-8.0-9.0 **Collected: 4/13/2011 11:22:00** **Analysis Type: REA8** **Dilution: 2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	68.3		0.121	MDL	0.449	PQL	mg/Kg	J	E

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: DUP02-SA8N-QC-041311 **Collected: 4/13/2011 10:15:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.24	U	0.24	MDL	1.2	PQL	mg/Kg	UJ	FD

Sample ID: SL-027-SA8N-SS-0.0-0.5 **Collected: 4/13/2011 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	0.65	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z, FD

Sample ID: SL-028-SA8N-SS-0.0-0.5 **Collected: 4/13/2011 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	0.70	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-046-SA8N-SS-0.0-0.5 **Collected: 4/13/2011 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	0.58	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-060-SA5A-SB-4.0-5.0 **Collected: 4/13/2011 4:05:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.50	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS
Method: 7199 **Matrix: SO**

Sample ID: SL-061-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 2:28:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.43	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS
Method: 7471A **Matrix: SO**

Sample ID: DUP02-SA8N-QC-041311 **Collected:** 4/13/2011 10:15:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0795	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z

Sample ID: SL-027-SA8N-SS-0.0-0.5 **Collected:** 4/13/2011 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	0.0873	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA8N-SS-0.0-0.5 **Collected:** 4/13/2011 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
MERCURY	0.0341	J	0.0032	MDL	0.113	PQL	mg/Kg	J	Z

Sample ID: SL-032-SA8N-SS-0.0-0.5 **Collected:** 4/13/2011 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	0.0494	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-046-SA8N-SS-0.0-0.5 **Collected:** 4/13/2011 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
MERCURY	0.0155	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-060-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 4:05:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0078	J	0.0033	MDL	0.115	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-204-SA5A-SB-4.0-5.0 **Collected: 4/13/2011 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
MERCURY	0.0058	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: SL-205-SA5A-SB-4.0-5.0 **Collected: 4/13/2011 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
MERCURY	0.0035	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-205-SA5A-SB-8.0-9.0 **Collected: 4/13/2011 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
MERCURY	0.0060	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: AQ**

Sample ID: EB02-SA8N-SS-041311 **Collected: 4/13/2011 12:15:00** **Analysis Type: REA** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLENE GLYCOL	10	U	10	MDL	100	PQL	mg/L	UJ	Q
Propylene glycol	10	U	10	MDL	100	PQL	mg/L	UJ	Q

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-027-SA8N-SS-0.0-0.5 **Collected: 4/13/2011 10:10:00** **Analysis Type: REA2** **Dilution: 5**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	3.6	J	2.3	MDL	7.0	PQL	mg/Kg	J	Z

Sample ID: SL-204-SA5A-SB-4.0-5.0 **Collected: 4/13/2011 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 (C21-C30)	0.86	J	0.45	MDL	1.3	PQL	mg/Kg	U	B
EFH (C30-C40)	3.6		0.45	MDL	1.3	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: **SL-046-SA8N-SS-0.0-0.5** ***Collected:*** **4/13/2011 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 1254	1.8	J	0.36	MDL	1.9	PQL	ug/Kg	J	Z
AROCLOR 1260	1.5	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-205-SA5A-SB-4.0-5.0** ***Collected:*** **4/13/2011 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
Aroclor 5460	1.7	J	1.1	MDL	3.8	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **DUP02-SA8N-QC-041311** ***Collected:*** **4/13/2011 10:15:00** ***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(A)ANTHRACENE	55	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	66	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	98	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	51	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	37	J	20	MDL	200	PQL	ug/Kg	J	Z
CHRYSENE	91	J	20	MDL	200	PQL	ug/Kg	J	Z
FLUORANTHENE	45	J	20	MDL	200	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	47	J	20	MDL	200	PQL	ug/Kg	J	Z
PYRENE	67	J	20	MDL	200	PQL	ug/Kg	J	Z

Sample ID: **SL-027-SA8N-SS-0.0-0.5** ***Collected:*** **4/13/2011 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
BENZIDINE	1400	U	1400	MDL	3900	PQL	ug/Kg	UJ	Q

Sample ID: **SL-028-SA8N-SS-0.0-0.5** ***Collected:*** **4/13/2011 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
BENZO(A)ANTHRACENE	22	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	24	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: **SL-028-SA8N-SS-0.0-0.5** ***Collected:*** **4/13/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	30	J	20	MDL	400	PQL	ug/Kg	J	Z
CHRYSENE	28	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

Sample ID: **SL-032-SA8N-SS-0.0-0.5** ***Collected:*** **4/13/2011 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	32	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: **SL-046-SA8N-SS-0.0-0.5** ***Collected:*** **4/13/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	29	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: **SL-060-SA5A-SB-4.0-5.0** ***Collected:*** **4/13/2011 4:05:00** ***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	26	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: **SL-060-SA5A-SB-8.0-9.0** ***Collected:*** **4/13/2011 4:11:00** ***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	20	J	19	MDL	370	PQL	ug/Kg	J	Z

Sample ID: **SL-204-SA5A-SB-4.0-5.0** ***Collected:*** **4/13/2011 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	19	J	19	MDL	370	PQL	ug/Kg	J	Z

Sample ID: **SL-205-SA5A-SB-8.0-9.0** ***Collected:*** **4/13/2011 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	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: AQ**

Sample ID: **EB02-SA8N-SS-041311** ***Collected:*** **4/13/2011 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
Diethylphthalate	0.13	J	0.051	MDL	1.0	PQL	ug/L	J	Z
Di-n-butylphthalate	0.53	J	0.051	MDL	1.0	PQL	ug/L	J	Z
Di-n-octylphthalate	3.0		0.051	MDL	1.0	PQL	ug/L	J	L
NAPHTHALENE	0.034	J	0.030	MDL	0.051	PQL	ug/L	J	Z
PHENANTHRENE	0.018	J	0.010	MDL	0.051	PQL	ug/L	J	Z

Method Category: SVOA

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

Sample ID: **DUP02-SA8N-QC-041311** ***Collected:*** **4/13/2011 10:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.4	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.63	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
ANTHRACENE	1.5	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z, FD
BIS(2-ETHYLHEXYL)PHTHALATE	260		7.0	MDL	21	PQL	ug/Kg	J	FD
Butylbenzylphthalate	8.8	J	7.0	MDL	21	PQL	ug/Kg	J	Z, FD
DIBENZO(A,H)ANTHRACENE	1.3	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	230		7.0	MDL	21	PQL	ug/Kg	J	FD

Sample ID: **SL-027-SA8N-SS-0.0-0.5** ***Collected:*** **4/13/2011 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	1.3	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.8	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.51	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
ANTHRACENE	0.82	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z, FD
BIS(2-ETHYLHEXYL)PHTHALATE	41		7.1	MDL	21	PQL	ug/Kg	J	FD
Butylbenzylphthalate	7.1	U	7.1	MDL	21	PQL	ug/Kg	UJ	FD
DIBENZO(A,H)ANTHRACENE	0.98	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	7.1	U	7.1	MDL	21	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-028-SA8N-SS-0.0-0.5 *Collected:* 4/13/2011 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
1-METHYLNAPHTHALENE	1.1	J	0.80	MDL	2.0	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.6	J	0.80	MDL	2.0	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.56	J	0.40	MDL	2.0	PQL	ug/Kg	J	Z
ANTHRACENE	1.7	J	0.40	MDL	2.0	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.5	J	0.80	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-032-SA8N-SS-0.0-0.5 *Collected:* 4/13/2011 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-METHYLNAPHTHALENE	1.3	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.51	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
ANTHRACENE	1.3	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-046-SA8N-SS-0.0-0.5 *Collected:* 4/13/2011 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	0.59	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.2	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.4	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.92	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
INDENO(1,2,3-CD)PYRENE	1.1	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	1.3	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-060-SA5A-SB-4.0-5.0 *Collected:* 4/13/2011 4:05:00 *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	1.0	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-061-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 2:28:00 **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	1.3	J	0.23	MDL	3.8	PQL	ug/Kg	U	B

Sample ID: SL-204-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 9:19:00 **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	3.6	J	0.23	MDL	3.9	PQL	ug/Kg	U	B

Sample ID: SL-205-SA5A-SB-4.0-5.0 **Collected:** 4/13/2011 11:14:00 **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	0.65	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE126 **Laboratory: LL**

EDD Filename: DE126_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: DE126 **Laboratory: LL**

EDD Filename: DE126_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: DE126 **Laboratory: LL**

EDD Filename: DE126_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

DE126

Method Blank Outlier Report

Lab Reporting Batch ID: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11108BB220014	4/26/2011 12:14:00 AM	PHOSPHORUS	1.32 mg/Kg	DUP02-SA8N-QC-041311 SL-027-SA8N-SS-0.0-0.5 SL-028-SA8N-SS-0.0-0.5 SL-032-SA8N-SS-0.0-0.5 SL-046-SA8N-SS-0.0-0.5 SL-060-SA5A-SB-4.0-5.0 SL-060-SA5A-SB-8.0-9.0 SL-061-SA5A-SB-4.0-5.0 SL-204-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-8.0-9.0
P11108BB220410	4/27/2011 4:10:00 AM	LITHIUM TIN	0.30 mg/Kg 1.42 mg/Kg	DUP02-SA8N-QC-041311 SL-027-SA8N-SS-0.0-0.5 SL-028-SA8N-SS-0.0-0.5 SL-032-SA8N-SS-0.0-0.5 SL-046-SA8N-SS-0.0-0.5 SL-060-SA5A-SB-4.0-5.0 SL-060-SA5A-SB-8.0-9.0 SL-061-SA5A-SB-4.0-5.0 SL-204-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-8.0-9.0

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
DUP02-SA8N-QC-041311(REA2)	TIN	3.46 mg/Kg	3.46U mg/Kg
SL-027-SA8N-SS-0.0-0.5(REA2)	TIN	3.09 mg/Kg	3.09U mg/Kg
SL-028-SA8N-SS-0.0-0.5(REA2)	TIN	2.74 mg/Kg	2.74U mg/Kg
SL-032-SA8N-SS-0.0-0.5(REA2)	TIN	2.71 mg/Kg	2.71U mg/Kg
SL-046-SA8N-SS-0.0-0.5(REA2)	TIN	2.22 mg/Kg	2.22U mg/Kg
SL-060-SA5A-SB-4.0-5.0(REA2)	TIN	3.50 mg/Kg	3.50U mg/Kg
SL-060-SA5A-SB-8.0-9.0(REA2)	TIN	2.60 mg/Kg	2.60U mg/Kg
SL-061-SA5A-SB-4.0-5.0(REA2)	TIN	2.84 mg/Kg	2.84U mg/Kg
SL-204-SA5A-SB-4.0-5.0(REA2)	TIN	2.73 mg/Kg	2.73U mg/Kg
SL-205-SA5A-SB-4.0-5.0(REA2)	TIN	2.62 mg/Kg	2.62U mg/Kg
SL-205-SA5A-SB-8.0-9.0(REA2)	TIN	2.70 mg/Kg	2.70U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11126AB220909A	4/22/2011 9:09:00 AM	COPPER	0.119 mg/Kg	DUP02-SA8N-QC-041311 SL-027-SA8N-SS-0.0-0.5 SL-028-SA8N-SS-0.0-0.5 SL-032-SA8N-SS-0.0-0.5 SL-046-SA8N-SS-0.0-0.5 SL-060-SA5A-SB-4.0-5.0 SL-060-SA5A-SB-8.0-9.0 SL-061-SA5A-SB-4.0-5.0 SL-204-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-8.0-9.0

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P09092AB320241A	4/28/2011 2:41:00 AM	EFH (C21-C30) EFH (C30-C40)	0.93 mg/Kg 0.92 mg/Kg	SL-027-SA8N-SS-0.0-0.5 SL-028-SA8N-SS-0.0-0.5 SL-032-SA8N-SS-0.0-0.5 SL-046-SA8N-SS-0.0-0.5 SL-204-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-204-SA5A-SB-4.0-5.0(REA2)	EFH (C21-C30)	0.86 mg/Kg	1.3U mg/Kg
SL-204-SA5A-SB-4.0-5.0(REA2)	EFH (C30-C40)	3.6 mg/Kg	3.6U mg/Kg

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB29B211235A	4/19/2011 12:35:00 PM	METHYLENE CHLORIDE TOLUENE	3.4 ug/Kg 0.11 ug/Kg	SL-060-SA5A-SB-4.0-5.0 SL-061-SA5A-SB-4.0-5.0 SL-204-SA5A-SB-4.0-5.0 SL-205-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-060-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.0 ug/Kg	3.9U ug/Kg
SL-061-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.3 ug/Kg	3.8U ug/Kg
SL-204-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	3.6 ug/Kg	3.9U ug/Kg
SL-205-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.65 ug/Kg	4.0U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE126 **Laboratory: LL**

EDD Filename: DE126_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
EB02-SA8N-SS-041311MS EB02-SA8N-SS-041311MSD (EB02-SA8N-SS-041311)	ETHYLENE GLYCOL Propylene glycol	80 90	85 90	89.00-125.00 91.00-128.00	- -	ETHYLENE GLYCOL Propylene glycol	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-027-SA8N-SS-0.0-0.5MS SL-027-SA8N-SS-0.0-0.5MSD (SL-027-SA8N-SS-0.0-0.5)	BENZIDINE	30	-	35.00-141.00	41 (30.00)	BENZIDINE	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-027-SA8N-SS-0.0-0.5MS SL-027-SA8N-SS-0.0-0.5MSD (SL-027-SA8N-SS-0.0-0.5)	ACENAPHTHENE Butylbenzylphthalate	106 -	106 448	63.00-105.00 57.00-173.00	- 116 (30.00)	ACENAPHTHENE Butylbenzylphthalate	J(all detects)

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-027-SA8N-SS-0.0-0.5MS SL-027-SA8N-SS-0.0-0.5MSD (SL-027-SA8N-SS-0.0-0.5)	AROCLOR 1016 AROCLOR 1260	0 0	0 0	29.00-146.00 39.00-149.00	- -	AROCLOR 1016 AROCLOR 1260	No Qual Diluted Out

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-027-SA8N-SS-0.0-0.5MS SL-027-SA8N-SS-0.0-0.5MSD (SL-027-SA8N-SS-0.0-0.5)	EFH (C21-C30) EFH (C30-C40)	-11 -1743	-128 -1815	49.00-123.00 49.00-123.00	21 (20.00) -	EFH (C21-C30) EFH (C30-C40)	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE126 **Laboratory: LL**

EDD Filename: DE126_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-027-SA8N-SS-0.0-0.5MS	ARSENIC	133	134	75.00-125.00	-	ARSENIC	
SL-027-SA8N-SS-0.0-0.5MSD	CADMIUM	151	-	75.00-125.00	-	CADMIUM	
(DUP02-SA8N-QC-041311	CHROMIUM	-	158	75.00-125.00	-	CHROMIUM	
SL-027-SA8N-SS-0.0-0.5	COBALT	129	-	75.00-125.00	-	COBALT	
SL-028-SA8N-SS-0.0-0.5	LEAD	196	-	75.00-125.00	-	LEAD	
SL-032-SA8N-SS-0.0-0.5	NICKEL	146	159	75.00-125.00	-	NICKEL	
SL-046-SA8N-SS-0.0-0.5	THALLIUM	-	127	75.00-125.00	-	THALLIUM	J(all detects)
SL-060-SA5A-SB-4.0-5.0	VANADIUM	140	-	75.00-125.00	-	VANADIUM	
SL-060-SA5A-SB-8.0-9.0	ZINC	313	214	75.00-125.00	-	ZINC	Pb, V, Zn
SL-061-SA5A-SB-4.0-5.0							No Qual, >4x
SL-204-SA5A-SB-4.0-5.0							
SL-205-SA5A-SB-4.0-5.0							
SL-205-SA5A-SB-8.0-9.0)							
SL-027-SA8N-SS-0.0-0.5MS	ANTIMONY	34	37	75.00-125.00	-	ANTIMONY	
SL-027-SA8N-SS-0.0-0.5MSD	COPPER	63	-	75.00-125.00	-	COPPER	
(DUP02-SA8N-QC-041311							
SL-027-SA8N-SS-0.0-0.5							
SL-028-SA8N-SS-0.0-0.5							
SL-032-SA8N-SS-0.0-0.5							
SL-046-SA8N-SS-0.0-0.5							J(all detects)
SL-060-SA5A-SB-4.0-5.0							UJ(all non-detects)
SL-060-SA5A-SB-8.0-9.0							
SL-061-SA5A-SB-4.0-5.0							Cu No Qual, >4x
SL-204-SA5A-SB-4.0-5.0							
SL-205-SA5A-SB-4.0-5.0							
SL-205-SA5A-SB-8.0-9.0)							
SL-027-SA8N-SS-0.0-0.5MS	BARIUM	-142	11	75.00-125.00	-	BARIUM	
SL-027-SA8N-SS-0.0-0.5MSD							
(DUP02-SA8N-QC-041311							
SL-027-SA8N-SS-0.0-0.5							
SL-028-SA8N-SS-0.0-0.5							
SL-032-SA8N-SS-0.0-0.5							
SL-046-SA8N-SS-0.0-0.5							No Qual, >4x
SL-060-SA5A-SB-4.0-5.0							
SL-060-SA5A-SB-8.0-9.0							
SL-061-SA5A-SB-4.0-5.0							
SL-204-SA5A-SB-4.0-5.0							
SL-205-SA5A-SB-4.0-5.0							
SL-205-SA5A-SB-8.0-9.0)							

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-027-SA8N-SS-0.0-0.5MS	ALUMINUM	2687	2319	75.00-125.00	-	ALUMINUM	
SL-027-SA8N-SS-0.0-0.5MSD	CALCIUM	588	612	75.00-125.00	-	CALCIUM	
(DUP02-SA8N-QC-041311	IRON	1156	1231	75.00-125.00	-	IRON	
SL-027-SA8N-SS-0.0-0.5	MAGNESIUM	345	329	75.00-125.00	-	MAGNESIUM	
SL-028-SA8N-SS-0.0-0.5	POTASSIUM	131	148	75.00-125.00	-	POTASSIUM	
SL-032-SA8N-SS-0.0-0.5							
SL-046-SA8N-SS-0.0-0.5							No Qual, >4x
SL-060-SA5A-SB-4.0-5.0							
SL-060-SA5A-SB-8.0-9.0							
SL-061-SA5A-SB-4.0-5.0							
SL-204-SA5A-SB-4.0-5.0							
SL-205-SA5A-SB-4.0-5.0							
SL-205-SA5A-SB-8.0-9.0)							

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE126 **Laboratory: LL**

EDD Filename: DE126_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-027-SA8N-SS-0.0-0.5MS **SL-027-SA8N-SS-0.0-0.5MSD** (DUP02-SA8N-QC-041311 SL-027-SA8N-SS-0.0-0.5 SL-028-SA8N-SS-0.0-0.5 SL-032-SA8N-SS-0.0-0.5 SL-046-SA8N-SS-0.0-0.5 SL-060-SA5A-SB-4.0-5.0 SL-060-SA5A-SB-8.0-9.0 SL-061-SA5A-SB-4.0-5.0 SL-204-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-8.0-9.0)	PHOSPHORUS	-36	136	75.00-125.00	-	PHOSPHORUS	No Qual, >4x
SL-027-SA8N-SS-0.0-0.5MSD (DUP02-SA8N-QC-041311 SL-027-SA8N-SS-0.0-0.5 SL-028-SA8N-SS-0.0-0.5 SL-032-SA8N-SS-0.0-0.5 SL-046-SA8N-SS-0.0-0.5 SL-060-SA5A-SB-4.0-5.0 SL-060-SA5A-SB-8.0-9.0 SL-061-SA5A-SB-4.0-5.0 SL-204-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-8.0-9.0)	MANGANESE	-	70	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-027-SA8N-SS-0.0-0.5MS (DUP02-SA8N-QC-041311 SL-027-SA8N-SS-0.0-0.5 SL-028-SA8N-SS-0.0-0.5 SL-032-SA8N-SS-0.0-0.5 SL-046-SA8N-SS-0.0-0.5 SL-060-SA5A-SB-4.0-5.0 SL-060-SA5A-SB-8.0-9.0 SL-061-SA5A-SB-4.0-5.0 SL-204-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-4.0-5.0)	FLUORIDE	62	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-205-SA5A-SB-8.0-9.0MS (SL-205-SA5A-SB-8.0-9.0)	FLUORIDE	55	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE126 **Laboratory: LL**

EDD Filename: DE126_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-027-SA8N-SS-0.0-0.5MS **SL-027-SA8N-SS-0.0-0.5MSD** (DUP02-SA8N-QC-041311 SL-027-SA8N-SS-0.0-0.5 SL-028-SA8N-SS-0.0-0.5 SL-032-SA8N-SS-0.0-0.5 SL-046-SA8N-SS-0.0-0.5 SL-060-SA5A-SB-4.0-5.0 SL-060-SA5A-SB-8.0-9.0 SL-061-SA5A-SB-4.0-5.0 SL-204-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-8.0-9.0)	TITANIUM	369	342	75.00-125.00	-	TITANIUM	No Qual, >4x

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-205-SA5A-SB-8.0-9.0DUP (SL-205-SA5A-SB-8.0-9.0)	FLUORIDE	54	20.00	No Qual OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-027-SA8N-SS-0.0-0.5DUP (DUP02-SA8N-QC-041311 SL-027-SA8N-SS-0.0-0.5 SL-028-SA8N-SS-0.0-0.5 SL-032-SA8N-SS-0.0-0.5 SL-046-SA8N-SS-0.0-0.5 SL-060-SA5A-SB-4.0-5.0 SL-060-SA5A-SB-8.0-9.0 SL-061-SA5A-SB-4.0-5.0 SL-204-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-8.0-9.0)	BARIUM	29	20.00	
	BERYLLIUM	21	20.00	
	CHROMIUM	26	20.00	
	COBALT	28	20.00	
	COPPER	30	20.00	
	LEAD	32	20.00	J(all detects) UJ(all non-detects)
	MOLYBDENUM	27	20.00	
	NICKEL	25	20.00	
	SELENIUM	25	20.00	Se, Tl No Qual OK by difference
	THALLIUM	21	20.00	
	VANADIUM	24	20.00	
	ZINC	21	20.00	

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-027-SA8N-SS-0.0-0.5DUP (DUP02-SA8N-QC-041311 SL-027-SA8N-SS-0.0-0.5 SL-028-SA8N-SS-0.0-0.5 SL-032-SA8N-SS-0.0-0.5 SL-046-SA8N-SS-0.0-0.5 SL-060-SA5A-SB-4.0-5.0 SL-060-SA5A-SB-8.0-9.0 SL-061-SA5A-SB-4.0-5.0 SL-204-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-8.0-9.0)	HEXAVALENT CHROMIUM	45	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-027-SA8N-SS-0.0-0.5DUP (DUP02-SA8N-QC-041311 SL-027-SA8N-SS-0.0-0.5 SL-028-SA8N-SS-0.0-0.5 SL-032-SA8N-SS-0.0-0.5 SL-046-SA8N-SS-0.0-0.5 SL-060-SA5A-SB-4.0-5.0 SL-060-SA5A-SB-8.0-9.0 SL-061-SA5A-SB-4.0-5.0 SL-204-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-8.0-9.0)	MERCURY	71	20.00	No Qual OK by difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE126 **Laboratory: LL**

EDD Filename: DE126_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
P6WDLCSQ262022 (EB02-SA8N-SS-041311)	ACENAPHTHENE Di-n-octylphthalate	116 154	- -	74.00-109.00 57.00-145.00	- -	ACENAPHTHENE Di-n-octylphthalate	J (all detects)

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P8WCLCSY261402 (EB02-SA8N-SS-041311)	1,2-Diphenylhydrazine/Azobenzen	-	118	78.00-116.00	-	1,2-Diphenylhydrazine/Azobenz	J(all detects)

Method: 8082
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11096AQ241416A P11096AY241357A (EB02-SA8N-SS-041311)	Aroclor 5442	86	94	35.00-84.00	-	Aroclor 5432, 5442, 5460	J(all detects)

Method: 8260B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS1Y14Q210248A LCS1Y14Y210309A (TB-041311)	2-Chloro-1,1,1-trifluoroethane	123	124	77.00-120.00	-	2-Chloro-1,1,1-trifluoroethane	J(all detects)

Method: 8330A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11080AQ242114A (SL-204-SA5A-SB-4.0-5.0)	PETN	126	-	80.00-120.00	-	PETN	J(all detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE126 **Laboratory: LL**

EDD Filename: DE126_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*
P11126AQ220912A (DUP02-SA8N-QC-041311 SL-027-SA8N-SS-0.0-0.5 SL-028-SA8N-SS-0.0-0.5 SL-032-SA8N-SS-0.0-0.5 SL-046-SA8N-SS-0.0-0.5 SL-060-SA5A-SB-4.0-5.0 SL-060-SA5A-SB-8.0-9.0 SL-061-SA5A-SB-4.0-5.0 SL-204-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-4.0-5.0 SL-205-SA5A-SB-8.0-9.0)	ANTIMONY	73	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Field Duplicate RPD Report

Lab Reporting Batch ID: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-027-SA8N-SS-0.0-0.5	DUP02-SA8N-QC-041311			
MOISTURE	15.2	14.9	2		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-027-SA8N-SS-0.0-0.5	DUP02-SA8N-QC-041311			
FLUORIDE	2.6	1.6	48	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-027-SA8N-SS-0.0-0.5	DUP02-SA8N-QC-041311			
ALUMINUM	27200	23600	14	50.00	No Qualifiers Applied
BORON	23.6	15.2	43	50.00	
CALCIUM	26900	25400	6	50.00	
IRON	29600	48200	48	50.00	
LITHIUM	25.1	21.6	15	50.00	
MAGNESIUM	7940	7060	12	50.00	
MANGANESE	444	459	3	50.00	
PHOSPHORUS	1580	1430	10	50.00	
POTASSIUM	6680	6340	5	50.00	
SODIUM	219	219	0	50.00	
STRONTIUM	111	112	1	50.00	
TIN	3.09	3.46	11	50.00	
TITANIUM	1360	1350	1	50.00	
Zirconium	7.09	6.37	11	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-027-SA8N-SS-0.0-0.5	DUP02-SA8N-QC-041311			
ANTIMONY	0.678	0.738	8	50.00	No Qualifiers Applied
ARSENIC	7.19	6.75	6	50.00	
BARIUM	198	195	2	50.00	
BERYLLIUM	0.970	0.895	8	50.00	
CADMIUM	1.30	1.31	1	50.00	
CHROMIUM	39.7	36.1	9	50.00	
COBALT	10.7	11.4	6	50.00	
COPPER	57.3	54.9	4	50.00	
LEAD	31.2	29.3	6	50.00	
MOLYBDENUM	0.779	0.630	21	50.00	
NICKEL	28.5	26.0	9	50.00	
SELENIUM	0.216	0.200	8	50.00	
THALLIUM	0.340	0.359	5	50.00	
VANADIUM	65.4	63.0	4	50.00	
ZINC	182	188	3	50.00	
SILVER	0.298	0.502	51	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-027-SA8N-SS-0.0-0.5	DUP02-SA8N-QC-041311			
HEXAVALENT CHROMIUM	0.65	1.2 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-027-SA8N-SS-0.0-0.5	DUP02-SA8N-QC-041311			
MERCURY	0.0873	0.0795	9	50.00	No Qualifiers Applied

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-027-SA8N-SS-0.0-0.5	DUP02-SA8N-QC-041311			
1-METHYLNAPHTHALENE	1.3	1.4	7	50.00	No Qualifiers Applied
2-METHYLNAPHTHALENE	1.8	2.5	33	50.00	
ACENAPHTHYLENE	0.51	0.63	21	50.00	
DIBENZO(A,H)ANTHRACENE	0.98	1.3	28	50.00	
NAPHTHALENE	3.9	4.6	16	50.00	
PHENANTHRENE	4.9	7.3	39	50.00	
ANTHRACENE	0.82	1.5	59	50.00	J(all detects) UJ(all non-detects)
BIS(2-ETHYLHEXYL)PHTHALATE	41	260	146	50.00	
Butylbenzylphthalate	21 U	8.8	200	50.00	
Di-n-octylphthalate	21 U	230	200	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-027-SA8N-SS-0.0-0.5	DUP02-SA8N-QC-041311			
PH	8.27	8.21	1	50.00	No Qualifiers Applied

Method: ASTM D1498
Matrix: SO

Analyte	Concentration (mV)		Sample RPD	eQAPP RPD	Flag
	SL-027-SA8N-SS-0.0-0.5	DUP02-SA8N-QC-041311			
Oxidation Reduction Potential	312	329	5		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB02-SA8N-SS-041311	Diethylphthalate	J	0.13	1.0	PQL	ug/L	J (all detects)
	Di-n-butylphthalate	J	0.53	1.0	PQL	ug/L	
	NAPHTHALENE	J	0.034	0.051	PQL	ug/L	
	PHENANTHRENE	J	0.018	0.051	PQL	ug/L	

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP02-SA8N-QC-041311	TIN	J	3.46	11.5	PQL	mg/Kg	J (all detects)
SL-027-SA8N-SS-0.0-0.5	TIN	J	3.09	11.8	PQL	mg/Kg	J (all detects)
SL-028-SA8N-SS-0.0-0.5	TIN	J	2.74	12.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.91	5.99	PQL	mg/Kg	
SL-032-SA8N-SS-0.0-0.5	TIN	J	2.71	10.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.82	5.35	PQL	mg/Kg	
SL-046-SA8N-SS-0.0-0.5	SODIUM	J	96.1	110	PQL	mg/Kg	J (all detects)
	TIN	J	2.22	11.0	PQL	mg/Kg	
SL-060-SA5A-SB-4.0-5.0	BORON	J	1.57	5.81	PQL	mg/Kg	J (all detects)
	TIN	J	3.50	11.6	PQL	mg/Kg	
	Zirconium	J	3.26	5.81	PQL	mg/Kg	
SL-060-SA5A-SB-8.0-9.0	BORON	J	2.16	5.41	PQL	mg/Kg	J (all detects)
	SODIUM	J	95.8	108	PQL	mg/Kg	
	TIN	J	2.60	10.8	PQL	mg/Kg	
	Zirconium	J	3.07	5.41	PQL	mg/Kg	
SL-061-SA5A-SB-4.0-5.0	BORON	J	2.20	5.71	PQL	mg/Kg	J (all detects)
	SODIUM	J	113	114	PQL	mg/Kg	
	TIN	J	2.84	11.4	PQL	mg/Kg	
	Zirconium	J	3.33	5.71	PQL	mg/Kg	
SL-204-SA5A-SB-4.0-5.0	BORON	J	2.68	5.65	PQL	mg/Kg	J (all detects)
	TIN	J	2.73	11.3	PQL	mg/Kg	
	Zirconium	J	3.72	5.65	PQL	mg/Kg	
SL-205-SA5A-SB-4.0-5.0	BORON	J	2.53	5.72	PQL	mg/Kg	J (all detects)
	SODIUM	J	95.0	114	PQL	mg/Kg	
	TIN	J	2.62	11.4	PQL	mg/Kg	
	Zirconium	J	3.57	5.72	PQL	mg/Kg	
SL-205-SA5A-SB-8.0-9.0	BORON	J	1.78	5.62	PQL	mg/Kg	J (all detects)
	SODIUM	J	106	112	PQL	mg/Kg	
	TIN	J	2.70	11.2	PQL	mg/Kg	
	Zirconium	J	2.86	5.62	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP02-SA8N-QC-041311	SELENIUM	J	0.200	0.465	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: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-027-SA8N-SS-0.0-0.5	SELENIUM	J	0.216	0.449	PQL	mg/Kg	J (all detects)
SL-028-SA8N-SS-0.0-0.5	SELENIUM	J	0.177	0.461	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0961	0.115	PQL	mg/Kg	
SL-032-SA8N-SS-0.0-0.5	ANTIMONY	J	0.113	0.214	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.151	0.428	PQL	mg/Kg	
	SILVER	J	0.0537	0.107	PQL	mg/Kg	
SL-046-SA8N-SS-0.0-0.5	SELENIUM	J	0.263	0.426	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0697	0.107	PQL	mg/Kg	
SL-060-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0866	0.230	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0696	0.115	PQL	mg/Kg	
	SELENIUM	J	0.171	0.461	PQL	mg/Kg	
	SILVER	J	0.0443	0.115	PQL	mg/Kg	
SL-060-SA5A-SB-8.0-9.0	ANTIMONY	J	0.0868	0.217	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.132	0.433	PQL	mg/Kg	
	SILVER	J	0.0442	0.108	PQL	mg/Kg	
SL-061-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0897	0.220	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0835	0.110	PQL	mg/Kg	
	SELENIUM	J	0.144	0.440	PQL	mg/Kg	
	SILVER	J	0.0526	0.110	PQL	mg/Kg	
SL-204-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0691	0.222	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0509	0.111	PQL	mg/Kg	
	SELENIUM	J	0.0982	0.443	PQL	mg/Kg	
SL-205-SA5A-SB-4.0-5.0	ANTIMONY	J	0.114	0.224	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0767	0.112	PQL	mg/Kg	
	SELENIUM	J	0.0597	0.449	PQL	mg/Kg	
	SILVER	J	0.0751	0.112	PQL	mg/Kg	
SL-205-SA5A-SB-8.0-9.0	ANTIMONY	J	0.0776	0.225	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0524	0.449	PQL	mg/Kg	
	SILVER	J	0.0462	0.112	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-027-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.65	1.2	PQL	mg/Kg	J (all detects)
SL-028-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.70	1.2	PQL	mg/Kg	J (all detects)
SL-046-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.58	1.1	PQL	mg/Kg	J (all detects)
SL-060-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.50	1.2	PQL	mg/Kg	J (all detects)
SL-061-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.43	1.1	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP02-SA8N-QC-041311	MERCURY	J	0.0795	0.115	PQL	mg/Kg	J (all detects)
SL-027-SA8N-SS-0.0-0.5	MERCURY	J	0.0873	0.111	PQL	mg/Kg	J (all detects)
SL-028-SA8N-SS-0.0-0.5	MERCURY	J	0.0341	0.113	PQL	mg/Kg	J (all detects)
SL-032-SA8N-SS-0.0-0.5	MERCURY	J	0.0494	0.107	PQL	mg/Kg	J (all detects)
SL-046-SA8N-SS-0.0-0.5	MERCURY	J	0.0155	0.108	PQL	mg/Kg	J (all detects)
SL-060-SA5A-SB-4.0-5.0	MERCURY	J	0.0078	0.115	PQL	mg/Kg	J (all detects)
SL-204-SA5A-SB-4.0-5.0	MERCURY	J	0.0058	0.105	PQL	mg/Kg	J (all detects)
SL-205-SA5A-SB-4.0-5.0	MERCURY	J	0.0035	0.112	PQL	mg/Kg	J (all detects)
SL-205-SA5A-SB-8.0-9.0	MERCURY	J	0.0060	0.112	PQL	mg/Kg	J (all detects)

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-027-SA8N-SS-0.0-0.5	EFH (C15-C20)	J	3.6	7.0	PQL	mg/Kg	J (all detects)
SL-204-SA5A-SB-4.0-5.0	EFH (C21-C30)	J	0.86	1.3	PQL	mg/Kg	J (all detects)

Method: 8082
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-046-SA8N-SS-0.0-0.5	AROCLOR 1254	J	1.8	1.9	PQL	ug/Kg	
	AROCLOR 1260	J	1.5	1.9	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	2.2	3.6	PQL	ug/Kg	
SL-205-SA5A-SB-4.0-5.0	Aroclor 5460	J	1.7	3.8	PQL	ug/Kg	J (all detects)

Method: 8260B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-060-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.0	3.9	PQL	ug/Kg	J (all detects)
SL-061-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.3	3.8	PQL	ug/Kg	J (all detects)
SL-204-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	3.6	3.9	PQL	ug/Kg	J (all detects)
SL-205-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.65	4.0	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP02-SA8N-QC-041311	BENZO(A)ANTHRACENE	J	55	200	PQL	ug/Kg	
	BENZO(A)PYRENE	J	66	200	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	98	200	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	51	200	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	37	200	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	91	200	PQL	ug/Kg	
	FLUORANTHENE	J	45	200	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	47	200	PQL	ug/Kg	
	PYRENE	J	67	200	PQL	ug/Kg	
SL-028-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	22	200	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	24	200	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	30	400	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	28	200	PQL	ug/Kg	
	FLUORANTHENE	J	34	200	PQL	ug/Kg	
	PYRENE	J	28	200	PQL	ug/Kg	
SL-032-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	32	360	PQL	ug/Kg	J (all detects)
SL-046-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	29	360	PQL	ug/Kg	J (all detects)
SL-060-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	26	380	PQL	ug/Kg	J (all detects)
SL-060-SA5A-SB-8.0-9.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	370	PQL	ug/Kg	J (all detects)
SL-204-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	19	370	PQL	ug/Kg	J (all detects)
SL-205-SA5A-SB-8.0-9.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	380	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP02-SA8N-QC-041311	1-METHYLNAPHTHALENE	J	1.4	2.0	PQL	ug/Kg	
	ACENAPHTHYLENE	J	0.63	2.0	PQL	ug/Kg	
	ANTHRACENE	J	1.5	2.0	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	8.8	21	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.3	2.0	PQL	ug/Kg	
SL-027-SA8N-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	1.3	2.0	PQL	ug/Kg	
	2-METHYLNAPHTHALENE	J	1.8	2.0	PQL	ug/Kg	
	ACENAPHTHYLENE	J	0.51	2.0	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.82	2.0	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.98	2.0	PQL	ug/Kg	
SL-028-SA8N-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	1.1	2.0	PQL	ug/Kg	
	2-METHYLNAPHTHALENE	J	1.6	2.0	PQL	ug/Kg	
	ACENAPHTHYLENE	J	0.56	2.0	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	1.7	2.0	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.5	2.0	PQL	ug/Kg	
SL-032-SA8N-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	1.3	1.8	PQL	ug/Kg	
	ACENAPHTHYLENE	J	0.51	1.8	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	1.3	1.8	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE126 **Laboratory: LL**

EDD Filename: DE126_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-046-SA8N-SS-0.0-0.5	ANTHRACENE	J	0.59	1.8	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.2	1.8	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.4	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.92	1.8	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	1.6	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	1.3	1.8	PQL	ug/Kg	

LDC #: 25916H4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-11

SDG #: DE126 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, Co, Fe, Pb, Mg, Mn, P, K, Ti, V, Zn, Mx)
VII.	Duplicate Sample Analysis	N	D (Hg, Se, Tl (SxRL) No.
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	%R: 16% (J/UJ/A)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	ND	EB=6

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	DUP02-SA8N-QC-041311 D	11	SL-205-SA5A-SB-4.0-5.0	21		31	
2	SL-027-SA8N-SS-0.0-0.5 D	12	SL-205-SA5A-SB-8.0-9.0	22		32	
3	SL-028-SA8N-SS-0.0-0.5	13	SL-027-SA8N-SS-0.0-0.5MS	23		33	
4	SL-032-SA8N-SS-0.0-0.5	14	SL-027-SA8N-SS-0.0-0.5MSD	24		34	
5	SL-046-SA8N-SS-0.0-0.5	15	SL-027-SA8N-SS-0.0-0.5DUP	25		35	
6	EB02-SA8N-SS-041311	16		26		36	
7	SL-060-SA5A-SB-4.0-5.0	17		27		37	
8	SL-060-SA5A-SB-8.0-9.0	18		28		38	
9	SL-061-SA5A-SB-4.0-5.0	19		29		39	
10	SL-204-SA5A-SB-4.0-5.0	20		30		40	

Notes:

SAMPLE DELIVERY GROUP

DE127

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-Apr-2011	SL-130-SA8N-SS-0.0-0.5	6259053	N	3050B	6010B	III
14-Apr-2011	SL-130-SA8N-SS-0.0-0.5	6259053	N	3050B	6020	III
14-Apr-2011	SL-130-SA8N-SS-0.0-0.5	6259053	N	3060A	7199	III
14-Apr-2011	SL-130-SA8N-SS-0.0-0.5	6259053	N	3550B	8082	III
14-Apr-2011	SL-130-SA8N-SS-0.0-0.5	6259053	N	3550B	8270C	III
14-Apr-2011	SL-130-SA8N-SS-0.0-0.5	6259053	N	3550B	8270C SIM	III
14-Apr-2011	SL-130-SA8N-SS-0.0-0.5	6259053	N	Gen Prep	9045M	III
14-Apr-2011	SL-130-SA8N-SS-0.0-0.5	6259053	N	METHOD	300.0	III
14-Apr-2011	SL-130-SA8N-SS-0.0-0.5	6259053	N	METHOD	314.0	III
14-Apr-2011	SL-130-SA8N-SS-0.0-0.5	6259053	N	METHOD	7471A	III
14-Apr-2011	SL-040-SA8N-SS-0.0-0.5	6259046	N	3050B	6010B	III
14-Apr-2011	SL-040-SA8N-SS-0.0-0.5	6259046	N	3050B	6020	III
14-Apr-2011	SL-040-SA8N-SS-0.0-0.5	6259046	N	3060A	7199	III
14-Apr-2011	SL-040-SA8N-SS-0.0-0.5	6259046	N	3550B	8015M	III
14-Apr-2011	SL-040-SA8N-SS-0.0-0.5	6259046	N	3550B	8082	III
14-Apr-2011	SL-040-SA8N-SS-0.0-0.5	6259046	N	3550B	8270C	III
14-Apr-2011	SL-040-SA8N-SS-0.0-0.5	6259046	N	3550B	8270C SIM	III
14-Apr-2011	SL-040-SA8N-SS-0.0-0.5	6259046	N	Gen Prep	9045M	III
14-Apr-2011	SL-040-SA8N-SS-0.0-0.5	6259046	N	METHOD	300.0	III
14-Apr-2011	SL-040-SA8N-SS-0.0-0.5	6259046	N	METHOD	314.0	III
14-Apr-2011	SL-040-SA8N-SS-0.0-0.5	6259046	N	METHOD	7471A	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	3050B	6010B	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	3050B	6020	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	3060A	7199	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	3546	1625C	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	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
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	3550B	8015M	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	3550B	8082	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	3550B	8270C	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	3550B	8270C SIM	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	8330	8330A	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	Gen Prep	9045M	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	METHOD	300.0	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	METHOD	314.0	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	METHOD	7471A	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	METHOD	8015B	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	METHOD	8015M	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	METHOD	8315A	III
14-Apr-2011	SL-078-SA8N-SS-0.0-0.5	6259047	N	METHOD	9012B	III
14-Apr-2011	EB04-SA8N-SS-041411	6259059	EB	3510C	8015B	III
14-Apr-2011	EB04-SA8N-SS-041411	6259059	EB	3510C	8015M	III
14-Apr-2011	EB04-SA8N-SS-041411	6259059	EB	3520C	1625C	III
14-Apr-2011	EB04-SA8N-SS-041411	6259059	EB	8330	8330A	III
14-Apr-2011	EB04-SA8N-SS-041411	6259059	EB	Gen Prep	300.0	III
14-Apr-2011	EB04-SA8N-SS-041411	6259059	EB	Gen Prep	8015B	III
14-Apr-2011	EB04-SA8N-SS-041411	6259059	EB	Gen Prep	8015M	III
14-Apr-2011	EB04-SA8N-SS-041411	6259059	EB	Gen Prep	9040B	III
14-Apr-2011	EB04-SA8N-SS-041411	6259059	EB	METHOD	8315A	III
14-Apr-2011	EB04-SA8N-SS-041411	6259059	EB	METHOD	9012B	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	3050B	6010B	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	3050B	6020	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	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-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	3546	1625C	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	3550B	8015B	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	3550B	8015M	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	3550B	8082	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	3550B	8270C	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	3550B	8270C SIM	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	8330	8330A	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	Gen Prep	9045M	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	METHOD	300.0	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	METHOD	314.0	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	METHOD	7471A	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	METHOD	8015B	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	METHOD	8015M	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	METHOD	8315A	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5	6259058	N	METHOD	9012B	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5DUP	P259058D271124B	DUP	METHOD	300.0	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5MSD	P259058M322138A	MSD	METHOD	8015M	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5MS	P259058R271139B	MS	METHOD	300.0	III
14-Apr-2011	SL-134-SA8N-SS-0.0-0.5MS	P259058R322103A	MS	METHOD	8015M	III
14-Apr-2011	SL-091-SA8N-SS-0.0-0.5	6259052	N	3050B	6010B	III
14-Apr-2011	SL-091-SA8N-SS-0.0-0.5	6259052	N	3050B	6020	III
14-Apr-2011	SL-091-SA8N-SS-0.0-0.5	6259052	N	3060A	7199	III
14-Apr-2011	SL-091-SA8N-SS-0.0-0.5	6259052	N	3550B	8082	III
14-Apr-2011	SL-091-SA8N-SS-0.0-0.5	6259052	N	3550B	8270C	III
14-Apr-2011	SL-091-SA8N-SS-0.0-0.5	6259052	N	3550B	8270C SIM	III
14-Apr-2011	SL-091-SA8N-SS-0.0-0.5	6259052	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
14-Apr-2011	SL-091-SA8N-SS-0.0-0.5	6259052	N	METHOD	300.0	III
14-Apr-2011	SL-091-SA8N-SS-0.0-0.5	6259052	N	METHOD	314.0	III
14-Apr-2011	SL-091-SA8N-SS-0.0-0.5	6259052	N	METHOD	7471A	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	3050B	6010B	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	3050B	6020	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	3060A	7199	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	3546	1625C	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	3550B	8015B	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	3550B	8015M	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	3550B	8082	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	3550B	8270C	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	3550B	8270C SIM	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	8330	8330A	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	Gen Prep	9045M	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	METHOD	300.0	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	METHOD	314.0	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	METHOD	7471A	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	METHOD	8015B	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	METHOD	8015M	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	METHOD	8315A	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5	6259054	N	METHOD	9012B	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	MS	3050B	6010B	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	MS	3050B	6020	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	MS	3060A	7199	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	MS	3546	1625C	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	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
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	MS	3550B	8015M	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	MS	3550B	8082	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	MS	3550B	8270C	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	MS	3550B	8270C SIM	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	MS	8330	8330A	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	MS	METHOD	300.0	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	MS	METHOD	314.0	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	MS	METHOD	7471A	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	MS	METHOD	8015B	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	MS	METHOD	8015M	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	MS	METHOD	8315A	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MS	6259055	MS	METHOD	9012B	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MSD	6259056	MSD	3050B	6010B	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MSD	6259056	MSD	3050B	6020	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MSD	6259056	MSD	3546	1625C	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MSD	6259056	MSD	3550B	8015B	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MSD	6259056	MSD	3550B	8015M	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MSD	6259056	MSD	3550B	8082	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MSD	6259056	MSD	3550B	8270C	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MSD	6259056	MSD	3550B	8270C SIM	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MSD	6259056	MSD	8330	8330A	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MSD	6259056	MSD	METHOD	7471A	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MSD	6259056	MSD	METHOD	8015B	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MSD	6259056	MSD	METHOD	8015M	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5MSD	6259056	MSD	METHOD	8315A	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5DUP	6259057	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
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5DUP	6259057	DUP	3050B	6020	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5DUP	6259057	DUP	3060A	7199	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5DUP	6259057	DUP	Gen Prep	9045M	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5DUP	6259057	DUP	METHOD	300.0	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5DUP	6259057	DUP	METHOD	314.0	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5DUP	6259057	DUP	METHOD	7471A	III
14-Apr-2011	SL-133-SA8N-SS-0.0-0.5DUP	6259057	DUP	METHOD	9012B	III
14-Apr-2011	DUP03-SA8N-QC-041411	6259045	FD	3546	1625C	III
14-Apr-2011	DUP03-SA8N-QC-041411	6259045	FD	3550B	8015B	III
14-Apr-2011	DUP03-SA8N-QC-041411	6259045	FD	3550B	8015M	III
14-Apr-2011	DUP03-SA8N-QC-041411	6259045	FD	8330	8330A	III
14-Apr-2011	DUP03-SA8N-QC-041411	6259045	FD	METHOD	300.0	III
14-Apr-2011	DUP03-SA8N-QC-041411	6259045	FD	METHOD	8015B	III
14-Apr-2011	DUP03-SA8N-QC-041411	6259045	FD	METHOD	8015M	III
14-Apr-2011	DUP03-SA8N-QC-041411	6259045	FD	METHOD	8315A	III
14-Apr-2011	DUP03-SA8N-QC-041411	6259045	FD	METHOD	9012B	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	3050B	6010B	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	3050B	6020	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	3060A	7199	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	3546	1625C	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	3550B	8015B	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	3550B	8015M	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	3550B	8082	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	3550B	8270C	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	3550B	8270C SIM	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	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
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	Gen Prep	9045M	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	METHOD	300.0	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	METHOD	314.0	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	METHOD	7471A	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	METHOD	8015B	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	METHOD	8015M	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	METHOD	8315A	III
14-Apr-2011	SL-082-SA8N-SS-0.0-0.5	6259049	N	METHOD	9012B	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	3050B	6010B	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	3050B	6020	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	3060A	7199	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	3546	1625C	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	3550B	8015B	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	3550B	8015M	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	3550B	8082	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	3550B	8270C	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	3550B	8270C SIM	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	8330	8330A	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	Gen Prep	9045M	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	METHOD	300.0	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	METHOD	314.0	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	METHOD	7471A	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	METHOD	8015B	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	METHOD	8015M	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	N	METHOD	8315A	III
14-Apr-2011	SL-089-SA8N-SS-0.0-0.5	6259050	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*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	3050B	6010B	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	3050B	6020	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	3060A	7199	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	3546	1625C	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	3550B	8015B	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	3550B	8015M	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	3550B	8082	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	3550B	8270C	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	3550B	8270C SIM	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	8330	8330A	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	Gen Prep	9045M	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	METHOD	300.0	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	METHOD	314.0	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	METHOD	7471A	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	METHOD	8015B	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	METHOD	8015M	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	METHOD	8315A	III
14-Apr-2011	SL-079-SA8N-SS-0.0-0.5	6259048	N	METHOD	9012B	III
14-Apr-2011	SL-090-SA8N-SS-0.0-0.5	6259051	N	3050B	6010B	III
14-Apr-2011	SL-090-SA8N-SS-0.0-0.5	6259051	N	3050B	6020	III
14-Apr-2011	SL-090-SA8N-SS-0.0-0.5	6259051	N	3060A	7199	III
14-Apr-2011	SL-090-SA8N-SS-0.0-0.5	6259051	N	3550B	8082	III
14-Apr-2011	SL-090-SA8N-SS-0.0-0.5	6259051	N	3550B	8270C	III
14-Apr-2011	SL-090-SA8N-SS-0.0-0.5	6259051	N	3550B	8270C SIM	III
14-Apr-2011	SL-090-SA8N-SS-0.0-0.5	6259051	N	Gen Prep	9045M	III
14-Apr-2011	SL-090-SA8N-SS-0.0-0.5	6259051	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
14-Apr-2011	SL-090-SA8N-SS-0.0-0.5	6259051	N	METHOD	314.0	III
14-Apr-2011	SL-090-SA8N-SS-0.0-0.5	6259051	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: EM

Method: 9040B **Matrix: AQ**

Sample ID: EB04-SA8N-SS-041411 *Collected:* 4/14/2011 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
PH	6.0		0.010	MDL	0.010	PQL	pH unit	J	H

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: DUP03-SA8N-QC-041411 *Collected:* 4/14/2011 3:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	4.9		0.92	MDL	1.7	PQL	mg/Kg	J	Q, FD

Sample ID: SL-040-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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	1.9		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-078-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 11:10:00 *Analysis Type:* REA *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	51.6		4.6	MDL	8.7	PQL	mg/Kg	J	Q

Sample ID: SL-078-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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	1.3		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-079-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 4:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.9		0.97	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	9.4		0.97	MDL	1.8	PQL	mg/Kg	J	Q

Sample ID: SL-082-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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	1.5		0.89	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-082-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 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
Nitrate-NO3	5.5		0.89	MDL	1.7	PQL	mg/Kg	J	Q

Sample ID: SL-089-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 4:10:00 **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		0.95	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	3.3		0.95	MDL	1.8	PQL	mg/Kg	J	Q

Sample ID: SL-090-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 4:45:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.95	U	0.95	MDL	1.2	PQL	mg/Kg	UJ	Q

Sample ID: SL-091-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 2:50:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-130-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 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	1.9		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-133-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 3:20:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.8		0.94	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	9.0		0.94	MDL	1.8	PQL	mg/Kg	J	Q, FD

Sample ID: SL-134-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 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	1.9		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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 9012B **Matrix: SO**

Sample ID: SL-079-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 4:30:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CYANIDE	0.30	J	0.22	MDL	0.62	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-040-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 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	2.98	J	0.949	MDL	5.33	PQL	mg/Kg	J	Z
SODIUM	90.6	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	2.48	J	0.895	MDL	5.33	PQL	mg/Kg	J	Z

Sample ID: SL-078-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 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
TIN	2.49	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	3.26	J	0.952	MDL	5.67	PQL	mg/Kg	J	Z

Sample ID: SL-079-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 4:30:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.83	J	1.04	MDL	5.87	PQL	mg/Kg	J	Z
SODIUM	75.2	J	43.8	MDL	117	PQL	mg/Kg	J	Z
TIN	2.59	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	2.71	J	0.986	MDL	5.87	PQL	mg/Kg	J	Z

Sample ID: SL-082-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 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
BORON	2.22	J	0.981	MDL	5.51	PQL	mg/Kg	J	Z
SODIUM	80.0	J	41.1	MDL	110	PQL	mg/Kg	J	Z
TIN	2.76	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-089-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 4:10:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.39	J	1.05	MDL	5.92	PQL	mg/Kg	J	Z
SODIUM	98.3	J	44.2	MDL	118	PQL	mg/Kg	J	Z
TIN	2.65	J	1.18	MDL	11.8	PQL	mg/Kg	U	B
Zirconium	2.36	J	0.995	MDL	5.92	PQL	mg/Kg	J	Z

Sample ID: SL-090-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 4:45:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.73	J	1.02	MDL	5.74	PQL	mg/Kg	J	Z
SODIUM	71.7	J	42.9	MDL	115	PQL	mg/Kg	J	Z
TIN	2.25	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

Sample ID: SL-091-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 2:50:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.16	J	1.03	MDL	5.78	PQL	mg/Kg	J	Z
SODIUM	73.5	J	43.1	MDL	116	PQL	mg/Kg	J	Z
TIN	2.30	J	1.16	MDL	11.6	PQL	mg/Kg	U	B

Sample ID: SL-130-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 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
SODIUM	108	J	43.3	MDL	116	PQL	mg/Kg	J	Z
TIN	2.83	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	4.15	J	0.975	MDL	5.80	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 3:20:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	108	J	43.2	MDL	116	PQL	mg/Kg	J	Z
TIN	2.89	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	4.34	J	0.974	MDL	5.80	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-134-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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
BORON	4.17	J	0.964	MDL	5.42	PQL	mg/Kg	J	Z
SODIUM	90.6	J	40.4	MDL	108	PQL	mg/Kg	J	Z
TIN	2.65	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	3.52	J	0.910	MDL	5.42	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-040-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 10:00:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.321		0.0410	MDL	0.103	PQL	mg/Kg	J	Q, E

Sample ID: SL-040-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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
SELENIUM	0.124	J	0.0410	MDL	0.410	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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
MOLYBDENUM	0.458		0.0513	MDL	0.103	PQL	mg/Kg	J	E

Sample ID: SL-040-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 10:00:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	119		0.111	MDL	0.410	PQL	mg/Kg	J	A

Sample ID: SL-040-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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	0.0615	U	0.0615	MDL	0.205	PQL	mg/Kg	UJ	Q
ARSENIC	4.07		0.0820	MDL	0.410	PQL	mg/Kg	J	Q
CHROMIUM	19.2		0.123	MDL	0.410	PQL	mg/Kg	J	E, A
COBALT	6.80		0.0205	MDL	0.103	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-040-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 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
COPPER	12.0		0.0677	MDL	0.410	PQL	mg/Kg	J	Q, A
LEAD	9.16		0.0107	MDL	0.205	PQL	mg/Kg	J	E, A
NICKEL	13.8		0.103	MDL	0.410	PQL	mg/Kg	J	Q, A
SILVER	0.0338	J	0.0123	MDL	0.103	PQL	mg/Kg	J	Z
THALLIUM	0.223		0.0308	MDL	0.103	PQL	mg/Kg	J	Q
VANADIUM	35.5		0.0226	MDL	0.103	PQL	mg/Kg	J	A
ZINC	61.5		0.574	MDL	3.08	PQL	mg/Kg	J	A

Sample ID: **SL-078-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 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
SELENIUM	0.425	J	0.0462	MDL	0.462	PQL	mg/Kg	J	Z

Sample ID: **SL-078-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 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
MOLYBDENUM	0.472		0.0578	MDL	0.116	PQL	mg/Kg	J	E

Sample ID: **SL-078-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 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
BARIUM	99.8		0.125	MDL	0.462	PQL	mg/Kg	J	A

Sample ID: **SL-078-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 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	0.0753	J	0.0694	MDL	0.231	PQL	mg/Kg	J	Z, Q
ARSENIC	5.51		0.0925	MDL	0.462	PQL	mg/Kg	J	Q
CADMIUM	0.238		0.0462	MDL	0.116	PQL	mg/Kg	J	Q, E
CHROMIUM	30.5		0.139	MDL	0.462	PQL	mg/Kg	J	E, A
COBALT	9.51		0.0231	MDL	0.116	PQL	mg/Kg	J	A
COPPER	15.5		0.0763	MDL	0.462	PQL	mg/Kg	J	Q, A
LEAD	9.26		0.0120	MDL	0.231	PQL	mg/Kg	J	E, A
NICKEL	17.7		0.116	MDL	0.462	PQL	mg/Kg	J	Q, A
SILVER	0.0243	J	0.0139	MDL	0.116	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-078-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 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
THALLIUM	0.328		0.0347	MDL	0.116	PQL	mg/Kg	J	Q
VANADIUM	56.4		0.0254	MDL	0.116	PQL	mg/Kg	J	A
ZINC	64.9		0.647	MDL	3.47	PQL	mg/Kg	J	A

Sample ID: SL-079-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 4:30:00 **Analysis Type:** REA3 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.182	J	0.0465	MDL	0.465	PQL	mg/Kg	J	Z

Sample ID: SL-079-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 4:30:00 **Analysis Type:** REA4 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.596		0.0581	MDL	0.116	PQL	mg/Kg	J	E

Sample ID: SL-079-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 4:30:00 **Analysis Type:** REA5 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	114		0.126	MDL	0.465	PQL	mg/Kg	J	A

Sample ID: SL-079-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 4:30:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.130	J	0.0698	MDL	0.233	PQL	mg/Kg	J	Z, Q
ARSENIC	3.52		0.0930	MDL	0.465	PQL	mg/Kg	J	Q
CADMIUM	0.225		0.0465	MDL	0.116	PQL	mg/Kg	J	Q, E
CHROMIUM	19.5		0.140	MDL	0.465	PQL	mg/Kg	J	E, A
COBALT	7.20		0.0233	MDL	0.116	PQL	mg/Kg	J	A
COPPER	12.1		0.0767	MDL	0.465	PQL	mg/Kg	J	Q, A
LEAD	17.2		0.0121	MDL	0.233	PQL	mg/Kg	J	E, A
NICKEL	13.6		0.116	MDL	0.465	PQL	mg/Kg	J	Q, A
SILVER	0.0384	J	0.0140	MDL	0.116	PQL	mg/Kg	J	Z
THALLIUM	0.278		0.0349	MDL	0.116	PQL	mg/Kg	J	Q
VANADIUM	35.8		0.0256	MDL	0.116	PQL	mg/Kg	J	A
ZINC	58.8		0.651	MDL	3.49	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-082-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 3:35:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.236	J	0.0441	MDL	0.441	PQL	mg/Kg	J	Z

Sample ID: **SL-082-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 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
MOLYBDENUM	0.736		0.0551	MDL	0.110	PQL	mg/Kg	J	E

Sample ID: **SL-082-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 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
BARIUM	116		0.119	MDL	0.441	PQL	mg/Kg	J	A

Sample ID: **SL-082-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 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	0.0985	J	0.0662	MDL	0.221	PQL	mg/Kg	J	Z, Q
ARSENIC	4.77		0.0882	MDL	0.441	PQL	mg/Kg	J	Q
CADMIUM	0.289		0.0441	MDL	0.110	PQL	mg/Kg	J	Q, E
CHROMIUM	22.9		0.132	MDL	0.441	PQL	mg/Kg	J	E, A
COBALT	7.11		0.0221	MDL	0.110	PQL	mg/Kg	J	A
COPPER	12.8		0.0728	MDL	0.441	PQL	mg/Kg	J	Q, A
LEAD	26.9		0.0115	MDL	0.221	PQL	mg/Kg	J	E, A
NICKEL	14.6		0.110	MDL	0.441	PQL	mg/Kg	J	Q, A
THALLIUM	0.374		0.0331	MDL	0.110	PQL	mg/Kg	J	Q
VANADIUM	43.8		0.0243	MDL	0.110	PQL	mg/Kg	J	A
ZINC	93.5		0.617	MDL	3.31	PQL	mg/Kg	J	A

Sample ID: **SL-089-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 4:10:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.302		0.0465	MDL	0.116	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-089-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 4:10:00 **Analysis Type:** REA3 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.217	J	0.0465	MDL	0.465	PQL	mg/Kg	J	Z

Sample ID: SL-089-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 4:10:00 **Analysis Type:** REA4 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.573		0.0581	MDL	0.116	PQL	mg/Kg	J	E

Sample ID: SL-089-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 4:10:00 **Analysis Type:** REA5 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	126		0.125	MDL	0.465	PQL	mg/Kg	J	A

Sample ID: SL-089-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 4:10:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.127	J	0.0697	MDL	0.232	PQL	mg/Kg	J	Z, Q
ARSENIC	4.61		0.0929	MDL	0.465	PQL	mg/Kg	J	Q
CHROMIUM	26.0		0.139	MDL	0.465	PQL	mg/Kg	J	E, A
COBALT	9.44		0.0232	MDL	0.116	PQL	mg/Kg	J	A
COPPER	14.7		0.0767	MDL	0.465	PQL	mg/Kg	J	Q, A
LEAD	11.5		0.0121	MDL	0.232	PQL	mg/Kg	J	E, A
NICKEL	16.6		0.116	MDL	0.465	PQL	mg/Kg	J	Q, A
SILVER	0.0491	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z
THALLIUM	0.313		0.0348	MDL	0.116	PQL	mg/Kg	J	Q
VANADIUM	48.4		0.0256	MDL	0.116	PQL	mg/Kg	J	A
ZINC	63.6		0.650	MDL	3.48	PQL	mg/Kg	J	A

Sample ID: SL-090-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 4:45:00 **Analysis Type:** REA **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.265		0.0355	MDL	0.118	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-090-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 4:45:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.153	J	0.0473	MDL	0.473	PQL	mg/Kg	J	Z

Sample ID: **SL-090-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 4:45:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.680		0.0592	MDL	0.118	PQL	mg/Kg	J	E

Sample ID: **SL-090-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 4:45:00** ***Analysis Type:*** **REA5** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	98.4		0.128	MDL	0.473	PQL	mg/Kg	J	A

Sample ID: **SL-090-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 4:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0875	J	0.0710	MDL	0.237	PQL	mg/Kg	J	Z, Q
ARSENIC	3.60		0.0947	MDL	0.473	PQL	mg/Kg	J	Q
CADMIUM	0.189		0.0473	MDL	0.118	PQL	mg/Kg	J	Q, E
CHROMIUM	17.6		0.142	MDL	0.473	PQL	mg/Kg	J	E, A
COBALT	6.31		0.0237	MDL	0.118	PQL	mg/Kg	J	A
COPPER	9.77		0.0781	MDL	0.473	PQL	mg/Kg	J	Q, A
LEAD	9.93		0.0123	MDL	0.237	PQL	mg/Kg	J	E, A
NICKEL	11.4		0.118	MDL	0.473	PQL	mg/Kg	J	Q, A
SILVER	0.0293	J	0.0142	MDL	0.118	PQL	mg/Kg	J	Z
VANADIUM	34.2		0.0260	MDL	0.118	PQL	mg/Kg	J	A
ZINC	56.9		0.663	MDL	3.55	PQL	mg/Kg	J	A

Sample ID: **SL-091-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 2:50:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.155	J	0.0476	MDL	0.476	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-091-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 2:50:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.670		0.0595	MDL	0.119	PQL	mg/Kg	J	E

Sample ID: SL-091-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 2:50:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	84.0		0.129	MDL	0.476	PQL	mg/Kg	J	A

Sample ID: SL-091-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 2:50:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.136	J	0.0714	MDL	0.238	PQL	mg/Kg	J	Z, Q
ARSENIC	3.51		0.0952	MDL	0.476	PQL	mg/Kg	J	Q
CADMIUM	0.134		0.0476	MDL	0.119	PQL	mg/Kg	J	Q, E
CHROMIUM	17.5		0.143	MDL	0.476	PQL	mg/Kg	J	E, A
COBALT	5.88		0.0238	MDL	0.119	PQL	mg/Kg	J	A
COPPER	9.14		0.0786	MDL	0.476	PQL	mg/Kg	J	Q, A
LEAD	14.3		0.0124	MDL	0.238	PQL	mg/Kg	J	E, A
NICKEL	11.4		0.119	MDL	0.476	PQL	mg/Kg	J	Q, A
SILVER	0.0488	J	0.0143	MDL	0.119	PQL	mg/Kg	J	Z
THALLIUM	0.345		0.0357	MDL	0.119	PQL	mg/Kg	J	Q
VANADIUM	34.7		0.0262	MDL	0.119	PQL	mg/Kg	J	A
ZINC	61.5		0.667	MDL	3.57	PQL	mg/Kg	J	A

Sample ID: SL-130-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 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
SELENIUM	0.273	J	0.0455	MDL	0.455	PQL	mg/Kg	J	Z

Sample ID: SL-130-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 9:45:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.837		0.0569	MDL	0.114	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-130-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 9:45:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	130		0.123	MDL	0.455	PQL	mg/Kg	J	A

Sample ID: SL-130-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 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	0.0973	J	0.0683	MDL	0.228	PQL	mg/Kg	J	Z, Q
ARSENIC	5.19		0.0911	MDL	0.455	PQL	mg/Kg	J	Q
CADMIUM	0.393		0.0455	MDL	0.114	PQL	mg/Kg	J	Q, E
CHROMIUM	31.8		0.137	MDL	0.455	PQL	mg/Kg	J	E, A
COBALT	10.2		0.0228	MDL	0.114	PQL	mg/Kg	J	A
COPPER	17.5		0.0751	MDL	0.455	PQL	mg/Kg	J	Q, A
LEAD	14.0		0.0118	MDL	0.228	PQL	mg/Kg	J	E, A
NICKEL	20.1		0.114	MDL	0.455	PQL	mg/Kg	J	Q, A
SILVER	0.0500	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z
THALLIUM	0.327		0.0341	MDL	0.114	PQL	mg/Kg	J	Q
VANADIUM	58.9		0.0250	MDL	0.114	PQL	mg/Kg	J	A
ZINC	84.5		0.637	MDL	3.41	PQL	mg/Kg	J	A

Sample ID: SL-133-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 3:20:00 ***Analysis Type:*** REA ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	166		0.0304	MDL	0.585	PQL	mg/Kg	J	E, A

Sample ID: SL-133-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 3:20:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.169	J	0.0468	MDL	0.468	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 3:20:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.901		0.0585	MDL	0.117	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-133-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 3:20:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	132		0.126	MDL	0.468	PQL	mg/Kg	J	A

Sample ID: SL-133-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 3:20:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.117	J	0.0703	MDL	0.234	PQL	mg/Kg	J	Z, Q
ARSENIC	5.37		0.0937	MDL	0.468	PQL	mg/Kg	J	Q
CADMIUM	0.559		0.0468	MDL	0.117	PQL	mg/Kg	J	Q, E
CHROMIUM	57.1		0.141	MDL	0.468	PQL	mg/Kg	J	E, A
COBALT	9.52		0.0234	MDL	0.117	PQL	mg/Kg	J	A
COPPER	20.3		0.0773	MDL	0.468	PQL	mg/Kg	J	Q, A
NICKEL	44.8		0.117	MDL	0.468	PQL	mg/Kg	J	Q, A
THALLIUM	0.253		0.0351	MDL	0.117	PQL	mg/Kg	J	Q
VANADIUM	48.4		0.0258	MDL	0.117	PQL	mg/Kg	J	A
ZINC	211		0.656	MDL	3.51	PQL	mg/Kg	J	A

Sample ID: SL-134-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 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
THALLIUM	0.274		0.0331	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: SL-134-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 2:05:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.166	J	0.0442	MDL	0.442	PQL	mg/Kg	J	Z

Sample ID: SL-134-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 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
MOLYBDENUM	0.462		0.0552	MDL	0.110	PQL	mg/Kg	J	E

Sample ID: SL-134-SA8N-SS-0.0-0.5 ***Collected:*** 4/14/2011 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
BARIUM	119		0.119	MDL	0.442	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-134-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 2:05:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.294		0.0663	MDL	0.221	PQL	mg/Kg	J	Q
ARSENIC	5.08		0.0884	MDL	0.442	PQL	mg/Kg	J	Q
CADMIUM	0.278		0.0442	MDL	0.110	PQL	mg/Kg	J	Q, E
CHROMIUM	27.7		0.133	MDL	0.442	PQL	mg/Kg	J	E, A
COBALT	8.27		0.0221	MDL	0.110	PQL	mg/Kg	J	A
COPPER	14.1		0.0729	MDL	0.442	PQL	mg/Kg	J	Q, A
LEAD	11.9		0.0115	MDL	0.221	PQL	mg/Kg	J	E, A
NICKEL	17.3		0.110	MDL	0.442	PQL	mg/Kg	J	Q, A
SILVER	0.0573	J	0.0133	MDL	0.110	PQL	mg/Kg	J	Z
VANADIUM	49.1		0.0243	MDL	0.110	PQL	mg/Kg	J	A
ZINC	72.4		0.619	MDL	3.31	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-078-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 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	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-082-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 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	0.57	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-091-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 2:50:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.54	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-130-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 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	0.72	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-133-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 3:20:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.67	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-134-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 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	0.68	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-079-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 4:30:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0202	J	0.0034	MDL	0.117	PQL	mg/Kg	J	Z, Q

Sample ID: SL-082-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 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	0.167		0.0031	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: SL-090-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 4:45:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0185	J	0.0034	MDL	0.118	PQL	mg/Kg	J	Z, Q

Sample ID: SL-091-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 2:50:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0235	J	0.0033	MDL	0.116	PQL	mg/Kg	J	Z, Q

Sample ID: SL-130-SA8N-SS-0.0-0.5 **Collected:** 4/14/2011 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
MERCURY	0.139		0.0032	MDL	0.113	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-133-SA8N-SS-0.0-0.5 **Collected: 4/14/2011 3:20:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.313		0.0032	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: SL-134-SA8N-SS-0.0-0.5 **Collected: 4/14/2011 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	0.0527	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z, Q

Method Category: SVOA

Method: 1625C **Matrix: AQ**

Sample ID: EB04-SA8N-SS-041411 **Collected: 4/14/2011 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
N-NITROSODIMETHYLAMINE	0.962	U	0.962	MDL	1.92	PQL	ng/L	UJ	L

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: DUP03-SA8N-QC-041411 **Collected: 4/14/2011 3:25:00** **Analysis Type: RES-BASE/NEUTRAL** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	39.2		19.1	MDL	38.3	PQL	ng/Kg	J	FD

Sample ID: SL-082-SA8N-SS-0.0-0.5 **Collected: 4/14/2011 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
N-NITROSODIMETHYLAMINE	19.2	J	18.3	MDL	36.6	PQL	ng/Kg	J	Z

Sample ID: SL-133-SA8N-SS-0.0-0.5 **Collected: 4/14/2011 3:20:00** **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	300	J	192	MDL	384	PQL	ng/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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-040-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 10:00:00 *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)	14	J	8.6	MDL	26	PQL	mg/Kg	J	Z

Sample ID: SL-078-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 11:10:00 *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)	0.70	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-079-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 4:30:00 *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)	2.2	J	0.97	MDL	2.9	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-040-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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
AROCLOR 1254	1.3	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
AROCLOR 1260	0.65	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-078-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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	1.0	J	0.45	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-090-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 4:45:00 *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	0.89	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
AROCLOR 1260	0.65	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5460	1.3	J	1.2	MDL	3.9	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-091-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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 1260	1.8	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-040-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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(G,H,I)PERYLENE	28	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	18	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-078-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	21	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-079-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 4:30:00 *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	33	J	20	MDL	400	PQL	ug/Kg	J	Z

Sample ID: SL-082-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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-ETHYLHEXYL)PHTHALATE	19	J	19	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-089-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 4:10:00 *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	24	J	20	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-090-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 4:45:00 *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	27	J	20	MDL	390	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-091-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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	31	J	20	MDL	400	PQL	ug/Kg	J	Z

Sample ID: SL-130-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	31	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-133-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 3:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	1400	U	1400	MDL	3900	PQL	ug/Kg	R	Q
BENZO(A)ANTHRACENE	20	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	21	J	19	MDL	190	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	67	J	19	MDL	390	PQL	ug/Kg	J	Z
Butylbenzylphthalate	25	J	19	MDL	190	PQL	ug/Kg	J	Z
CARBAZOLE	21	J	19	MDL	190	PQL	ug/Kg	J	Z
CHRYSENE	26	J	19	MDL	190	PQL	ug/Kg	J	Z
Di-n-butylphthalate	22	J	19	MDL	190	PQL	ug/Kg	J	Z
FLUORANTHENE	41	J	19	MDL	190	PQL	ug/Kg	J	Z
PHENANTHRENE	21	J	19	MDL	190	PQL	ug/Kg	J	Z
PYRENE	37	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: SL-134-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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	21	J	19	MDL	380	PQL	ug/Kg	J	Z

Method Category: SVOA

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

Sample ID: SL-040-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 10:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	1.9	J	1.8	MDL	8.9	PQL	ug/Kg	J	Z
NAPHTHALENE	4.7	J	3.6	MDL	8.9	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: **SL-078-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 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
CHRYSENE	0.67	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.1	J	6.9	MDL	21	PQL	ug/Kg	J	Z
PHENANTHRENE	0.95	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-079-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 4:30:00** ***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	0.49	J	0.40	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: **SL-082-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 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
2-METHYLNAPHTHALENE	0.88	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
ANTHRACENE	0.46	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.2	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.6	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.5	J	0.74	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	9.1	J	6.7	MDL	20	PQL	ug/Kg	J	Z
FLUORENE	0.83	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

Sample ID: **SL-089-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 4:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.41	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: **SL-090-SA8N-SS-0.0-0.5** ***Collected:*** **4/14/2011 4:45:00** ***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(B)FLUORANTHENE	1.5	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
CHRYSENE	1.7	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
NAPHTHALENE	1.0	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
PHENANTHRENE	1.3	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
PYRENE	1.4	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-091-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 2:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	4.0	J	3.9	MDL	9.8	PQL	ug/Kg	J	Z
CHRYSENE	3.3	J	2.0	MDL	9.8	PQL	ug/Kg	J	Z
FLUORANTHENE	4.0	J	3.9	MDL	9.8	PQL	ug/Kg	J	Z
NAPHTHALENE	6.1	J	3.9	MDL	9.8	PQL	ug/Kg	J	Z

Sample ID: SL-130-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 9:45:00 *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	2.5	J	1.9	MDL	9.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	4.2	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	7.4	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	4.3	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z
Di-n-octylphthalate	48	J	35	MDL	100	PQL	ug/Kg	J	Z
NAPHTHALENE	5.0	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z

Sample ID: SL-133-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 3:20:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	1.2	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.66	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.3	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.99	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
FLUORENE	0.95	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.93	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-134-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 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(A)ANTHRACENE	1.6	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.8	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.7	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.4	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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8330A **Matrix: AQ**

Sample ID: EB04-SA8N-SS-041411 *Collected:* 4/14/2011 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
Tetryl	0.40	U	0.40	MDL	0.60	PQL	ug/L	UJ	L

Method Category: VOA

Method: 8015B **Matrix: SO**

Sample ID: SL-079-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 4:30:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m-Terphenyl	1.8	U	1.8	MDL	4.2	PQL	mg/Kg	UJ	S
O-TERPHENYL	1.8	U	1.8	MDL	4.2	PQL	mg/Kg	UJ	S
p-Terphenyl	1.8	U	1.8	MDL	4.2	PQL	mg/Kg	UJ	S

Sample ID: SL-082-SA8N-SS-0.0-0.5 *Collected:* 4/14/2011 3:35:00 *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	S
O-TERPHENYL	1.7	U	1.7	MDL	3.9	PQL	mg/Kg	UJ	S
p-Terphenyl	1.7	U	1.7	MDL	3.9	PQL	mg/Kg	UJ	S

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_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: DE127 **Laboratory: LL**

EDD Filename: DE127_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: DE127 **Laboratory: LL**

EDD Filename: DE127_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

DE127

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 9040B **Preparation Method: 3510C**

Matrix: AQ

Sample ID	*Type*	*Actual*	*Criteria*	*Units*	*Flag*
EB04-SA8N-SS-041411 (RES)	Sampling To Analysis	103.00	48.00	HOURS	J (all detects) UJ (all non-detects)

Method Blank Outlier Report

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11208CB221812	4/27/2011 6:12:00 PM	ALUMINUM	5.43 mg/Kg	SL-040-SA8N-SS-0.0-0.5
		CALCIUM	10.0 mg/Kg	SL-078-SA8N-SS-0.0-0.5
		LITHIUM	0.41 mg/Kg	SL-079-SA8N-SS-0.0-0.5
		PHOSPHORUS	1.22 mg/Kg	SL-082-SA8N-SS-0.0-0.5
		TIN	1.33 mg/Kg	SL-089-SA8N-SS-0.0-0.5
				SL-090-SA8N-SS-0.0-0.5
				SL-091-SA8N-SS-0.0-0.5
				SL-130-SA8N-SS-0.0-0.5
				SL-133-SA8N-SS-0.0-0.5
				SL-134-SA8N-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-040-SA8N-SS-0.0-0.5(RES)	TIN	2.61 mg/Kg	2.61U mg/Kg
SL-078-SA8N-SS-0.0-0.5(RES)	TIN	2.49 mg/Kg	2.49U mg/Kg
SL-079-SA8N-SS-0.0-0.5(RES)	TIN	2.59 mg/Kg	2.59U mg/Kg
SL-082-SA8N-SS-0.0-0.5(RES)	TIN	2.76 mg/Kg	2.76U mg/Kg
SL-089-SA8N-SS-0.0-0.5(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-090-SA8N-SS-0.0-0.5(RES)	TIN	2.25 mg/Kg	2.25U mg/Kg
SL-091-SA8N-SS-0.0-0.5(RES)	TIN	2.30 mg/Kg	2.30U mg/Kg
SL-130-SA8N-SS-0.0-0.5(RES)	TIN	2.83 mg/Kg	2.83U mg/Kg
SL-133-SA8N-SS-0.0-0.5(RES)	TIN	2.89 mg/Kg	2.89U mg/Kg
SL-134-SA8N-SS-0.0-0.5(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11226AB221105A	4/25/2011 11:05:00 AM	VANADIUM	0.0708 mg/Kg	SL-040-SA8N-SS-0.0-0.5
				SL-078-SA8N-SS-0.0-0.5
				SL-079-SA8N-SS-0.0-0.5
				SL-082-SA8N-SS-0.0-0.5
				SL-089-SA8N-SS-0.0-0.5
				SL-090-SA8N-SS-0.0-0.5
				SL-091-SA8N-SS-0.0-0.5
				SL-130-SA8N-SS-0.0-0.5
				SL-133-SA8N-SS-0.0-0.5
				SL-134-SA8N-SS-0.0-0.5

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_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-133-SA8N-SS-0.0-0.5MS SL-133-SA8N-SS-0.0-0.5MSD (SL-133-SA8N-SS-0.0-0.5)	BIS(2-ETHYLHEXYL)PHTHALAT	-7	17	39.00-167.00	-	BIS(2-ETHYLHEXYL)PHTHALA	J (all detects) R (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-133-SA8N-SS-0.0-0.5MS SL-133-SA8N-SS-0.0-0.5MSD (SL-133-SA8N-SS-0.0-0.5)	BENZIDINE	0	0	35.00-141.00	-	BENZIDINE	J(all detects) R(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-133-SA8N-SS-0.0-0.5MS SL-133-SA8N-SS-0.0-0.5MSD (SL-133-SA8N-SS-0.0-0.5)	N-NITROSODIMETHYLAMINE	0	0	70.00-130.00	-	N-NITROSODIMETHYLAMINE	No Qual Diluted Out

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-133-SA8N-SS-0.0-0.5MS SL-133-SA8N-SS-0.0-0.5MSD (SL-133-SA8N-SS-0.0-0.5)	AROCLOR 1016 AROCLOR 1260	1932 1953	2507 1165	29.00-146.00 39.00-149.00	- 51 (50.00)	AROCLOR 1016 AROCLOR 1260	No Qual, Diluted Out

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-133-SA8N-SS-0.0-0.5MS SL-133-SA8N-SS-0.0-0.5MSD (SL-133-SA8N-SS-0.0-0.5)	EFH (C12-C14)	124	169	49.00-123.00	30 (20.00)	EFH (C12-C14)	No Qual, Diluted Out
SL-133-SA8N-SS-0.0-0.5MS SL-133-SA8N-SS-0.0-0.5MSD (SL-133-SA8N-SS-0.0-0.5)	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	-63 -161 -738	-59 1080 1327	49.00-123.00 49.00-123.00 49.00-123.00	- 55 (20.00) 42 (20.00)	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	No Qual No Qual, Diluted

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_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-133-SA8N-SS-0.0-0.5MS **SL-133-SA8N-SS-0.0-0.5MSD** (SL-040-SA8N-SS-0.0-0.5 SL-078-SA8N-SS-0.0-0.5 SL-079-SA8N-SS-0.0-0.5 SL-082-SA8N-SS-0.0-0.5 SL-089-SA8N-SS-0.0-0.5 SL-090-SA8N-SS-0.0-0.5 SL-091-SA8N-SS-0.0-0.5 SL-130-SA8N-SS-0.0-0.5 SL-133-SA8N-SS-0.0-0.5 SL-134-SA8N-SS-0.0-0.5)	CHROMIUM COPPER NICKEL THALLIUM VANADIUM	231 - 173 128 -	338 158 274 - 135	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	CHROMIUM COPPER NICKEL THALLIUM VANADIUM	J(all detects) Cr, V No Qual, >4x
SL-133-SA8N-SS-0.0-0.5MS **SL-133-SA8N-SS-0.0-0.5MSD** (SL-040-SA8N-SS-0.0-0.5 SL-078-SA8N-SS-0.0-0.5 SL-079-SA8N-SS-0.0-0.5 SL-082-SA8N-SS-0.0-0.5 SL-089-SA8N-SS-0.0-0.5 SL-090-SA8N-SS-0.0-0.5 SL-091-SA8N-SS-0.0-0.5 SL-130-SA8N-SS-0.0-0.5 SL-133-SA8N-SS-0.0-0.5 SL-134-SA8N-SS-0.0-0.5)	ANTIMONY LEAD ZINC	26 -3906 -68	21 -4107 -88	75.00-125.00 75.00-125.00 75.00-125.00	- - -	ANTIMONY LEAD ZINC	J(all detects) UJ(all non-detects) Sb Post Spike = 94% Pb, Zn No Qual, >4x
SL-133-SA8N-SS-0.0-0.5MS **SL-133-SA8N-SS-0.0-0.5MSD** (SL-040-SA8N-SS-0.0-0.5 SL-078-SA8N-SS-0.0-0.5 SL-079-SA8N-SS-0.0-0.5 SL-082-SA8N-SS-0.0-0.5 SL-089-SA8N-SS-0.0-0.5 SL-090-SA8N-SS-0.0-0.5 SL-091-SA8N-SS-0.0-0.5 SL-130-SA8N-SS-0.0-0.5 SL-133-SA8N-SS-0.0-0.5 SL-134-SA8N-SS-0.0-0.5)	ARSENIC CADMIUM	74 -	- 919	75.00-125.00 75.00-125.00	- 141 (20.00)	ARSENIC CADMIUM	J(all detects) UJ(all non-detects)
SL-133-SA8N-SS-0.0-0.5MS **SL-133-SA8N-SS-0.0-0.5MSD** (SL-040-SA8N-SS-0.0-0.5 SL-078-SA8N-SS-0.0-0.5 SL-079-SA8N-SS-0.0-0.5 SL-082-SA8N-SS-0.0-0.5 SL-089-SA8N-SS-0.0-0.5 SL-090-SA8N-SS-0.0-0.5 SL-091-SA8N-SS-0.0-0.5 SL-130-SA8N-SS-0.0-0.5 SL-133-SA8N-SS-0.0-0.5 SL-134-SA8N-SS-0.0-0.5)	BARIUM	61	61	75.00-125.00	-	BARIUM	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_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-133-SA8N-SS-0.0-0.5MS **SL-133-SA8N-SS-0.0-0.5MSD** (SL-040-SA8N-SS-0.0-0.5 SL-078-SA8N-SS-0.0-0.5 SL-079-SA8N-SS-0.0-0.5 SL-082-SA8N-SS-0.0-0.5 SL-089-SA8N-SS-0.0-0.5 SL-090-SA8N-SS-0.0-0.5 SL-091-SA8N-SS-0.0-0.5 SL-130-SA8N-SS-0.0-0.5 SL-133-SA8N-SS-0.0-0.5 SL-134-SA8N-SS-0.0-0.5)	ALUMINUM CALCIUM IRON MAGNESIUM MANGANESE POTASSIUM TITANIUM	2549 144 2282 315 - 171 325	2444 127 2292 437 175 181 326	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 POTASSIUM TITANIUM	No Qual, >4x
SL-133-SA8N-SS-0.0-0.5MS **SL-133-SA8N-SS-0.0-0.5MSD** (SL-040-SA8N-SS-0.0-0.5 SL-078-SA8N-SS-0.0-0.5 SL-079-SA8N-SS-0.0-0.5 SL-082-SA8N-SS-0.0-0.5 SL-089-SA8N-SS-0.0-0.5 SL-090-SA8N-SS-0.0-0.5 SL-091-SA8N-SS-0.0-0.5 SL-130-SA8N-SS-0.0-0.5 SL-133-SA8N-SS-0.0-0.5 SL-134-SA8N-SS-0.0-0.5)	PHOSPHORUS	33	62	75.00-125.00	-	PHOSPHORUS	No Qual, >4x

Method: 7471A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-133-SA8N-SS-0.0-0.5MSD (SL-040-SA8N-SS-0.0-0.5 SL-078-SA8N-SS-0.0-0.5 SL-079-SA8N-SS-0.0-0.5 SL-082-SA8N-SS-0.0-0.5 SL-089-SA8N-SS-0.0-0.5 SL-090-SA8N-SS-0.0-0.5 SL-091-SA8N-SS-0.0-0.5 SL-130-SA8N-SS-0.0-0.5 SL-133-SA8N-SS-0.0-0.5 SL-134-SA8N-SS-0.0-0.5)	MERCURY	-	138	65.00-135.00	-	MERCURY	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-133-SA8N-SS-0.0-0.5MS (DUP03-SA8N-QC-041411 SL-040-SA8N-SS-0.0-0.5 SL-078-SA8N-SS-0.0-0.5 SL-079-SA8N-SS-0.0-0.5 SL-082-SA8N-SS-0.0-0.5 SL-089-SA8N-SS-0.0-0.5 SL-090-SA8N-SS-0.0-0.5 SL-091-SA8N-SS-0.0-0.5 SL-130-SA8N-SS-0.0-0.5 SL-133-SA8N-SS-0.0-0.5)	FLUORIDE Nitrate-NO3	65 69	- -	80.00-120.00 80.00-120.00	- -	FLUORIDE Nitrate-NO3	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: DE127 **Laboratory: LL**

EDD Filename: DE127_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-134-SA8N-SS-0.0-0.5MS (SL-134-SA8N-SS-0.0-0.5)	FLUORIDE	47	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-133-SA8N-SS-0.0-0.5DUP (DUP03-SA8N-QC-041411 SL-040-SA8N-SS-0.0-0.5 SL-078-SA8N-SS-0.0-0.5 SL-079-SA8N-SS-0.0-0.5 SL-082-SA8N-SS-0.0-0.5 SL-089-SA8N-SS-0.0-0.5 SL-090-SA8N-SS-0.0-0.5 SL-091-SA8N-SS-0.0-0.5 SL-130-SA8N-SS-0.0-0.5 SL-133-SA8N-SS-0.0-0.5)	FLUORIDE	24	20.00	No Qual OK by difference

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-133-SA8N-SS-0.0-0.5DUP (SL-040-SA8N-SS-0.0-0.5 SL-078-SA8N-SS-0.0-0.5 SL-079-SA8N-SS-0.0-0.5 SL-082-SA8N-SS-0.0-0.5 SL-089-SA8N-SS-0.0-0.5 SL-090-SA8N-SS-0.0-0.5 SL-091-SA8N-SS-0.0-0.5 SL-130-SA8N-SS-0.0-0.5 SL-133-SA8N-SS-0.0-0.5 SL-134-SA8N-SS-0.0-0.5)	Zirconium	87	20.00	No Qual OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-133-SA8N-SS-0.0-0.5DUP (SL-040-SA8N-SS-0.0-0.5 SL-078-SA8N-SS-0.0-0.5 SL-079-SA8N-SS-0.0-0.5 SL-082-SA8N-SS-0.0-0.5 SL-089-SA8N-SS-0.0-0.5 SL-090-SA8N-SS-0.0-0.5 SL-091-SA8N-SS-0.0-0.5 SL-130-SA8N-SS-0.0-0.5 SL-133-SA8N-SS-0.0-0.5 SL-134-SA8N-SS-0.0-0.5)	CHROMIUM	28	20.00	J(all detects) UJ(all non-detects)
	LEAD	168	20.00	
	MOLYBDENUM	40	20.00	
	SILVER	29	20.00	Ag 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: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P0WFLCSQ261308 (EB04-SA8N-SS-041411)	N-NITROSODIMETHYLAMINE	60	-	70.00-130.00	-	N-NITROSODIMETHYLAMINE	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
P11092AQ240556A **P11092AY240638A** (EB04-SA8N-SS-041411)	Tetryl	50	56	72.00-141.00	-	Tetryl	J(all detects) UJ(all non-detects)

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P0LCLCSQ262231 (SL-040-SA8N-SS-0.0-0.5 SL-078-SA8N-SS-0.0-0.5 SL-079-SA8N-SS-0.0-0.5 SL-082-SA8N-SS-0.0-0.5 SL-089-SA8N-SS-0.0-0.5 SL-090-SA8N-SS-0.0-0.5 SL-091-SA8N-SS-0.0-0.5 SL-130-SA8N-SS-0.0-0.5 SL-133-SA8N-SS-0.0-0.5 SL-134-SA8N-SS-0.0-0.5)	1,2-Diphenylhydrazine/Azobenzen	114	-	77.00-111.00	-	1,2-Diphenylhydrazine/Azobenz	J (all detects)

Method: 8330A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11081AQ241745A (DUP03-SA8N-QC-041411 SL-078-SA8N-SS-0.0-0.5 SL-079-SA8N-SS-0.0-0.5 SL-082-SA8N-SS-0.0-0.5 SL-089-SA8N-SS-0.0-0.5 SL-133-SA8N-SS-0.0-0.5 SL-134-SA8N-SS-0.0-0.5)	2,6-DINITROTOLUENE PETN	121 127	- -	80.00-120.00 80.00-120.00	- -	2,6-DINITROTOLUENE PETN	J(all detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_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*
P11226AQ221108A (SL-040-SA8N-SS-0.0-0.5 SL -078-SA8N-SS-0.0-0.5 SL -079-SA8N-SS-0.0-0.5 SL -082-SA8N-SS-0.0-0.5 SL -089-SA8N-SS-0.0-0.5 SL -090-SA8N-SS-0.0-0.5 SL -091-SA8N-SS-0.0-0.5 SL -130-SA8N-SS-0.0-0.5 SL -133-SA8N-SS-0.0-0.5 SL -134-SA8N-SS-0.0-0.5)	ANTIMONY	66	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Surrogate Outlier Report

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015B
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-079-SA8N-SS-0.0-0.5	n-Triacontane-d62	47	50.00-150.00	All Target Analytes	J (all detects) UJ (all non-detects)
SL-082-SA8N-SS-0.0-0.5	n-Triacontane-d62	45	50.00-150.00	All Target Analytes	J(all detects) UJ(all non-detects)

Method: 8270C SIM
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-090-SA8N-SS-0.0-0.5	Nitrobenzene-d5	153	40.00-130.00	No Affected Compounds	No Qualifiers

Field Duplicate RPD Report

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-133-SA8N-SS-0.0-0.5	DUP03-SA8N-QC-041411			
MOISTURE	14.6	13.5	8		No Qualifiers Applied

Method: 1625C
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-133-SA8N-SS-0.0-0.5	DUP03-SA8N-QC-041411			
N-NITROSODIMETHYLAMINE	300	39.2	154	50.00	J(all detects)

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-133-SA8N-SS-0.0-0.5	DUP03-SA8N-QC-041411			
Nitrate-NO3	9.0	4.9	59	50.00	J(all detects)

Method: 8015M
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-133-SA8N-SS-0.0-0.5	DUP03-SA8N-QC-041411			
EFH (C15-C20)	9.8	10	2	50.00	
EFH (C21-C30)	44	50	13	50.00	No Qualifiers Applied
EFH (C30-C40)	140	140	0	50.00	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-082-SA8N-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	19.2	36.6	PQL	ng/Kg	J (all detects)
SL-133-SA8N-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	300	384	PQL	ng/Kg	J (all detects)

Method: 6010B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-040-SA8N-SS-0.0-0.5	BORON	J	2.98	5.33	PQL	mg/Kg	J (all detects)
	SODIUM	J	90.6	107	PQL	mg/Kg	
	TIN	J	2.61	10.7	PQL	mg/Kg	
	Zirconium	J	2.48	5.33	PQL	mg/Kg	
SL-078-SA8N-SS-0.0-0.5	TIN	J	2.49	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.26	5.67	PQL	mg/Kg	
SL-079-SA8N-SS-0.0-0.5	BORON	J	4.83	5.87	PQL	mg/Kg	J (all detects)
	SODIUM	J	75.2	117	PQL	mg/Kg	
	TIN	J	2.59	11.7	PQL	mg/Kg	
	Zirconium	J	2.71	5.87	PQL	mg/Kg	
SL-082-SA8N-SS-0.0-0.5	BORON	J	2.22	5.51	PQL	mg/Kg	J (all detects)
	SODIUM	J	80.0	110	PQL	mg/Kg	
	TIN	J	2.76	11.0	PQL	mg/Kg	
SL-089-SA8N-SS-0.0-0.5	BORON	J	4.39	5.92	PQL	mg/Kg	J (all detects)
	SODIUM	J	98.3	118	PQL	mg/Kg	
	TIN	J	2.65	11.8	PQL	mg/Kg	
	Zirconium	J	2.36	5.92	PQL	mg/Kg	
SL-090-SA8N-SS-0.0-0.5	BORON	J	2.73	5.74	PQL	mg/Kg	J (all detects)
	SODIUM	J	71.7	115	PQL	mg/Kg	
	TIN	J	2.25	11.5	PQL	mg/Kg	
SL-091-SA8N-SS-0.0-0.5	BORON	J	2.16	5.78	PQL	mg/Kg	J (all detects)
	SODIUM	J	73.5	116	PQL	mg/Kg	
	TIN	J	2.30	11.6	PQL	mg/Kg	
SL-130-SA8N-SS-0.0-0.5	SODIUM	J	108	116	PQL	mg/Kg	J (all detects)
	TIN	J	2.83	11.6	PQL	mg/Kg	
	Zirconium	J	4.15	5.80	PQL	mg/Kg	
SL-133-SA8N-SS-0.0-0.5	SODIUM	J	108	116	PQL	mg/Kg	J (all detects)
	TIN	J	2.89	11.6	PQL	mg/Kg	
	Zirconium	J	4.34	5.80	PQL	mg/Kg	
SL-134-SA8N-SS-0.0-0.5	BORON	J	4.17	5.42	PQL	mg/Kg	J (all detects)
	SODIUM	J	90.6	108	PQL	mg/Kg	
	TIN	J	2.65	10.8	PQL	mg/Kg	
	Zirconium	J	3.52	5.42	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-040-SA8N-SS-0.0-0.5	SELENIUM	J	0.124	0.410	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0338	0.103	PQL	mg/Kg	
SL-078-SA8N-SS-0.0-0.5	ANTIMONY	J	0.0753	0.231	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.425	0.462	PQL	mg/Kg	
	SILVER	J	0.0243	0.116	PQL	mg/Kg	
SL-079-SA8N-SS-0.0-0.5	ANTIMONY	J	0.130	0.233	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.182	0.465	PQL	mg/Kg	
	SILVER	J	0.0384	0.116	PQL	mg/Kg	
SL-082-SA8N-SS-0.0-0.5	ANTIMONY	J	0.0985	0.221	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.236	0.441	PQL	mg/Kg	
SL-089-SA8N-SS-0.0-0.5	ANTIMONY	J	0.127	0.232	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.217	0.465	PQL	mg/Kg	
	SILVER	J	0.0491	0.116	PQL	mg/Kg	
SL-090-SA8N-SS-0.0-0.5	ANTIMONY	J	0.0875	0.237	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.153	0.473	PQL	mg/Kg	
	SILVER	J	0.0293	0.118	PQL	mg/Kg	
SL-091-SA8N-SS-0.0-0.5	ANTIMONY	J	0.136	0.238	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.155	0.476	PQL	mg/Kg	
	SILVER	J	0.0488	0.119	PQL	mg/Kg	
SL-130-SA8N-SS-0.0-0.5	ANTIMONY	J	0.0973	0.228	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.273	0.455	PQL	mg/Kg	
	SILVER	J	0.0500	0.114	PQL	mg/Kg	
SL-133-SA8N-SS-0.0-0.5	ANTIMONY	J	0.117	0.234	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.169	0.468	PQL	mg/Kg	
SL-134-SA8N-SS-0.0-0.5	SELENIUM	J	0.166	0.442	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0573	0.110	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-078-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.40	1.2	PQL	mg/Kg	J (all detects)
SL-082-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.57	1.1	PQL	mg/Kg	J (all detects)
SL-091-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.54	1.2	PQL	mg/Kg	J (all detects)
SL-130-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.72	1.2	PQL	mg/Kg	J (all detects)
SL-133-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.67	1.2	PQL	mg/Kg	J (all detects)
SL-134-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.68	1.1	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-079-SA8N-SS-0.0-0.5	MERCURY	J	0.0202	0.117	PQL	mg/Kg	J (all detects)
SL-090-SA8N-SS-0.0-0.5	MERCURY	J	0.0185	0.118	PQL	mg/Kg	J (all detects)
SL-091-SA8N-SS-0.0-0.5	MERCURY	J	0.0235	0.116	PQL	mg/Kg	J (all detects)
SL-134-SA8N-SS-0.0-0.5	MERCURY	J	0.0527	0.106	PQL	mg/Kg	J (all detects)

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-040-SA8N-SS-0.0-0.5	EFH (C15-C20)	J	14	26	PQL	mg/Kg	J (all detects)
SL-078-SA8N-SS-0.0-0.5	EFH (C21-C30)	J	0.70	1.4	PQL	mg/Kg	J (all detects)
SL-079-SA8N-SS-0.0-0.5	EFH (C15-C20)	J	2.2	2.9	PQL	mg/Kg	J (all detects)

Method: 8082
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-040-SA8N-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260	J J	1.3 0.65	1.8 1.8	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-078-SA8N-SS-0.0-0.5	AROCLOR 1260	J	1.0	2.0	PQL	ug/Kg	J (all detects)
SL-090-SA8N-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	0.89 0.65 1.3	2.0 2.0 3.9	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-091-SA8N-SS-0.0-0.5	AROCLOR 1260	J	1.8	2.0	PQL	ug/Kg	J (all detects)

Method: 8270C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-040-SA8N-SS-0.0-0.5	BENZO(G,H,I)PERYLENE BIS(2-ETHYLHEXYL)PHTHALATE	J J	28 18	180 360	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-078-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	21	380	PQL	ug/Kg	J (all detects)
SL-079-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	33	400	PQL	ug/Kg	J (all detects)
SL-082-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	19	370	PQL	ug/Kg	J (all detects)
SL-089-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	390	PQL	ug/Kg	J (all detects)
SL-090-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	390	PQL	ug/Kg	J (all detects)
SL-091-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	31	400	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-130-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	31	390	PQL	ug/Kg	J (all detects)
SL-133-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	20	190	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	21	190	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	67	390	PQL	ug/Kg	
	Butylbenzylphthalate	J	25	190	PQL	ug/Kg	
	CARBAZOLE	J	21	190	PQL	ug/Kg	
	CHRYSENE	J	26	190	PQL	ug/Kg	
	Di-n-butylphthalate	J	22	190	PQL	ug/Kg	
	FLUORANTHENE	J	41	190	PQL	ug/Kg	
	PHENANTHRENE	J	21	190	PQL	ug/Kg	
	PYRENE	J	37	190	PQL	ug/Kg	
SL-134-SA8N-SS-0.0-0.5	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-040-SA8N-SS-0.0-0.5	CHRYSENE	J	1.9	8.9	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	4.7	8.9	PQL	ug/Kg	
SL-078-SA8N-SS-0.0-0.5	CHRYSENE	J	0.67	1.9	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	9.1	21	PQL	ug/Kg	
	PHENANTHRENE	J	0.95	1.9	PQL	ug/Kg	
SL-079-SA8N-SS-0.0-0.5	CHRYSENE	J	0.49	2.0	PQL	ug/Kg	J (all detects)
SL-082-SA8N-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.88	1.8	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.46	1.8	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.2	1.8	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.6	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.5	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.5	1.8	PQL	ug/Kg	
	Di-n-octylphthalate	J	9.1	20	PQL	ug/Kg	
	FLUORENE	J	0.83	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.8	PQL	ug/Kg	
SL-089-SA8N-SS-0.0-0.5	CHRYSENE	J	0.41	2.0	PQL	ug/Kg	J (all detects)
SL-090-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.5	2.0	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	1.7	2.0	PQL	ug/Kg	
	NAPHTHALENE	J	1.0	2.0	PQL	ug/Kg	
	PHENANTHRENE	J	1.3	2.0	PQL	ug/Kg	
	PYRENE	J	1.4	2.0	PQL	ug/Kg	
SL-091-SA8N-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	4.0	9.8	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	3.3	9.8	PQL	ug/Kg	
	FLUORANTHENE	J	4.0	9.8	PQL	ug/Kg	
	NAPHTHALENE	J	6.1	9.8	PQL	ug/Kg	
SL-130-SA8N-SS-0.0-0.5	ANTHRACENE	J	2.5	9.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	4.2	9.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	7.4	9.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	4.3	9.7	PQL	ug/Kg	
	Di-n-octylphthalate	J	48	100	PQL	ug/Kg	
	NAPHTHALENE	J	5.0	9.7	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE127 **Laboratory: LL**

EDD Filename: DE127_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-133-SA8N-SS-0.0-0.5	ACENAPHTHENE	J	1.2	1.9	PQL	ug/Kg	
	ACENAPHTHYLENE	J	0.66	1.9	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.3	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.2	1.9	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	0.99	1.9	PQL	ug/Kg	
	FLUORENE	J	0.95	1.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.93	1.9	PQL	ug/Kg	
SL-134-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.6	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.8	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.7	1.9	PQL	ug/Kg	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	1.4	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	1.9	PQL	ug/Kg	

Method: 9012B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-079-SA8N-SS-0.0-0.5	CYANIDE	J	0.30	0.62	PQL	mg/Kg	J (all detects)

LDC #: 25916I4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-1

SDG #: DE127 ADR

Laboratory: Lancaster Laboratories

Reviewer: VR

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	MSD(Al, Ba, Ca, Cr, Fe, Pb, Mg, Mn, P, K, Ti, V, Zn >4x)
VII.	Duplicate Sample Analysis	N	Dup(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	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-040-SA8N-SS-0.0-0.5	11	SL-133-SA8N-SS-0.0-0.5MS	21		31	
2	SL-078-SA8N-SS-0.0-0.5	12	SL-133-SA8N-SS-0.0-0.5MSD	22		32	
3	SL-079-SA8N-SS-0.0-0.5	13	SL-133-SA8N-SS-0.0-0.5DUP	23		33	
4	SL-082-SA8N-SS-0.0-0.5	14		24		34	
5	SL-089-SA8N-SS-0.0-0.5	15		25		35	
6	SL-090-SA8N-SS-0.0-0.5	16		26		36	
7	SL-091-SA8N-SS-0.0-0.5	17		27		37	
8	SL-130-SA8N-SS-0.0-0.5	18		28		38	
9	SL-133-SA8N-SS-0.0-0.5	19		29		39	
10	SL-134-SA8N-SS-0.0-0.5	20		30		40	

Notes:

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE127
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6259054BKG Serial Dilution Lab Sample ID: 6259054L
Batch ID(s): P11208C, P11226A
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		198614.2100		205118.4500		3		P
Antimony	121	0.5008	B	1.5000	U	100		MS
Arsenic	75	22.9400		31.8550		39		MS
Barium	137	565.3000		679.5000		20	E	MS
Beryllium	9	2.9770		3.4810		17		MS
Boron		59.7000		85.4000	B	43		P
Cadmium	111	2.3860		1.5985	B	33		MS
Calcium		68913.0700		72616.6000		5		P
Chromium	52	243.8000		286.8000		18	E	MS
Cobalt	59	40.6600		49.1800		21	E	MS
Copper	63	86.4700		97.3500		13	E	MS
Iron		236747.9100		239662.5000		1		P
Lead	208	282.9000		780.5000		176	E	MS
Lithium		196.3300		204.2000		4		P
Magnesium		53411.2800		54965.3000		3		P
Manganese		3602.0100		3835.0000		6		P
Molybdenum	98	3.8490		4.8785		27		MS
Nickel	60	191.2000		224.8000		18	E	MS
Phosphorus		4836.7800		4957.3000		2		P
Potassium		45057.6200		45932.3000		2		P
Selenium	78	0.7215	B	1.0000	U	100		MS
Silver	107	1.2360		1.5195	B	23		MS
Sodium		927.3500	B	1865.0000	U	100		P
Strontium		238.1000		244.4000		3		P
Thallium	203	1.0790		1.2345	B	14		MS
Tin		24.9000	B	50.0000	U	100		P
Titanium		11035.1200		11644.7500		6		P
Vanadium	51	206.6000		241.6500		17	E	MS
Zinc	66	898.9000		1009.0000		12	E	MS
Zirconium		37.4600	B	46.1000	B	23		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: DE127 3231
U= Below MDL
B= Below LOQ
FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

SAMPLE DELIVERY GROUP

DE129

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-Apr-2011	TB-041511	6260138	TB	5030B	8015M	III
15-Apr-2011	TB-041511	6260138	TB	5030B	8260B	III
15-Apr-2011	TB-041511	6260138	TB	5030B	8260B SIM	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	3050B	6010B	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	3050B	6020	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	3060A	7199	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	3546	1625C	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	3550B	8015B	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	3550B	8015M	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	3550B	8082	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	3550B	8270C	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	3550B	8270C SIM	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	8330	8330A	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	Gen Prep	9045M	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	METHOD	300.0	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	METHOD	314.0	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	METHOD	7471A	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	METHOD	8015B	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	METHOD	8015M	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	METHOD	8315A	III
15-Apr-2011	SL-141-SA8N-SS-0.0-0.5	6260133	N	METHOD	9012B	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	3050B	6010B	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	3050B	6020	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	3060A	7199	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	3546	1625C	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	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-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	3550B	8015M	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	3550B	8082	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	3550B	8270C	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	3550B	8270C SIM	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	8330	8330A	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	Gen Prep	9045M	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	METHOD	300.0	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	METHOD	314.0	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	METHOD	7471A	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	METHOD	8015B	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	METHOD	8015M	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	METHOD	8315A	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5	6260131	N	METHOD	9012B	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5DUP	P260131D271804B	DUP	METHOD	300.0	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5DUP	P260131D271931B	DUP	METHOD	314.0	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5MS	P260131R271819B	MS	METHOD	300.0	III
15-Apr-2011	SL-062-SA8N-SS-0.0-0.5MS	P260131R271953B	MS	METHOD	314.0	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	3050B	6010B	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	3050B	6020	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	3060A	7199	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	3546	1625C	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	3550B	8015B	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	3550B	8015M	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	3550B	8082	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	3550B	8270C	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	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
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	5035	8015M	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	5035	8260B	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	5035	8260B SIM	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	8330	8330A	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	Gen Prep	9045M	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	METHOD	300.0	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	METHOD	314.0	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	METHOD	7471A	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	METHOD	8015B	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	METHOD	8015M	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	METHOD	8315A	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0	6260136	N	METHOD	9012B	III
15-Apr-2011	SL-052-SA5A-SB-4.0-5.0DUP	P260136D291100A	DUP	Gen Prep	9045M	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	3050B	6010B	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	3050B	6020	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	3060A	7199	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	3546	1625C	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	3550B	8015B	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	3550B	8015M	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	3550B	8082	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	3550B	8270C	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	3550B	8270C SIM	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	8330	8330A	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	Gen Prep	9045M	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	METHOD	300.0	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	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
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	METHOD	7471A	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	METHOD	8015B	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	METHOD	8015M	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	METHOD	8315A	III
15-Apr-2011	SL-067-SA8N-SS-0.0-0.5	6260132	N	METHOD	9012B	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	3050B	6010B	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	3050B	6020	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	3060A	7199	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	3546	1625C	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	3550B	8015B	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	3550B	8015M	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	3550B	8082	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	3550B	8270C	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	3550B	8270C SIM	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	5035	8015M	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	5035	8260B	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	5035	8260B SIM	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	8330	8330A	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	Gen Prep	9045M	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	METHOD	300.0	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	METHOD	314.0	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	METHOD	7471A	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	METHOD	8015B	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	METHOD	8015M	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	N	METHOD	8315A	III
15-Apr-2011	SL-243-SA5A-SB-4.0-5.0	6260137	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*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
15-Apr-2011	SL-044-SA5A-SB-3.0-4.0	6260135	N	3050B	6010B	III
15-Apr-2011	SL-044-SA5A-SB-3.0-4.0	6260135	N	3050B	6020	III
15-Apr-2011	SL-044-SA5A-SB-3.0-4.0	6260135	N	3060A	7199	III
15-Apr-2011	SL-044-SA5A-SB-3.0-4.0	6260135	N	3550B	8082	III
15-Apr-2011	SL-044-SA5A-SB-3.0-4.0	6260135	N	3550B	8270C	III
15-Apr-2011	SL-044-SA5A-SB-3.0-4.0	6260135	N	3550B	8270C SIM	III
15-Apr-2011	SL-044-SA5A-SB-3.0-4.0	6260135	N	5035	8260B	III
15-Apr-2011	SL-044-SA5A-SB-3.0-4.0	6260135	N	5035	8260B SIM	III
15-Apr-2011	SL-044-SA5A-SB-3.0-4.0	6260135	N	Gen Prep	9045M	III
15-Apr-2011	SL-044-SA5A-SB-3.0-4.0	6260135	N	METHOD	300.0	III
15-Apr-2011	SL-044-SA5A-SB-3.0-4.0	6260135	N	METHOD	314.0	III
15-Apr-2011	SL-044-SA5A-SB-3.0-4.0	6260135	N	METHOD	7471A	III
15-Apr-2011	SL-041-SA5A-SB-4.0-5.0	6260134	N	3050B	6010B	III
15-Apr-2011	SL-041-SA5A-SB-4.0-5.0	6260134	N	3050B	6020	III
15-Apr-2011	SL-041-SA5A-SB-4.0-5.0	6260134	N	3060A	7199	III
15-Apr-2011	SL-041-SA5A-SB-4.0-5.0	6260134	N	3550B	8082	III
15-Apr-2011	SL-041-SA5A-SB-4.0-5.0	6260134	N	3550B	8270C	III
15-Apr-2011	SL-041-SA5A-SB-4.0-5.0	6260134	N	3550B	8270C SIM	III
15-Apr-2011	SL-041-SA5A-SB-4.0-5.0	6260134	N	5035	8260B	III
15-Apr-2011	SL-041-SA5A-SB-4.0-5.0	6260134	N	5035	8260B SIM	III
15-Apr-2011	SL-041-SA5A-SB-4.0-5.0	6260134	N	Gen Prep	9045M	III
15-Apr-2011	SL-041-SA5A-SB-4.0-5.0	6260134	N	METHOD	300.0	III
15-Apr-2011	SL-041-SA5A-SB-4.0-5.0	6260134	N	METHOD	314.0	III
15-Apr-2011	SL-041-SA5A-SB-4.0-5.0	6260134	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: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-041-SA5A-SB-4.0-5.0 **Collected: 4/15/2011 3:38:00** **Analysis Type: RES** **Dilution: 1**

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

Sample ID: SL-044-SA5A-SB-3.0-4.0 **Collected: 4/15/2011 12:27:00** **Analysis Type: RES** **Dilution: 1**

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

Sample ID: SL-052-SA5A-SB-4.0-5.0 **Collected: 4/15/2011 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
FLUORIDE	1.7		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-062-SA8N-SS-0.0-0.5 **Collected: 4/15/2011 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	2.4		0.91	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.0	J	0.91	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-067-SA8N-SS-0.0-0.5 **Collected: 4/15/2011 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	2.4		0.98	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-141-SA8N-SS-0.0-0.5 **Collected: 4/15/2011 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	3.2		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-243-SA5A-SB-4.0-5.0 **Collected: 4/15/2011 10:46:00** **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		0.92	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.0	J	0.92	MDL	1.7	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: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: **SL-041-SA5A-SB-4.0-5.0** ***Collected:*** **4/15/2011 3:38:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	68.0	J	41.2	MDL	111	PQL	mg/Kg	J	Z
TIN	2.86	J	1.11	MDL	11.1	PQL	mg/Kg	U	B

Sample ID: **SL-044-SA5A-SB-3.0-4.0** ***Collected:*** **4/15/2011 12:27:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.39	J	0.968	MDL	5.44	PQL	mg/Kg	J	Z
SODIUM	92.1	J	40.6	MDL	109	PQL	mg/Kg	J	Z
TIN	2.87	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.83	J	0.914	MDL	5.44	PQL	mg/Kg	J	Z

Sample ID: **SL-052-SA5A-SB-4.0-5.0** ***Collected:*** **4/15/2011 9:34:00** ***Analysis Type:*** **REA2** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.00	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	2.38	J	0.957	MDL	5.70	PQL	mg/Kg	J	Z

Sample ID: **SL-062-SA8N-SS-0.0-0.5** ***Collected:*** **4/15/2011 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
TIN	2.46	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	3.42	J	0.917	MDL	5.46	PQL	mg/Kg	J	Z

Sample ID: **SL-067-SA8N-SS-0.0-0.5** ***Collected:*** **4/15/2011 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
TIN	2.46	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	3.37	J	0.979	MDL	5.83	PQL	mg/Kg	J	Z

Sample ID: **SL-141-SA8N-SS-0.0-0.5** ***Collected:*** **4/15/2011 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
TIN	2.48	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.49	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: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-243-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 10:46:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.11	J	0.971	MDL	5.45	PQL	mg/Kg	J	Z
SODIUM	97.4	J	40.7	MDL	109	PQL	mg/Kg	J	Z
TIN	2.91	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	2.04	J	0.916	MDL	5.45	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-041-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 3:38:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.102	J	0.0446	MDL	0.446	PQL	mg/Kg	J	Z

Sample ID: SL-041-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 3:38:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.402		0.0558	MDL	0.112	PQL	mg/Kg	J	E

Sample ID: SL-041-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 3:38:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	87.8		0.121	MDL	0.446	PQL	mg/Kg	J	A

Sample ID: SL-041-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 3:38:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0670	U	0.0670	MDL	0.223	PQL	mg/Kg	UJ	Q
ARSENIC	5.89		0.0893	MDL	0.446	PQL	mg/Kg	J	Q
CADMIUM	0.0446	U	0.0446	MDL	0.112	PQL	mg/Kg	UJ	E
CHROMIUM	20.7		0.134	MDL	0.446	PQL	mg/Kg	J	E, A
COBALT	5.61		0.0223	MDL	0.112	PQL	mg/Kg	J	A
COPPER	7.66		0.0737	MDL	0.446	PQL	mg/Kg	J	Q, A
LEAD	5.97		0.0116	MDL	0.223	PQL	mg/Kg	J	E, A
NICKEL	11.8		0.112	MDL	0.446	PQL	mg/Kg	J	Q, A
SILVER	0.0366	J	0.0134	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: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-041-SA5A-SB-4.0-5.0** ***Collected:*** **4/15/2011 3:38:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.232		0.0335	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	39.2		0.0246	MDL	0.112	PQL	mg/Kg	J	A
ZINC	52.0		0.625	MDL	3.35	PQL	mg/Kg	J	A

Sample ID: **SL-044-SA5A-SB-3.0-4.0** ***Collected:*** **4/15/2011 12:27:00** ***Analysis Type:*** **REA** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0903	J	0.0440	MDL	0.440	PQL	mg/Kg	J	Z

Sample ID: **SL-044-SA5A-SB-3.0-4.0** ***Collected:*** **4/15/2011 12:27:00** ***Analysis Type:*** **REA2** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.373		0.0549	MDL	0.110	PQL	mg/Kg	J	E

Sample ID: **SL-044-SA5A-SB-3.0-4.0** ***Collected:*** **4/15/2011 12:27:00** ***Analysis Type:*** **REA3** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	97.1		0.119	MDL	0.440	PQL	mg/Kg	J	A

Sample ID: **SL-044-SA5A-SB-3.0-4.0** ***Collected:*** **4/15/2011 12:27:00** ***Analysis Type:*** **RES** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0659	U	0.0659	MDL	0.220	PQL	mg/Kg	UJ	Q
ARSENIC	6.76		0.0879	MDL	0.440	PQL	mg/Kg	J	Q
CADMIUM	0.0779	J	0.0440	MDL	0.110	PQL	mg/Kg	J	Z, E, Q
CHROMIUM	22.7		0.132	MDL	0.440	PQL	mg/Kg	J	E, A
COBALT	7.57		0.0220	MDL	0.110	PQL	mg/Kg	J	A
COPPER	12.5		0.0725	MDL	0.440	PQL	mg/Kg	J	Q, A
LEAD	7.10		0.0114	MDL	0.220	PQL	mg/Kg	J	E, A
NICKEL	16.0		0.110	MDL	0.440	PQL	mg/Kg	J	Q, A
SILVER	0.0729	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z
THALLIUM	0.318		0.0330	MDL	0.110	PQL	mg/Kg	J	Q
VANADIUM	42.3		0.0242	MDL	0.110	PQL	mg/Kg	J	A
ZINC	62.6		0.615	MDL	3.30	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: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: **SL-052-SA5A-SB-4.0-5.0** ***Collected:*** **4/15/2011 9:34:00** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.136	J	0.0684	MDL	0.228	PQL	mg/Kg	J	Z
SILVER	0.0347	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: **SL-052-SA5A-SB-4.0-5.0** ***Collected:*** **4/15/2011 9:34:00** ***Analysis Type:*** **REA6** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0808	J	0.0456	MDL	0.456	PQL	mg/Kg	J	Z

Sample ID: **SL-062-SA8N-SS-0.0-0.5** ***Collected:*** **4/15/2011 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
SELENIUM	0.275	J	0.0445	MDL	0.445	PQL	mg/Kg	J	Z

Sample ID: **SL-062-SA8N-SS-0.0-0.5** ***Collected:*** **4/15/2011 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
MOLYBDENUM	0.326		0.0556	MDL	0.111	PQL	mg/Kg	J	E

Sample ID: **SL-062-SA8N-SS-0.0-0.5** ***Collected:*** **4/15/2011 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
BARIUM	99.0		0.120	MDL	0.445	PQL	mg/Kg	J	A

Sample ID: **SL-062-SA8N-SS-0.0-0.5** ***Collected:*** **4/15/2011 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	0.141	J	0.0668	MDL	0.223	PQL	mg/Kg	J	Z, Q
ARSENIC	5.23		0.0890	MDL	0.445	PQL	mg/Kg	J	Q
CADMIUM	0.226		0.0445	MDL	0.111	PQL	mg/Kg	J	E, Q
CHROMIUM	31.3		0.134	MDL	0.445	PQL	mg/Kg	J	E, A
COBALT	10.3		0.0223	MDL	0.111	PQL	mg/Kg	J	A
COPPER	16.4		0.0734	MDL	0.445	PQL	mg/Kg	J	Q, A
LEAD	9.74		0.0116	MDL	0.223	PQL	mg/Kg	J	E, A
NICKEL	19.3		0.111	MDL	0.445	PQL	mg/Kg	J	Q, A
SILVER	0.0290	J	0.0134	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: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-062-SA8N-SS-0.0-0.5 ***Collected:*** 4/15/2011 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
THALLIUM	0.356		0.0334	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	59.6		0.0245	MDL	0.111	PQL	mg/Kg	J	A
ZINC	75.9		0.623	MDL	3.34	PQL	mg/Kg	J	A

Sample ID: SL-067-SA8N-SS-0.0-0.5 ***Collected:*** 4/15/2011 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
SELENIUM	0.298	J	0.0480	MDL	0.480	PQL	mg/Kg	J	Z

Sample ID: SL-067-SA8N-SS-0.0-0.5 ***Collected:*** 4/15/2011 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
MOLYBDENUM	0.320		0.0600	MDL	0.120	PQL	mg/Kg	J	E

Sample ID: SL-067-SA8N-SS-0.0-0.5 ***Collected:*** 4/15/2011 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
BARIUM	102		0.130	MDL	0.480	PQL	mg/Kg	J	A

Sample ID: SL-067-SA8N-SS-0.0-0.5 ***Collected:*** 4/15/2011 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	0.172	J	0.0720	MDL	0.240	PQL	mg/Kg	J	Z, Q
ARSENIC	5.15		0.0960	MDL	0.480	PQL	mg/Kg	J	Q
CADMIUM	0.270		0.0480	MDL	0.120	PQL	mg/Kg	J	E, Q
CHROMIUM	31.8		0.144	MDL	0.480	PQL	mg/Kg	J	E, A
COBALT	9.63		0.0240	MDL	0.120	PQL	mg/Kg	J	A
COPPER	16.5		0.0792	MDL	0.480	PQL	mg/Kg	J	Q, A
LEAD	10.9		0.0125	MDL	0.240	PQL	mg/Kg	J	E, A
NICKEL	19.1		0.120	MDL	0.480	PQL	mg/Kg	J	Q, A
SILVER	0.0214	J	0.0144	MDL	0.120	PQL	mg/Kg	J	Z
THALLIUM	0.347		0.0360	MDL	0.120	PQL	mg/Kg	J	Q
VANADIUM	59.3		0.0264	MDL	0.120	PQL	mg/Kg	J	A
ZINC	72.9		0.672	MDL	3.60	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: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-141-SA8N-SS-0.0-0.5 ***Collected:*** 4/15/2011 8:35:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.262	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

Sample ID: SL-141-SA8N-SS-0.0-0.5 ***Collected:*** 4/15/2011 8:35:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.297		0.0566	MDL	0.113	PQL	mg/Kg	J	E

Sample ID: SL-141-SA8N-SS-0.0-0.5 ***Collected:*** 4/15/2011 8:35:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	82.4		0.122	MDL	0.453	PQL	mg/Kg	J	A

Sample ID: SL-141-SA8N-SS-0.0-0.5 ***Collected:*** 4/15/2011 8:35:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0680	U	0.0680	MDL	0.227	PQL	mg/Kg	UJ	Q
ARSENIC	4.73		0.0906	MDL	0.453	PQL	mg/Kg	J	Q
CADMIUM	0.173		0.0453	MDL	0.113	PQL	mg/Kg	J	E, Q
CHROMIUM	26.7		0.136	MDL	0.453	PQL	mg/Kg	J	E, A
COBALT	8.46		0.0227	MDL	0.113	PQL	mg/Kg	J	A
COPPER	13.9		0.0748	MDL	0.453	PQL	mg/Kg	J	Q, A
LEAD	8.63		0.0118	MDL	0.227	PQL	mg/Kg	J	E, A
NICKEL	15.8		0.113	MDL	0.453	PQL	mg/Kg	J	Q, A
SILVER	0.0311	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z
THALLIUM	0.290		0.0340	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	50.3		0.0249	MDL	0.113	PQL	mg/Kg	J	A
ZINC	64.1		0.634	MDL	3.40	PQL	mg/Kg	J	A

Sample ID: SL-243-SA5A-SB-4.0-5.0 ***Collected:*** 4/15/2011 10:46:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0567	J	0.0436	MDL	0.436	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: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-243-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 10:46:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.518		0.0545	MDL	0.109	PQL	mg/Kg	J	E

Sample ID: SL-243-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 10:46:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	82.8		0.118	MDL	0.436	PQL	mg/Kg	J	A

Sample ID: SL-243-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 10:46:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0655	U	0.0655	MDL	0.218	PQL	mg/Kg	UJ	Q
ARSENIC	5.17		0.0873	MDL	0.436	PQL	mg/Kg	J	Q
CADMIUM	0.0436	U	0.0436	MDL	0.109	PQL	mg/Kg	UJ	E
CHROMIUM	19.0		0.131	MDL	0.436	PQL	mg/Kg	J	E, A
COBALT	5.76		0.0218	MDL	0.109	PQL	mg/Kg	J	A
COPPER	7.59		0.0720	MDL	0.436	PQL	mg/Kg	J	Q, A
LEAD	6.04		0.0113	MDL	0.218	PQL	mg/Kg	J	E, A
NICKEL	12.1		0.109	MDL	0.436	PQL	mg/Kg	J	Q, A
SILVER	0.0492	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z
THALLIUM	0.190		0.0327	MDL	0.109	PQL	mg/Kg	J	Q
VANADIUM	37.9		0.0240	MDL	0.109	PQL	mg/Kg	J	A
ZINC	41.9		0.611	MDL	3.27	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-044-SA5A-SB-3.0-4.0 *Collected:* 4/15/2011 12:27:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.38	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-052-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 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
HEXAVALENT CHROMIUM	0.42	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: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-062-SA8N-SS-0.0-0.5 *Collected:* 4/15/2011 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	0.48	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-067-SA8N-SS-0.0-0.5 *Collected:* 4/15/2011 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	0.43	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-141-SA8N-SS-0.0-0.5 *Collected:* 4/15/2011 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	0.85	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-243-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 10:46:00 *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

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-052-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 9:34:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0049	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: SL-067-SA8N-SS-0.0-0.5 *Collected:* 4/15/2011 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	0.0054	J	0.0034	MDL	0.119	PQL	mg/Kg	J	Z, Q

Sample ID: SL-141-SA8N-SS-0.0-0.5 *Collected:* 4/15/2011 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
MERCURY	0.0166	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z, 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: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-243-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 10:46:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0102	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z, Q

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-052-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 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
N-NITROSODIMETHYLAMINE	28.9	J	18.9	MDL	37.9	PQL	ng/Kg	J	Z

Sample ID: SL-141-SA8N-SS-0.0-0.5 *Collected:* 4/15/2011 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
N-NITROSODIMETHYLAMINE	37.2	J	18.9	MDL	37.8	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-052-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 9:34:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.80	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-243-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 10:46:00 *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)	0.76	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-062-SA8N-SS-0.0-0.5 *Collected:* 4/15/2011 9:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	2.5	J	1.9	MDL	9.6	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: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA
Method: 8082 **Matrix: SO**

Sample ID: SL-067-SA8N-SS-0.0-0.5 *Collected:* 4/15/2011 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	1.4	J	0.40	MDL	2.1	PQL	ug/Kg	J	Z
AROCLOR 1260	0.58	J	0.47	MDL	2.1	PQL	ug/Kg	J	Z

Method Category: SVOA
Method: 8270C **Matrix: SO**

Sample ID: SL-041-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 3:38:00 *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	25	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-044-SA5A-SB-3.0-4.0 *Collected:* 4/15/2011 12:27:00 *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	18	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-062-SA8N-SS-0.0-0.5 *Collected:* 4/15/2011 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	31	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-067-SA8N-SS-0.0-0.5 *Collected:* 4/15/2011 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	21	J	20	MDL	410	PQL	ug/Kg	J	Z

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

Sample ID: SL-052-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 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-ETHYLHEXYL)PHTHALATE	9.0	J	6.9	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: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-062-SA8N-SS-0.0-0.5 *Collected:* 4/15/2011 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(B)FLUORANTHENE	1.2	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	1.2	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
FLUORANTHENE	1.5	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	0.92	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	1.3	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-067-SA8N-SS-0.0-0.5 *Collected:* 4/15/2011 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
CHRYSENE	0.47	J	0.41	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-141-SA8N-SS-0.0-0.5 *Collected:* 4/15/2011 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
CHRYSENE	0.45	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8015B **Matrix: SO**

Sample ID: SL-141-SA8N-SS-0.0-0.5 *Collected:* 4/15/2011 8:35:00 *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	S
O-TERPHENYL	1.7	U	1.7	MDL	4.0	PQL	mg/Kg	UJ	S
p-Terphenyl	1.7	U	1.7	MDL	4.0	PQL	mg/Kg	UJ	S

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-041-SA5A-SB-4.0-5.0 *Collected:* 4/15/2011 3:38:00 *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	0.50	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: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-044-SA5A-SB-3.0-4.0 **Collected:** 4/15/2011 12:27:00 **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	0.42	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: SL-052-SA5A-SB-4.0-5.0 **Collected:** 4/15/2011 9:34:00 **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	0.34	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: SL-243-SA5A-SB-4.0-5.0 **Collected:** 4/15/2011 10:46:00 **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: DE129 **Laboratory: LL**

EDD Filename: DE129_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: DE129 **Laboratory: LL**

EDD Filename: DE129_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: DE129 **Laboratory: LL**

EDD Filename: DE129_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

DE129

Method Blank Outlier Report

Lab Reporting Batch ID: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11208CB221812	4/27/2011 6:12:00 PM	ALUMINUM CALCIUM LITHIUM PHOSPHORUS TIN	5.43 mg/Kg 10.0 mg/Kg 0.41 mg/Kg 1.22 mg/Kg 1.33 mg/Kg	SL-041-SA5A-SB-4.0-5.0 SL-044-SA5A-SB-3.0-4.0 SL-062-SA8N-SS-0.0-0.5 SL-067-SA8N-SS-0.0-0.5 SL-141-SA8N-SS-0.0-0.5 SL-243-SA5A-SB-4.0-5.0
P11608AB220149	4/28/2011 1:49:00 AM	PHOSPHORUS TIN	1.26 mg/Kg 1.48 mg/Kg	SL-052-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-041-SA5A-SB-4.0-5.0(RES)	TIN	2.86 mg/Kg	2.86U mg/Kg
SL-044-SA5A-SB-3.0-4.0(RES)	TIN	2.87 mg/Kg	2.87U mg/Kg
SL-052-SA5A-SB-4.0-5.0(REA2)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-062-SA8N-SS-0.0-0.5(RES)	TIN	2.46 mg/Kg	2.46U mg/Kg
SL-067-SA8N-SS-0.0-0.5(RES)	TIN	2.46 mg/Kg	2.46U mg/Kg
SL-141-SA8N-SS-0.0-0.5(RES)	TIN	2.48 mg/Kg	2.48U mg/Kg
SL-243-SA5A-SB-4.0-5.0(RES)	TIN	2.91 mg/Kg	2.91U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11226AB221105A	4/25/2011 11:05:00 AM	VANADIUM	0.0708 mg/Kg	SL-041-SA5A-SB-4.0-5.0 SL-044-SA5A-SB-3.0-4.0 SL-062-SA8N-SS-0.0-0.5 SL-067-SA8N-SS-0.0-0.5 SL-141-SA8N-SS-0.0-0.5 SL-243-SA5A-SB-4.0-5.0
P11626AB220808A	4/27/2011 8:08:00 AM	VANADIUM	0.0532 mg/Kg	SL-052-SA5A-SB-4.0-5.0

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB32B211301A	4/21/2011 1:01:00 PM	METHYLENE CHLORIDE	0.46 ug/Kg	SL-041-SA5A-SB-4.0-5.0 SL-044-SA5A-SB-3.0-4.0 SL-052-SA5A-SB-4.0-5.0 SL-243-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-041-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.50 ug/Kg	4.1U ug/Kg

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DE129 **Laboratory: LL**

EDD Filename: DE129_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-044-SA5A-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	0.42 ug/Kg	4.0U ug/Kg
SL-052-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.34 ug/Kg	4.0U ug/Kg
SL-243-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.51 ug/Kg	4.0U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE129 **Laboratory: LL**

EDD Filename: DE129_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-062-SA8N-SS-0.0-0.5MS (SL-041-SA5A-SB-4.0-5.0 SL-044-SA5A-SB-3.0-4.0 SL-052-SA5A-SB-4.0-5.0 SL-062-SA8N-SS-0.0-0.5 SL-067-SA8N-SS-0.0-0.5 SL-141-SA8N-SS-0.0-0.5 SL-243-SA5A-SB-4.0-5.0)	FLUORIDE	77	-	80.00-120.00	-	FLUORIDE	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: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-062-SA8N-SS-0.0-0.5DUP (SL-041-SA5A-SB-4.0-5.0 SL -044-SA5A-SB-3.0-4.0 SL -052-SA5A-SB-4.0-5.0 SL -062-SA8N-SS-0.0-0.5 SL -067-SA8N-SS-0.0-0.5 SL -141-SA8N-SS-0.0-0.5 SL -243-SA5A-SB-4.0-5.0)	FLUORIDE	25	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: DE129 **Laboratory: LL**

EDD Filename: DE129_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
LCS1Y14Q210248A **LCS1Y14Y210309A** (TB-041511)	2-Chloro-1,1,1-trifluoroethane	123	124	77.00-120.00	-	2-Chloro-1,1,1-trifluoroethane	J(all detects)

Method: 8330A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11081AQ241745A (SL-052-SA5A-SB-4.0-5.0 SL -062-SA8N-SS-0.0-0.5 SL -067-SA8N-SS-0.0-0.5 SL -141-SA8N-SS-0.0-0.5 SL -243-SA5A-SB-4.0-5.0)	2,6-DINITROTOLUENE PETN	121 127	- -	80.00-120.00 80.00-120.00	- -	2,6-DINITROTOLUENE PETN	J (all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11226AQ221108A (SL-041-SA5A-SB-4.0-5.0 SL -044-SA5A-SB-3.0-4.0 SL -062-SA8N-SS-0.0-0.5 SL -067-SA8N-SS-0.0-0.5 SL -141-SA8N-SS-0.0-0.5 SL -243-SA5A-SB-4.0-5.0)	ANTIMONY	66	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits
P11626AQ220811A (SL-052-SA5A-SB-4.0-5.0)	ANTIMONY	121	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Surrogate Outlier Report

Lab Reporting Batch ID: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8015B**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-141-SA8N-SS-0.0-0.5	n-Triacontane-d62	48	50.00-150.00	All Target Analytes	J (all detects) UJ (all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-052-SA5A-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	28.9	37.9	PQL	ng/Kg	J (all detects)
SL-141-SA8N-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	37.2	37.8	PQL	ng/Kg	J (all detects)

Method: 300.0
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-062-SA8N-SS-0.0-0.5	Nitrate-NO3	J	1.0	1.7	PQL	mg/Kg	J (all detects)
SL-243-SA5A-SB-4.0-5.0	Nitrate-NO3	J	1.0	1.7	PQL	mg/Kg	J (all detects)

Method: 6010B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-041-SA5A-SB-4.0-5.0	SODIUM	J	68.0	111	PQL	mg/Kg	J (all detects)
	TIN	J	2.86	11.1	PQL	mg/Kg	
SL-044-SA5A-SB-3.0-4.0	BORON	J	1.39	5.44	PQL	mg/Kg	J (all detects)
	SODIUM	J	92.1	109	PQL	mg/Kg	
	TIN	J	2.87	10.9	PQL	mg/Kg	
	Zirconium	J	1.83	5.44	PQL	mg/Kg	
SL-052-SA5A-SB-4.0-5.0	TIN	J	3.00	11.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.38	5.70	PQL	mg/Kg	
SL-062-SA8N-SS-0.0-0.5	TIN	J	2.46	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.42	5.46	PQL	mg/Kg	
SL-067-SA8N-SS-0.0-0.5	TIN	J	2.46	11.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.37	5.83	PQL	mg/Kg	
SL-141-SA8N-SS-0.0-0.5	TIN	J	2.48	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.49	5.50	PQL	mg/Kg	
SL-243-SA5A-SB-4.0-5.0	BORON	J	1.11	5.45	PQL	mg/Kg	J (all detects)
	SODIUM	J	97.4	109	PQL	mg/Kg	
	TIN	J	2.91	10.9	PQL	mg/Kg	
	Zirconium	J	2.04	5.45	PQL	mg/Kg	

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-041-SA5A-SB-4.0-5.0	SELENIUM	J	0.102	0.446	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0366	0.112	PQL	mg/Kg	
SL-044-SA5A-SB-3.0-4.0	CADMIUM	J	0.0779	0.110	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0903	0.440	PQL	mg/Kg	
	SILVER	J	0.0729	0.110	PQL	mg/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-052-SA5A-SB-4.0-5.0	ANTIMONY	J	0.136	0.228	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0808	0.456	PQL	mg/Kg	
	SILVER	J	0.0347	0.114	PQL	mg/Kg	
SL-062-SA8N-SS-0.0-0.5	ANTIMONY	J	0.141	0.223	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.275	0.445	PQL	mg/Kg	
	SILVER	J	0.0290	0.111	PQL	mg/Kg	
SL-067-SA8N-SS-0.0-0.5	ANTIMONY	J	0.172	0.240	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.298	0.480	PQL	mg/Kg	
	SILVER	J	0.0214	0.120	PQL	mg/Kg	
SL-141-SA8N-SS-0.0-0.5	SELENIUM	J	0.262	0.453	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0311	0.113	PQL	mg/Kg	
SL-243-SA5A-SB-4.0-5.0	SELENIUM	J	0.0567	0.436	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0492	0.109	PQL	mg/Kg	

Method: 7199
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-044-SA5A-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.38	1.1	PQL	mg/Kg	J (all detects)
SL-052-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.42	1.2	PQL	mg/Kg	J (all detects)
SL-062-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.48	1.1	PQL	mg/Kg	J (all detects)
SL-067-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.43	1.2	PQL	mg/Kg	J (all detects)
SL-141-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.85	1.1	PQL	mg/Kg	J (all detects)
SL-243-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.40	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-052-SA5A-SB-4.0-5.0	MERCURY	J	0.0049	0.109	PQL	mg/Kg	J (all detects)
SL-067-SA8N-SS-0.0-0.5	MERCURY	J	0.0054	0.119	PQL	mg/Kg	J (all detects)
SL-141-SA8N-SS-0.0-0.5	MERCURY	J	0.0166	0.112	PQL	mg/Kg	J (all detects)
SL-243-SA5A-SB-4.0-5.0	MERCURY	J	0.0102	0.109	PQL	mg/Kg	J (all detects)

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-052-SA5A-SB-4.0-5.0	EFH (C30-C40)	J	0.80	1.4	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: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-243-SA5A-SB-4.0-5.0	EFH (C30-C40)	J	0.76	1.4	PQL	mg/Kg	J (all detects)

Method: 8082
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-062-SA8N-SS-0.0-0.5	AROCLOR 1254	J	2.5	9.6	PQL	ug/Kg	J (all detects)
SL-067-SA8N-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260	J J	1.4 0.58	2.1 2.1	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-041-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.50	4.1	PQL	ug/Kg	J (all detects)
SL-044-SA5A-SB-3.0-4.0	METHYLENE CHLORIDE	J	0.42	4.0	PQL	ug/Kg	J (all detects)
SL-052-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.34	4.0	PQL	ug/Kg	J (all detects)
SL-243-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-041-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	380	PQL	ug/Kg	J (all detects)
SL-044-SA5A-SB-3.0-4.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	18	370	PQL	ug/Kg	J (all detects)
SL-062-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	31	380	PQL	ug/Kg	J (all detects)
SL-067-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	21	410	PQL	ug/Kg	J (all detects)

Method: 8270C SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-052-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.0	21	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE129 **Laboratory: LL**

EDD Filename: DE129_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-062-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.2	1.9	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	1.2	1.9	PQL	ug/Kg	
	FLUORANTHENE	J	1.5	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	0.92	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.9	PQL	ug/Kg	
	PYRENE	J	1.3	1.9	PQL	ug/Kg	
SL-067-SA8N-SS-0.0-0.5	CHRYSENE	J	0.47	2.0	PQL	ug/Kg	J (all detects)
SL-141-SA8N-SS-0.0-0.5	CHRYSENE	J	0.45	1.9	PQL	ug/Kg	J (all detects)

LDC #: 25916K4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-3-11

SDG #: DE129 ADR

Laboratory: Lancaster Laboratories

Reviewer: AR

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 (#1-5,7 associated w/ SDG: DE127)(#6: client specific
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	—	(1-5,7 associated w/ DE127)
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-062-SA8N-SS-0.0-0.5	11		21		31	
2	SL-067-SA8N-SS-0.0-0.5	12		22		32	
3	SL-141-SA8N-SS-0.0-0.5	13		23		33	
4	SL-041-SA5A-SB-4.0-5.0	14		24		34	
5	SL-044-SA5A-SB-3.0-4.0	15		25		35	
6	SL-052-SA5A-SB-4.0-5.0	16		26		36	
7	SL-243-SA5A-SB-4.0-5.0	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

SAMPLE DELIVERY GROUP

DE130

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-Apr-2011	TB-041811	6261706	TB	5030B	8015M	IV
18-Apr-2011	TB-041811	6261706	TB	5030B	8260B	IV
18-Apr-2011	TB-041811	6261706	TB	5030B	8260B SIM	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	3050B	6010B	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	3050B	6020	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	3060A	7199	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	3546	1625C	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	3550B	8015B	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	3550B	8015M	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	3550B	8082	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	3550B	8270C	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	3550B	8270C SIM	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	8330	8330A	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	METHOD	300.0	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	METHOD	314.0	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	METHOD	7471A	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	METHOD	8015B	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	METHOD	8015M	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	METHOD	8315A	IV
18-Apr-2011	SL-085-SA8N-SS-0.0-0.5	6261698	N	METHOD	9012B	IV
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	3050B	6010B	IV
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	3050B	6020	IV
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	3060A	7199	IV
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	3546	1625C	IV
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	3550B	8015B	IV
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	3550B	8015M	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
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	3550B	8082	IV
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	3550B	8270C	IV
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	3550B	8270C SIM	IV
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	8330	8330A	IV
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	METHOD	300.0	IV
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	METHOD	314.0	IV
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	METHOD	7471A	IV
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	METHOD	8015B	IV
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	METHOD	8015M	IV
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	METHOD	8315A	IV
18-Apr-2011	SL-071-SA8N-SS-0.0-0.5	6261696	N	METHOD	9012B	IV
18-Apr-2011	SL-032-SA5A-SB-3.0-4.0	6261702	N	3050B	6010B	IV
18-Apr-2011	SL-032-SA5A-SB-3.0-4.0	6261702	N	3050B	6020	IV
18-Apr-2011	SL-032-SA5A-SB-3.0-4.0	6261702	N	3060A	7199	IV
18-Apr-2011	SL-032-SA5A-SB-3.0-4.0	6261702	N	3550B	8082	IV
18-Apr-2011	SL-032-SA5A-SB-3.0-4.0	6261702	N	3550B	8270C	IV
18-Apr-2011	SL-032-SA5A-SB-3.0-4.0	6261702	N	3550B	8270C SIM	IV
18-Apr-2011	SL-032-SA5A-SB-3.0-4.0	6261702	N	5035	8260B	IV
18-Apr-2011	SL-032-SA5A-SB-3.0-4.0	6261702	N	5035	8260B SIM	IV
18-Apr-2011	SL-032-SA5A-SB-3.0-4.0	6261702	N	METHOD	300.0	IV
18-Apr-2011	SL-032-SA5A-SB-3.0-4.0	6261702	N	METHOD	314.0	IV
18-Apr-2011	SL-032-SA5A-SB-3.0-4.0	6261702	N	METHOD	7471A	IV
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	3050B	6010B	IV
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	3050B	6020	IV
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	3060A	7199	IV
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	3546	1625C	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
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	3550B	8015B	IV
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	3550B	8015M	IV
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	3550B	8082	IV
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	3550B	8270C	IV
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	3550B	8270C SIM	IV
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	8330	8330A	IV
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	METHOD	300.0	IV
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	METHOD	314.0	IV
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	METHOD	7471A	IV
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	METHOD	8015B	IV
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	METHOD	8015M	IV
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	METHOD	8315A	IV
18-Apr-2011	SL-057-SA8N-SS-0.0-0.5	6261695	N	METHOD	9012B	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	3050B	6010B	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	3050B	6020	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	3060A	7199	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	3546	1625C	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	3550B	8015B	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	3550B	8015M	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	3550B	8082	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	3550B	8270C	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	3550B	8270C SIM	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	8330	8330A	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	METHOD	300.0	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	METHOD	314.0	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	METHOD	7471A	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
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	METHOD	8015B	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	METHOD	8015M	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	METHOD	8315A	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5	6261697	N	METHOD	9012B	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5MSD	P261697M322219A	MSD	METHOD	8015B	IV
18-Apr-2011	SL-080-SA8N-SS-0.0-0.5MS	P261697R322204A	MS	METHOD	8015B	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	3050B	6010B	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	3050B	6020	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	3060A	7199	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	3546	1625C	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	3550B	8015B	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	3550B	8015M	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	3550B	8082	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	3550B	8270C	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	3550B	8270C SIM	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	8330	8330A	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	METHOD	300.0	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	METHOD	314.0	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	METHOD	7471A	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	METHOD	8015B	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	METHOD	8015M	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	METHOD	8315A	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5	6261694	N	METHOD	9012B	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5DUP	P261694D270153A	DUP	METHOD	314.0	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5DUP	P261694D271245A	DUP	METHOD	300.0	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5MSD	P261694M241837A	MSD	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
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5MS	P261694R241818A	MS	3550B	8082	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5MS	P261694R270215A	MS	METHOD	314.0	IV
18-Apr-2011	SL-056-SA8N-SS-0.0-0.5MS	P261694R271259A	MS	METHOD	300.0	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	3005A	6010B	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	3020A	6020	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	3510C	8015B	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	3510C	8015M	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	3510C	8082	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	3510C	8270C	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	3510C	8270C SIM	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	3520C	1625C	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	8330	8330A	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	Gen Prep	300.0	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	Gen Prep	314.0	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	Gen Prep	7199	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	Gen Prep	8015B	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	Gen Prep	8015M	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	METHOD	7470A	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	METHOD	8315A	IV
18-Apr-2011	EB05-SA8N-SS-041811	6261701	EB	METHOD	9012B	IV
18-Apr-2011	SL-254-SA5A-SB-2.5-3.5	6261705	N	3050B	6010B	IV
18-Apr-2011	SL-254-SA5A-SB-2.5-3.5	6261705	N	3050B	6020	IV
18-Apr-2011	SL-254-SA5A-SB-2.5-3.5	6261705	N	3060A	7199	IV
18-Apr-2011	SL-254-SA5A-SB-2.5-3.5	6261705	N	3550B	8082	IV
18-Apr-2011	SL-254-SA5A-SB-2.5-3.5	6261705	N	3550B	8270C	IV
18-Apr-2011	SL-254-SA5A-SB-2.5-3.5	6261705	N	3550B	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
18-Apr-2011	SL-254-SA5A-SB-2.5-3.5	6261705	N	5035	8260B	IV
18-Apr-2011	SL-254-SA5A-SB-2.5-3.5	6261705	N	5035	8260B SIM	IV
18-Apr-2011	SL-254-SA5A-SB-2.5-3.5	6261705	N	METHOD	300.0	IV
18-Apr-2011	SL-254-SA5A-SB-2.5-3.5	6261705	N	METHOD	314.0	IV
18-Apr-2011	SL-254-SA5A-SB-2.5-3.5	6261705	N	METHOD	7471A	IV
18-Apr-2011	SL-254-SA5A-SB-2.5-3.5DUP	P261705D271604B	DUP	METHOD	300.0	IV
18-Apr-2011	SL-254-SA5A-SB-2.5-3.5MS	P261705R271646B	MS	METHOD	300.0	IV
18-Apr-2011	SL-086-SA8N-SS-0.0-0.5	6261699	N	3050B	6010B	IV
18-Apr-2011	SL-086-SA8N-SS-0.0-0.5	6261699	N	3050B	6020	IV
18-Apr-2011	SL-086-SA8N-SS-0.0-0.5	6261699	N	3060A	7199	IV
18-Apr-2011	SL-086-SA8N-SS-0.0-0.5	6261699	N	3550B	8082	IV
18-Apr-2011	SL-086-SA8N-SS-0.0-0.5	6261699	N	3550B	8270C	IV
18-Apr-2011	SL-086-SA8N-SS-0.0-0.5	6261699	N	3550B	8270C SIM	IV
18-Apr-2011	SL-086-SA8N-SS-0.0-0.5	6261699	N	METHOD	300.0	IV
18-Apr-2011	SL-086-SA8N-SS-0.0-0.5	6261699	N	METHOD	314.0	IV
18-Apr-2011	SL-086-SA8N-SS-0.0-0.5	6261699	N	METHOD	7471A	IV
18-Apr-2011	EB13-SA5A-SB-041811	6261707	EB	3005A	6010B	IV
18-Apr-2011	EB13-SA5A-SB-041811	6261707	EB	3020A	6020	IV
18-Apr-2011	EB13-SA5A-SB-041811	6261707	EB	3510C	8082	IV
18-Apr-2011	EB13-SA5A-SB-041811	6261707	EB	3510C	8270C	IV
18-Apr-2011	EB13-SA5A-SB-041811	6261707	EB	3510C	8270C SIM	IV
18-Apr-2011	EB13-SA5A-SB-041811	6261707	EB	5030B	8260B	IV
18-Apr-2011	EB13-SA5A-SB-041811	6261707	EB	5030B	8260B SIM	IV
18-Apr-2011	EB13-SA5A-SB-041811	6261707	EB	Gen Prep	300.0	IV
18-Apr-2011	EB13-SA5A-SB-041811	6261707	EB	Gen Prep	314.0	IV
18-Apr-2011	EB13-SA5A-SB-041811	6261707	EB	Gen Prep	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
18-Apr-2011	EB13-SA5A-SB-041811	6261707	EB	METHOD	7470A	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	3050B	6010B	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	3050B	6020	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	3060A	7199	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	3546	1625C	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	3550B	8015B	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	3550B	8015M	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	3550B	8082	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	3550B	8270C	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	3550B	8270C SIM	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	8330	8330A	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	METHOD	300.0	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	METHOD	314.0	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	METHOD	7471A	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	METHOD	8015B	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	METHOD	8015M	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	METHOD	8315A	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5	6261700	N	METHOD	9012B	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5DUP	P261700D271504B	DUP	METHOD	9012B	IV
18-Apr-2011	SL-132-SA8N-SS-0.0-0.5MS	P261700R271506B	MS	METHOD	9012B	IV
18-Apr-2011	SL-174-SA5A-SB-2.0-3.0	6261704	N	3050B	6010B	IV
18-Apr-2011	SL-174-SA5A-SB-2.0-3.0	6261704	N	3050B	6020	IV
18-Apr-2011	SL-174-SA5A-SB-2.0-3.0	6261704	N	3060A	7199	IV
18-Apr-2011	SL-174-SA5A-SB-2.0-3.0	6261704	N	3550B	8082	IV
18-Apr-2011	SL-174-SA5A-SB-2.0-3.0	6261704	N	3550B	8270C	IV
18-Apr-2011	SL-174-SA5A-SB-2.0-3.0	6261704	N	3550B	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
18-Apr-2011	SL-174-SA5A-SB-2.0-3.0	6261704	N	5035	8260B	IV
18-Apr-2011	SL-174-SA5A-SB-2.0-3.0	6261704	N	5035	8260B SIM	IV
18-Apr-2011	SL-174-SA5A-SB-2.0-3.0	6261704	N	METHOD	300.0	IV
18-Apr-2011	SL-174-SA5A-SB-2.0-3.0	6261704	N	METHOD	314.0	IV
18-Apr-2011	SL-174-SA5A-SB-2.0-3.0	6261704	N	METHOD	7471A	IV
18-Apr-2011	SL-172-SA5A-SB-4.0-5.0	6261703	N	3050B	6010B	IV
18-Apr-2011	SL-172-SA5A-SB-4.0-5.0	6261703	N	3050B	6020	IV
18-Apr-2011	SL-172-SA5A-SB-4.0-5.0	6261703	N	3060A	7199	IV
18-Apr-2011	SL-172-SA5A-SB-4.0-5.0	6261703	N	3550B	8082	IV
18-Apr-2011	SL-172-SA5A-SB-4.0-5.0	6261703	N	3550B	8270C	IV
18-Apr-2011	SL-172-SA5A-SB-4.0-5.0	6261703	N	3550B	8270C SIM	IV
18-Apr-2011	SL-172-SA5A-SB-4.0-5.0	6261703	N	5035	8260B	IV
18-Apr-2011	SL-172-SA5A-SB-4.0-5.0	6261703	N	5035	8260B SIM	IV
18-Apr-2011	SL-172-SA5A-SB-4.0-5.0	6261703	N	METHOD	300.0	IV
18-Apr-2011	SL-172-SA5A-SB-4.0-5.0	6261703	N	METHOD	314.0	IV
18-Apr-2011	SL-172-SA5A-SB-4.0-5.0	6261703	N	METHOD	7471A	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: DE130 **Laboratory:** LL

EDD Filename: PrepDE130_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-032-SA5A-SB-3.0-4.0 *Collected:* 4/18/2011 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
FLUORIDE	0.93	U	0.93	MDL	1.2	PQL	mg/Kg	UJ	Q

Sample ID: SL-056-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	2.1		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-057-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	2.4		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-071-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	1.7		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-080-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	2.4		0.97	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-085-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 8:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-086-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	1.5		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-132-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	2.5		0.87	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: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-172-SA5A-SB-4.0-5.0 *Collected:* 4/18/2011 3:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.96	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-174-SA5A-SB-2.0-3.0 *Collected:* 4/18/2011 3:05:00 *Analysis Type:* RES *Dilution:* 1

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

Sample ID: SL-254-SA5A-SB-2.5-3.5 *Collected:* 4/18/2011 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.9		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: GENCHEM

Method: 9012B **Matrix: SO**

Sample ID: SL-071-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
CYANIDE	0.23	J	0.21	MDL	0.58	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix: AQ**

Sample ID: EB05-SA8N-SS-041811 *Collected:* 4/18/2011 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
BORON	0.0221	J	0.0138	MDL	0.0500	PQL	mg/L	U	B
CALCIUM	0.0949	J	0.0702	MDL	0.200	PQL	mg/L	J	Z

Sample ID: EB13-SA5A-SB-041811 *Collected:* 4/18/2011 1:30:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.0151	J	0.0138	MDL	0.0500	PQL	mg/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: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-032-SA5A-SB-3.0-4.0 **Collected:** 4/18/2011 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
POTASSIUM	2700		20.7	MDL	57.4	PQL	mg/Kg	J	Q
SODIUM	86.0	J	42.8	MDL	115	PQL	mg/Kg	J	Z
TIN	3.04	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	1.18	J	0.964	MDL	5.74	PQL	mg/Kg	J	Z

Sample ID: SL-056-SA8N-SS-0.0-0.5 **Collected:** 4/18/2011 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	6.50		1.02	MDL	5.72	PQL	mg/Kg	U	F
POTASSIUM	6360		20.6	MDL	57.2	PQL	mg/Kg	J	Q
TIN	2.66	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	2.59	J	0.961	MDL	5.72	PQL	mg/Kg	J	Z

Sample ID: SL-057-SA8N-SS-0.0-0.5 **Collected:** 4/18/2011 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	8.34		0.971	MDL	5.45	PQL	mg/Kg	U	F
POTASSIUM	7080		19.6	MDL	54.5	PQL	mg/Kg	J	Q
TIN	2.62	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	2.22	J	0.916	MDL	5.45	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA8N-SS-0.0-0.5 **Collected:** 4/18/2011 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
BORON	1.62	J	1.03	MDL	5.80	PQL	mg/Kg	U	F
POTASSIUM	3630		20.9	MDL	58.0	PQL	mg/Kg	J	Q
SODIUM	82.1	J	43.2	MDL	116	PQL	mg/Kg	J	Z
TIN	2.79	J	1.16	MDL	11.6	PQL	mg/Kg	U	B

Sample ID: SL-080-SA8N-SS-0.0-0.5 **Collected:** 4/18/2011 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
BORON	6.98		1.07	MDL	6.01	PQL	mg/Kg	U	F
POTASSIUM	5910		21.6	MDL	60.1	PQL	mg/Kg	J	Q
TIN	2.47	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: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6010B** ***Matrix:*** **SO**

Sample ID: SL-080-SA8N-SS-0.0-0.5 ***Collected:*** 4/18/2011 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
Zirconium	3.01	J	1.01	MDL	6.01	PQL	mg/Kg	J	Z

Sample ID: SL-085-SA8N-SS-0.0-0.5 ***Collected:*** 4/18/2011 8:15:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.36	J	1.02	MDL	5.72	PQL	mg/Kg	U	F
POTASSIUM	4160		20.6	MDL	57.2	PQL	mg/Kg	J	Q
SODIUM	85.5	J	42.6	MDL	114	PQL	mg/Kg	J	Z
TIN	2.62	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	1.44	J	0.960	MDL	5.72	PQL	mg/Kg	J	Z

Sample ID: SL-086-SA8N-SS-0.0-0.5 ***Collected:*** 4/18/2011 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	8.31		1.01	MDL	5.66	PQL	mg/Kg	U	F
POTASSIUM	7200		20.4	MDL	56.6	PQL	mg/Kg	J	Q
TIN	2.52	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	2.07	J	0.950	MDL	5.66	PQL	mg/Kg	J	Z

Sample ID: SL-132-SA8N-SS-0.0-0.5 ***Collected:*** 4/18/2011 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	5.01	J	0.962	MDL	5.40	PQL	mg/Kg	U	F
POTASSIUM	5620		19.5	MDL	54.0	PQL	mg/Kg	J	Q
TIN	2.58	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	3.97	J	0.908	MDL	5.40	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA5A-SB-4.0-5.0 ***Collected:*** 4/18/2011 3:45:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2600		21.2	MDL	58.9	PQL	mg/Kg	J	Q
SODIUM	91.8	J	44.0	MDL	118	PQL	mg/Kg	J	Z
TIN	2.84	J	1.18	MDL	11.8	PQL	mg/Kg	U	B
Zirconium	1.50	J	0.990	MDL	5.89	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: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-174-SA5A-SB-2.0-3.0 *Collected:* 4/18/2011 3:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3480		19.6	MDL	54.5	PQL	mg/Kg	J	Q
TIN	2.93	J	1.09	MDL	10.9	PQL	mg/Kg	U	B

Sample ID: SL-254-SA5A-SB-2.5-3.5 *Collected:* 4/18/2011 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1230		19.7	MDL	54.6	PQL	mg/Kg	J	Q
TIN	2.99	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.17	J	0.918	MDL	5.46	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-032-SA5A-SB-3.0-4.0 *Collected:* 4/18/2011 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	0.217	J	0.0454	MDL	0.454	PQL	mg/Kg	J	Z

Sample ID: SL-032-SA5A-SB-3.0-4.0 *Collected:* 4/18/2011 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
ANTIMONY	0.121	J	0.0682	MDL	0.227	PQL	mg/Kg	J	Z, Q
ARSENIC	5.79		0.0909	MDL	0.454	PQL	mg/Kg	J	Q
CHROMIUM	12.7		0.136	MDL	0.454	PQL	mg/Kg	J	A
COBALT	5.89		0.0227	MDL	0.114	PQL	mg/Kg	J	A
COPPER	6.81		0.0750	MDL	0.454	PQL	mg/Kg	J	A
LEAD	5.11		0.0118	MDL	0.227	PQL	mg/Kg	J	A
NICKEL	8.94		0.114	MDL	0.454	PQL	mg/Kg	J	A
SILVER	0.0243	J	0.0136	MDL	0.114	PQL	mg/Kg	J	Z
VANADIUM	27.7		0.0250	MDL	0.114	PQL	mg/Kg	J	A, Q

Sample ID: SL-056-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	0.231	J	0.0693	MDL	0.231	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: DE130 **Laboratory:** LL

EDD Filename: PrepDE130_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-056-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
ARSENIC	6.18		0.0924	MDL	0.462	PQL	mg/Kg	J	Q
CHROMIUM	30.5		0.139	MDL	0.462	PQL	mg/Kg	J	A
COBALT	10.3		0.0231	MDL	0.116	PQL	mg/Kg	J	A
COPPER	16.9		0.0763	MDL	0.462	PQL	mg/Kg	J	A
LEAD	10.7		0.0120	MDL	0.231	PQL	mg/Kg	J	A
NICKEL	19.1		0.116	MDL	0.462	PQL	mg/Kg	J	A
SILVER	0.0468	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z
VANADIUM	57.9		0.0254	MDL	0.116	PQL	mg/Kg	J	A, Q

Sample ID: SL-057-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 10:10:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.376	J	0.0445	MDL	0.445	PQL	mg/Kg	J	Z

Sample ID: SL-057-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	0.226		0.0667	MDL	0.222	PQL	mg/Kg	J	Q
ARSENIC	5.87		0.0890	MDL	0.445	PQL	mg/Kg	J	Q
CHROMIUM	31.1		0.133	MDL	0.445	PQL	mg/Kg	J	A
COBALT	10.7		0.0222	MDL	0.111	PQL	mg/Kg	J	A
COPPER	17.8		0.0734	MDL	0.445	PQL	mg/Kg	J	A
LEAD	10.0		0.0116	MDL	0.222	PQL	mg/Kg	J	A
NICKEL	19.8		0.111	MDL	0.445	PQL	mg/Kg	J	A
SILVER	0.0356	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z
VANADIUM	59.9		0.0245	MDL	0.111	PQL	mg/Kg	J	A, Q

Sample ID: SL-071-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 8:35:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.224	J	0.0464	MDL	0.464	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: DE130 **Laboratory:** LL

EDD Filename: PrepDE130_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-071-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 8:35:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.111	J	0.0696	MDL	0.232	PQL	mg/Kg	J	Z, Q
ARSENIC	4.32		0.0927	MDL	0.464	PQL	mg/Kg	J	Q
CHROMIUM	14.3		0.139	MDL	0.464	PQL	mg/Kg	J	A
COBALT	5.44		0.0232	MDL	0.116	PQL	mg/Kg	J	A
COPPER	8.95		0.0765	MDL	0.464	PQL	mg/Kg	J	A
LEAD	12.6		0.0121	MDL	0.232	PQL	mg/Kg	J	A
NICKEL	10.5		0.116	MDL	0.464	PQL	mg/Kg	J	A
SILVER	0.0362	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z
VANADIUM	29.6		0.0255	MDL	0.116	PQL	mg/Kg	J	A, Q

Sample ID: SL-080-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	0.136	J	0.0721	MDL	0.240	PQL	mg/Kg	J	Z, Q
ARSENIC	5.83		0.0961	MDL	0.481	PQL	mg/Kg	J	Q
CHROMIUM	27.7		0.144	MDL	0.481	PQL	mg/Kg	J	A
COBALT	8.71		0.0240	MDL	0.120	PQL	mg/Kg	J	A
COPPER	16.1		0.0793	MDL	0.481	PQL	mg/Kg	J	A
LEAD	9.10		0.0125	MDL	0.240	PQL	mg/Kg	J	A
NICKEL	17.3		0.120	MDL	0.481	PQL	mg/Kg	J	A
SILVER	0.0269	J	0.0144	MDL	0.120	PQL	mg/Kg	J	Z
VANADIUM	52.2		0.0264	MDL	0.120	PQL	mg/Kg	J	A, Q

Sample ID: SL-085-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 8:15:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.202	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

Sample ID: SL-085-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 8:15:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.136	J	0.0679	MDL	0.226	PQL	mg/Kg	J	Z, Q
ARSENIC	4.88		0.0906	MDL	0.453	PQL	mg/Kg	J	Q
CHROMIUM	19.0		0.136	MDL	0.453	PQL	mg/Kg	J	A
COBALT	6.61		0.0226	MDL	0.113	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: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-085-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 8:15:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	12.6		0.0747	MDL	0.453	PQL	mg/Kg	J	A
LEAD	14.4		0.0118	MDL	0.226	PQL	mg/Kg	J	A
NICKEL	13.4		0.113	MDL	0.453	PQL	mg/Kg	J	A
VANADIUM	35.3		0.0249	MDL	0.113	PQL	mg/Kg	J	A, Q

Sample ID: SL-086-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	0.323	J	0.0461	MDL	0.461	PQL	mg/Kg	J	Z

Sample ID: SL-086-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	0.205	J	0.0692	MDL	0.231	PQL	mg/Kg	J	Z, Q
ARSENIC	5.81		0.0923	MDL	0.461	PQL	mg/Kg	J	Q
CHROMIUM	30.2		0.138	MDL	0.461	PQL	mg/Kg	J	A
COBALT	9.89		0.0231	MDL	0.115	PQL	mg/Kg	J	A
COPPER	17.3		0.0761	MDL	0.461	PQL	mg/Kg	J	A
LEAD	10.8		0.0120	MDL	0.231	PQL	mg/Kg	J	A
NICKEL	19.6		0.115	MDL	0.461	PQL	mg/Kg	J	A
SILVER	0.0278	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	58.9		0.0254	MDL	0.115	PQL	mg/Kg	J	A, Q

Sample ID: SL-132-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	0.397	J	0.0424	MDL	0.424	PQL	mg/Kg	J	Z

Sample ID: SL-132-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	0.255		0.0636	MDL	0.212	PQL	mg/Kg	J	Q
ARSENIC	5.17		0.0848	MDL	0.424	PQL	mg/Kg	J	Q
CHROMIUM	24.8		0.127	MDL	0.424	PQL	mg/Kg	J	A
COBALT	9.31		0.0212	MDL	0.106	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: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-132-SA8N-SS-0.0-0.5 ***Collected:*** 4/18/2011 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
COPPER	16.2		0.0700	MDL	0.424	PQL	mg/Kg	J	A
LEAD	8.70		0.0110	MDL	0.212	PQL	mg/Kg	J	A
NICKEL	15.6		0.106	MDL	0.424	PQL	mg/Kg	J	A
SILVER	0.0462	J	0.0127	MDL	0.106	PQL	mg/Kg	J	Z
VANADIUM	48.2		0.0233	MDL	0.106	PQL	mg/Kg	J	A, Q

Sample ID: SL-172-SA5A-SB-4.0-5.0 ***Collected:*** 4/18/2011 3:45:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.112	J	0.0467	MDL	0.467	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA5A-SB-4.0-5.0 ***Collected:*** 4/18/2011 3:45:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0766	J	0.0700	MDL	0.233	PQL	mg/Kg	J	Z, Q
ARSENIC	3.97		0.0934	MDL	0.467	PQL	mg/Kg	J	Q
CHROMIUM	19.4		0.140	MDL	0.467	PQL	mg/Kg	J	A
COBALT	5.02		0.0233	MDL	0.117	PQL	mg/Kg	J	A
COPPER	8.22		0.0770	MDL	0.467	PQL	mg/Kg	J	A
LEAD	5.21		0.0121	MDL	0.233	PQL	mg/Kg	J	A
NICKEL	12.1		0.117	MDL	0.467	PQL	mg/Kg	J	A
SILVER	0.0296	J	0.0140	MDL	0.117	PQL	mg/Kg	J	Z
VANADIUM	37.3		0.0257	MDL	0.117	PQL	mg/Kg	J	A, Q

Sample ID: SL-174-SA5A-SB-2.0-3.0 ***Collected:*** 4/18/2011 3:05:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.178	J	0.0436	MDL	0.436	PQL	mg/Kg	J	Z

Sample ID: SL-174-SA5A-SB-2.0-3.0 ***Collected:*** 4/18/2011 3:05:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.157	J	0.0654	MDL	0.218	PQL	mg/Kg	J	Z, Q
ARSENIC	5.55		0.0872	MDL	0.436	PQL	mg/Kg	J	Q
CHROMIUM	25.9		0.131	MDL	0.436	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: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-174-SA5A-SB-2.0-3.0 *Collected:* 4/18/2011 3:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	7.53		0.0218	MDL	0.109	PQL	mg/Kg	J	A
COPPER	12.8		0.0720	MDL	0.436	PQL	mg/Kg	J	A
LEAD	7.37		0.0113	MDL	0.218	PQL	mg/Kg	J	A
NICKEL	14.4		0.109	MDL	0.436	PQL	mg/Kg	J	A
SILVER	0.0167	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z
VANADIUM	45.2		0.0240	MDL	0.109	PQL	mg/Kg	J	A, Q

Sample ID: SL-254-SA5A-SB-2.5-3.5 *Collected:* 4/18/2011 12:45:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.143	J	0.0433	MDL	0.433	PQL	mg/Kg	J	Z

Sample ID: SL-254-SA5A-SB-2.5-3.5 *Collected:* 4/18/2011 12:45:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.128	J	0.0649	MDL	0.216	PQL	mg/Kg	J	Z, Q
ARSENIC	5.10		0.0866	MDL	0.433	PQL	mg/Kg	J	Q
CHROMIUM	20.1		0.130	MDL	0.433	PQL	mg/Kg	J	A
COBALT	3.77		0.0216	MDL	0.108	PQL	mg/Kg	J	A
COPPER	5.48		0.0714	MDL	0.433	PQL	mg/Kg	J	A
LEAD	5.67		0.0113	MDL	0.216	PQL	mg/Kg	J	A
NICKEL	7.55		0.108	MDL	0.433	PQL	mg/Kg	J	A
SILVER	0.0348	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	39.9		0.0238	MDL	0.108	PQL	mg/Kg	J	A, Q

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-071-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	0.48	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: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-085-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 8:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.61	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-086-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	0.45	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-032-SA5A-SB-3.0-4.0 *Collected:* 4/18/2011 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
MERCURY	0.0057	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-056-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	0.0111	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z

Sample ID: SL-057-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	0.0138	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
MERCURY	0.0449	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-080-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
MERCURY	0.0249	J	0.0033	MDL	0.116	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-086-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	0.0106	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-132-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	0.0896	J	0.0030	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA5A-SB-4.0-5.0 *Collected:* 4/18/2011 3:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0179	J	0.0032	MDL	0.113	PQL	mg/Kg	J	Z

Sample ID: SL-174-SA5A-SB-2.0-3.0 *Collected:* 4/18/2011 3:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0119	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-254-SA5A-SB-2.5-3.5 *Collected:* 4/18/2011 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0143	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix: AQ**

Sample ID: EB05-SA8N-SS-041811 *Collected:* 4/18/2011 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	0.565	J	0.484	MDL	0.967	PQL	ng/L	J	Z, L, S

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-071-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
N-NITROSODIMETHYLAMINE	22.1	J	19.2	MDL	38.4	PQL	ng/Kg	J	Z

Sample ID: SL-080-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
N-NITROSODIMETHYLAMINE	38.2	J	20.1	MDL	40.2	PQL	ng/Kg	J	Z

Sample ID: SL-085-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 8:15:00 *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	252	J	190	MDL	380	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix: AQ**

Sample ID: EB05-SA8N-SS-041811 *Collected:* 4/18/2011 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
Aroclor 5432	0.098	U	0.098	MDL	0.49	PQL	ug/L	UJ	C

Sample ID: EB13-SA5A-SB-041811 *Collected:* 4/18/2011 1:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	0.097	U	0.097	MDL	0.48	PQL	ug/L	UJ	C

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-032-SA5A-SB-3.0-4.0 *Collected:* 4/18/2011 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
Aroclor 5432	1.2	U	1.2	MDL	3.8	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: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-056-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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 1254	3.3		0.38	MDL	2.0	PQL	ug/Kg	J	*XIII
Aroclor 5432	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	C
Aroclor 5460	2.7	J	1.2	MDL	3.8	PQL	ug/Kg	J	Z

Sample ID: SL-057-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	C

Sample ID: SL-071-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
AROCLOR 1260	1.6	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5432	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	C
Aroclor 5460	2.0	J	1.2	MDL	3.9	PQL	ug/Kg	J	Z

Sample ID: SL-080-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
Aroclor 5432	1.2	U	1.2	MDL	4.0	PQL	ug/Kg	UJ	C
Aroclor 5460	2.9	J	1.2	MDL	4.0	PQL	ug/Kg	J	Z

Sample ID: SL-085-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 8:15:00 *Analysis Type:* RES *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	5.8	U	5.8	MDL	19	PQL	ug/Kg	UJ	C

Sample ID: SL-086-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	0.76	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
AROCLOR 1260	0.72	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5432	1.2	U	1.2	MDL	3.9	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: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-132-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	C

Sample ID: SL-172-SA5A-SB-4.0-5.0 *Collected:* 4/18/2011 3:45:00 *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	C

Sample ID: SL-174-SA5A-SB-2.0-3.0 *Collected:* 4/18/2011 3:05:00 *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	C

Sample ID: SL-254-SA5A-SB-2.5-3.5 *Collected:* 4/18/2011 12:45:00 *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	C

Method Category: SVOA

Method: 8270C **Matrix: AQ**

Sample ID: EB05-SA8N-SS-041811 *Collected:* 4/18/2011 12:00:00 *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	6	U	6	MDL	15	PQL	ug/L	UJ	E

Sample ID: EB13-SA5A-SB-041811 *Collected:* 4/18/2011 1:30:00 *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	6	U	6	MDL	15	PQL	ug/L	UJ	E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-032-SA5A-SB-3.0-4.0 *Collected:* 4/18/2011 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
BENZIDINE	1400	U	1400	MDL	3900	PQL	ug/Kg	UJ	C

Sample ID: SL-056-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	24	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-071-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	31	J	20	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-080-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	30	J	20	MDL	400	PQL	ug/Kg	J	Z

Sample ID: SL-085-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 8:15:00 *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	32	J	19	MDL	380	PQL	ug/Kg	J	Z
FLUORANTHENE	57	J	19	MDL	190	PQL	ug/Kg	J	Z
PHENANTHRENE	41	J	19	MDL	190	PQL	ug/Kg	J	Z
PYRENE	55	J	19	MDL	190	PQL	ug/Kg	J	Z

Sample ID: SL-086-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
BENZIDINE	1400	U	1400	MDL	3900	PQL	ug/Kg	UJ	C

Sample ID: SL-132-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
BENZIDINE	1300	U	1300	MDL	3600	PQL	ug/Kg	UJ	C
BIS(2-ETHYLHEXYL)PHTHALATE	37	J	18	MDL	360	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: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-172-SA5A-SB-4.0-5.0 *Collected:* 4/18/2011 3:45:00 *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	4000	PQL	ug/Kg	UJ	C

Sample ID: SL-174-SA5A-SB-2.0-3.0 *Collected:* 4/18/2011 3:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	1300	U	1300	MDL	3700	PQL	ug/Kg	UJ	C

Sample ID: SL-254-SA5A-SB-2.5-3.5 *Collected:* 4/18/2011 12:45:00 *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	C

Method Category: SVOA

Method: 8270C SIM **Matrix: AQ**

Sample ID: EB05-SA8N-SS-041811 *Collected:* 4/18/2011 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	0.019	U	0.019	MDL	0.096	PQL	ug/L	UJ	C
BIS(2-ETHYLHEXYL)PHTHALATE	0.72	J	0.096	MDL	1.9	PQL	ug/L	J	Z
Butylbenzylphthalate	0.33	J	0.096	MDL	1.9	PQL	ug/L	J	Z
Di-n-butylphthalate	0.37	J	0.096	MDL	1.9	PQL	ug/L	J	Z
Di-n-octylphthalate	0.52	J	0.096	MDL	1.9	PQL	ug/L	J	Z, C

Sample ID: EB13-SA5A-SB-041811 *Collected:* 4/18/2011 1:30:00 *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(B)FLUORANTHENE	0.010	U	0.010	MDL	0.050	PQL	ug/L	UJ	C
BIS(2-ETHYLHEXYL)PHTHALATE	0.30	J	0.050	MDL	1.0	PQL	ug/L	J	Z
Di-n-butylphthalate	0.32	J	0.050	MDL	1.0	PQL	ug/L	J	Z
Di-n-octylphthalate	0.27	J	0.050	MDL	1.0	PQL	ug/L	J	Z, C
NAPHTHALENE	0.031	J	0.030	MDL	0.050	PQL	ug/L	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-032-SA5A-SB-3.0-4.0 *Collected:* 4/18/2011 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
BENZO(B)FLUORANTHENE	0.77	U	0.77	MDL	1.9	PQL	ug/Kg	UJ	C
Di-n-octylphthalate	7.0	U	7.0	MDL	21	PQL	ug/Kg	UJ	C

Sample ID: SL-056-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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	0.78	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(B)FLUORANTHENE	2.6		0.78	MDL	1.9	PQL	ug/Kg	J	C
BENZO(K)FLUORANTHENE	1.0	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	1.8	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	7.0	U	7.0	MDL	21	PQL	ug/Kg	UJ	C
INDENO(1,2,3-CD)PYRENE	1.4	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.0	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.8	J	0.78	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-057-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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(B)FLUORANTHENE	0.75	U	0.75	MDL	1.9	PQL	ug/Kg	UJ	C
CHRYSENE	0.41	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	6.7	U	6.7	MDL	20	PQL	ug/Kg	UJ	C
NAPHTHALENE	1.2	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-071-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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(B)FLUORANTHENE	1.9	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z, C
BENZO(G,H,I)PERYLENE	1.1	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
CHRYSENE	1.5	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	7.0	U	7.0	MDL	21	PQL	ug/Kg	UJ	C
FLUORANTHENE	1.4	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
FLUORENE	1.5	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.79	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
NAPHTHALENE	1.6	J	0.78	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: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-071-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
PHENANTHRENE	1.2	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z
PYRENE	1.3	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-080-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
BENZO(A)ANTHRACENE	1.0	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.2	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	2.3		0.81	MDL	2.0	PQL	ug/Kg	J	C
BENZO(G,H,I)PERYLENE	1.5	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.94	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	7.3	U	7.3	MDL	22	PQL	ug/Kg	UJ	C
INDENO(1,2,3-CD)PYRENE	1.2	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
NAPHTHALENE	1.0	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
PHENANTHRENE	1.4	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
PYRENE	1.9	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-085-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 8:15:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.61	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	6.2		0.77	MDL	1.9	PQL	ug/Kg	J	C
Di-n-octylphthalate	6.9	U	6.9	MDL	21	PQL	ug/Kg	UJ	C
INDENO(1,2,3-CD)PYRENE	1.7	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.1	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-086-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
BENZO(B)FLUORANTHENE	0.78	U	0.78	MDL	2.0	PQL	ug/Kg	UJ	C
CHRYSENE	0.52	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	7.1	U	7.1	MDL	21	PQL	ug/Kg	UJ	C
NAPHTHALENE	1.2	J	0.78	MDL	2.0	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-132-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
ANTHRACENE	0.88	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	8.3		0.73	MDL	1.8	PQL	ug/Kg	J	C
Di-n-octylphthalate	6.6	U	6.6	MDL	20	PQL	ug/Kg	UJ	C
NAPHTHALENE	1.1	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-172-SA5A-SB-4.0-5.0 *Collected:* 4/18/2011 3:45:00 *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(B)FLUORANTHENE	0.80	U	0.80	MDL	2.0	PQL	ug/Kg	UJ	C
Di-n-octylphthalate	7.2	U	7.2	MDL	22	PQL	ug/Kg	UJ	C

Sample ID: SL-174-SA5A-SB-2.0-3.0 *Collected:* 4/18/2011 3:05:00 *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	0.74	U	0.74	MDL	1.9	PQL	ug/Kg	UJ	C
Di-n-octylphthalate	6.7	U	6.7	MDL	20	PQL	ug/Kg	UJ	C

Sample ID: SL-254-SA5A-SB-2.5-3.5 *Collected:* 4/18/2011 12:45:00 *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(B)FLUORANTHENE	0.74	U	0.74	MDL	1.9	PQL	ug/Kg	UJ	C
Di-n-octylphthalate	6.7	U	6.7	MDL	20	PQL	ug/Kg	UJ	C

Method Category: SVOA

Method: 8330A **Matrix: AQ**

Sample ID: EB05-SA8N-SS-041811 *Collected:* 4/18/2011 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
Tetryl	0.40	U	0.40	MDL	0.60	PQL	ug/L	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: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8330A **Matrix: SO**

Sample ID: SL-132-SA8N-SS-0.0-0.5 *Collected:* 4/18/2011 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
2,6-DINITROTOLUENE	43	U	43	MDL	130	PQL	ug/Kg	UJ	C

Method Category: VOA

Method: 8260B **Matrix: AQ**

Sample ID: EB13-SA5A-SB-041811 *Collected:* 4/18/2011 1:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DICHLOROETHANE	1	U	1	MDL	5	PQL	ug/L	UJ	C
ACETONE	6	U	6	MDL	20	PQL	ug/L	UJ	C
CARBON TETRACHLORIDE	1	U	1	MDL	5	PQL	ug/L	UJ	C
DICHLORODIFLUOROMETHANE	2	U	2	MDL	5	PQL	ug/L	UJ	C, C
TRICHLOROFLUOROMETHANE	2	U	2	MDL	5	PQL	ug/L	UJ	C

Sample ID: TB-041811 *Collected:* 4/18/2011 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
1,2-DICHLOROETHANE	1	U	1	MDL	5	PQL	ug/L	UJ	C
ACETONE	6	U	6	MDL	20	PQL	ug/L	UJ	C
CARBON TETRACHLORIDE	1	U	1	MDL	5	PQL	ug/L	UJ	C
DICHLORODIFLUOROMETHANE	2	U	2	MDL	5	PQL	ug/L	UJ	C, C
TRICHLOROFLUOROMETHANE	2	U	2	MDL	5	PQL	ug/L	UJ	C

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-032-SA5A-SB-3.0-4.0 *Collected:* 4/18/2011 9:14:00 *Analysis Type:* RES *Dilution:* 0.89

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE (MEK)	1.3	U	1.3	MDL	8.3	PQL	ug/Kg	UJ	C
2-HEXANONE	1.7	U	1.7	MDL	8.3	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.40	U	0.40	MDL	8.3	PQL	ug/Kg	UJ	C
BROMOCHLOROMETHANE	0.34	U	0.34	MDL	4.1	PQL	ug/Kg	UJ	C
N-BUTYLBENZENE	0.12	U	0.12	MDL	4.1	PQL	ug/Kg	UJ	C

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-172-SA5A-SB-4.0-5.0 *Collected:* 4/18/2011 3:45:00 *Analysis Type:* RES *Dilution:* 0.88

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
BROMOCHLOROMETHANE	0.35	U	0.35	MDL	4.2	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	0.65	J	0.25	MDL	4.2	PQL	ug/Kg	U	B
N-BUTYLBENZENE	0.13	U	0.13	MDL	4.2	PQL	ug/Kg	UJ	C

Sample ID: SL-174-SA5A-SB-2.0-3.0 *Collected:* 4/18/2011 3:05:00 *Analysis Type:* RES *Dilution:* 0.9

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE (MEK)	1.2	U	1.2	MDL	8.0	PQL	ug/Kg	UJ	C
2-HEXANONE	1.6	U	1.6	MDL	8.0	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.39	U	0.39	MDL	8.0	PQL	ug/Kg	UJ	C
BROMOCHLOROMETHANE	0.33	U	0.33	MDL	4.0	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	0.51	J	0.24	MDL	4.0	PQL	ug/Kg	U	B
N-BUTYLBENZENE	0.12	U	0.12	MDL	4.0	PQL	ug/Kg	UJ	C

Sample ID: SL-254-SA5A-SB-2.5-3.5 *Collected:* 4/18/2011 12:45:00 *Analysis Type:* RES *Dilution:* 0.83

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE (MEK)	1.1	U	1.1	MDL	7.4	PQL	ug/Kg	UJ	C
2-HEXANONE	1.5	U	1.5	MDL	7.4	PQL	ug/Kg	UJ	C
4-METHYL-2-PENTANONE (MIBK)	0.36	U	0.36	MDL	7.4	PQL	ug/Kg	UJ	C
BROMOCHLOROMETHANE	0.31	U	0.31	MDL	3.7	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	0.47	J	0.22	MDL	3.7	PQL	ug/Kg	U	B
N-BUTYLBENZENE	0.11	U	0.11	MDL	3.7	PQL	ug/Kg	UJ	C

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_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
*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
C	Initial Calibration Verification Percent Recovery Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_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: DE130 **Laboratory: LL**

EDD Filename: PrepDE130_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

DE130

Method Blank Outlier Report

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: DE130_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11748AB221924	4/29/2011 7:24:00 PM	BORON	0.0156 mg/L	EB05-SA8N-SS-041811 EB13-SA5A-SB-041811

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-SA8N-SS-041811(REA2)	BORON	0.0221 mg/L	0.0221U mg/L
EB13-SA5A-SB-041811(REA2)	BORON	0.0151 mg/L	0.0151U mg/L

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11608AB220149	4/28/2011 1:49:00 AM	PHOSPHORUS TIN	1.26 mg/Kg 1.48 mg/Kg	SL-032-SA5A-SB-3.0-4.0 SL-056-SA8N-SS-0.0-0.5 SL-057-SA8N-SS-0.0-0.5 SL-071-SA8N-SS-0.0-0.5 SL-080-SA8N-SS-0.0-0.5 SL-085-SA8N-SS-0.0-0.5 SL-086-SA8N-SS-0.0-0.5 SL-132-SA8N-SS-0.0-0.5 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-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-032-SA5A-SB-3.0-4.0(RES)	TIN	3.04 mg/Kg	3.04U mg/Kg
SL-056-SA8N-SS-0.0-0.5(RES)	TIN	2.66 mg/Kg	2.66U mg/Kg
SL-057-SA8N-SS-0.0-0.5(RES)	TIN	2.62 mg/Kg	2.62U mg/Kg
SL-071-SA8N-SS-0.0-0.5(RES)	TIN	2.79 mg/Kg	2.79U mg/Kg
SL-080-SA8N-SS-0.0-0.5(RES)	TIN	2.47 mg/Kg	2.47U mg/Kg
SL-085-SA8N-SS-0.0-0.5(RES)	TIN	2.62 mg/Kg	2.62U mg/Kg
SL-086-SA8N-SS-0.0-0.5(RES)	TIN	2.52 mg/Kg	2.52U mg/Kg
SL-132-SA8N-SS-0.0-0.5(RES)	TIN	2.58 mg/Kg	2.58U mg/Kg
SL-172-SA5A-SB-4.0-5.0(RES)	TIN	2.84 mg/Kg	2.84U mg/Kg
SL-174-SA5A-SB-2.0-3.0(RES)	TIN	2.93 mg/Kg	2.93U mg/Kg
SL-254-SA5A-SB-2.5-3.5(RES)	TIN	2.99 mg/Kg	2.99U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: DE130_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11626AB220808A	4/27/2011 8:08:00 AM	VANADIUM	0.0532 mg/Kg	SL-032-SA5A-SB-3.0-4.0 SL-056-SA8N-SS-0.0-0.5 SL-057-SA8N-SS-0.0-0.5 SL-071-SA8N-SS-0.0-0.5 SL-080-SA8N-SS-0.0-0.5 SL-085-SA8N-SS-0.0-0.5 SL-086-SA8N-SS-0.0-0.5 SL-132-SA8N-SS-0.0-0.5 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5

Method: **8015B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P09095AB322157A	4/20/2011 9:57:00 PM	METHANOL	100 ug/Kg	SL-056-SA8N-SS-0.0-0.5 SL-057-SA8N-SS-0.0-0.5 SL-071-SA8N-SS-0.0-0.5 SL-080-SA8N-SS-0.0-0.5 SL-085-SA8N-SS-0.0-0.5 SL-132-SA8N-SS-0.0-0.5

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB32B211301A	4/21/2011 1:01:00 PM	METHYLENE CHLORIDE	0.46 ug/Kg	SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-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-172-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.65 ug/Kg	4.2U ug/Kg
SL-174-SA5A-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	0.51 ug/Kg	4.0U ug/Kg
SL-254-SA5A-SB-2.5-3.5(RES)	METHYLENE CHLORIDE	0.47 ug/Kg	3.7U ug/Kg

Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: DE130_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB05-SA8N-SS-041811 (REA2)	4/18/2011 12:00:00 PM	BORON CALCIUM	0.0221 mg/L 0.0949 mg/L	SL-056-SA8N-SS-0.0-0.5 SL-057-SA8N-SS-0.0-0.5 SL-071-SA8N-SS-0.0-0.5 SL-080-SA8N-SS-0.0-0.5 SL-085-SA8N-SS-0.0-0.5 SL-086-SA8N-SS-0.0-0.5 SL-132-SA8N-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-056-SA8N-SS-0.0-0.5(RES)	BORON	6.50 mg/Kg	6.50U mg/Kg
SL-057-SA8N-SS-0.0-0.5(RES)	BORON	8.34 mg/Kg	8.34U mg/Kg
SL-071-SA8N-SS-0.0-0.5(RES)	BORON	1.62 mg/Kg	1.62U mg/Kg
SL-080-SA8N-SS-0.0-0.5(RES)	BORON	6.98 mg/Kg	6.98U mg/Kg
SL-085-SA8N-SS-0.0-0.5(RES)	BORON	2.36 mg/Kg	2.36U mg/Kg
SL-086-SA8N-SS-0.0-0.5(RES)	BORON	8.31 mg/Kg	8.31U mg/Kg
SL-132-SA8N-SS-0.0-0.5(RES)	BORON	5.01 mg/Kg	5.01U mg/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: DE130_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-056-SA8N-SS-0.0-0.5MS (SL-032-SA5A-SB-3.0-4.0 SL-056-SA8N-SS-0.0-0.5 SL-057-SA8N-SS-0.0-0.5 SL-071-SA8N-SS-0.0-0.5 SL-080-SA8N-SS-0.0-0.5 SL-085-SA8N-SS-0.0-0.5 SL-086-SA8N-SS-0.0-0.5 SL-132-SA8N-SS-0.0-0.5 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0)	FLUORIDE	75	-	80.00-120.00	-	FLUORIDE	J (all detects) UJ (all non-detects)
SL-254-SA5A-SB-2.5-3.5MS (SL-254-SA5A-SB-2.5-3.5)	FLUORIDE	36	-	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: DE130 **Laboratory: LL**

EDD Filename: DE130_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 1625C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P0WFLCSQ261308 (EB05-SA8N-SS-041811)	N-NITROSODIMETHYLAMINE	60	-	70.00-130.00	-	N-NITROSODIMETHYLAMINE	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
P11092AQ240556A P11092AY240638A (EB05-SA8N-SS-041811)	Tetryl	50	56	72.00-141.00	-	Tetryl	J(all detects) UJ(all non-detects)

Method: 8082
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11114AQ242158A P11114AY242139A (EB05-SA8N-SS-041811 EB13-SA5A-SB-041811)	Aroclor 5442	92	96	35.00-84.00	-	Aroclor 5432 Aroclor 5442 Aroclor 5460	J(all detects)

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P2WJLCSY261109 (EB05-SA8N-SS-041811 EB13-SA5A-SB-041811)	BENZOIC ACID	-	-	10.00-69.00	31 (30.00)	BENZOIC ACID	J(all detects) UJ(all non-detects)

Method: 8260B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSY25Q211111A (EB13-SA5A-SB-041811 TB-041811)	CARBON TETRACHLORIDE TRICHLOROFLUOROMETHANE	126 130	- -	75.00-123.00 64.00-129.00	- -	CARBON TETRACHLORIDE TRICHLOROFLUOROMETHAN	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: DE130 **Laboratory: LL**

EDD Filename: DE130_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*
P11164AQ240658A	NITROBENZENE	124	-	80.00-120.00	-	NITROBENZENE	
(SL-056-SA8N-SS-0.0-0.5	PETN	124	-	80.00-120.00	-	PETN	
SL-057-SA8N-SS-0.0-0.5							
SL-071-SA8N-SS-0.0-0.5							J(all detects)
SL-080-SA8N-SS-0.0-0.5							
SL-085-SA8N-SS-0.0-0.5							
SL-132-SA8N-SS-0.0-0.5)							

Surrogate Outlier Report

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: DE130_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **1625C**
Matrix: **AQ**

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
EB05-SA8N-SS-041811	N-Nitrosodimethylamine-d6	171	50.00-150.00	All Target Analytes	J (all detects)

Method: **8082**
Matrix: **AQ**

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
EB13-SA5A-SB-041811	DECACHLOROBIPHENYL	125	45.00-120.00	All Target Analytes	J(all detects)

Method: **8082**
Matrix: **SO**

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-085-SA8N-SS-0.0-0.5	DECACHLOROBIPHENYL	135	45.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-172-SA5A-SB-4.0-5.0	DECACHLOROBIPHENYL	129	45.00-120.00	All Target Analytes	J(all detects)
SL-174-SA5A-SB-2.0-3.0	DECACHLOROBIPHENYL	132	45.00-120.00	All Target Analytes	J(all detects)
SL-254-SA5A-SB-2.5-3.5	DECACHLOROBIPHENYL	130	45.00-120.00	All Target Analytes	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: DE130_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB05-SA8N-SS-041811	N-NITROSODIMETHYLAMINE	J	0.565	0.967	PQL	ng/L	J (all detects)

Method: 6010B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB05-SA8N-SS-041811	BORON	J	0.0221	0.0500	PQL	mg/L	J (all detects)
	CALCIUM	J	0.0949	0.200	PQL	mg/L	
EB13-SA5A-SB-041811	BORON	J	0.0151	0.0500	PQL	mg/L	J (all detects)

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB05-SA8N-SS-041811	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.72	1.9	PQL	ug/L	J (all detects)
	Butylbenzylphthalate	J	0.33	1.9	PQL	ug/L	
	Di-n-butylphthalate	J	0.37	1.9	PQL	ug/L	
	Di-n-octylphthalate	J	0.52	1.9	PQL	ug/L	
EB13-SA5A-SB-041811	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.30	1.0	PQL	ug/L	J (all detects)
	Di-n-butylphthalate	J	0.32	1.0	PQL	ug/L	
	Di-n-octylphthalate	J	0.27	1.0	PQL	ug/L	
	NAPHTHALENE	J	0.031	0.050	PQL	ug/L	

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-071-SA8N-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	22.1	38.4	PQL	ng/Kg	J (all detects)
SL-080-SA8N-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	38.2	40.2	PQL	ng/Kg	J (all detects)
SL-085-SA8N-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	252	380	PQL	ng/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-032-SA5A-SB-3.0-4.0	SODIUM	J	86.0	115	PQL	mg/Kg	J (all detects)
	TIN	J	3.04	11.5	PQL	mg/Kg	
	Zirconium	J	1.18	5.74	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: DE130_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-056-SA8N-SS-0.0-0.5	TIN	J	2.66	11.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.59	5.72	PQL	mg/Kg	
SL-057-SA8N-SS-0.0-0.5	TIN	J	2.62	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.22	5.45	PQL	mg/Kg	
SL-071-SA8N-SS-0.0-0.5	BORON	J	1.62	5.80	PQL	mg/Kg	J (all detects)
	SODIUM	J	82.1	116	PQL	mg/Kg	
	TIN	J	2.79	11.6	PQL	mg/Kg	
SL-080-SA8N-SS-0.0-0.5	TIN	J	2.47	12.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.01	6.01	PQL	mg/Kg	
SL-085-SA8N-SS-0.0-0.5	BORON	J	2.36	5.72	PQL	mg/Kg	J (all detects)
	SODIUM	J	85.5	114	PQL	mg/Kg	
	TIN	J	2.62	11.4	PQL	mg/Kg	
	Zirconium	J	1.44	5.72	PQL	mg/Kg	
SL-086-SA8N-SS-0.0-0.5	TIN	J	2.52	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.07	5.66	PQL	mg/Kg	
SL-132-SA8N-SS-0.0-0.5	BORON	J	5.01	5.40	PQL	mg/Kg	J (all detects)
	TIN	J	2.58	10.8	PQL	mg/Kg	
	Zirconium	J	3.97	5.40	PQL	mg/Kg	
SL-172-SA5A-SB-4.0-5.0	SODIUM	J	91.8	118	PQL	mg/Kg	J (all detects)
	TIN	J	2.84	11.8	PQL	mg/Kg	
	Zirconium	J	1.50	5.89	PQL	mg/Kg	
SL-174-SA5A-SB-2.0-3.0	TIN	J	2.93	10.9	PQL	mg/Kg	J (all detects)
SL-254-SA5A-SB-2.5-3.5	TIN	J	2.99	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.17	5.46	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-032-SA5A-SB-3.0-4.0	ANTIMONY	J	0.121	0.227	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.217	0.454	PQL	mg/Kg	
	SILVER	J	0.0243	0.114	PQL	mg/Kg	
SL-056-SA8N-SS-0.0-0.5	SILVER	J	0.0468	0.116	PQL	mg/Kg	J (all detects)
SL-057-SA8N-SS-0.0-0.5	SELENIUM	J	0.376	0.445	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0356	0.111	PQL	mg/Kg	
SL-071-SA8N-SS-0.0-0.5	ANTIMONY	J	0.111	0.232	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.224	0.464	PQL	mg/Kg	
	SILVER	J	0.0362	0.116	PQL	mg/Kg	
SL-080-SA8N-SS-0.0-0.5	ANTIMONY	J	0.136	0.240	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0269	0.120	PQL	mg/Kg	
SL-085-SA8N-SS-0.0-0.5	ANTIMONY	J	0.136	0.226	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.202	0.453	PQL	mg/Kg	
SL-086-SA8N-SS-0.0-0.5	ANTIMONY	J	0.205	0.231	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.323	0.461	PQL	mg/Kg	
	SILVER	J	0.0278	0.115	PQL	mg/Kg	
SL-132-SA8N-SS-0.0-0.5	SELENIUM	J	0.397	0.424	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0462	0.106	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: DE130_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-172-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0766	0.233	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.112	0.467	PQL	mg/Kg	
	SILVER	J	0.0296	0.117	PQL	mg/Kg	
SL-174-SA5A-SB-2.0-3.0	ANTIMONY	J	0.157	0.218	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.178	0.436	PQL	mg/Kg	
	SILVER	J	0.0167	0.109	PQL	mg/Kg	
SL-254-SA5A-SB-2.5-3.5	ANTIMONY	J	0.128	0.216	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.143	0.433	PQL	mg/Kg	
	SILVER	J	0.0348	0.108	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-071-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.48	1.2	PQL	mg/Kg	J (all detects)
SL-085-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.61	1.2	PQL	mg/Kg	J (all detects)
SL-086-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.45	1.2	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-032-SA5A-SB-3.0-4.0	MERCURY	J	0.0057	0.111	PQL	mg/Kg	J (all detects)
SL-056-SA8N-SS-0.0-0.5	MERCURY	J	0.0111	0.115	PQL	mg/Kg	J (all detects)
SL-057-SA8N-SS-0.0-0.5	MERCURY	J	0.0138	0.111	PQL	mg/Kg	J (all detects)
SL-071-SA8N-SS-0.0-0.5	MERCURY	J	0.0449	0.114	PQL	mg/Kg	J (all detects)
SL-080-SA8N-SS-0.0-0.5	MERCURY	J	0.0249	0.116	PQL	mg/Kg	J (all detects)
SL-086-SA8N-SS-0.0-0.5	MERCURY	J	0.0106	0.112	PQL	mg/Kg	J (all detects)
SL-132-SA8N-SS-0.0-0.5	MERCURY	J	0.0896	0.104	PQL	mg/Kg	J (all detects)
SL-172-SA5A-SB-4.0-5.0	MERCURY	J	0.0179	0.113	PQL	mg/Kg	J (all detects)
SL-174-SA5A-SB-2.0-3.0	MERCURY	J	0.0119	0.108	PQL	mg/Kg	J (all detects)
SL-254-SA5A-SB-2.5-3.5	MERCURY	J	0.0143	0.108	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-056-SA8N-SS-0.0-0.5	Aroclor 5460	J	2.7	3.8	PQL	ug/Kg	J (all detects)
SL-071-SA8N-SS-0.0-0.5	AROCLOR 1260	J	1.6	2.0	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	2.0	3.9	PQL	ug/Kg	
SL-080-SA8N-SS-0.0-0.5	Aroclor 5460	J	2.9	4.0	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: DE130_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-086-SA8N-SS-0.0-0.5	AROCLOR 1254	J	0.76	2.0	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.72	2.0	PQL	ug/Kg	

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-172-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.65	4.2	PQL	ug/Kg	J (all detects)
SL-174-SA5A-SB-2.0-3.0	METHYLENE CHLORIDE	J	0.51	4.0	PQL	ug/Kg	J (all detects)
SL-254-SA5A-SB-2.5-3.5	METHYLENE CHLORIDE	J	0.47	3.7	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-056-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	390	PQL	ug/Kg	J (all detects)
SL-071-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	31	390	PQL	ug/Kg	J (all detects)
SL-080-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	30	400	PQL	ug/Kg	J (all detects)
SL-085-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	32	380	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	57	190	PQL	ug/Kg	
	PHENANTHRENE	J	41	190	PQL	ug/Kg	
	PYRENE	J	55	190	PQL	ug/Kg	
SL-132-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	37	360	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-056-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.1	1.9	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.3	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.0	1.9	PQL	ug/Kg	
	CHRYSENE	J	1.8	1.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.4	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.0	1.9	PQL	ug/Kg	
	PYRENE	J	1.8	1.9	PQL	ug/Kg	
SL-057-SA8N-SS-0.0-0.5	CHRYSENE	J	0.41	1.9	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	1.2	1.9	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE130 **Laboratory: LL**

EDD Filename: DE130_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-071-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.9	2.0	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.1	2.0	PQL	ug/Kg	
	CHRYSENE	J	1.5	2.0	PQL	ug/Kg	
	FLUORANTHENE	J	1.4	2.0	PQL	ug/Kg	
	FLUORENE	J	1.5	2.0	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.79	2.0	PQL	ug/Kg	
	NAPHTHALENE	J	1.6	2.0	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	2.0	PQL	ug/Kg	
	PYRENE	J	1.3	2.0	PQL	ug/Kg	
SL-080-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.0	2.0	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.2	2.0	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.5	2.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.94	2.0	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.2	2.0	PQL	ug/Kg	
	NAPHTHALENE	J	1.0	2.0	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	2.0	PQL	ug/Kg	
	PYRENE	J	1.9	2.0	PQL	ug/Kg	
SL-085-SA8N-SS-0.0-0.5	ANTHRACENE	J	0.61	1.9	PQL	ug/Kg	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	1.7	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	1.9	PQL	ug/Kg	
SL-086-SA8N-SS-0.0-0.5	CHRYSENE	J	0.52	2.0	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	1.2	2.0	PQL	ug/Kg	
SL-132-SA8N-SS-0.0-0.5	ANTHRACENE	J	0.88	1.8	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	1.1	1.8	PQL	ug/Kg	

Method: 9012B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-071-SA8N-SS-0.0-0.5	CYANIDE	J	0.23	0.58	PQL	mg/Kg	J (all detects)

Enclosure II

Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	April 18, 2011
LDC Report Date:	August 31, 2011
Matrix:	Soil/Water
Parameters:	Volatiles
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE130

Sample Identification

SL-032-SA5A-SB-3.0-4.0
SL-172-SA5A-SB-4.0-5.0
SL-174-SA5A-SB-2.0-3.0
SL-254-SA5A-SB-2.5-3.5
TB-041811
EB13-SA5A-SB-041811

Introduction

This data review covers 4 soil samples and 2 water samples 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
4/21/11	2-Butanone 4-Methyl-2-pentanone 2-Hexanone n-Butylbenzene	26 45 57 26	All soil samples in SDG DE130	J (all detects) UJ (all non-detects)	A
4/22/11	Dichlorodifluoromethane Trichlorofluoromethane Carbon tetrachloride 1,2-Dichloroethane	37 37 36 34	All water samples in SDG DE130	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 DE130	J (all detects) UJ (all non-detects)	A
2/10/11	Dichlorodifluoromethane Acetone	30 28	All water samples in SDG DE130	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
VBLKB32	4/21/11	Methylene chloride	0.46 ug/Kg	All soil samples in SDG DE130

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-172-SA5A-SB-4.0-5.0	Methylene chloride	0.65 ug/Kg	4.2U ug/Kg
SL-174-SA5A-SB-2.0-3.0	Methylene chloride	0.51 ug/Kg	4.0U ug/Kg
SL-254-SA5A-SB-2.5-3.5	Methylene chloride	0.47 ug/Kg	3.7U ug/Kg

Sample TB-041811 was identified as a trip blank. No volatile contaminants were found.

Sample EB13-SA5A-SB-041811 was identified as an equipment 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 with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
LCS/DY25 (TB-041811 EB13-SA5A-SB-041811 VBLKY25)	Trichlorofluoromethane Carbon tetrachloride	130 (64-129) 126 (75-123)	- -	- -	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 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 DE130	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 DE130

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE130	SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5	2-Butanone 4-Methyl-2-pentanone 2-Hexanone n-Butylbenzene	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE130	TB-041811 EB13-SA5A-SB-041811	Dichlorodifluoromethane Trichlorofluoromethane Carbon tetrachloride 1,2-Dichloroethane	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE130	SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5	Bromochloromethane	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE130	TB-041811 EB13-SA5A-SB-041811	Dichlorodifluoromethane Acetone	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE130	TB-041811 EB13-SA5A-SB-041811	Trichlorofluoromethane Carbon tetrachloride	J (all detects) J (all detects)	P	Laboratory control samples (%R) (L)
DE130	SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5 TB-041811 EB13-SA5A-SB-041811	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Volatiles - Laboratory Blank Data Qualification Summary - SDG DE130

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE130	SL-172-SA5A-SB-4.0-5.0	Methylene chloride	4.2U ug/Kg	A	B
DE130	SL-174-SA5A-SB-2.0-3.0	Methylene chloride	4.0U ug/Kg	A	B
DE130	SL-254-SA5A-SB-2.5-3.5	Methylene chloride	3.7U ug/Kg	A	B

Santa Susana Field Laboratory
Volatiles - Field Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

LDC #: 26078B1a **VALIDATION COMPLETENESS WORKSHEET** Date: 8/31/11
SDG #: DE130 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer:
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: 4/18/11
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	SW	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	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 EB = 6

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-032-SA5A-SB-3.0-4.0 S	11	YBLKB32	21		31	
2	SL-172-SA5A-SB-4.0-5.0	12	YBLKY25	22		32	
3	SL-174-SA5A-SB-2.0-3.0	13		23		33	
4	SL-254-SA5A-SB-2.5-3.5	14		24		34	
5	TB-041811 W	15		25		35	
6	EB13-SA5A-SB-041811	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 26078B|a

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?	✓			

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 #: 26078 B/a

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		↓	↓
	4/21/11 11:50	CCV	M	26		All soils	J/UJ/A (C)
			Y	45			
			Z	57		↓	↓
			III	26			
	4/22/11 9:47	CCV	JJ	37		All water	(C)
			KK	37			
			O	36		↓	↓
			L	34			

CONCAL_8260B.1S

LDC #: 26078B1a

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: 4/21/11
Conc. units: ug/Kg
Associated Samples: All SOILS (B)

Compound	Blank ID	10X		2	3	4				
	YBLKB32									
E	0.46	4.6		0.65/4.2U	0.51/4.0U	0.47/3.7U				
CRQL										

Blank analysis date:
Conc. units:
Associated Samples:

Compound	Blank ID									
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 #: 26078B/a

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

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 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 Y25	KK	130 (64-129)	( )	( )	YBLKY25, 5, 6	J/Pdet (L)
			e	126 (75-123)	( )	( )	↓	↓ ↓
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		

LDC #: 26078B/a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: e

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 SOIL	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 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 #: 26078B/2

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

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	4/21/11	C (1st internal standard)	0.4296	0.4799	0.4799	12	12
	11:50		EE (2nd internal standard)	1.5916	1.7815	1.7815	12	12
			JJJ (3rd internal standard)	1.3506	1.4849	1.4849	10	10
			(4th internal standard)					
2	ccv	4/22/11	C (1st internal standard)	0.4001	0.3931	0.3931	2	2
	9:47		EE (2nd internal standard)	1.9465	2.1204	2.1204	9	9
			JJJ (3rd internal standard)	1.6848	1.8166	1.8166	8	8
			(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 #: 26078 B1a

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: 01

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane	50.0	49.392	99	99	0
1,2-Dichloroethane-d4	↓	48.918	98	98	↓
Toluene-d8		50.253	101	101	
Bromofluorobenzene	↓	43.879	88	88	↓

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 #: 26018P19

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Reviewer: FT
2nd Reviewer: A

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: lcsP 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	20	22.49	22.05	112	112	110	110	2	2
Trichloroethene	↓	↓	19.7	19.26	98	98	96	96	2	2
Benzene			20.99	20.82	105	105	104	104	1	1
Toluene			20.3	20.03	102	102	100	100	1	1
Chlorobenzene			19.72	19.53	99	99	98	98	1	1

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 #: 26078 B/a

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, E:

Conc. = $\frac{(32897)(50)(5)}{(948704)(0.3108)(5.59)(0.857)}$

=

5.82 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: April 18, 2011

LDC Report Date: August 31, 2011

Matrix: Soil/Water

Parameters: 1,4-Dioxane

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE130

Sample Identification

SL-032-SA5A-SB-3.0-4.0
SL-172-SA5A-SB-4.0-5.0
SL-174-SA5A-SB-2.0-3.0
SL-254-SA5A-SB-2.5-3.5
TB-041811
EB13-SA5A-SB-041811

Introduction

This data review covers 4 soil samples and 2 water samples 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-041811 was identified as a trip blank. No 1,4-dioxane was found.

Sample EB13-SA5A-SB-041811 was identified as an equipment 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 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 DE130	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 DE130

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE130	SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5 TB-041811 EB13-SA5A-SB-041811	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
1,4-Dioxane - Laboratory Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
1,4-Dioxane - Field Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

LDC #: 26078B1b **VALIDATION COMPLETENESS WORKSHEET** Date: 8/29/11
SDG #: DE130 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: KM
2nd Reviewer: AT

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: 4/18/11
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/RL/LOQ/LODs	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 EB = 6

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-032-SA5A-SB-3.0-4.0 S	11	VBLKE98	21		31	
2	SL-172-SA5A-SB-4.0-5.0	12	VBLKE97	22		32	
3	SL-174-SA5A-SB-2.0-3.0	13		23		33	
4	SL-254-SA5A-SB-2.5-3.5	14		24		34	
5	TB-041811 W	15		25		35	
6	EB13-SA5A-SB-041811 W	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 26078B1b

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 ≥ 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 #: 26078B1b

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	11/7/10	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	11/01/10	↓ (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 #: 26078B16

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	4/20/11 14:35	1,4-Dioxane (1st internal standard)	1.3396	1.3873	1.3873	4	4
			(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
2	CCV	4/20/11 8:47	↓ (1st internal standard)	1.3219	1.4150	1.4150	7	7
			(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 #: 26078B10

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					
1,2-Dichloroethane-d4					
Toluene-d8	~~97~~ 10	9.6x10	97	97	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 #: 46078P1D

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 E98

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										
~~1,1-Dichloroethene~~	125	125	121.77	136.46	97	97	109	109	11	11
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 #: 26078B1b

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: April 18, 2011

LDC Report Date: August 31, 2011

Matrix: Soil/Water

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE130

Sample Identification

SL-056-SA8N-SS-0.0-0.05
SL-057-SA8N-SS-0.0-0.05
SL-071-SA8N-SS-0.0-0.05
SL-080-SA8N-SS-0.0-0.05
SL-085-SA8N-SS-0.0-0.05
SL-086-SA8N-SS-0.0-0.05
SL-132-SA8N-SS-0.0-0.05
EB05-SA8N-SS-041811
SL-032-SA5A-SB-3.0-4.0
SL-172-SA5A-SB-4.0-5.0
SL-174-SA5A-SB-2.0-3.0
SL-254-SA5A-SB-2.5-3.5
EB13-SA5A-SB-041811

Introduction

This data review covers 11 soil samples and 2 water 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.

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
4/27/11	Benzidine	30	SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5	J (all detects) UJ (all non-detects)	P

The percent differences (%D) of the second source calibration standard were less than or equal to 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.

Samples EB05-SA8N-SS-041811 and EB13-SA5A-SB-041811 were identified as equipment blanks. No semivolatile 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 with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
112WJLCS/D (All water samples in SDG DE130)	Benzoic acid	-	-	31 (≤30)	J (all detects) UJ (all non-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 DE130	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 DE130

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE130	SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5	Benzidine	J (all detects) UJ (all non-detects)	P	Continuing calibration (%D) (C)
DE130	EB05-SA8N-SS-041811 EB13-SA5A-SB-041811	Benzoic acid	J (all detects) UJ (all non-detects)	P	Laboratory control samples (RPD) (E)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 EB05-SA8N-SS-041811 SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5 EB13-SA5A-SB-041811	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 DE130

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

LDC #: 26078B2a **VALIDATION COMPLETENESS WORKSHEET** Date: 8/30/11
SDG #: DE130 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer:
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: 4/18/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤ 30, r^2
IV.	Continuing calibration/ICV	SW	ICV/CCV ≤ 25
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specific
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/RL/LOQ/LODs	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	EB-8, 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: soil + water

1 1	SL-056-SA8N-SS-0.0-0.05 S	11 1	SL-174-SA5A-SB-2.0-3.0 S	21	SBLK.LA112	31	
2 1	SL-057-SA8N-SS-0.0-0.05	12 1	SL-254-SA5A-SB-2.5-3.5 ↓	22 2	SBLKWJ112	32	
3 1	SL-071-SA8N-SS-0.0-0.05	13 2	EB13-SA5A-SB-041811 W	23		33	
4 1	SL-080-SA8N-SS-0.0-0.05	14		24		34	
5 1	SL-085-SA8N-SS-0.0-0.05	15		25		35	
6 1	SL-086-SA8N-SS-0.0-0.05	16		26		36	
7 1	SL-132-SA8N-SS-0.0-0.05 ↓	17		27		37	
8 2	EB05-SA8N-SS-041811 W	18		28		38	
9 1	SL-032-SA5A-SB-3.0-4.0 S	19		29		39	
10 1	SL-172-SA5A-SB-4.0-5.0 ↓	20		30		40	

LDC #: 26078132a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: [illegible]

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 #: 26078B2a

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				
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 #: 26078B2a

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
	4/27/11 7:44	CCV	SSS	30		BMW 6,7, 9→12,	J/UJ/P (C)

LDC #: 26078B2C

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

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
		112W-LCS/D	PPP	( )	( )	31 (30)	All water	J/UJ/P (EL)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )	

LDC #: 26078132

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

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,
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	4/13/11	Phenol (1st internal standard)	2.681	2.681	2.531	2.531	7	7
			~~Naphthalene~~ Nitrobenzene (2nd internal standard)	0.733	0.733	0.672	0.672	6	6
			~~Fluorene~~ 2-Nitroaniline (3rd internal standard)	0.341	0.341	0.311	0.311	10	10
			~~Pentachlorophenol~~ Pentachlorophenol (4th internal standard)	0.174	0.174	0.157	0157	10	10
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.733	0.733	0.654	0.654	10	10
			Benzo(a)pyrene (6th internal standard)	1.194	1.194	1.176	1.176	12	12
2	ICAL	4/01/11	Phenol (1st internal standard)	3.124	3.124	3.056	3.056	6	6
			~~Naphthalene~~ Nitrobenzene (2nd internal standard)	0.556	0.556	0.545	0.545	2	2
			~~Fluorene~~ 2-Nitroaniline (3rd internal standard)	0.437	0.437	0.415	0.415	7	7
			Pentachlorophenol (4th internal standard)	0.158	0.158	0.156	0.156	6	6
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.747	0747	0.715	0715	7	7
			Benzo(a)pyrene (6th internal standard)	1.229	1.229	1.163	1.163	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 #: 26078B2s

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

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	4/27/11	Phenol (1st internal standard)	2.531	2.706	2.706	7	7
		7:44	Naphthalene (2nd internal standard)	0.672	0.714	0.714	6	6
			Fluorene (3rd internal standard)	0.311	0.356	0.356	14	14
			Pentachlorophenol (4th internal standard)	0.157	0.172	0.172	9	9
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.654	0.715	0.715	9	9
			Benzo(a)pyrene (6th internal standard)	1.176	1.286	1.286	9	9
2	ccv	4/24/11	Phenol (1st internal standard)	3.056	2.819	2.819	8	8
		9:32	Naphthalene (2nd internal standard)	0.545	0.565	0.565	4	4
			Fluorene (3rd internal standard)	0.415	0.428	0.428	3	3
			Pentachlorophenol (4th internal standard)	0.156	0.139	0.139	11	11
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.715	0.809	0.809	13	13
			Benzo(a)pyrene (6th internal standard)	1.163	1.187	1.187	2	2
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 #: 26078B2c

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

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	100	80.657	81	81	0
2-Fluorobiphenyl	↓	84.250	84	84	
Terphenyl-d14	↓	90.541	91	91	
Phenol-d5	200	192.467	96	96	
2-Fluorophenol	↓	187.895	94	94	
2,4,6-Tribromophenol	↓	216.722	108	108	↓
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 #: 26078B2S

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 = Laboratory 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 ~~1666.67~~	1659.67	NA	100	100				
N-Nitroso-di-n-propylamine			1491.21		89	89				
4-Chloro-3-methylphenol			1676.57		101	101				
Acenaphthene			1613.14		97	97				
Pentachlorophenol			1191.18		71	71				
Pyrene	↓	↓	1655.86	↓	99	99	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 #: 26078B2a

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
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 = $\frac{(A_x)(I_s)(V_i)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

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, EEE:

Conc. = $\frac{(5764)(40)(1000)(\quad)(\quad)}{(581182)(0.654)(30)(0.857)(\quad)}$

=

24 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: April 18, 2011

LDC Report Date: August 31, 2011

Matrix: Soil/Water

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: Lancaster laboratories

Sample Delivery Group (SDG): DE130

Sample Identification

SL-056-SA8N-SS-0.0-0.05
SL-057-SA8N-SS-0.0-0.05
SL-071-SA8N-SS-0.0-0.05
SL-080-SA8N-SS-0.0-0.05
SL-085-SA8N-SS-0.0-0.05
SL-086-SA8N-SS-0.0-0.05
SL-132-SA8N-SS-0.0-0.05
EB05-SA8N-SS-041811
SL-032-SA5A-SB-3.0-4.0
SL-172-SA5A-SB-4.0-5.0
SL-174-SA5A-SB-2.0-3.0
SL-254-SA5A-SB-2.5-3.5
EB13-SA5A-SB-041811

Introduction

This data review covers 11 soil samples and 2 water 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 with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
4/15/11	Di-n-octylphthalate	26	All samples in SDG DE130	J (all detects) UJ (all non-detects)	A
	Benzo(b)fluoranthene	30		J (all detects) UJ (all non-detects)	

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.

Samples EB05-SA8N-SS-041811 and EB13-SA5A-SB-041811 were identified as equipment blanks. No semivolatile contaminants were found with the following exceptions:

Equipment Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB05-SA8N-SS-041811	4/18/11	Butylbenzylphthalate Di-n-butylphthalate Bis(2-ethylhexyl)phthalate Di-n-octylphthalate	0.33 ug/L 0.37 ug/L 0.72 ug/L 0.52 ug/L	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05
EB13-SA5A-SB-041811	4/18/11	Di-n-butylphthalate Bis(2-ethylhexyl)phthalate Naphthalene Di-n-octylphthalate	0.32 ug/L 0.30 ug/L 0.031 ug/L 0.27 ug/L	SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5

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

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 DE130	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 DE130

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 EB05-SA8N-SS-041811 SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5 EB13-SA5A-SB-041811	Di-n-octylphthalate Benzo(b)fluoranthene	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 EB05-SA8N-SS-041811 SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5 EB13-SA5A-SB-041811	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 DE130

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles- Field Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

LDC #: 26078B2b **VALIDATION COMPLETENESS WORKSHEET** Date: 8/30/11
SDG #: DE130 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: FT
2nd Reviewer: A

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: 4/18/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤ 30, r^2
IV.	Continuing calibration/ICV	SW	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/LD
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	SW	EB = 8, 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: soil + water

1	SL-056-SA8N-SS-0.0-0.05 S	11	SL-174-SA5A-SB-2.0-3.0 S	21	SBLKLA116	31	
2	SL-057-SA8N-SS-0.0-0.05	12	SL-254-SA5A-SB-2.5-3.5	22	SBLKWE110	32	
3	SL-071-SA8N-SS-0.0-0.05	13	EB13-SA5A-SB-041811 W	23		33	
4	SL-080-SA8N-SS-0.0-0.05	14		24		34	
5	SL-085-SA8N-SS-0.0-0.05	15		25		35	
6	SL-086-SA8N-SS-0.0-0.05	16		26		36	
7	SL-132-SA8N-SS-0.0-0.05	17		27		37	
8	EB05-SA8N-SS-041811 W	18		28		38	
9	SL-032-SA5A-SB-3.0-4.0 S	19		29		39	
10	SL-172-SA5A-SB-4.0-5.0	20		30		40	

LDC #: 26078B2b

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 $\geq$ 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. 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 #: 26078B2b

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 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 [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?	✓			
XI. [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)?			✓	
[illegible]				
System performance was found to be acceptable.	✓			
[illegible]				
Overall assessment of data was found to be acceptable.	✓			
[illegible]				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
[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 #: 26078B2b

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
	4/15/11	ICV	FFF	26		All	J/UJ/A
			GGG	30		↓	↓

LDC #: 26078 B2b

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/L
Sampling date: 4/18/11
Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: 1 → 7 (ND)

Compound	Blank ID	Sample Identification								
	8									
AAA	0.33									
XX	0.37									
EEE	0.72									
FFF	0.52									

Blank units: ug/L **Associated sample units:** ug/L
Sampling date: 4/18/11
Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: 9 → 12 (ND)

Compound	Blank ID	Sample Identification								
	13									
XX	0.32									
EEE	0.30									
S	0.031									
FFF	0.27									
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 #: 26078B2b

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 (std)	Recalculated RRF (std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ccv	4/15/11	~~Phenol (1st internal standard)~~						
			Naphthalene (2nd internal standard) ✓	1.061	1.061	1.029	1.029	4	4
			Fluorene (3rd internal standard) ✓	1.310	1.310	1.260	1.260	7	7
			~~Pentachlorophenol~~ Anthracene (4th internal standard) •	1.119	1.119	1.080	1.080	9	9
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)	1.188	1.188	1.146	1.146	4	4
			Benzo(a)pyrene (6th internal standard)	1.092	1.092	1.034	1.034	12	12
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 #: 26078B2b

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

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	4/21/11	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)	1.029	1.008	1.008	2	2
			Fluorene (3rd internal standard)	1.260	1.262	1.262	0	0
			~~Pentachlorophenol~~ Anthracene (4th internal standard)	1.080	1.113	1.113	3	3
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)	1.146	1.121	1.121	2	2
			Benzo(a)pyrene (6th internal standard)	1.034	1.115	1.115	8	8
2	CCV	4/27/11 7:26	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)		1.033	1.033	0	0
			Fluorene (3rd internal standard)		1.249	1.249	1	1
			~~Pentachlorophenol~~ Anthracene (4th internal standard)		1.090	1.090	1	1
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)		1.170	1.170	2	2
			Benzo(a)pyrene (6th internal standard)		1.081	1.081	5	5
3	CCV	4/27/11 9:21	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)		1.024	1.024	0	0
			Fluorene (3rd internal standard)		1.295	1.295	3	3
			~~Pentachlorophenol~~ Anthracene (4th internal standard)		1.169	1.169	8	8
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)		1.164	1.164	2	2
			Benzo(a)pyrene (6th internal standard)		1.138	1.138	10	10

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 #: 26078B2b

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	0.943	91 / 94	94	0
2-Fluorobiphenyl	↓	0.845	~~84~~ 85	85	↓
Terphenyl-d14		0.795	~~87~~ 80	80	
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 #: 26078B2b

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: 1160LA.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	32.21	NA	97	97				
Pentachlorophenol										
Pyrene	33.33	↓	32.26	NA	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 #: 26078B2b

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
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_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(b)fluoranthene

Conc. = $\frac{(3868)(1)(1000)(\quad)(\quad)}{(535270)(1.078)(30)(0.857)(\quad)}$

=

2.6 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: April 18, 2011

LDC Report Date: August 31, 2011

Matrix: Soil/Water

Parameters: N-Nitrosodimethylamine

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE130

Sample Identification

SL-056-SA8N-SS-0.0-0.05
SL-057-SA8N-SS-0.0-0.05
SL-071-SA8N-SS-0.0-0.05
SL-080-SA8N-SS-0.0-0.05
SL-085-SA8N-SS-0.0-0.05
SL-132-SA8N-SS-0.0-0.05
EB05-SA8N-SS-041811

Introduction

This data review covers 6 soil samples and one water sample 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% for calibration all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 30.0% for all compounds.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No N-nitrosodimethylamine was found in the method blanks.

Sample EB05-SA8N-SS-041811 was identified as an equipment blank. No N-nitrosodimethylamine 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 with the following exceptions:

Sample	Surrogate	%R (Limits)	Compound	Flag	A or P
EB05-SA8N-SS-041811	N-nitrosodimethylamine-d6	171 (50-150)	N-nitrosodimethylamine	J (all detects)	A

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)	Flag	A or P
110WLCS/D (All water samples in SDG DE130)	N-nitrosodimethylamine	60 (70-130)	-	-	J (all detects) UJ (all non-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 DE130	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 DE130

SDG	Sample	Compound	Flag	A or P	Reason
DE130	EB05-SA8N-SS-041811	N-nitrosodimethylamine	J (all detects)	A	Surrogate spikes (%R) (S)
DE130	EB05-SA8N-SS-041811	N-nitrosodimethylamine	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 EB05-SA8N-SS-041811	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Laboratory Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Field Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

LDC #: 26078B2c **VALIDATION COMPLETENESS WORKSHEET** Date: 8/29/11
SDG #: DE130 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: JV
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: 4/18/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤ 30
IV.	Continuing calibration/ICV	A	CCV ≤ 20 ICV ≤ 30
V.	Blanks	A	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
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/RL/LOQ/LODs	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	EB = 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	SL-056-SA8N-SS-0.0-0.05 S	11	SBLKLG110	21		31	
2	SL-057-SA8N-SS-0.0-0.05	12	SBLKWF110	22		32	
3	SL-071-SA8N-SS-0.0-0.05	13		23		33	
4	SL-080-SA8N-SS-0.0-0.05	14		24		34	
5	SL-085-SA8N-SS-0.0-0.05	15		25		35	
6	SL-132-SA8N-SS-0.0-0.05	16		26		36	
7	EB05-SA8N-SS-041811 W	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 26078B2c

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?	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% 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?	NA		✓	
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. Surrogate spikes				
Were all surrogate %R within QC limits?	NA	✓		
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. LCS				
Was an LCS analyzed for this SDG?	✓			

LDC #: 26078B2C

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				
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 #: 26078B2C

VALIDATION FINDINGS WORKSHEET
Surrogate Recovery

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualification below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were percent recoveries (%R) for surrogates within QC limits?
Y N N/A If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?
Y N N/A If any %R was less than 10 percent, was a reanalysis performed to confirm %R?

#	Date	Sample ID	Surrogate	%R (Limits)	Qualifications
		7	*	171 (50-150)	J/A det (s)
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
		* N-Nitrosodimethylamine-d6		( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

* QC limits are advisory	QC Limits (Soil)	QC Limits (Water)		QC Limits (Soil)	QC Limits (Water)
S1 (NBZ) = Nitrobenzene-d5	23-120	35-114	S5 (2FP)= 2-Fluorophenol	25-121	21-100
S2 (FBP) = 2-Fluorobiphenyl	30-115	43-116	S6 (TBP) = 2,4,6-Tribromophenol	19-122	10-123
S3 (TPH) = Terphenyl-d14	18-137	33-141	S7 (2CP) = 2-Chlorophenol-d4	20-130*	33-110*
S4 (PHL) = Phenol-d5	24-113	10-94	S8 (DCB) = 1,2-Dichlorobenzene-d4	20-130*	16-110*

LDC #: 26078B2C

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
		110WLCS/D	*	60 (70-130)	( )	( )	All water	J/UJ/P (L)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
		N-Nitrosodimethylamine		( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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LDC #: 26078B2C

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, 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	4/20/11	~~Phenol (1st internal standard)~~ N-nitrosodimethylamine	1.489	1.489	1.520	1.520	9	9
			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 #: 26078B2C

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

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	4/28/11	N-Nitrosodimethylamine	0.51736	0.53164	0.53164	2.76032	2.76032
		10:34	Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
	CCV	4/28/11	Pentachlorophenol (4th internal standard)	↓	0.45443	0.45443	12.16301	12.16301
		17:20	Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
2	CCV	4/21/11	Phenol (1st internal standard)	↓	0.46929	0.46929	9.29	9.29
		11:28	Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
	CCV	4/21/11	Pentachlorophenol (4th internal standard)	↓	0.46818	0.46819	9.505	9.505
		13:40	Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)	↓	0.46648	0.46648	9.83368	9.83368
	CCV	4/28/11	Naphthalene (2nd internal standard)					
		20:23	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 #: 26078B2C

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

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~~ N-Nitrosodimethylamine-d6	25	31.104	124	124	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 #: 26078B2C

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
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: #1 LCS SOIL

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	616.11	NA	74	74	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 #: 26078B2C

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
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. _____, _____:

Conc. = $\frac{(\quad)(\quad)(\quad)(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)(\quad)(\quad)}$

= 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:	April 18, 2011
LDC Report Date:	August 31, 2011
Matrix:	Soil/Water
Parameters:	Polychlorinated Biphenyls
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE130

Sample Identification

SL-056-SA8N-SS-0.0-0.05
SL-057-SA8N-SS-0.0-0.05
SL-071-SA8N-SS-0.0-0.05
SL-080-SA8N-SS-0.0-0.05
SL-085-SA8N-SS-0.0-0.05
SL-086-SA8N-SS-0.0-0.05
SL-132-SA8N-SS-0.0-0.05
EB05-SA8N-SS-041811
SL-032-SA5A-SB-3.0-4.0
SL-172-SA5A-SB-4.0-5.0
SL-174-SA5A-SB-2.0-3.0
SL-254-SA5A-SB-2.5-3.5
EB13-SA5A-SB-041811
SL-056-SA8N-SS-0.0-0.05MS
SL-056-SA8N-SS-0.0-0.05MSD

Introduction

This data review covers 13 soil samples and 2 water 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 with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Affected Compound	Flag	A or P
4/25/11	CCV	ZBmultiR2	Aroclor-5432	20.4	All water samples in SDG DE130	Aroclor-5432	J (all detects) UJ (all non-detects)	A
4/26/11 (14:17)	CCV	ZBmultiR2	Aroclor-5432	29.8	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-056-SA8N-SS-0.0-0.05MS SL-056-SA8N-SS-0.0-0.05MSD PBLK07112	Aroclor-5432	J (all detects) UJ (all non-detects)	A
4/26/11 (21:42)	CCV	ZBmultiR2	Aroclor-5432	25.6	SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5	Aroclor-5432	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.

Samples EB05-SA8N-SS-041811 and EB13-SA5A-SB-041811 were identified as equipment blanks. No polychlorinated biphenyl 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 with the following exceptions:

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
SL-172-SA5A-SB-4.0-5.0	Not specificed	Decachlorobiphenyl	129 (45-120)	All TCL compounds	J (all detects)	P
SL-174-SA5A-SB-2.0-3.0	Not specificed	Decachlorobiphenyl	132 (45-120)	All TCL compounds	J (all detects)	P
SL-254-SA5A-SB-2.5-3.5	Not specificed	Decachlorobiphenyl	130 (45-120)	All TCL compounds	J (all detects)	P
EB13-SA5A-SB-041811	Not specificed	Decachlorobiphenyl	125 (45-120)	All TCL compounds	J (all detects)	P

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 with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Compounds	Flag	A or P
LCS/LCSD24111 (All water samples in SDG DE130)	Aroclor-5442	92 (35-84)	96 (35-84)	-	Aroclor-5432 Aroclor-5442 Aroclor-5460	J (all detects) J (all detects) J (all 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 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-056-SA8N-SS-0.0-0.05	Aroclor-1254	45	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE130	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 DE130

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 EB05-SA8N-SS-041811 SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5 EB13-SA5A-SB-041811	Aroclor-5432	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE130	SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5 EB13-SA5A-SB-041811	All TCL compounds	J (all detects)	P	Surrogate spikes (%R) (S)
DE130	EB05-SA8N-SS-041811 EB13-SA5A-SB-041811	Aroclor-5432 Aroclor-5442 Aroclor-5460	J (all detects) J (all detects) J (all detects)	P	Laboratory control samples (%R) (L)
DE130	SL-056-SA8N-SS-0.0-0.05	Aroclor-1254	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE130	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
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

LDC #: 26078B3b **VALIDATION COMPLETENESS WORKSHEET** Date: 8/30/11
SDG #: DE130 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: F
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: 4/18/11
II.	GC/ECD Instrument Performance Check	NA	
III.	Initial calibration	A	% 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	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/RL/LOQ/LODs	SW	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	Field blanks	NP	EB = 8, 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:
SOIL + WATER

1	SL-056-SA8N-SS-0.0-0.05 S	11	SL-174-SA5A-SB-2.0-3.0 S	21	PBLK07112	31	
2	SL-057-SA8N-SS-0.0-0.05	12	SL-254-SA5A-SB-2.5-3.5	22	PBLK24111	32	
3	SL-071-SA8N-SS-0.0-0.05	13	EB13-SA5A-SB-041811 W	23		33	
4	SL-080-SA8N-SS-0.0-0.05	14	#1 MS	24		34	
5	SL-085-SA8N-SS-0.0-0.05	15	#1 MSD	25		35	
6	SL-086-SA8N-SS-0.0-0.05	16		26		36	
7	SL-132-SA8N-SS-0.0-0.05	17		27		37	
8	EB05-SA8N-SS-041811 W	18		28		38	
9	SL-032-SA5A-SB-3.0-4.0 S	19		29		39	
10	SL-172-SA5A-SB-4.0-5.0	20		30		40	

Notes:

LDC #: 26078B36
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: EJ
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 #: 26078B3h
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 #: 26078B3b

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
	4/25/11 18:52	CCV	ZB multi R2	Aroclor 5432	20.4	( )	All water	J/UJ/A (C) qual 5432 only
						( )		
						( )		
	4/26/11 14:17	CCV	↓	↓	29.8	( )	PBLK07112, 1-7, 9, 10, 14, 15	J/UJ/A (C) qual 5432 only
						( )		
						( )		
						( )		
						( )		
	4/26/11 21:42	CCV	↓	↓	35.6	( )	11, 12	↓
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		

LDC #: 26078B3b

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?

#	Sample ID	Detector/ Column	Surrogate Compound	%R (Limits)	Qualifications
	5	VG	O	135 (45-120)	no qual 5 x DL
	10			129 (45-120)	J/Pdet (S)
	11			132 (↓)	↓ ↓
	12	↓	↓	130 (45-120)	↓ ↓
	13	↓	O	125 (45-120)	J/Pdet (S)

	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 #: 26078B3b

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

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 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
	lcs/lcsd 24111	Aroclor 5442	92 (35-84)	96 (35-84)	( )	All water	J Pdet (L)
			( )	( )	( )	qual	(Aroclor 5442 only)
			( )	( )	( )		5432 J
			( )	( )	( )		5460
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )	

LDC #: 26078B36
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

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 Finding ≤40	Associated Samples	Qualifications
	AA	45	1	J/A dlt *

Comments: See sample calculation verification worksheet for recalculations

LDC #: 26078B3h
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

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

#	Standard ID	Calibration Date	Compound	Reported CF (200 std)	Recalculated CF (200 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	LCAL 1C20104	4/14/11	Aroclor 1260-1 ZBmulti R1	40	40	~~40~~ 39	39	11.0	11.0
			ZBmulti R2	179	179	175	175	11.8	11.8
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 #: 26078B3h
SDG #: pw 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	4/26/11 18:34	Aroclor 1260 ZBR1	200	206.71	206.71	3.4	3.4
			ZBR2	200	232.57	232.57	16.3	16.3
2	ccv	4/26/11 13:58	Aroclor 1260 ↓	200	218.31	218.31	9.2	9.2
			↓	200	235.98	235.98	18.0	18.0
3	ccv	4/26/11 21:24	↓	200	204.52	204.52	2.3	2.3
			↓	↓	228.15	228.15	14.1	14.1
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 #: 26078B39
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
		104		Reported	Recalculated	
TCMX	ZB R1	~~1.03995~~	1.106803	103	103	0
PCB	ZB R2	1.04	1.133739	109	109	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 #: 26078B3h
SDG #: pw covers

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: FZ
2nd Reviewer: CT

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: 14 + 15

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)											
PCB - 1260	16.64	16.64		20.15	19.16	121	121	115	115	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 #: 26078B3b
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 = | 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)										
PCB - 1260	16.67	NA	18.84	NA	113	113	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 #: 26078B3h
SDG #: pu grave

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
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. #1 Compound Name PCB 1254

Concentration = $\frac{2.7902}{(0.857)}$ (final)

= 3.3 ug/kg

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications
	1254-1 = 2159.903564 / 87	(2000) / (60.1)(0.857)(1000)	= 0.8262	Aroclor 1254-1 = 0.8262	= 2.315944
					= 3.165529
					= 3.741602
					= 3.901961
					2.790247

Comments: ___

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: April 18, 2011

LDC Report Date: September 2, 2011

Matrix: Soil/Water

Parameters: Metals

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE130

Sample Identification

SL-056-SA8N-SS-0.0-0.05
SL-057-SA8N-SS-0.0-0.05
SL-071-SA8N-SS-0.0-0.05
SL-080-SA8N-SS-0.0-0.05
SL-085-SA8N-SS-0.0-0.05
SL-086-SA8N-SS-0.0-0.05
SL-132-SA8N-SS-0.0-0.05
EB05-SA8N-SS-041811
SL-032-SA5A-SB-3.0-4.0
SL-172-SA5A-SB-4.0-5.0
SL-174-SA5A-SB-2.0-3.0
SL-254-SA5A-SB-2.5-3.5
EB13-SA5A-SB-041811

Introduction

This data review covers 11 soil samples and 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B, 6020A, 7470A, and 7471A for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Molybdenum, Mercury, 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.

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. 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)	Boron	15.590 ug/L	All water samples in SDG DE130
ICB/CCB	Copper Lead	0.24 ug/L 0.071 ug/L	All water samples in SDG DE130
ICB/CCB	Copper Lithium Titanium	1.0 ug/L 3.1 ug/L 2.0 ug/L	All soil samples in SDG DE130
PB (prep blank)	Phosphorus Tin Vanadium	1.256 mg/Kg 1.478 mg/Kg 0.053 mg/Kg	All soil samples in SDG DE130
ICB/CCB	Vanadium	0.21 ug/L	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0
ICB/CCB	Vanadium	0.30 ug/L	SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5

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
EB05-SA8N-SS-041811	Boron	22.1 ug/L	22.1U ug/L
EB13-SA5A-SB-041811	Boron	15.1 ug/L	15.1U ug/L
SL-056-SA8N-SS-0.0-0.05	Tin	2.7 mg/Kg	2.7U mg/Kg
SL-057-SA8N-SS-0.0-0.05	Tin	2.6 mg/Kg	2.6U mg/Kg
SL-071-SA8N-SS-0.0-0.05	Tin	2.8 mg/Kg	2.8U mg/Kg
SL-080-SA8N-SS-0.0-0.05	Tin	2.5 mg/Kg	2.5U mg/Kg
SL-085-SA8N-SS-0.0-0.05	Tin	2.6 mg/Kg	2.6U mg/Kg
SL-086-SA8N-SS-0.0-0.05	Tin	2.5 mg/Kg	2.5U mg/Kg
SL-132-SA8N-SS-0.0-0.05	Tin	2.6 mg/Kg	2.6U mg/Kg
SL-032-SA5A-SB-3.0-4.0	Tin	3.0 mg/Kg	3.0U mg/Kg
SL-172-SA5A-SB-4.0-5.0	Tin	2.8 mg/Kg	2.8U mg/Kg
SL-174-SA5A-SB-2.0-3.0	Tin	2.9 mg/Kg	2.9U mg/Kg
SL-254-SA5A-SB-2.5-3.5	Tin	3.0 mg/Kg	3.0U mg/Kg

Samples EB05-SA8N-SS-041811 and EB13-SA5A-SB-041811 were identified as equipment blanks. No metal contaminants were found with the following exceptions:

Equipment Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
EB05-SA8N-SS-041811	4/18/11	Boron Calcium	22.1 ug/L 94.9 ug/L	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05

Equipment Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
EB13-SA5A-SB-041811	4/18/11	Boron	15.1 ug/L	SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5

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 with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-056-SA8N-SS-0.0-0.05	Boron	6.5 mg/Kg	6.5U mg/Kg
SL-057-SA8N-SS-0.0-0.05	Boron	8.3 mg/Kg	8.3U mg/Kg
SL-071-SA8N-SS-0.0-0.05	Boron	1.6 mg/Kg	1.6U mg/Kg
SL-080-SA8N-SS-0.0-0.05	Boron	7.0 mg/Kg	7.0U mg/Kg
SL-085-SA8N-SS-0.0-0.05	Boron	2.4 mg/Kg	2.4U mg/Kg
SL-086-SA8N-SS-0.0-0.05	Boron	8.3 mg/Kg	8.3U mg/Kg
SL-132-SA8N-SS-0.0-0.05	Boron	5.0 mg/Kg	5.0U mg/Kg

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-148-SA5A-SB-4.0-5.0MS/MSD (All soil samples in SDG DE130)	Antimony	51 (75-125)	41 (75-125)	-	J (all detects) UJ (all non-detects)	A
	Arsenic	-	68 (75-125)	-	J (all detects) UJ (all non-detects)	
SL-148-SA5A-SB-4.0-5.0MS/MSD (All soil samples in SDG DE130)	Potassium	131 (75-125)	139 (75-125)	-	J (all detects)	A
	Vanadium	130 (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.

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-148-SA5A-SB-4.0-5.0	Chromium	13 (≤10)	All soil samples in SDG DE130	J (all detects) UJ (all non-detects)	A
	Cobalt	14 (≤10)			
	Copper	30 (≤10)			
	Lead	11 (≤10)			
	Nickel	11 (≤10)			
	Vanadium	16 (≤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 DE130	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 DE130

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5	Antimony Arsenic	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5	Potassium Vanadium	J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5	Chromium Cobalt Copper Lead Nickel Vanadium	J (all detects) UJ (all non-detects)	A	ICP serial dilution (%D) (A)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 EB05-SA8N-SS-041811 SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5 EB13-SA5A-SB-041811	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 DE130

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE130	EB05-SA8N-SS-041811	Boron	22.1U ug/L	A	B
DE130	EB13-SA5A-SB-041811	Boron	15.1U ug/L	A	B
DE130	SL-056-SA8N-SS-0.0-0.05	Tin	2.7U mg/Kg	A	B
DE130	SL-057-SA8N-SS-0.0-0.05	Tin	2.6U mg/Kg	A	B
DE130	SL-071-SA8N-SS-0.0-0.05	Tin	2.8U mg/Kg	A	B
DE130	SL-080-SA8N-SS-0.0-0.05	Tin	2.5U mg/Kg	A	B
DE130	SL-085-SA8N-SS-0.0-0.05	Tin	2.6U mg/Kg	A	B
DE130	SL-086-SA8N-SS-0.0-0.05	Tin	2.5U mg/Kg	A	B
DE130	SL-132-SA8N-SS-0.0-0.05	Tin	2.6U mg/Kg	A	B
DE130	SL-032-SA5A-SB-3.0-4.0	Tin	3.0U mg/Kg	A	B
DE130	SL-172-SA5A-SB-4.0-5.0	Tin	2.8U mg/Kg	A	B
DE130	SL-174-SA5A-SB-2.0-3.0	Tin	2.9U mg/Kg	A	B
DE130	SL-254-SA5A-SB-2.5-3.5	Tin	3.0U mg/Kg	A	B

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG DE130

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE130	SL-056-SA8N-SS-0.0-0.05	Boron	6.5U mg/Kg	A	F
DE130	SL-057-SA8N-SS-0.0-0.05	Boron	8.3U mg/Kg	A	F
DE130	SL-071-SA8N-SS-0.0-0.05	Boron	1.6U mg/Kg	A	F
DE130	SL-080-SA8N-SS-0.0-0.05	Boron	7.0U mg/Kg	A	F
DE130	SL-085-SA8N-SS-0.0-0.05	Boron	2.4U mg/Kg	A	F

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE130	SL-086-SA8N-SS-0.0-0.05	Boron	8.3U mg/Kg	A	F
DE130	SL-132-SA8N-SS-0.0-0.05	Boron	5.0U mg/Kg	A	F

LDC #: 26078B4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/29/11
SDG #: DE130 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: CR
2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010B/6020A~~7000~~) 7420A/7471A

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: 4/18/11
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 (SD6: DE133)
VII.	Duplicate Sample Analysis	A	DUP ↓
VIII.	Laboratory Control Samples (LCS)	A	LCS/D
IX.	Internal Standard (ICP-MS)	A	
X.	Furnace Atomic Absorption QC	N	Not utilized
XI.	ICP Serial Dilution	SW	(SD6: DE133)
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	N	
XV	Field Blanks	SW	EB= 8, 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: Soil/Water

1	SL-056-SA8N-SS-0.0-0.05	11	SL-174-SA5A-SB-2.0-3.0	21		31	
2	SL-057-SA8N-SS-0.0-0.05	12	SL-254-SA5A-SB-2.5-3.5	22		32	
3	SL-071-SA8N-SS-0.0-0.05	13	EB13-SA5A-SB-041811 W	23		33	
4	SL-080-SA8N-SS-0.0-0.05	14		24		34	
5	SL-085-SA8N-SS-0.0-0.05	15		25		35	
6	SL-086-SA8N-SS-0.0-0.05	16		26		36	
7	SL-132-SA8N-SS-0.0-0.05	17		27		37	
8	EB05-SA8N-SS-041811 W	18		28		38	
9	SL-032-SA5A-SB-3.0-4.0	19		29		39	
10	SL-172-SA5A-SB-4.0-5.0	20		30		40	

Notes:

LDC #: 26078B4

VALIDATION FINDINGS CHECKLIST

Reviewer: CR
2nd Reviewer: W

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?	✓			

DC #: 26078B4

VALIDATION FINDINGS CHECKLIST

Reviewer: AE
2nd Reviewer: V

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 #: 26078B4

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)
1-13		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
		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
		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
		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
		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
		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
		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
		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
		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
		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
		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
		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
Analysis Method		
ICP		Al, B, Ca, Fe, Li, Mg, Mn, P, K, Na, Sr, Sn, Ti, Zr
ICP-MS		Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, Ag, Tl, V, Zn

Comments: Mercury by CVAA if performed

LDC #: 26078B4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Page: 1 of 1
Reviewer: CC
2nd Reviewer: [illegible]

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x x MS: 2xdil Reason: B

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	8	13								
B		15.590		77.95	22.1	15.1								
Cu			0.24	1.2										
Pb			0.071	0.355										

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	9	10	11	12
Cu			1.0	1											
Li			3.1	1.55											
P	1.256			6.28											
Sn	1.478			7.39	2.7	2.6	2.8	2.5	2.6	2.5	2.6	3.0	2.8	2.9	3.0
Ti			2.0	1											
V	0.053			0.265											

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 1-7, 9-10

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	No Qualifiers									
V			0.21	0.105										

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 11, 12

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	No Qualifiers									
V			0.30	0.15										

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 #: 26078B4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: [illegible]
2nd Reviewer: [illegible]

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?

8 : 1-7
13 : 9-12

Blank units: ug/L **Associated sample units:** mg/Kg

Sampling date: 4/18/11 Soil factor applied 100x

Field blank type: (circle one) Field Blank / Rinsate / Other: _____ Associated Samples: ~~All Soil~~ Reason Code: F

Analyte	Blank ID	Blank ID	Sample Identification											
	8	13	Action Level	1	2	3	4	5	6	7				
B	22.1	15.1	11.05	6.5	8.3	1.6	7.0	2.4	8.3	5.0				
Ca	94.9		47.45											

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 #: 26078B4

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
	4/29/11	ICSA (19:08/19:53)	Mn	4	0.84	All Water	No Qual (<90% ICSA)
	4/28/11	ICSA (9:31/03:42)	Mn	5	0.78	All Soil	No Qual (<10x)

Comments:

LDC #: 26078B1

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

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 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
	SL-148-SA5A-SB-4.0-5.0		Sb	51	41		All Soil	J (UJ/A) (CQ)
			As		68			↓
			IS	131	139			J det A
			V	130				↓

Comments: _____

MSD.4SW

LDC #: 26078B4

VALIDATION FINDINGS WORKSHEET
ICP Serial Dilution

Page: 1 of 1
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 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
		SL-148-SA5A-SB40-5.0		Cr	13	All Soil	J/UJ/A (A)
				Co	14	↓	
				Cu	30		
				Pb	11		
				Ni	11		
				V	16	↓	

Comments:

LDC #: 26078B4

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	587.4	600	97.9	97.9	Y
ICV	ICP/MS (Initial calibration)	Co	506.10	500	101.2	101.2	
ICV	CVAA (Initial calibration)	Hg	2.52	2.5	100.8	100.8	
CCV3	ICP (Continuing calibration)	Sn	483.20	500	96.6	96.6	
CCV3	ICP/MS (Continuing calibration)	V	245.80	250	98.3	98.3	
CCV5	CVAA (Continuing calibration)	Hg	1.04	1	104	104	
	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 #: 26078B4

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~~) mg/kg	True / D / SDR (~~units~~) mg/kg	Recalculated %R / RPD / %D	Reported %R / RPD / %D	Acceptable (Y/N)
ICSAB	ICP interference check	Zn	21.7 ug/L	20	108.5	108.5	Y
LCS	Laboratory control sample	Zn	1023.5	1000	102	102	
SL-148-SASA-SB40-5.0	Matrix spike	Zn	(SSR-SR) 111.8377	108.8424	103	103	
	Duplicate	V	35.6588	36.1822	1	1	
	ICP serial dilution	Zn	233.9 ug/L	240.15 ug/L	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 #: 25961G4
26078B4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 3
Reviewer: AR
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 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:

$$\frac{100mL \times (217.06286 mg/L)}{0.857\ (1.02g)} = 24832 mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	Al	24800	24800	Y
		Sb	0.23	0.23	
		As	6.2	6.2	
		Ba	130	130	
		Be	0.70	0.70	
		B	6.5	6.5	
		Cd	0.28	0.28	
		Ca	35500	35500	
		Cr	30.5	30.5	
		Co	10.3	10.3	
		Cu	16.9	16.9	
		Fe	31600	31600	
		Pb	10.7	10.7	
		Li	28.3	28.3	
		Mg	8120	8120	
		Mn	429	429	
		Hg	0.011	0.011	
		Mo	0.62	0.62	
		Ni	19.1	19.1	
		P	731	731	

Note:

LDC #: 26078B4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: CC
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 As 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= $\frac{100mL(25.7mg/L)(2)}{0.899(1.02g)(1000)} = 5.6 mg/kg$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	K	6360	6360	Y
		Se	0.79	0.79	
		Ag	0.047	0.047	
		Na	131	131	
		Sr	73.3	73.3	
		Tl	0.31	0.31	
		Sn	2.7	2.7	
		Ti	1300	1300	
		V	57.9	57.9	
		Zn	81.1	81.1	
		Zr	2.6	2.6	
	11	Al	22100	22100	
		Sb	0.16	0.16	
		As	5.6	5.6	
		Ba	119	119	
		Be	0.90	0.90	
		Ca	3710	3710	
		Cr	25.9	25.9	
		Co	7.9	7.9	

Note:

LDC #: 25961E4
26078B4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 3 of 3
Reviewer: CC
2nd reviewer: V

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)
	11	Cu	12.8	12.8	Y
		Fe	27900	27900	
		Pb	7.4	7.4	
		Li	28.9	28.9	
		Mg	7270	7270	
		Mn	268	268	
		Hg	0.012	0.012	
		Mo	0.46	0.46	
		Ni	14.4	14.4	
		P	485	485	
		K	3480	3480	
		Se	0.18	0.18	
		Ag	0.017	0.017	
		Na	122	122	
		Sr	22.6	22.6	
		Tl	0.36	0.36	
		Sn	2.9	2.9	
		Ti	1610	1610	
		V	45.2	45.2	
		Zn	75.7	75.7	✓

Note: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	April 18, 2011
LDC Report Date:	September 2, 2011
Matrix:	Soil/Water
Parameters:	Wet Chemistry
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE130

Sample Identification

SL-056-SA8N-SS-0.0-0.05
SL-057-SA8N-SS-0.0-0.05
SL-071-SA8N-SS-0.0-0.05
SL-080-SA8N-SS-0.0-0.05
SL-085-SA8N-SS-0.0-0.05
SL-086-SA8N-SS-0.0-0.05
SL-132-SA8N-SS-0.0-0.05
EB05-SA8N-SS-041811
SL-032-SA5A-SB-3.0-4.0
SL-172-SA5A-SB-4.0-5.0
SL-174-SA5A-SB-2.0-3.0
SL-254-SA5A-SB-2.5-3.5
EB13-SA5A-SB-041811
SL-056-SA8N-SS-0.0-0.05MS
SL-056-SA8N-SS-0.0-0.05DUP
SL-132-SA8N-SS-0.0-0.05MS
SL-132-SA8N-SS-0.0-0.05DUP

Introduction

This data review covers 15 soil samples and 2 water 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, 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.

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

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.

Sample EB05-SA8N-SS-041811 and EB13-SA5A-SB-041811 were identified as equipment blanks. 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-056-SA8N-SS-0.0-0.05MS (SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0)	Fluoride	75 (80-120)	J (all detects) UJ (all non-detects)	A
SL-254-SA5A-SB-2.5-3.5MS (SL-254-SA5A-SB-2.5-3.5)	Fluoride	36 (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 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 DE130	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 DE130

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5	Fluoride	J (all detects) UJ (all non-detects)	A	Matrix spike analysis (%R) (Q)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-086-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 EB05-SA8N-SS-041811 SL-032-SA5A-SB-3.0-4.0 SL-172-SA5A-SB-4.0-5.0 SL-174-SA5A-SB-2.0-3.0 SL-254-SA5A-SB-2.5-3.5 EB13-SA5A-SB-041811	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 DE130

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Wet Chemistry - Field Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

LDC #: 26078B6 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-29-11
SDG #: DE130 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

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: 4/18/11
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/D
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X.	Field blanks	ND	EB: 8, 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: soil / water

1	SL-056-SA8N-SS-0.0-0.05	11	SL-174-SA5A-SB-2.0-3.0	21		31	
2	SL-057-SA8N-SS-0.0-0.05	12	SL-254-SA5A-SB-2.5-3.5	22		32	
3	SL-071-SA8N-SS-0.0-0.05	13	EB13-SA5A-SB-041811 W	23		33	
4	SL-080-SA8N-SS-0.0-0.05	14	(#1) MS	24		34	
5	SL-085-SA8N-SS-0.0-0.05	15	↓ DUP	25		35	
6	SL-086-SA8N-SS-0.0-0.05	16	(#7) MS	26		36	
7	SL-132-SA8N-SS-0.0-0.05	17	↓ DUP	27		37	
8	EB05-SA8N-SS-041811 W	18	(#12) MS	28		38	
9	SL-032-SA5A-SB-3.0-4.0	19		29		39	
10	SL-172-SA5A-SB-4.0-5.0	20		30		40	

Notes:

DC #: 260181S6

VALIDATION FINDINGS CHECKLIST

Reviewer: CC
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?			✓	

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.				

DC #: 2607886

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Reviewer: CE
2nd reviewer: L

All circled methods are applicable to each sample.

Sample ID	Matrix	Parameter
1-5,7,8		pH TDS Cl (F) (NO3) NO2 SO4 PO4 ALK (CN) NH3 TKN TOC (CR6+) (ClO4)
6,9-13		pH TDS Cl (F) NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC (CR6+) (ClO4)
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
QC: 14,15		pH TDS Cl F (NO3) NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ (ClO4)
16,17		pH TDS Cl F NO3 NO2 SO4 PO4 ALK (CN) NH3 TKN TOC CR6+ ClO4
18		pH TDS Cl (F) NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR6+ ClO4

Comments:

LDC #: 26078B6

VALIDATION FINDINGS WORKSHEET
Matrix Spike Analysis

Reviewer: CP
2nd Reviewer: [illegible]

METHOD: Inorganics, Method Secon

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	Matrix	Analyte	%R	Associated Samples	Qualifications
		14	S	F	75(80-120)	1-7,9-11	J/UJ/A (Q)
		18	S	F	36(80-120)	12	J (Q)

Comments:

LDC #: 26078B6

Validation Findings Worksheet
Initial and Continuing Calibration Calculation Verification

Reviewer: JE
2nd Reviewer:

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of ClO4 was recalculated. Calibration date: 3/28/11

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	*1.000*	1.000	Y
		s2	4	0.01			
		s3	10	0.025			
		s4	25	0.072			
		s5	100	0.292			
Calibration verification	CN	CCV	0.15	0.16320	109	109	
Calibration verification	NO3		1.5	1.4736	98	98	
Calibration verification	F			1.4850	99	99	

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 #: 46070J0

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: QR
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)
LCS	Laboratory control sample	Cd	22.4	25	90	~~0~~	Y
16	Matrix spike sample	CN	(SSR-SR) 5.3	4.95	107	108	↓
15	Duplicate sample	NO3	3.1	2.8	10	9	↓

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 #: 26078B6

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: CR
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 NO3 / CrO4 reported with a positive detect were recalculated and verified using the following equation:

Concentration =

NO_3: $C = 0.7008x - 0.0140$

Recalculation:

1: $NO_3 = \frac{\left(\frac{0.202 + 0.0140}{0.7008}\right)(50\,mL)}{5g\,(0.857)} = 3.6\,mg/kg$

CrO_4: $C = Area(82.818) + 0.687$

3: $CrO_4 = \frac{(0.1112(82.818) + 0.687)}{24.60g\,(0.854)} = 0.47\,mg/kg$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
.857	1	F	2.1	2.1	Y
		NO_3	3.6	3.6		
.854	3	F	1.7	1.7	
		NO_3	3.4	3.4	
		CrO_4	0.48	0.47	
		CN	0.23	0.23	

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	April 18, 2011
LDC Report Date:	August 31, 2011
Matrix:	Water
Parameters:	Total Petroleum Hydrocarbons as Gasoline
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE130

Sample Identification

TB-041811

Introduction

This data review covers 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-041811 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 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 DE130	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 DE130

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE130	TB-041811	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 DE130

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

LDC #: 26078B7 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/29/11

SDG #: DE130 Level IV Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: EZ

2nd Reviewer: [signature]

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: 4/18/11
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	QC sample
VII.	Laboratory control samples	A	LCS/D
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	FB = 1

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: water

1	TB-041811	11	BLK84	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:

LDC #: 26078B7
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 #: 26078B7
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
2nd Reviewer: CA

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 #: 26078J
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: F
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 (110 std)	Recalculated CF (110 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	5/14/10	GRO	8549	8549	8050	8050	5.2	5.2
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 #: 26078B7
SDG #: pw conn

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	4/26/11 22:12	GRO	550.00	543.30	543.30	1.2	1.2
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.

LDC #: 26078B1
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: CA

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	
Trifluorotoluene - F	ND	30	21.701	72	72	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 #: 26078B7
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: P
2nd Reviewer: A

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 ID

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	1200	1200	109	109	109	109	0	0
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 #: 26078B7
SDG #: pu ___ pones

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: ___
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 ___

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: April 18, 2011

LDC Report Date: August 31, 2011

Matrix: Soil/Water

Parameters: Total Petroleum Hydrocarbons as Extractables

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE130

Sample Identification

SL-056-SA8N-SS-0.0-0.05
SL-057-SA8N-SS-0.0-0.05
SL-071-SA8N-SS-0.0-0.05
SL-080-SA8N-SS-0.0-0.05
SL-085-SA8N-SS-0.0-0.05
SL-132-SA8N-SS-0.0-0.05
EB05-SA8N-SS-041811

Introduction

This data review covers 6 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 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.

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 extractable contaminants were found in the method blanks.

Sample EB05-SA8N-SS-041811 was identified as an equipment blank. No total petroleum hydrocarbons as extractable 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 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 DE130	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 DE130

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 EB05-SA8N-SS-041811	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

LDC #: 26078B8 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/30/11
SDG #: DE130 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: 4/18/11
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 ID
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	NP	EB = 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-056-SA8N-SS-0.0-0.05	11 1	PBLK16111	21		31	
2 1	SL-057-SA8N-SS-0.0-0.05	12 2	PBLK43110	22		32	
3 1	SL-071-SA8N-SS-0.0-0.05	13		23		33	
4 1	SL-080-SA8N-SS-0.0-0.05	14		24		34	
5 1	SL-085-SA8N-SS-0.0-0.05	15		25		35	
6 1	SL-132-SA8N-SS-0.0-0.05	16		26		36	
7 2	EB05-SA8N-SS-041811	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 26078BK
SDG #: all waters

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 #: 26078B8
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 #: 26078B8
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer: [signature]

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 (7/8 std)	Recalculated CF (7/8 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	4/19/11	Cx-C40	2091344	2091344	21026.71	21026.71	1-8	1-8
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 #: 26078B (8)
SDG #: fw 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	4/26/11 5:30	c8-c40	575.96	626.90	626.90	8.8	8.8
2	ccv	4/27/11 10:04	c8-c40	287.98	302.34	302.34	5.0	5.0
3	ccv	4/29/11 6:50	c8-c40	143.99	150.33	150.33	4.4	4.4
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 #: 26078B5J
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	
chlorobenzene	NS	0.99	0.719567	73	73	0
o-Terphenyl	L	0.99	0.9334	94	94	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 #: 26078B8
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: FO
2nd Reviewer: A

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 160111

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)~~ EPH (c8-c)	0.84	NA	0.66	NA	79	79	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 #: 26078B8
SDG #: pu 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= (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 C30 - C40

Concentration = $\frac{345\,82\,386\ (1000)}{21026.71\ (60.5)(0.857)(1000)}$

= 32 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: April 18, 2011

LDC Report Date: August 31, 2011

Matrix: Soil/Water

Parameters: Explosives

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE130

Sample Identification

SL-056-SA8N-SS-0.0-0.05
SL-057-SA8N-SS-0.0-0.05
SL-071-SA8N-SS-0.0-0.05
SL-080-SA8N-SS-0.0-0.05
SL-085-SA8N-SS-0.0-0.05
SL-132-SA8N-SS-0.0-0.05
EB05-SA8N-SS-041811

Introduction

This data review covers 6 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 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 with the following exceptions:

Date	Column	Compound	%D	Associated Samples	Flag	A or P
4/30/11	Capcell	2,6-Dinitrotoluene	24.2	SL-132-SA8N-SS-0.0-0.05	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 explosive contaminants were found in the method blanks.

Sample EB05-SA8N-SS-041811 was identified as an equipment blank. No explosive 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 with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
LCS/D02109 (All water samples in SDG DE130)	Tetryl	50 (72-141)	56 (72-141)	-	J (all detects) UJ (all non-detects)	P
LCS04116 (All soil samples in SDG DE130)	Nitrobenzene PETN	124 (80-120) 124 (80-120)	- -	- -	J (all detects) J (all detects)	P

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.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE130	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 DE130

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE130	SL-132-SA8N-SS-0.0-0.05	2,6-Dinitrotoluene	J (all detects) UJ (all non-detects)	A	Calibration verification (%D) (C)
DE130	EB05-SA8N-SS-041811	Tetryl	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05	Nitrobenzene PETN	J (all detects) J (all detects)	P	Laboratory control samples (%R) (L)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 EB05-SA8N-SS-041811	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Explosives - Laboratory Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Explosives - Field Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

LDC #: 26078B40 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/30/11
SDG #: DE130 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: EJ
2nd Reviewer: A

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: 4/18/11
II	Initial calibration	A	% RSD ≤ 20, r^2
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	SW	LCS ID
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	EB= 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-056-SA8N-SS-0.0-0.05 S	11 1	PBLK04116	21		31	
2 1	SL-057-SA8N-SS-0.0-0.05	12 2	PBLK02109	22		32	
3 1	SL-071-SA8N-SS-0.0-0.05	13		23		33	
4 1	SL-080-SA8N-SS-0.0-0.05	14		24		34	
5 1	SL-085-SA8N-SS-0.0-0.05	15		25		35	
6 1	SL-132-SA8N-SS-0.0-0.05	16		26		36	
7 2	EB05-SA8N-SS-041811 W	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 26078B40
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 #: 26078B40
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.		✓		

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-Dinitrotoluene	J. MCPA	J. Diazinon	EE. Def	
K. Fluoranthene	K. 2,6-Dinitrotoluene	K. Pentechlorophenol	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 #: 26078B40

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: FT

METHOD: / **GC** __ **HPLC**

2nd Reviewer:

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
	4/30/11 13:20	CCV	CAPCELL	K	24.2	( )	6	J/UJ/R (C)
						( )		
						( )		
						( )		
						( )		
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LDC #: 26078B40

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

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 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
	lcs1D02109	E	50 (72-141)	56 (72-141)	( )	All water	J/NJ/P (L)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
	lcs04116	F	124 (80-120)	( )	( )	All soils ↓	J/Pdet (L) ↓
		PETN	124 (↓)	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 26078B40
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: EJ
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 (std)	Recalculated CF (std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL chrompack	5/17/11	1,3-DNB	2.76×10^2	2.76×10^2	2.77×10^2	2.77×10^2	1.1	1.1
			Nitrobenzene	2.09×10^2	2.09×10^2	2.11×10^2	2.11×10^2	3.3	3.3
2	ICAL CAPCELL	5/17/11	↓	2.45×10^2	2.45×10^2	2.57×10^2	2.57×10^2	4.3	4.3
				1.69×10^2	1.69×10^2	1.80×10^2	1.80×10^2	6.33	6.33
3	ICAL chrompack	4/29/11	↓	2.72×10^2	2.72×10^2	2.76×10^2	2.76×10^2	1.6	1.6
				1.99×10^2	1.99×10^2	1.98×10^2	1.98×10^2	4.4	4.4
4	ICAL capcell	4/29/11	1,3-DNB	2.06×10^2	2.06×10^2	2.25×10^2	2.25×10^2	15.2	15.2
			1,4-DNB	3.10×10^2	3.10×10^2	3.40×10^2	3.40×10^2	18.5	18.5

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 #: 26078B40
SDG #: fw 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	ccv	4/30/11	1,3-DNB	500.05	535.99	535.99	7.2	7.2
	chrompack	1:19	Nitrobenzene	500.00	502.60	502.60	0.5	0.5
2	ccv	4/30/11	↓	507.00	498.25	498.25	1.7	1.7
	chrompack	13:20	↓	499.50	516.79	516.79	3.5	3.5
3	ccv	4/30/11	1,3-DNB	500.05	519.98	519.98	4.0	4.0
	capcell	1:19	1,4-DNB	500.00	517.86	517.86	3.6	3.6
4	ccv	4/30/11	↓	~~500.00~~ 507.00	488.63	488.63	3.6	3.6
	capcell	13:20	↓	493.00	457.40	457.40	7.2	7.2

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 #: 26078B40
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 Reported	Percent Recovery Recalculated	Percent Difference
2. Nitro - m - xylene	~~Carbopack~~ chrompack	1852	1885.362	102	102	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 #: 26078B40
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: EJ
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

Where: SSC = Spiked sample concentration; SA = Spike added; SC = Concentration; LCS = Laboratory control sample percent recovery; LCSD = Laboratory control sample duplicate percent recovery

RPD = | SSCLCS - SSCLCSD | * 2/(SSCLCS + SSCLCSD)

LCS/LCSD samples: LCS04116

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.
HMX	2000.25	NA	2103.64	NA	105	105				
RDX	2000	↓	2148.9	↓	107	107	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 #: 26078B4C0
SDG #: pu ganes

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: April 18, 2011

LDC Report Date: August 31, 2011

Matrix: Soil/Water

Parameters: Terphenyls

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE130

Sample Identification

SL-056-SA8N-SS-0.0-0.05
SL-057-SA8N-SS-0.0-0.05
SL-071-SA8N-SS-0.0-0.05
SL-080-SA8N-SS-0.0-0.05
SL-085-SA8N-SS-0.0-0.05
SL-132-SA8N-SS-0.0-0.05
EB05-SA8N-SS-041811

Introduction

This data review covers 6 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 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.

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 terphenyl contaminants were found in the method blanks.

Sample EB05-SA8N-SS-041811 was identified as an equipment blank. No terphenyl 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 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 DE130	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 DE130

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 EB05-SA8N-SS-041811	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Terphenyls - Laboratory Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Terphenyls - Field Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

LDC #: 26078B41 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/30/11
SDG #: DE130 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: F
2nd Reviewer:

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: 4/18/11
II	Initial calibration	A	%D RSD ≤ 20
III.	Calibration verification/~~RF~~	A	ccv ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	
VII.	Laboratory control samples	A	lcs ID
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	EB = 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-056-SA8N-SS-0.0-0.05 S	11 1	PBLK30110	21		31	
2 1	SL-057-SA8N-SS-0.0-0.05	12 2	PBLK42110	22		32	
3 1	SL-071-SA8N-SS-0.0-0.05	13		23		33	
4 1	SL-080-SA8N-SS-0.0-0.05	14		24		34	
5 1	SL-085-SA8N-SS-0.0-0.05	15		25		35	
6 1	SL-132-SA8N-SS-0.0-0.05	16		26		36	
7 2	EB05-SA8N-SS-041811 W	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 26078B4|
SDG #: all waters

VALIDATION FINDINGS CHECKLIST

Reviewer: FA
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 #: 26078B41
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 #: 26078B41
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

#	Standard ID	Calibration Date	Compound	Reported 15.520 CF (std)	Recalculated 15.520 CF (std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	4/18/11	m-Terphenyl	3.42×10^4	3.42×10^4	3.30×10^4	3.30×10^4	2.4	2.4
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 #: 76078B4/
SDG #: pw 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	4/23/11 11:25	m- Terphenyl	31.04	31.13	31.13	0.3	0.3
2	ccv	4/23/11 19:37	↓	31.04	31.32	31.32	0.9	0.9
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 #: 26078B4/
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:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
n- Triacontane-d62	NS	0.3344	0.220739	66	66	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 #: 26078B4/
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1
Reviewer: F2
2nd Reviewer: A

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)										
m-Terphenyl	1.43	NA	1.32	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 #: 26078B4/
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: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: April 18, 2011

LDC Report Date: August 31, 2011

Matrix: Soil/Water

Parameters: Alcohols

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE130

Sample Identification

SL-056-SA8N-SS-0.0-0.05
SL-057-SA8N-SS-0.0-0.05
SL-071-SA8N-SS-0.0-0.05
SL-080-SA8N-SS-0.0-0.05
SL-085-SA8N-SS-0.0-0.05
SL-132-SA8N-SS-0.0-0.05
EB05-SA8N-SS-041811
SL-080-SA8N-SS-0.0-0.05MS
SL-080-SA8N-SS-0.0-0.05MSD

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 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% .

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 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 with the following exceptions:

Method Blank ID	Analysis Date	Compound	Concentration	Associated Samples
PBLK25109	4/19/11	Methanol	100 ug/Kg	All soil samples in SDG DE130

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.

Sample EB05-SA8N-SS-041811 was identified as an equipment blank. No alcohol 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) 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.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE130	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 DE130

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 EB05-SA8N-SS-041811	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Alcohols - Laboratory Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Alcohols - Field Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

LDC #: 26078B43 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/30/11

SDG #: DE130 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: 4/18/11
II	Initial calibration	A	%RSD ≤ 20, r²
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	SW	
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/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	FB = 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-056-SA8N-SS-0.0-0.05 S	11 1	PBLK25109	21		31	
2 1	SL-057-SA8N-SS-0.0-0.05	12	PBLK38116	22		32	
3 1	SL-071-SA8N-SS-0.0-0.05	13		23		33	
4 1	SL-080-SA8N-SS-0.0-0.05	14		24		34	
5 1	SL-085-SA8N-SS-0.0-0.05	15		25		35	
6 1	SL-132-SA8N-SS-0.0-0.05	16		26		36	
7 2	EB05-SA8N-SS-041811 W	17		27		37	
8	#4 MS	18		28		38	
9	#4 MSD	19		29		39	
10		20		30		40	

Notes:

LDC #: 26078B43
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FA
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 #: 26078B43
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 #: 26078
SDG #: DE130

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: SM
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: 4/19/11 **Blank analysis date:** 4/20/11 **Associated samples:** Batch soil
Conc. units: ug/kg

Compound	Blank ID	Sample Identification						
	PBLK25109							
Methanol	100							

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 #: 26078B43
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 5000 CF (std)	Recalculated 5000 CF (std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	4/20/11	ethanol	2.92	2.92	2.95	2.95	0.8	0.8
2	ICAL	4/18/11	ethanol	8.51	8.51	8.61	8.61	2.5	2.5
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 #: 26078B43
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	4/20/11 19:42	CCV	ethanol	10,000	9994.83	9994.83	0.1	0.1
2	4/20/11 23:41	CCV	↓	↓	9905.38	9905.38	0.9	0.9
3	4/27/11 21:02	CCV	↓	5000.00	5083.81	5083.81	1.7	1.7
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 #: 26078B47
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
Acetone	NS	2500	1799.95)	72	72	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 #: 26018D47
SDG #: see cover

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: 8+9

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	2000	2500	ND	1328.97	1333.87	53	53	53	53	0	0

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 #: 26078B43
SDG #: all cases

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 = | 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)										
Methanol	2500	NA	2336.27	NA	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 #: 26078B43
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: April 18, 2011

LDC Report Date: August 31, 2011

Matrix: Soil/Water

Parameters: Glycols

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE130

Sample Identification

SL-056-SA8N-SS-0.0-0.05
SL-057-SA8N-SS-0.0-0.05
SL-071-SA8N-SS-0.0-0.05
SL-080-SA8N-SS-0.0-0.05
SL-085-SA8N-SS-0.0-0.05
SL-132-SA8N-SS-0.0-0.05
EB05-SA8N-SS-041811

Introduction

This data review covers 6 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 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.

Sample EB05-SA8N-SS-041811 was identified as an equipment blank. No glycol 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) 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.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE130	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 DE130

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 EB05-SA8N-SS-041811	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Glycols - Laboratory Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Glycols - Field Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

LDC #: 26078B45 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/29/11
SDG #: DE130 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
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: 4/18/11
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
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	NP	EB = 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	SL-056-SA8N-SS-0.0-0.05 S	11	PBLK03110	21		31		
2	SL-057-SA8N-SS-0.0-0.05	12	PBLK02110	22		32		
3	SL-071-SA8N-SS-0.0-0.05	13		23		33		
4	SL-080-SA8N-SS-0.0-0.05	14		24		34		
5	SL-085-SA8N-SS-0.0-0.05	15		25		35		
6	SL-132-SA8N-SS-0.0-0.05	16		26		36		
7	EB05-SA8N-SS-041811 W	17		27		37		
8		18		28		38		
9		19		29		39		
10		20		30		40		

Notes:

LDC #: 26078B45
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: EJ
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 #: 26078B45
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 #: 26078B45
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: F?
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 CF (std) 200.5164	Recalculated CF (std) 200.5164	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL GLF110A	4/20/11	Propylene Glycol	3.66×10^2	3.66×10^2	3.63×10^2	3.63×10^2	12.1	12.1
2	ICAL GLG111A	4/21/11	↓	3.25×10^2	3.25×10^2	3.18×10^2	3.18×10^2	16.5	16.5
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 #: 26078B45
SDG #: pw 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	F110.0022	4/20/11 18:06	Propylene Glycol	100.26	89.26	89.26	11.0	11.0
	F110.0033	4/20/11 21:20	↓	100.26	86.50	86.50	13.7	13.7
2								
	F111B.0021	4/21/11 19:02	↓	100.26	94.53	94.53	5.7	5.7
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 #: 26078Y5
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
		192.15		Reported	Recalculated	
Tetramethylene glycol	NS	~~197.25~~	122.4037	64	64	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 #: 26078B45
SDG #: see 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 = | 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 03110

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	216.17	NA	109	109	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 #: 26678B45
SDG #: pu none

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: April 18, 2011

LDC Report Date: August 31, 2011

Matrix: Soil/Water

Parameters: Formaldehyde

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE130

Sample Identification

SL-056-SA8N-SS-0.0-0.05
SL-057-SA8N-SS-0.0-0.05
SL-071-SA8N-SS-0.0-0.05
SL-080-SA8N-SS-0.0-0.05
SL-085-SA8N-SS-0.0-0.05
SL-132-SA8N-SS-0.0-0.05
EB05-SA8N-SS-041811

Introduction

This data review covers 6 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 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.

Sample EB05-SA8N-SS-041811 was identified as an equipment blank. No formaldehyde was 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 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 DE130	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 DE130

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE130	SL-056-SA8N-SS-0.0-0.05 SL-057-SA8N-SS-0.0-0.05 SL-071-SA8N-SS-0.0-0.05 SL-080-SA8N-SS-0.0-0.05 SL-085-SA8N-SS-0.0-0.05 SL-132-SA8N-SS-0.0-0.05 EB05-SA8N-SS-041811	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Formaldehyde - Laboratory Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Formaldehyde - Field Blank Data Qualification Summary - SDG DE130

No Sample Data Qualified in this SDG

LDC #: 26078B71 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/30/11
SDG #: DE130 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: F7
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: 4/18/11
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/D
VIII.	Target compound identification	A	
IX.	Compound quantitation RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	N	
XIII.	Field blanks	ND	EB = 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-056-SA8N-SS-0.0-0.05	11 1	PBLK05110	21		31	
2 1	SL-057-SA8N-SS-0.0-0.05	12 2	PBLK03111	22		32	
3 1	SL-071-SA8N-SS-0.0-0.05	13		23		33	
4 1	SL-080-SA8N-SS-0.0-0.05	14		24		34	
5 1	SL-085-SA8N-SS-0.0-0.05	15		25		35	
6 1	SL-132-SA8N-SS-0.0-0.05	16		26		36	
7 2	EB05-SA8N-SS-041811 W	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 26078B7J
SDG #: per cover

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 #: 26078B71
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 #: 26078 B7 1
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 2002 CF (std)	Recalculated 2002 CF (std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	4/22/11	Formaldehyde	6.47×10^{1}	6.47×10^{1}	6.39×10^{1}	6.39×10^{1}	1.2	1.2
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 #: 26078B7/
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	IF4112.20	4/22/11	formaldehyde	2002.00	1996.36	1996.36	0.3	0.3
	IF4112.31	4/22/11	↓	↓	2005.08	2005.08	0.2	0.2
2								
	IF4112.42	4/22/11	↓	2002.00	1989.46	1989.46	0.6	0.6
3	IF4112.53	4/23/11	↓	2002.00	1984.07	1984.07	0.9	0.9
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 #: 26028B 1/
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT
2nd reviewer: CA

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	
Butyraldehyde	N7	~~1959~~ 196.9	4379.047/2	112	112	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 #: 26078B71
SDG #: pw 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
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: 1851D

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	4705.34	NA	94	94	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 #: 26078B7/
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: _____

SAMPLE DELIVERY GROUP

DE131

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
19-Apr-2011	TB-041911	6262840	TB	5030B	8260B	III
19-Apr-2011	TB-041911	6262840	TB	5030B	8260B SIM	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	3050B	6010B	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	3050B	6020	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	3060A	7199	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	3546	1625C	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	3550B	8015B	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	3550B	8015M	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	3550B	8082	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	3550B	8270C	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	3550B	8270C SIM	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	8330	8330A	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	METHOD	300.0	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	METHOD	314.0	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	METHOD	7471A	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	METHOD	8015B	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	METHOD	8015M	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	METHOD	8315A	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5	6262819	N	METHOD	9012B	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5DUP	P262819D271104A	DUP	METHOD	300.0	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5DUP	P262819D271430A	DUP	METHOD	314.0	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5MSD	P262819M322233A	MSD	METHOD	8015M	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5MS	P262819R271118A	MS	METHOD	300.0	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5MS	P262819R271452A	MS	METHOD	314.0	III
19-Apr-2011	SL-075-SA8N-SS-0.0-0.5MS	P262819R322158A	MS	METHOD	8015M	III
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	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
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	N	3050B	6020	III
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	N	3060A	7199	III
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	N	3546	1625C	III
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	N	3550B	8015B	III
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	N	3550B	8015M	III
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	N	3550B	8082	III
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	N	3550B	8270C	III
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	N	3550B	8270C SIM	III
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	N	8330	8330A	III
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	N	Gen Prep	314.0	III
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	N	METHOD	300.0	III
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	N	METHOD	7471A	III
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	N	METHOD	8015B	III
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	N	METHOD	8015M	III
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	N	METHOD	8315A	III
19-Apr-2011	SL-135-SA8N-SS-0.0-0.5	6262829	N	METHOD	9012B	III
19-Apr-2011	SL-171-SA5A-SB-2.0-3.0	6262837	N	3050B	6010B	III
19-Apr-2011	SL-171-SA5A-SB-2.0-3.0	6262837	N	3050B	6020	III
19-Apr-2011	SL-171-SA5A-SB-2.0-3.0	6262837	N	3060A	7199	III
19-Apr-2011	SL-171-SA5A-SB-2.0-3.0	6262837	N	3550B	8082	III
19-Apr-2011	SL-171-SA5A-SB-2.0-3.0	6262837	N	3550B	8270C	III
19-Apr-2011	SL-171-SA5A-SB-2.0-3.0	6262837	N	3550B	8270C SIM	III
19-Apr-2011	SL-171-SA5A-SB-2.0-3.0	6262837	N	5035	8260B	III
19-Apr-2011	SL-171-SA5A-SB-2.0-3.0	6262837	N	5035	8260B SIM	III
19-Apr-2011	SL-171-SA5A-SB-2.0-3.0	6262837	N	METHOD	300.0	III
19-Apr-2011	SL-171-SA5A-SB-2.0-3.0	6262837	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
19-Apr-2011	SL-171-SA5A-SB-2.0-3.0	6262837	N	METHOD	7471A	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	3050B	6010B	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	3050B	6020	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	3060A	7199	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	3546	1625C	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	3550B	8015B	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	3550B	8015M	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	3550B	8082	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	3550B	8270C	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	3550B	8270C SIM	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	8330	8330A	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	METHOD	300.0	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	METHOD	314.0	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	METHOD	7471A	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	METHOD	8015B	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	METHOD	8015M	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	METHOD	8315A	III
19-Apr-2011	SL-140-SA8N-SS-0.0-0.5	6262835	N	METHOD	9012B	III
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	N	3050B	6010B	III
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	N	3050B	6020	III
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	N	3060A	7199	III
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	N	3546	1625C	III
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	N	3550B	8015B	III
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	N	3550B	8015M	III
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	N	3550B	8082	III
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	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
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	N	3550B	8270C SIM	III
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	N	8330	8330A	III
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	N	METHOD	300.0	III
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	N	METHOD	314.0	III
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	N	METHOD	7471A	III
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	N	METHOD	8015B	III
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	N	METHOD	8015M	III
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	N	METHOD	8315A	III
19-Apr-2011	SL-077-SA8N-SS-0.0-0.5	6262821	N	METHOD	9012B	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	N	3050B	6010B	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	N	3050B	6020	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	N	3060A	7199	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	N	3546	1625C	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	N	3550B	8015B	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	N	3550B	8015M	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	N	3550B	8082	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	N	3550B	8270C	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	N	3550B	8270C SIM	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	N	8330	8330A	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	N	METHOD	300.0	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	N	METHOD	314.0	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	N	METHOD	7471A	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	N	METHOD	8015B	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	N	METHOD	8015M	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	N	METHOD	8315A	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5	6262830	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*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	3050B	6010B	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	3050B	6020	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	3060A	7199	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	3546	1625C	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	3550B	8015B	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	3550B	8015M	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	3550B	8082	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	3550B	8270C	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	3550B	8270C SIM	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	8330	8330A	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	METHOD	300.0	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	METHOD	314.0	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	METHOD	7471A	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	METHOD	8015B	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	METHOD	8015M	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	METHOD	8315A	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MS	6262831	MS	METHOD	9012B	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MSD	6262832	MSD	3050B	6010B	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MSD	6262832	MSD	3050B	6020	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MSD	6262832	MSD	3546	1625C	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MSD	6262832	MSD	3550B	8015B	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MSD	6262832	MSD	3550B	8015M	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MSD	6262832	MSD	3550B	8082	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MSD	6262832	MSD	3550B	8270C	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MSD	6262832	MSD	3550B	8270C SIM	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MSD	6262832	MSD	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
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MSD	6262832	MSD	METHOD	7471A	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MSD	6262832	MSD	METHOD	8015B	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MSD	6262832	MSD	METHOD	8015M	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5MSD	6262832	MSD	METHOD	8315A	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5DUP	6262833	DUP	3050B	6010B	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5DUP	6262833	DUP	3050B	6020	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5DUP	6262833	DUP	3060A	7199	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5DUP	6262833	DUP	METHOD	300.0	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5DUP	6262833	DUP	METHOD	314.0	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5DUP	6262833	DUP	METHOD	7471A	III
19-Apr-2011	SL-138-SA8N-SS-0.0-0.5DUP	6262833	DUP	METHOD	9012B	III
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	3050B	6010B	III
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	3050B	6020	III
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	3060A	7199	III
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	3546	1625C	III
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	3550B	8015B	III
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	3550B	8015M	III
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	3550B	8082	III
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	3550B	8270C	III
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	3550B	8270C SIM	III
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	8330	8330A	III
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	METHOD	300.0	III
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	METHOD	314.0	III
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	METHOD	7471A	III
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	METHOD	8015B	III
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	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
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	METHOD	8315A	III
19-Apr-2011	DUP04-SA8N-QC-041911	6262836	FD	METHOD	9012B	III
19-Apr-2011	SL-127-SA5A-SB-2.0-3.0	6262839	N	3050B	6010B	III
19-Apr-2011	SL-127-SA5A-SB-2.0-3.0	6262839	N	3050B	6020	III
19-Apr-2011	SL-127-SA5A-SB-2.0-3.0	6262839	N	3060A	7199	III
19-Apr-2011	SL-127-SA5A-SB-2.0-3.0	6262839	N	3550B	8082	III
19-Apr-2011	SL-127-SA5A-SB-2.0-3.0	6262839	N	3550B	8270C	III
19-Apr-2011	SL-127-SA5A-SB-2.0-3.0	6262839	N	3550B	8270C SIM	III
19-Apr-2011	SL-127-SA5A-SB-2.0-3.0	6262839	N	5035	8260B	III
19-Apr-2011	SL-127-SA5A-SB-2.0-3.0	6262839	N	5035	8260B SIM	III
19-Apr-2011	SL-127-SA5A-SB-2.0-3.0	6262839	N	METHOD	300.0	III
19-Apr-2011	SL-127-SA5A-SB-2.0-3.0	6262839	N	METHOD	314.0	III
19-Apr-2011	SL-127-SA5A-SB-2.0-3.0	6262839	N	METHOD	7471A	III
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	N	3050B	6010B	III
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	N	3050B	6020	III
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	N	3060A	7199	III
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	N	3546	1625C	III
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	N	3550B	8015B	III
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	N	3550B	8015M	III
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	N	3550B	8082	III
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	N	3550B	8270C	III
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	N	3550B	8270C SIM	III
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	N	8330	8330A	III
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	N	METHOD	300.0	III
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	N	METHOD	314.0	III
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	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
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	N	METHOD	8015B	III
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	N	METHOD	8015M	III
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	N	METHOD	8315A	III
19-Apr-2011	SL-139-SA8N-SS-0.0-0.5	6262834	N	METHOD	9012B	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	3005A	6010B	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	3020A	6020	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	3510C	8015B	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	3510C	8015M	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	3510C	8082	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	3510C	8270C	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	3510C	8270C SIM	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	3520C	1625C	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	8330	8330A	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	Gen Prep	300.0	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	Gen Prep	314.0	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	Gen Prep	7199	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	Gen Prep	8015B	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	Gen Prep	8015M	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	METHOD	7470A	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	METHOD	8315A	III
19-Apr-2011	EB06-SA8N-SS-041911	6262841	EB	METHOD	9012B	III
19-Apr-2011	SL-126-SA5A-SB-4.0-5.0	6262838	N	3050B	6010B	III
19-Apr-2011	SL-126-SA5A-SB-4.0-5.0	6262838	N	3050B	6020	III
19-Apr-2011	SL-126-SA5A-SB-4.0-5.0	6262838	N	3060A	7199	III
19-Apr-2011	SL-126-SA5A-SB-4.0-5.0	6262838	N	3550B	8082	III
19-Apr-2011	SL-126-SA5A-SB-4.0-5.0	6262838	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
19-Apr-2011	SL-126-SA5A-SB-4.0-5.0	6262838	N	3550B	8270C SIM	III
19-Apr-2011	SL-126-SA5A-SB-4.0-5.0	6262838	N	5035	8260B	III
19-Apr-2011	SL-126-SA5A-SB-4.0-5.0	6262838	N	5035	8260B SIM	III
19-Apr-2011	SL-126-SA5A-SB-4.0-5.0	6262838	N	METHOD	300.0	III
19-Apr-2011	SL-126-SA5A-SB-4.0-5.0	6262838	N	METHOD	314.0	III
19-Apr-2011	SL-126-SA5A-SB-4.0-5.0	6262838	N	METHOD	7471A	III
19-Apr-2011	EB14-SA5A-SB-041911	6262842	EB	3510C	8015B	III
19-Apr-2011	EB14-SA5A-SB-041911	6262842	EB	3510C	8015M	III
19-Apr-2011	EB14-SA5A-SB-041911	6262842	EB	3520C	1625C	III
19-Apr-2011	EB14-SA5A-SB-041911	6262842	EB	5030B	8015M	III
19-Apr-2011	EB14-SA5A-SB-041911	6262842	EB	8330	8330A	III
19-Apr-2011	EB14-SA5A-SB-041911	6262842	EB	Gen Prep	300.0	III
19-Apr-2011	EB14-SA5A-SB-041911	6262842	EB	Gen Prep	8015B	III
19-Apr-2011	EB14-SA5A-SB-041911	6262842	EB	Gen Prep	8015M	III
19-Apr-2011	EB14-SA5A-SB-041911	6262842	EB	METHOD	8315A	III
19-Apr-2011	EB14-SA5A-SB-041911	6262842	EB	METHOD	9012B	III
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	N	3050B	6010B	III
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	N	3050B	6020	III
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	N	3060A	7199	III
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	N	3546	1625C	III
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	N	3550B	8015B	III
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	N	3550B	8015M	III
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	N	3550B	8082	III
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	N	3550B	8270C	III
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	N	3550B	8270C SIM	III
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	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
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	N	METHOD	300.0	III
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	N	METHOD	314.0	III
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	N	METHOD	7471A	III
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	N	METHOD	8015B	III
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	N	METHOD	8015M	III
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	N	METHOD	8315A	III
19-Apr-2011	SL-122-SA8N-SS-0.0-0.5	6262828	N	METHOD	9012B	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	3050B	6010B	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	3050B	6020	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	3060A	7199	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	3546	1625C	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	3550B	8015B	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	3550B	8015M	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	3550B	8082	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	3550B	8270C	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	3550B	8270C SIM	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	8330	8330A	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	METHOD	300.0	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	METHOD	314.0	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	METHOD	7471A	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	METHOD	8015B	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	METHOD	8015M	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	METHOD	8315A	III
19-Apr-2011	SL-092-SA8N-SS-0.0-0.5	6262822	N	METHOD	9012B	III
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	N	3050B	6010B	III
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	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
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	N	3060A	7199	III
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	N	3546	1625C	III
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	N	3550B	8015B	III
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	N	3550B	8015M	III
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	N	3550B	8082	III
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	N	3550B	8270C	III
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	N	3550B	8270C SIM	III
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	N	8330	8330A	III
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	N	METHOD	300.0	III
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	N	METHOD	314.0	III
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	N	METHOD	7471A	III
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	N	METHOD	8015B	III
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	N	METHOD	8015M	III
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	N	METHOD	8315A	III
19-Apr-2011	SL-093-SA8N-SS-0.0-0.5	6262823	N	METHOD	9012B	III
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	N	3050B	6010B	III
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	N	3050B	6020	III
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	N	3060A	7199	III
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	N	3546	1625C	III
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	N	3550B	8015B	III
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	N	3550B	8015M	III
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	N	3550B	8082	III
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	N	3550B	8270C	III
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	N	3550B	8270C SIM	III
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	N	8330	8330A	III
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	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
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	N	METHOD	314.0	III
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	N	METHOD	7471A	III
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	N	METHOD	8015B	III
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	N	METHOD	8015M	III
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	N	METHOD	8315A	III
19-Apr-2011	SL-076-SA8N-SS-0.0-0.5	6262820	N	METHOD	9012B	III
19-Apr-2011	SL-095-SA8N-SS-0.0-0.5	6262825	N	3050B	6010B	III
19-Apr-2011	SL-095-SA8N-SS-0.0-0.5	6262825	N	3050B	6020	III
19-Apr-2011	SL-095-SA8N-SS-0.0-0.5	6262825	N	3060A	7199	III
19-Apr-2011	SL-095-SA8N-SS-0.0-0.5	6262825	N	3550B	8082	III
19-Apr-2011	SL-095-SA8N-SS-0.0-0.5	6262825	N	3550B	8270C	III
19-Apr-2011	SL-095-SA8N-SS-0.0-0.5	6262825	N	3550B	8270C SIM	III
19-Apr-2011	SL-095-SA8N-SS-0.0-0.5	6262825	N	METHOD	300.0	III
19-Apr-2011	SL-095-SA8N-SS-0.0-0.5	6262825	N	METHOD	314.0	III
19-Apr-2011	SL-095-SA8N-SS-0.0-0.5	6262825	N	METHOD	7471A	III
19-Apr-2011	SL-094-SA8N-SS-0.0-0.5	6262824	N	3050B	6010B	III
19-Apr-2011	SL-094-SA8N-SS-0.0-0.5	6262824	N	3050B	6020	III
19-Apr-2011	SL-094-SA8N-SS-0.0-0.5	6262824	N	3060A	7199	III
19-Apr-2011	SL-094-SA8N-SS-0.0-0.5	6262824	N	3550B	8082	III
19-Apr-2011	SL-094-SA8N-SS-0.0-0.5	6262824	N	3550B	8270C	III
19-Apr-2011	SL-094-SA8N-SS-0.0-0.5	6262824	N	3550B	8270C SIM	III
19-Apr-2011	SL-094-SA8N-SS-0.0-0.5	6262824	N	METHOD	300.0	III
19-Apr-2011	SL-094-SA8N-SS-0.0-0.5	6262824	N	METHOD	314.0	III
19-Apr-2011	SL-094-SA8N-SS-0.0-0.5	6262824	N	METHOD	7471A	III
19-Apr-2011	SL-096-SA8N-SS-0.0-0.5	6262826	N	3050B	6010B	III
19-Apr-2011	SL-096-SA8N-SS-0.0-0.5	6262826	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
19-Apr-2011	SL-096-SA8N-SS-0.0-0.5	6262826	N	3060A	7199	III
19-Apr-2011	SL-096-SA8N-SS-0.0-0.5	6262826	N	3550B	8082	III
19-Apr-2011	SL-096-SA8N-SS-0.0-0.5	6262826	N	3550B	8270C	III
19-Apr-2011	SL-096-SA8N-SS-0.0-0.5	6262826	N	3550B	8270C SIM	III
19-Apr-2011	SL-096-SA8N-SS-0.0-0.5	6262826	N	METHOD	300.0	III
19-Apr-2011	SL-096-SA8N-SS-0.0-0.5	6262826	N	METHOD	314.0	III
19-Apr-2011	SL-096-SA8N-SS-0.0-0.5	6262826	N	METHOD	7471A	III
19-Apr-2011	SL-097-SA8N-SS-0.0-0.5	6262827	N	3050B	6010B	III
19-Apr-2011	SL-097-SA8N-SS-0.0-0.5	6262827	N	3050B	6020	III
19-Apr-2011	SL-097-SA8N-SS-0.0-0.5	6262827	N	3060A	7199	III
19-Apr-2011	SL-097-SA8N-SS-0.0-0.5	6262827	N	3550B	8082	III
19-Apr-2011	SL-097-SA8N-SS-0.0-0.5	6262827	N	3550B	8270C	III
19-Apr-2011	SL-097-SA8N-SS-0.0-0.5	6262827	N	3550B	8270C SIM	III
19-Apr-2011	SL-097-SA8N-SS-0.0-0.5	6262827	N	METHOD	300.0	III
19-Apr-2011	SL-097-SA8N-SS-0.0-0.5	6262827	N	METHOD	314.0	III
19-Apr-2011	SL-097-SA8N-SS-0.0-0.5	6262827	N	METHOD	7471A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
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Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: DUP04-SA8N-QC-041911 **Collected:** 4/19/2011 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	0.88	U	0.88	MDL	1.1	PQL	mg/Kg	UJ	Q

Sample ID: SL-075-SA8N-SS-0.0-0.5 **Collected:** 4/19/2011 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	2.9		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-076-SA8N-SS-0.0-0.5 **Collected:** 4/19/2011 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	2.6		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-077-SA8N-SS-0.0-0.5 **Collected:** 4/19/2011 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	2.1		1.0	MDL	1.3	PQL	mg/Kg	J	Q

Sample ID: SL-092-SA8N-SS-0.0-0.5 **Collected:** 4/19/2011 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	1.1		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-093-SA8N-SS-0.0-0.5 **Collected:** 4/19/2011 1:55:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-094-SA8N-SS-0.0-0.5 **Collected:** 4/19/2011 3:15:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.1		0.86	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **GENCHEM**

Method: **300.0** ***Matrix:*** **SO**

Sample ID: **SL-095-SA8N-SS-0.0-0.5** ***Collected:*** **4/19/2011 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	1.3		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-096-SA8N-SS-0.0-0.5** ***Collected:*** **4/19/2011 3:25:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.8		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-097-SA8N-SS-0.0-0.5** ***Collected:*** **4/19/2011 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
FLUORIDE	1.7		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: **SL-122-SA8N-SS-0.0-0.5** ***Collected:*** **4/19/2011 1:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.84	U	0.84	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: **SL-126-SA5A-SB-4.0-5.0** ***Collected:*** **4/19/2011 12:27:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.7		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: **SL-127-SA5A-SB-2.0-3.0** ***Collected:*** **4/19/2011 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	0.90	U	0.90	MDL	1.1	PQL	mg/Kg	UJ	Q

Sample ID: **SL-135-SA8N-SS-0.0-0.5** ***Collected:*** **4/19/2011 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
FLUORIDE	1.4		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: **SL-138-SA8N-SS-0.0-0.5** ***Collected:*** **4/19/2011 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	0.87	U	0.87	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-139-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.84	U	0.84	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-140-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.92	U	0.92	MDL	1.1	PQL	mg/Kg	UJ	Q

Sample ID: SL-171-SA5A-SB-2.0-3.0 *Collected:* 4/19/2011 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	1.6		0.97	MDL	1.2	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix: AQ**

Sample ID: EB06-SA8N-SS-041911 *Collected:* 4/19/2011 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
BORON	0.0211	J	0.0138	MDL	0.0500	PQL	mg/L	U	B
CALCIUM	0.0796	J	0.0702	MDL	0.200	PQL	mg/L	J	Z

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: DUP04-SA8N-QC-041911 *Collected:* 4/19/2011 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	0.965	U	0.965	MDL	5.42	PQL	mg/Kg	UJ	FD
SODIUM	67.8	J	40.4	MDL	108	PQL	mg/Kg	J	Z
TIN	2.28	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	1.51	J	0.911	MDL	5.42	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-075-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	7.50		1.04	MDL	5.82	PQL	mg/Kg	U	F
TIN	2.35	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	3.10	J	0.978	MDL	5.82	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
BORON	1.64	J	0.991	MDL	5.57	PQL	mg/Kg	U	F
TIN	2.56	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	2.78	J	0.936	MDL	5.57	PQL	mg/Kg	J	Z

Sample ID: SL-077-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
BORON	2.67	J	1.13	MDL	6.37	PQL	mg/Kg	U	F
TIN	3.00	J	1.27	MDL	12.7	PQL	mg/Kg	U	B
Zirconium	3.17	J	1.07	MDL	6.37	PQL	mg/Kg	J	Z

Sample ID: SL-092-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
SODIUM	85.5	J	41.6	MDL	112	PQL	mg/Kg	J	Z
TIN	2.51	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	1.80	J	0.938	MDL	5.58	PQL	mg/Kg	J	Z

Sample ID: SL-093-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 1:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.75	J	0.997	MDL	5.60	PQL	mg/Kg	U	F
SODIUM	76.2	J	41.8	MDL	112	PQL	mg/Kg	J	Z
TIN	2.46	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	1.24	J	0.941	MDL	5.60	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: DE131 **Laboratory:** LL

EDD Filename: PrepDE131_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-094-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 3:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.41	J	0.951	MDL	5.34	PQL	mg/Kg	U	F
SODIUM	84.0	J	39.8	MDL	107	PQL	mg/Kg	J	Z
TIN	2.56	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	3.61	J	0.897	MDL	5.34	PQL	mg/Kg	J	Z

Sample ID: SL-095-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	2.84	J	1.01	MDL	5.66	PQL	mg/Kg	U	F
SODIUM	77.9	J	42.2	MDL	113	PQL	mg/Kg	J	Z
TIN	2.53	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	2.88	J	0.950	MDL	5.66	PQL	mg/Kg	J	Z

Sample ID: SL-096-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 3:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.14	J	0.937	MDL	5.27	PQL	mg/Kg	U	F
SODIUM	85.0	J	39.3	MDL	105	PQL	mg/Kg	J	Z
TIN	2.51	J	1.05	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	3.50	J	0.885	MDL	5.27	PQL	mg/Kg	J	Z

Sample ID: SL-097-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	4.55	J	1.02	MDL	5.71	PQL	mg/Kg	U	F
SODIUM	94.9	J	42.6	MDL	114	PQL	mg/Kg	J	Z
TIN	2.55	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	3.77	J	0.959	MDL	5.71	PQL	mg/Kg	J	Z

Sample ID: SL-122-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 1:15:00 *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	0.912	MDL	5.12	PQL	mg/Kg	U	F
SODIUM	65.8	J	38.2	MDL	102	PQL	mg/Kg	J	Z
TIN	2.58	J	1.02	MDL	10.2	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-122-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 1:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	2.53	J	0.861	MDL	5.12	PQL	mg/Kg	J	Z

Sample ID: SL-126-SA5A-SB-4.0-5.0 *Collected:* 4/19/2011 12:27:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	113	J	42.9	MDL	115	PQL	mg/Kg	J	Z
TIN	3.04	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	1.94	J	0.967	MDL	5.76	PQL	mg/Kg	J	Z

Sample ID: SL-127-SA5A-SB-2.0-3.0 *Collected:* 4/19/2011 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
SODIUM	62.0	J	41.1	MDL	110	PQL	mg/Kg	J	Z
TIN	2.41	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.22	J	0.925	MDL	5.51	PQL	mg/Kg	J	Z

Sample ID: SL-135-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	1.54	J	0.945	MDL	5.31	PQL	mg/Kg	U	F
SODIUM	65.0	J	39.6	MDL	106	PQL	mg/Kg	J	Z
TIN	2.31	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	1.61	J	0.892	MDL	5.31	PQL	mg/Kg	J	Z

Sample ID: SL-138-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
BORON	1.44	J	0.960	MDL	5.39	PQL	mg/Kg	UJ	FD, F
SODIUM	69.8	J	40.2	MDL	108	PQL	mg/Kg	J	Z
TIN	2.38	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	1.84	J	0.906	MDL	5.39	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-139-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
SODIUM	70.2	J	38.3	MDL	103	PQL	mg/Kg	J	Z
TIN	2.39	J	1.03	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	1.50	J	0.863	MDL	5.14	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	1.12	J	0.989	MDL	5.55	PQL	mg/Kg	U	F
SODIUM	77.7	J	41.4	MDL	111	PQL	mg/Kg	J	Z
TIN	2.54	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	2.13	J	0.933	MDL	5.55	PQL	mg/Kg	J	Z

Sample ID: SL-171-SA5A-SB-2.0-3.0 *Collected:* 4/19/2011 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
SODIUM	81.5	J	44.1	MDL	118	PQL	mg/Kg	J	Z
TIN	2.52	J	1.18	MDL	11.8	PQL	mg/Kg	U	B
Zirconium	1.03	J	0.993	MDL	5.91	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: AQ**

Sample ID: EB06-SA8N-SS-041911 *Collected:* 4/19/2011 12:00:00 *Analysis Type:* REA5 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	0.00045	J	0.00038	MDL	0.0020	PQL	mg/L	U	B

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: DUP04-SA8N-QC-041911 *Collected:* 4/19/2011 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	0.156	J	0.0430	MDL	0.430	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: DUP04-SA8N-QC-041911 ***Collected:*** 4/19/2011 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	123		0.116	MDL	0.430	PQL	mg/Kg	J	E, A

Sample ID: DUP04-SA8N-QC-041911 ***Collected:*** 4/19/2011 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	0.123	J	0.0644	MDL	0.215	PQL	mg/Kg	J	Z, Q, E, FD
CADMIUM	0.224		0.0430	MDL	0.107	PQL	mg/Kg	J	Q
COBALT	7.53		0.0215	MDL	0.107	PQL	mg/Kg	J	Q
COPPER	11.7		0.0709	MDL	0.430	PQL	mg/Kg	J	Q
NICKEL	14.1		0.107	MDL	0.430	PQL	mg/Kg	J	Q, A
SILVER	0.0477	J	0.0129	MDL	0.107	PQL	mg/Kg	J	Z, FD

Sample ID: SL-075-SA8N-SS-0.0-0.5 ***Collected:*** 4/19/2011 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	0.315	J	0.0461	MDL	0.461	PQL	mg/Kg	J	Z

Sample ID: SL-075-SA8N-SS-0.0-0.5 ***Collected:*** 4/19/2011 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
BARIUM	127		0.124	MDL	0.461	PQL	mg/Kg	J	E, A

Sample ID: SL-075-SA8N-SS-0.0-0.5 ***Collected:*** 4/19/2011 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	0.0702	J	0.0692	MDL	0.231	PQL	mg/Kg	J	Z, Q, E
CADMIUM	0.350		0.0461	MDL	0.115	PQL	mg/Kg	J	Q
COBALT	12.5		0.0231	MDL	0.115	PQL	mg/Kg	J	Q
COPPER	19.1		0.0761	MDL	0.461	PQL	mg/Kg	J	Q
NICKEL	22.2		0.115	MDL	0.461	PQL	mg/Kg	J	Q, A
SILVER	0.0324	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-076-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
CADMIUM	0.213		0.0450	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: SL-076-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
SELENIUM	0.250	J	0.0450	MDL	0.450	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
BARIUM	123		0.121	MDL	0.450	PQL	mg/Kg	J	E, A

Sample ID: SL-076-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 2:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.128	J	0.0675	MDL	0.225	PQL	mg/Kg	J	Z, Q, E
COBALT	9.36		0.0225	MDL	0.112	PQL	mg/Kg	J	Q
COPPER	14.4		0.0742	MDL	0.450	PQL	mg/Kg	J	Q
NICKEL	17.0		0.112	MDL	0.450	PQL	mg/Kg	J	Q, A
SILVER	0.0497	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-077-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.490	J	0.0500	MDL	0.500	PQL	mg/Kg	J	Z

Sample ID: SL-077-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	198		0.135	MDL	0.500	PQL	mg/Kg	J	E, A

Sample ID: SL-077-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.0750	U	0.0750	MDL	0.250	PQL	mg/Kg	UJ	Q, E
CADMIUM	0.390		0.0500	MDL	0.125	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-077-SA8N-SS-0.0-0.5 **Collected:** 4/19/2011 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
COBALT	11.4		0.0250	MDL	0.125	PQL	mg/Kg	J	Q
COPPER	18.9		0.0825	MDL	0.500	PQL	mg/Kg	J	Q
NICKEL	21.5		0.125	MDL	0.500	PQL	mg/Kg	J	Q, A
SILVER	0.0695	J	0.0150	MDL	0.125	PQL	mg/Kg	J	Z

Sample ID: SL-092-SA8N-SS-0.0-0.5 **Collected:** 4/19/2011 1:35:00 **Analysis Type:** REA **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.257		0.0425	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-092-SA8N-SS-0.0-0.5 **Collected:** 4/19/2011 1:35:00 **Analysis Type:** REA2 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.174	J	0.0425	MDL	0.425	PQL	mg/Kg	J	Z

Sample ID: SL-092-SA8N-SS-0.0-0.5 **Collected:** 4/19/2011 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
BARIUM	129		0.115	MDL	0.425	PQL	mg/Kg	J	E, A

Sample ID: SL-092-SA8N-SS-0.0-0.5 **Collected:** 4/19/2011 1:35:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.127	J	0.0638	MDL	0.213	PQL	mg/Kg	J	Z, Q, E
COBALT	6.80		0.0213	MDL	0.106	PQL	mg/Kg	J	Q
COPPER	11.3		0.0702	MDL	0.425	PQL	mg/Kg	J	Q
NICKEL	12.9		0.106	MDL	0.425	PQL	mg/Kg	J	Q, A
SILVER	0.0490	J	0.0128	MDL	0.106	PQL	mg/Kg	J	Z

Sample ID: SL-093-SA8N-SS-0.0-0.5 **Collected:** 4/19/2011 1:55:00 **Analysis Type:** REA2 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.223	J	0.0448	MDL	0.448	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-093-SA8N-SS-0.0-0.5 ***Collected:*** 4/19/2011 1:55:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	146		0.121	MDL	0.448	PQL	mg/Kg	J	E, A

Sample ID: SL-093-SA8N-SS-0.0-0.5 ***Collected:*** 4/19/2011 1:55:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0947	J	0.0672	MDL	0.224	PQL	mg/Kg	J	Z, Q, E
CADMIUM	0.518		0.0448	MDL	0.112	PQL	mg/Kg	J	Q
COBALT	7.76		0.0224	MDL	0.112	PQL	mg/Kg	J	Q
COPPER	15.4		0.0739	MDL	0.448	PQL	mg/Kg	J	Q
NICKEL	16.3		0.112	MDL	0.448	PQL	mg/Kg	J	Q, A

Sample ID: SL-094-SA8N-SS-0.0-0.5 ***Collected:*** 4/19/2011 3:15:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.202	J	0.0419	MDL	0.419	PQL	mg/Kg	J	Z

Sample ID: SL-094-SA8N-SS-0.0-0.5 ***Collected:*** 4/19/2011 3:15:00 ***Analysis Type:*** REA4 ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	134		0.283	MDL	1.05	PQL	mg/Kg	J	E, A

Sample ID: SL-094-SA8N-SS-0.0-0.5 ***Collected:*** 4/19/2011 3:15:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.144	J	0.0628	MDL	0.209	PQL	mg/Kg	J	Z, Q, E
CADMIUM	0.355		0.0419	MDL	0.105	PQL	mg/Kg	J	Q
COBALT	13.3		0.0209	MDL	0.105	PQL	mg/Kg	J	Q
COPPER	19.7		0.0691	MDL	0.419	PQL	mg/Kg	J	Q
NICKEL	25.8		0.105	MDL	0.419	PQL	mg/Kg	J	Q, A
SILVER	0.0569	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: SL-095-SA8N-SS-0.0-0.5 ***Collected:*** 4/19/2011 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	0.153	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-095-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
BARIUM	163		0.119	MDL	0.439	PQL	mg/Kg	J	E, A

Sample ID: SL-095-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.0666	J	0.0659	MDL	0.220	PQL	mg/Kg	J	Z, Q, E
CADMIUM	0.236		0.0439	MDL	0.110	PQL	mg/Kg	J	Q
COBALT	12.5		0.0220	MDL	0.110	PQL	mg/Kg	J	Q
COPPER	16.9		0.0725	MDL	0.439	PQL	mg/Kg	J	Q
NICKEL	21.2		0.110	MDL	0.439	PQL	mg/Kg	J	Q, A
SILVER	0.0523	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-096-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 3:25:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.150	J	0.0421	MDL	0.421	PQL	mg/Kg	J	Z

Sample ID: SL-096-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 3:25:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	141		0.114	MDL	0.421	PQL	mg/Kg	J	E, A

Sample ID: SL-096-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 3:25:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.119	J	0.0632	MDL	0.211	PQL	mg/Kg	J	Z, Q, E
CADMIUM	0.329		0.0421	MDL	0.105	PQL	mg/Kg	J	Q
COBALT	10.2		0.0211	MDL	0.105	PQL	mg/Kg	J	Q
COPPER	15.6		0.0695	MDL	0.421	PQL	mg/Kg	J	Q
NICKEL	19.9		0.105	MDL	0.421	PQL	mg/Kg	J	Q, A
SILVER	0.0370	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-097-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
CADMIUM	0.308		0.0444	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: SL-097-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
SELENIUM	0.177	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

Sample ID: SL-097-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
BARIUM	166		0.120	MDL	0.444	PQL	mg/Kg	J	E, A

Sample ID: SL-097-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.0665	U	0.0665	MDL	0.222	PQL	mg/Kg	UJ	Q, E
COBALT	11.8		0.0222	MDL	0.111	PQL	mg/Kg	J	Q
COPPER	19.5		0.0732	MDL	0.444	PQL	mg/Kg	J	Q
NICKEL	23.4		0.111	MDL	0.444	PQL	mg/Kg	J	Q, A
SILVER	0.0580	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-122-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 1:15:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.147	J	0.0410	MDL	0.410	PQL	mg/Kg	J	Z

Sample ID: SL-122-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 1:15:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	113		0.111	MDL	0.410	PQL	mg/Kg	J	E, A

Sample ID: SL-122-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 1:15:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0862	J	0.0615	MDL	0.205	PQL	mg/Kg	J	Z, Q, E
CADMIUM	0.310		0.0410	MDL	0.102	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-122-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 1:15:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	6.73		0.0205	MDL	0.102	PQL	mg/Kg	J	Q
COPPER	11.0		0.0676	MDL	0.410	PQL	mg/Kg	J	Q
NICKEL	12.7		0.102	MDL	0.410	PQL	mg/Kg	J	Q, A
SILVER	0.0520	J	0.0123	MDL	0.102	PQL	mg/Kg	J	Z

Sample ID: SL-126-SA5A-SB-4.0-5.0 *Collected:* 4/19/2011 12:27:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0674	J	0.0456	MDL	0.456	PQL	mg/Kg	J	Z

Sample ID: SL-126-SA5A-SB-4.0-5.0 *Collected:* 4/19/2011 12:27:00 *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	0.456	PQL	mg/Kg	J	E, A

Sample ID: SL-126-SA5A-SB-4.0-5.0 *Collected:* 4/19/2011 12:27:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0699	J	0.0684	MDL	0.228	PQL	mg/Kg	J	Z, Q, E
CADMIUM	0.0612	J	0.0456	MDL	0.114	PQL	mg/Kg	J	Z, Q
COBALT	5.67		0.0228	MDL	0.114	PQL	mg/Kg	J	Q
COPPER	7.40		0.0752	MDL	0.456	PQL	mg/Kg	J	Q
NICKEL	13.5		0.114	MDL	0.456	PQL	mg/Kg	J	Q, A
SILVER	0.0569	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-127-SA5A-SB-2.0-3.0 *Collected:* 4/19/2011 11:17:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.132		0.0441	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: SL-127-SA5A-SB-2.0-3.0 *Collected:* 4/19/2011 11:17:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.133	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-127-SA5A-SB-2.0-3.0 *Collected:* 4/19/2011 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
BARIUM	144		0.119	MDL	0.441	PQL	mg/Kg	J	E, A

Sample ID: SL-127-SA5A-SB-2.0-3.0 *Collected:* 4/19/2011 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	0.0804	J	0.0661	MDL	0.220	PQL	mg/Kg	J	Z, Q, E
COBALT	8.81		0.0220	MDL	0.110	PQL	mg/Kg	J	Q
COPPER	13.4		0.0727	MDL	0.441	PQL	mg/Kg	J	Q
NICKEL	16.7		0.110	MDL	0.441	PQL	mg/Kg	J	Q, A
SILVER	0.0420	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-135-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
SELENIUM	0.184	J	0.0433	MDL	0.433	PQL	mg/Kg	J	Z

Sample ID: SL-135-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
BARIUM	94.4		0.117	MDL	0.433	PQL	mg/Kg	J	E, A

Sample ID: SL-135-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.0727	J	0.0650	MDL	0.217	PQL	mg/Kg	J	Z, Q, E
CADMIUM	0.128		0.0433	MDL	0.108	PQL	mg/Kg	J	Q
COBALT	6.21		0.0217	MDL	0.108	PQL	mg/Kg	J	Q
COPPER	8.84		0.0715	MDL	0.433	PQL	mg/Kg	J	Q
NICKEL	11.4		0.108	MDL	0.433	PQL	mg/Kg	J	Q, A
SILVER	0.0146	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-138-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
CADMIUM	0.150		0.0436	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-138-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
SELENIUM	0.122	J	0.0436	MDL	0.436	PQL	mg/Kg	J	Z

Sample ID: SL-138-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
BARIUM	116		0.118	MDL	0.436	PQL	mg/Kg	J	E, A

Sample ID: SL-138-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.0654	U	0.0654	MDL	0.218	PQL	mg/Kg	UJ	Q, E, FD
COBALT	6.90		0.0218	MDL	0.109	PQL	mg/Kg	J	Q
COPPER	10.1		0.0719	MDL	0.436	PQL	mg/Kg	J	Q
NICKEL	13.2		0.109	MDL	0.436	PQL	mg/Kg	J	Q, A
SILVER	0.0257	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z, FD

Sample ID: SL-139-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.0411	MDL	0.411	PQL	mg/Kg	J	Z

Sample ID: SL-139-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	109		0.111	MDL	0.411	PQL	mg/Kg	J	E, A

Sample ID: SL-139-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.0617	U	0.0617	MDL	0.206	PQL	mg/Kg	UJ	Q, E
CADMIUM	0.239		0.0411	MDL	0.103	PQL	mg/Kg	J	Q
COBALT	6.51		0.0206	MDL	0.103	PQL	mg/Kg	J	Q
COPPER	9.55		0.0678	MDL	0.411	PQL	mg/Kg	J	Q
NICKEL	12.1		0.103	MDL	0.411	PQL	mg/Kg	J	Q, A
SILVER	0.0434	J	0.0123	MDL	0.103	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-140-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.204	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 9:45:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	133		0.120	MDL	0.444	PQL	mg/Kg	J	E, A

Sample ID: SL-140-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.279		0.0667	MDL	0.222	PQL	mg/Kg	J	Q, E
CADMIUM	0.283		0.0444	MDL	0.111	PQL	mg/Kg	J	Q
COBALT	7.32		0.0222	MDL	0.111	PQL	mg/Kg	J	Q
COPPER	14.0		0.0733	MDL	0.444	PQL	mg/Kg	J	Q
NICKEL	15.1		0.111	MDL	0.444	PQL	mg/Kg	J	Q, A
SILVER	0.0531	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-171-SA5A-SB-2.0-3.0 *Collected:* 4/19/2011 9:42:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.182	J	0.0460	MDL	0.460	PQL	mg/Kg	J	Z

Sample ID: SL-171-SA5A-SB-2.0-3.0 *Collected:* 4/19/2011 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
BARIUM	121		0.124	MDL	0.460	PQL	mg/Kg	J	E, A

Sample ID: SL-171-SA5A-SB-2.0-3.0 *Collected:* 4/19/2011 9:42:00 *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	0.0689	MDL	0.230	PQL	mg/Kg	J	Z, Q, E
CADMIUM	0.140		0.0460	MDL	0.115	PQL	mg/Kg	J	Q
COBALT	7.16		0.0230	MDL	0.115	PQL	mg/Kg	J	Q
COPPER	11.2		0.0758	MDL	0.460	PQL	mg/Kg	J	Q
NICKEL	15.6		0.115	MDL	0.460	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-171-SA5A-SB-2.0-3.0 *Collected:* 4/19/2011 9:42:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0596	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-075-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.50	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.50	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-094-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 3:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.67	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-126-SA5A-SB-4.0-5.0 *Collected:* 4/19/2011 12:27:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.54	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.49	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-171-SA5A-SB-2.0-3.0 *Collected:* 4/19/2011 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
HEXAVALENT CHROMIUM	0.50	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: DUP04-SA8N-QC-041911 *Collected:* 4/19/2011 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	0.0168	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: SL-075-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
MERCURY	0.0139	J	0.0033	MDL	0.116	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.0303	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z

Sample ID: SL-077-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
MERCURY	0.0977	J	0.0036	MDL	0.124	PQL	mg/Kg	J	Z

Sample ID: SL-094-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 3:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0323	J	0.0030	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-095-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.0151	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: SL-096-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 3:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0149	J	0.0029	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-097-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.0149	J	0.0031	MDL	0.109	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **7471A** ***Matrix:*** **SO**

Sample ID: SL-122-SA8N-SS-0.0-0.5 ***Collected:*** 4/19/2011 1:15:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0209	J	0.0029	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-126-SA5A-SB-4.0-5.0 ***Collected:*** 4/19/2011 12:27:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0188	J	0.0031	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-127-SA5A-SB-2.0-3.0 ***Collected:*** 4/19/2011 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
MERCURY	0.0035	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z

Sample ID: SL-135-SA8N-SS-0.0-0.5 ***Collected:*** 4/19/2011 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	0.0158	J	0.0029	MDL	0.102	PQL	mg/Kg	J	Z

Sample ID: SL-138-SA8N-SS-0.0-0.5 ***Collected:*** 4/19/2011 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	0.0181	J	0.0029	MDL	0.102	PQL	mg/Kg	J	Z

Sample ID: SL-139-SA8N-SS-0.0-0.5 ***Collected:*** 4/19/2011 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	0.0089	J	0.0028	MDL	0.0973	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA8N-SS-0.0-0.5 ***Collected:*** 4/19/2011 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
MERCURY	0.0268	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-171-SA5A-SB-2.0-3.0 ***Collected:*** 4/19/2011 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	0.0103	J	0.0033	MDL	0.114	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Method Category: SVOA

Method: 1625C **Matrix: AQ**

Sample ID: EB06-SA8N-SS-041911 *Collected:* 4/19/2011 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	0.501	U	0.501	MDL	1.00	PQL	ng/L	UJ	L

Sample ID: EB14-SA5A-SB-041911 *Collected:* 4/19/2011 1:00:00 *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	0.808	J	0.528	MDL	1.06	PQL	ng/L	J	Z, L, S

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: DUP04-SA8N-QC-041911 *Collected:* 4/19/2011 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	43.8		18.3	MDL	36.5	PQL	ng/Kg	U	B

Sample ID: SL-075-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 8:45:00 *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	303	J	194	MDL	388	PQL	ng/Kg	U	B

Sample ID: SL-076-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 2:05:00 *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	805		188	MDL	375	PQL	ng/Kg	U	B

Sample ID: SL-077-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 10:30:00 *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	575		215	MDL	429	PQL	ng/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-135-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
N-NITROSODIMETHYLAMINE	27.3	J	18.2	MDL	36.5	PQL	ng/Kg	U	B

Sample ID: SL-138-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
N-NITROSODIMETHYLAMINE	45.2		18.2	MDL	36.3	PQL	ng/Kg	UJ	Q, B

Sample ID: SL-139-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
N-NITROSODIMETHYLAMINE	61.6		17.5	MDL	34.9	PQL	ng/Kg	U	B

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: DUP04-SA8N-QC-041911 *Collected:* 4/19/2011 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 (C15-C20)	0.97	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-075-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
DIETHYLENE GLYCOL	5.8	U	5.8	MDL	15	PQL	mg/Kg	UJ	Q, Q

Sample ID: SL-077-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 10:30:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.99	J	0.51	MDL	1.5	PQL	mg/Kg	J	Z

Sample ID: SL-122-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 1:15:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.97	J	0.42	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-138-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 11:00:00 *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)	0.85	J	0.43	MDL	1.3	PQL	mg/Kg	J	Z
EFH (C21-C30)	5.8		0.43	MDL	1.3	PQL	mg/Kg	J	Q

Sample ID: SL-140-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
EFH (C15-C20)	2.6	J	0.92	MDL	2.7	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: DUP04-SA8N-QC-041911 *Collected:* 4/19/2011 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	0.89	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 5460	1.9	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

Sample ID: SL-075-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
AROCLOR 1254	1.2	J	0.38	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-076-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 2:05:00 *Analysis Type:* RES *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	7.5	J	5.6	MDL	18	PQL	ug/Kg	J	Z

Sample ID: SL-092-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	1.2	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5460	1.4	J	1.1	MDL	3.7	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-093-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 1:55:00 *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	6.9	J	2.2	MDL	9.7	PQL	ug/Kg	J	Z
Aroclor 5460	7.6	J	5.7	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-094-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 3:15:00 *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	1.1	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
AROCLOR 1260	0.79	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	2.7	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

Sample ID: SL-096-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 3:25:00 *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	0.65	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-122-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 1:15:00 *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	0.70	J	0.34	MDL	1.8	PQL	ug/Kg	J	Z
AROCLOR 1260	1.0	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	2.3	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-135-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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 1260	1.2	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	1.6	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

Sample ID: SL-138-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
AROCLOR 1254	0.86	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z, S
AROCLOR 1260	1.2	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z, S
Aroclor 5460	2.2	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z, 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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-139-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
AROCLOR 1254	0.75	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
AROCLOR 1260	0.68	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	1.7	J	1.0	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-140-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	1.5	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
AROCLOR 1260	1.7	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5460	2.5	J	1.1	MDL	3.8	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix: AQ**

Sample ID: EB06-SA8N-SS-041911 *Collected:* 4/19/2011 12:00:00 *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	6	U	6	MDL	15	PQL	ug/L	UJ	E

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: DUP04-SA8N-QC-041911 *Collected:* 4/19/2011 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
4-BROMOPHENYL-PHENYLETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: SL-075-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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-BROMOPHENYL-PHENYLETHER	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-076-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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-BROMOPHENYL-PHENYLETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-077-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
4-BROMOPHENYL-PHENYLETHER	21	U	21	MDL	210	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	43	J	21	MDL	420	PQL	ug/Kg	J	Z

Sample ID: SL-092-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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-BROMOPHENYL-PHENYLETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	27	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-093-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 1:55:00 *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-BROMOPHENYL-PHENYLETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	32	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-094-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 3:15:00 *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-BROMOPHENYL-PHENYLETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	27	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-095-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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-BROMOPHENYL-PHENYLETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-096-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 3:25:00 *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-BROMOPHENYL-PHENYLETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	24	J	18	MDL	360	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-097-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
4-BROMOPHENYL-PHENYLETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	25	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-122-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 1:15:00 *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-BROMOPHENYL-PHENYLETHER	17	U	17	MDL	170	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	27	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-126-SA5A-SB-4.0-5.0 *Collected:* 4/19/2011 12:27:00 *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-BROMOPHENYL-PHENYLETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	34	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-127-SA5A-SB-2.0-3.0 *Collected:* 4/19/2011 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-BROMOPHENYL-PHENYLETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: SL-135-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
4-BROMOPHENYL-PHENYLETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	20	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-138-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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-BROMOPHENYL-PHENYLETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BENZIDINE	1300	U	1300	MDL	3600	PQL	ug/Kg	R	Q
BIS(2-ETHYLHEXYL)PHTHALATE	24	J	18	MDL	360	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-139-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
4-BROMOPHENYL-PHENYLETHER	17	U	17	MDL	170	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	27	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-140-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
4-BROMOPHENYL-PHENYLETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	28	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-171-SA5A-SB-2.0-3.0 *Collected:* 4/19/2011 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-BROMOPHENYL-PHENYLETHER	20	U	20	MDL	200	PQL	ug/Kg	UJ	L

Method Category: SVOA

Method: 8270C SIM **Matrix: AQ**

Sample ID: EB06-SA8N-SS-041911 *Collected:* 4/19/2011 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	0.13	J	0.052	MDL	1.0	PQL	ug/L	J	Z
Diethylphthalate	0.057	J	0.052	MDL	1.0	PQL	ug/L	J	Z
Di-n-butylphthalate	0.30	J	0.052	MDL	1.0	PQL	ug/L	J	Z
Di-n-octylphthalate	0.25	J	0.052	MDL	1.0	PQL	ug/L	J	Z

Method Category: SVOA

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

Sample ID: DUP04-SA8N-QC-041911 *Collected:* 4/19/2011 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
BENZO(A)PYRENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(B)FLUORANTHENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
BENZO(K)FLUORANTHENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD
CHRYSENE	0.42	J	0.37	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: DUP04-SA8N-QC-041911 *Collected:* 4/19/2011 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
FLUORANTHENE	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
PYRENE	0.73	U	0.73	MDL	1.8	PQL	ug/Kg	UJ	FD

Sample ID: SL-077-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
BENZO(A)PYRENE	1.2	J	0.86	MDL	2.1	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.9	J	0.86	MDL	2.1	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.89	J	0.86	MDL	2.1	PQL	ug/Kg	J	Z
Di-n-octylphthalate	10	J	7.7	MDL	23	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.2	J	0.86	MDL	2.1	PQL	ug/Kg	J	Z
NAPHTHALENE	1.3	J	0.86	MDL	2.1	PQL	ug/Kg	J	Z
PHENANTHRENE	2.0	J	0.86	MDL	2.1	PQL	ug/Kg	J	Z
PYRENE	1.9	J	0.86	MDL	2.1	PQL	ug/Kg	J	Z

Sample ID: SL-092-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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(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
CHRYSENE	1.6	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
FLUORANTHENE	1.6	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
FLUORENE	1.7	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.81	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.2	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.0	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-093-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 1:55:00 *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)PYRENE	0.93	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.4	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
FLUORANTHENE	1.6	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
FLUORENE	1.8	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-093-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 1:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
INDENO(1,2,3-CD)PYRENE	1.2	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.0	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

Sample ID: SL-095-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
BENZO(B)FLUORANTHENE	1.3	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.87	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	1.1	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
FLUORANTHENE	1.5	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.0	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	0.89	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	0.98	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-096-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 3:25:00 *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	0.49	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.1	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	0.86	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	1.3	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.84	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	1.0	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	0.89	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-097-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
2-METHYLNAPHTHALENE	0.92	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
ANTHRACENE	0.88	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.1	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.2	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.95	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-097-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
NAPHTHALENE	1.6	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-122-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 1:15:00 *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(A)PYRENE	0.85	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.4	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.6	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.86	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.2	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-127-SA5A-SB-2.0-3.0 *Collected:* 4/19/2011 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
CHRYSENE	0.71	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
FLUORANTHENE	1.6	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.2	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-138-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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	0.77	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
BENZO(B)FLUORANTHENE	1.8	J	0.73	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(K)FLUORANTHENE	0.86	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
CHRYSENE	1.5	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	1.7	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	0.96	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD
PYRENE	1.1	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z, FD

Sample ID: SL-139-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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(B)FLUORANTHENE	0.96	J	0.70	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-139-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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
CHRYSENE	0.84	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.0	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.88	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-140-SA8N-SS-0.0-0.5 *Collected:* 4/19/2011 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(A)PYRENE	1.0	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.3	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.1	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.5	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8315A **Matrix: AQ**

Sample ID: EB06-SA8N-SS-041911 *Collected:* 4/19/2011 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
FORMALDEHYDE	15	J	10	MDL	50	PQL	ug/L	J	Z

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-126-SA5A-SB-4.0-5.0 *Collected:* 4/19/2011 12:27:00 *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	0.67	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: SL-127-SA5A-SB-2.0-3.0 *Collected:* 4/19/2011 11:17:00 *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	0.75	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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **VOA**

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

Sample ID: **SL-171-SA5A-SB-2.0-3.0** ***Collected:*** **4/19/2011 9:42:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.81**

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

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_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: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_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

Data Qualifier Summary

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: PrepDE131_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

DE131

Method Blank Outlier Report

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **1625C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLE11B261359	5/2/2011 1:59:00 PM	N-NITROSODIMETHYLAMINE	34.7 ng/Kg	DUP04-SA8N-QC-041911 SL-075-SA8N-SS-0.0-0.5 SL-076-SA8N-SS-0.0-0.5 SL-077-SA8N-SS-0.0-0.5 SL-092-SA8N-SS-0.0-0.5 SL-093-SA8N-SS-0.0-0.5 SL-122-SA8N-SS-0.0-0.5 SL-135-SA8N-SS-0.0-0.5 SL-138-SA8N-SS-0.0-0.5 SL-139-SA8N-SS-0.0-0.5 SL-140-SA8N-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
DUP04-SA8N-QC-041911(RES)	N-NITROSODIMETHYLAMINE	43.8 ng/Kg	43.8U ng/Kg
SL-075-SA8N-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	303 ng/Kg	388U ng/Kg
SL-076-SA8N-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	805 ng/Kg	805U ng/Kg
SL-077-SA8N-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	575 ng/Kg	575U ng/Kg
SL-135-SA8N-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	27.3 ng/Kg	36.5U ng/Kg
SL-138-SA8N-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	45.2 ng/Kg	45.2U ng/Kg
SL-139-SA8N-SS-0.0-0.5(RES)	N-NITROSODIMETHYLAMINE	61.6 ng/Kg	61.8U ng/Kg

Method: **6010B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11748AB221924	4/29/2011 7:24:00 PM	BORON	0.0156 mg/L	EB06-SA8N-SS-041911

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-SA8N-SS-041911(REA2)	BORON	0.0211 mg/L	0.0211U mg/L

Method Blank Outlier Report

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11608BB221536	4/30/2011 3:36:00 PM	CALCIUM PHOSPHORUS TIN	6.24 mg/Kg 1.04 mg/Kg 1.61 mg/Kg	DUP04-SA8N-QC-041911 SL-075-SA8N-SS-0.0-0.5 SL-076-SA8N-SS-0.0-0.5 SL-077-SA8N-SS-0.0-0.5 SL-092-SA8N-SS-0.0-0.5 SL-093-SA8N-SS-0.0-0.5 SL-094-SA8N-SS-0.0-0.5 SL-095-SA8N-SS-0.0-0.5 SL-096-SA8N-SS-0.0-0.5 SL-097-SA8N-SS-0.0-0.5 SL-122-SA8N-SS-0.0-0.5 SL-126-SA5A-SB-4.0-5.0 SL-127-SA5A-SB-2.0-3.0 SL-135-SA8N-SS-0.0-0.5 SL-138-SA8N-SS-0.0-0.5 SL-139-SA8N-SS-0.0-0.5 SL-140-SA8N-SS-0.0-0.5 SL-171-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
DUP04-SA8N-QC-041911(RES)	TIN	2.28 mg/Kg	2.28U mg/Kg
SL-075-SA8N-SS-0.0-0.5(RES)	TIN	2.35 mg/Kg	2.35U mg/Kg
SL-076-SA8N-SS-0.0-0.5(RES)	TIN	2.56 mg/Kg	2.56U mg/Kg
SL-077-SA8N-SS-0.0-0.5(RES)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-092-SA8N-SS-0.0-0.5(RES)	TIN	2.51 mg/Kg	2.51U mg/Kg
SL-093-SA8N-SS-0.0-0.5(RES)	TIN	2.46 mg/Kg	2.46U mg/Kg
SL-094-SA8N-SS-0.0-0.5(RES)	TIN	2.56 mg/Kg	2.56U mg/Kg
SL-095-SA8N-SS-0.0-0.5(RES)	TIN	2.53 mg/Kg	2.53U mg/Kg
SL-096-SA8N-SS-0.0-0.5(RES)	TIN	2.51 mg/Kg	2.51U mg/Kg
SL-097-SA8N-SS-0.0-0.5(RES)	TIN	2.55 mg/Kg	2.55U mg/Kg
SL-122-SA8N-SS-0.0-0.5(RES)	TIN	2.58 mg/Kg	2.58U mg/Kg
SL-126-SA5A-SB-4.0-5.0(RES)	TIN	3.04 mg/Kg	3.04U mg/Kg
SL-127-SA5A-SB-2.0-3.0(RES)	TIN	2.41 mg/Kg	2.41U mg/Kg
SL-135-SA8N-SS-0.0-0.5(RES)	TIN	2.31 mg/Kg	2.31U mg/Kg
SL-138-SA8N-SS-0.0-0.5(RES)	TIN	2.38 mg/Kg	2.38U mg/Kg
SL-139-SA8N-SS-0.0-0.5(RES)	TIN	2.39 mg/Kg	2.39U mg/Kg
SL-140-SA8N-SS-0.0-0.5(RES)	TIN	2.54 mg/Kg	2.54U mg/Kg
SL-171-SA5A-SB-2.0-3.0(RES)	TIN	2.52 mg/Kg	2.52U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11626BB221103A	4/27/2011 11:03:00 AM	COPPER VANADIUM ZINC	0.107 mg/Kg 0.0888 mg/Kg 0.608 mg/Kg	DUP04-SA8N-QC-041911 SL-075-SA8N-SS-0.0-0.5 SL-076-SA8N-SS-0.0-0.5 SL-077-SA8N-SS-0.0-0.5 SL-092-SA8N-SS-0.0-0.5 SL-093-SA8N-SS-0.0-0.5 SL-094-SA8N-SS-0.0-0.5 SL-095-SA8N-SS-0.0-0.5 SL-096-SA8N-SS-0.0-0.5 SL-097-SA8N-SS-0.0-0.5 SL-122-SA8N-SS-0.0-0.5 SL-126-SA5A-SB-4.0-5.0 SL-127-SA5A-SB-2.0-3.0 SL-135-SA8N-SS-0.0-0.5 SL-138-SA8N-SS-0.0-0.5 SL-139-SA8N-SS-0.0-0.5 SL-140-SA8N-SS-0.0-0.5 SL-171-SA5A-SB-2.0-3.0

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB32B211301A	4/21/2011 1:01:00 PM	METHYLENE CHLORIDE	0.46 ug/Kg	SL-126-SA5A-SB-4.0-5.0 SL-127-SA5A-SB-2.0-3.0 SL-171-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-126-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.87 ug/Kg	4.0U ug/Kg
SL-127-SA5A-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	0.75 ug/Kg	4.2U ug/Kg
SL-171-SA5A-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	0.65 ug/Kg	3.9U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_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-075-SA8N-SS-0.0-0.5MS SL-075-SA8N-SS-0.0-0.5MSD (SL-075-SA8N-SS-0.0-0.5)	DIETHYLENE GLYCOL	54	-	59.00-109.00	42 (20.00)	DIETHYLENE GLYCOL	J (all detects) UJ (all non-detects)
SL-138-SA8N-SS-0.0-0.5MS SL-138-SA8N-SS-0.0-0.5MSD (SL-138-SA8N-SS-0.0-0.5)	EFH (C21-C30) EFH (C30-C40)	147 159	157 228	49.00-123.00 49.00-123.00	- -	EFH (C21-C30) EFH (C30-C40)	J(all detects) EFH (C30-C40) 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-138-SA8N-SS-0.0-0.5MS SL-138-SA8N-SS-0.0-0.5MSD (SL-138-SA8N-SS-0.0-0.5)	4-CHLORO-3-METHYLPHENOL	114	111	76.00-110.00	-	4-CHLORO-3-METHYLPHENOL	J(all detects)
SL-138-SA8N-SS-0.0-0.5MS SL-138-SA8N-SS-0.0-0.5MSD (SL-138-SA8N-SS-0.0-0.5)	BENZIDINE	0	0	35.00-141.00	-	BENZIDINE	J(all detects) R(all non-detects)
SL-138-SA8N-SS-0.0-0.5MSD (SL-138-SA8N-SS-0.0-0.5)	PENTACHLOROPHENOL	-	-	28.00-127.00	38 (30.00)	PENTACHLOROPHENOL	J(all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-138-SA8N-SS-0.0-0.5MSD (DUP04-SA8N-QC-041911 SL-075-SA8N-SS-0.0-0.5 SL-076-SA8N-SS-0.0-0.5 SL-077-SA8N-SS-0.0-0.5 SL-092-SA8N-SS-0.0-0.5 SL-093-SA8N-SS-0.0-0.5 SL-094-SA8N-SS-0.0-0.5 SL-095-SA8N-SS-0.0-0.5 SL-096-SA8N-SS-0.0-0.5 SL-097-SA8N-SS-0.0-0.5 SL-122-SA8N-SS-0.0-0.5 SL-126-SA5A-SB-4.0-5.0 SL-127-SA5A-SB-2.0-3.0 SL-135-SA8N-SS-0.0-0.5 SL-138-SA8N-SS-0.0-0.5 SL-139-SA8N-SS-0.0-0.5 SL-140-SA8N-SS-0.0-0.5 SL-171-SA5A-SB-2.0-3.0)	CADMIUM COBALT COPPER NICKEL	- - - -	128 127 126 127	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	CADMIUM COBALT COPPER NICKEL	J(all 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: DE131 **Laboratory: LL**

EDD Filename: DE131_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-138-SA8N-SS-0.0-0.5MS **SL-138-SA8N-SS-0.0-0.5MSD** (DUP04-SA8N-QC-041911 SL-075-SA8N-SS-0.0-0.5 SL-076-SA8N-SS-0.0-0.5 SL-077-SA8N-SS-0.0-0.5 SL-092-SA8N-SS-0.0-0.5 SL-093-SA8N-SS-0.0-0.5 SL-094-SA8N-SS-0.0-0.5 SL-095-SA8N-SS-0.0-0.5 SL-096-SA8N-SS-0.0-0.5 SL-097-SA8N-SS-0.0-0.5 SL-122-SA8N-SS-0.0-0.5 SL-126-SA5A-SB-4.0-5.0 SL-127-SA5A-SB-2.0-3.0 SL-135-SA8N-SS-0.0-0.5 SL-138-SA8N-SS-0.0-0.5 SL-139-SA8N-SS-0.0-0.5 SL-140-SA8N-SS-0.0-0.5 SL-171-SA5A-SB-2.0-3.0)	ANTIMONY ZINC	36 71	44 -	75.00-125.00 75.00-125.00	23 (20.00) -	ANTIMONY ZINC	J(all detects) UJ(all non-detects) Zn, No Qual, >4x
SL-138-SA8N-SS-0.0-0.5MSD (DUP04-SA8N-QC-041911 SL-075-SA8N-SS-0.0-0.5 SL-076-SA8N-SS-0.0-0.5 SL-077-SA8N-SS-0.0-0.5 SL-092-SA8N-SS-0.0-0.5 SL-093-SA8N-SS-0.0-0.5 SL-094-SA8N-SS-0.0-0.5 SL-095-SA8N-SS-0.0-0.5 SL-096-SA8N-SS-0.0-0.5 SL-097-SA8N-SS-0.0-0.5 SL-122-SA8N-SS-0.0-0.5 SL-126-SA5A-SB-4.0-5.0 SL-127-SA5A-SB-2.0-3.0 SL-135-SA8N-SS-0.0-0.5 SL-138-SA8N-SS-0.0-0.5 SL-139-SA8N-SS-0.0-0.5 SL-140-SA8N-SS-0.0-0.5 SL-171-SA5A-SB-2.0-3.0)	BARIUM	-	510	75.00-125.00	32 (20.00)	BARIUM	J(all detects) UJ(all non-detects) No Qual %R, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_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-138-SA8N-SS-0.0-0.5MS	ALUMINUM	1033	1129	75.00-125.00	-	ALUMINUM	
SL-138-SA8N-SS-0.0-0.5MSD	CALCIUM	148	162	75.00-125.00	-	CALCIUM	
(DUP04-SA8N-QC-041911	IRON	712	974	75.00-125.00	-	IRON	
SL-075-SA8N-SS-0.0-0.5	MAGNESIUM	142	173	75.00-125.00	-	MAGNESIUM	
SL-076-SA8N-SS-0.0-0.5	TITANIUM	200	238	75.00-125.00	-	TITANIUM	
SL-077-SA8N-SS-0.0-0.5							
SL-092-SA8N-SS-0.0-0.5							
SL-093-SA8N-SS-0.0-0.5							
SL-094-SA8N-SS-0.0-0.5							
SL-095-SA8N-SS-0.0-0.5							
SL-096-SA8N-SS-0.0-0.5							No Qual, >4x
SL-097-SA8N-SS-0.0-0.5							
SL-122-SA8N-SS-0.0-0.5							
SL-126-SA5A-SB-4.0-5.0							
SL-127-SA5A-SB-2.0-3.0							
SL-135-SA8N-SS-0.0-0.5							
SL-138-SA8N-SS-0.0-0.5							
SL-139-SA8N-SS-0.0-0.5							
SL-140-SA8N-SS-0.0-0.5							
SL-171-SA5A-SB-2.0-3.0)							

Method: 1625C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-138-SA8N-SS-0.0-0.5MS SL-138-SA8N-SS-0.0-0.5MSD (SL-138-SA8N-SS-0.0-0.5)	N-NITROSODIMETHYLAMINE	55	56	70.00-130.00	-	N-NITROSODIMETHYLAMINE	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-075-SA8N-SS-0.0-0.5MS	FLUORIDE	58	-	80.00-120.00	-	FLUORIDE	
(SL-075-SA8N-SS-0.0-0.5							
SL-076-SA8N-SS-0.0-0.5							
SL-077-SA8N-SS-0.0-0.5							
SL-092-SA8N-SS-0.0-0.5							
SL-093-SA8N-SS-0.0-0.5							J(all detects) UJ(all non-detects)
SL-094-SA8N-SS-0.0-0.5							
SL-095-SA8N-SS-0.0-0.5							
SL-096-SA8N-SS-0.0-0.5							
SL-097-SA8N-SS-0.0-0.5							
SL-122-SA8N-SS-0.0-0.5)							
SL-138-SA8N-SS-0.0-0.5MS	FLUORIDE	49	-	80.00-120.00	-	FLUORIDE	
(DUP04-SA8N-QC-041911							
SL-126-SA5A-SB-4.0-5.0							
SL-127-SA5A-SB-2.0-3.0							
SL-135-SA8N-SS-0.0-0.5							J(all detects) UJ(all non-detects)
SL-138-SA8N-SS-0.0-0.5							
SL-139-SA8N-SS-0.0-0.5							
SL-140-SA8N-SS-0.0-0.5							
SL-171-SA5A-SB-2.0-3.0)							

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-138-SA8N-SS-0.0-0.5DUP (DUP04-SA8N-QC-041911 SL-126-SA5A-SB-4.0-5.0 SL-127-SA5A-SB-2.0-3.0 SL-135-SA8N-SS-0.0-0.5 SL-138-SA8N-SS-0.0-0.5 SL-139-SA8N-SS-0.0-0.5 SL-140-SA8N-SS-0.0-0.5 SL-171-SA5A-SB-2.0-3.0)	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-138-SA8N-SS-0.0-0.5DUP (DUP04-SA8N-QC-041911 SL-075-SA8N-SS-0.0-0.5 SL-076-SA8N-SS-0.0-0.5 SL-077-SA8N-SS-0.0-0.5 SL-092-SA8N-SS-0.0-0.5 SL-093-SA8N-SS-0.0-0.5 SL-094-SA8N-SS-0.0-0.5 SL-095-SA8N-SS-0.0-0.5 SL-096-SA8N-SS-0.0-0.5 SL-097-SA8N-SS-0.0-0.5 SL-122-SA8N-SS-0.0-0.5 SL-126-SA5A-SB-4.0-5.0 SL-127-SA5A-SB-2.0-3.0 SL-135-SA8N-SS-0.0-0.5 SL-138-SA8N-SS-0.0-0.5 SL-139-SA8N-SS-0.0-0.5 SL-140-SA8N-SS-0.0-0.5 SL-171-SA5A-SB-2.0-3.0)	BORON Zirconium	200 27	20.00 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: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-138-SA8N-SS-0.0-0.5DUP	ANTIMONY	200	20.00	
(DUP04-SA8N-QC-041911	CADMIUM	24	20.00	
SL-075-SA8N-SS-0.0-0.5	SILVER	30	20.00	
SL-076-SA8N-SS-0.0-0.5				
SL-077-SA8N-SS-0.0-0.5				
SL-092-SA8N-SS-0.0-0.5				
SL-093-SA8N-SS-0.0-0.5				
SL-094-SA8N-SS-0.0-0.5				
SL-095-SA8N-SS-0.0-0.5				No Qual, OK by Difference
SL-096-SA8N-SS-0.0-0.5				
SL-097-SA8N-SS-0.0-0.5				
SL-122-SA8N-SS-0.0-0.5				
SL-126-SA5A-SB-4.0-5.0				
SL-127-SA5A-SB-2.0-3.0				
SL-135-SA8N-SS-0.0-0.5				
SL-138-SA8N-SS-0.0-0.5				
SL-139-SA8N-SS-0.0-0.5				
SL-140-SA8N-SS-0.0-0.5				
SL-171-SA5A-SB-2.0-3.0)				

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-075-SA8N-SS-0.0-0.5DUP	FLUORIDE	74	20.00	
(SL-075-SA8N-SS-0.0-0.5				
SL-076-SA8N-SS-0.0-0.5				
SL-077-SA8N-SS-0.0-0.5				
SL-092-SA8N-SS-0.0-0.5				
SL-093-SA8N-SS-0.0-0.5				No Qual, OK by Difference
SL-094-SA8N-SS-0.0-0.5				
SL-095-SA8N-SS-0.0-0.5				
SL-096-SA8N-SS-0.0-0.5				
SL-097-SA8N-SS-0.0-0.5				
SL-122-SA8N-SS-0.0-0.5)				

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 1625C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P0WFLCSQ261308 (EB06-SA8N-SS-041911 EB14-SA5A-SB-041911)	N-NITROSODIMETHYLAMINE	60	-	70.00-130.00	-	N-NITROSODIMETHYLAMINE	J (all detects) UJ (all non-detects)

Method: 8082
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11114AQ242158A P11114AY242139A (EB06-SA8N-SS-041911)	Aroclor 5442	92	96	35.00-84.00	-	Aroclor 5432 Aroclor 5442 Aroclor 5460	J(all detects)

Method: 8330A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11161AY242029A (EB06-SA8N-SS-041911 EB14-SA5A-SB-041911)	2,4,6-TRINITROTOLUENE	-	110	76.00-109.00	-	2,4,6-TRINITROTOLUENE	J(all detects)

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P2WJLCSY261109 (EB06-SA8N-SS-041911)	BENZOIC ACID	-	-	10.00-69.00	31 (30.00)	BENZOIC ACID	J(all detects) UJ(all non-detects)

Method: 8260B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSY25Q211111A (TB-041911)	CARBON TETRACHLORIDE TRICHLOROFLUOROMETHANE	126 130	- -	75.00-123.00 64.00-129.00	- -	CARBON TETRACHLORIDE TRICHLOROFLUOROMETHAN	J(all detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_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
P11164AQ240658A (DUP04 -SA8N -QC-041911 SL -075-SA8N -SS-0.0-0.5 SL -076-SA8N -SS-0.0-0.5 SL -077-SA8N -SS-0.0-0.5 SL -092-SA8N -SS-0.0-0.5 SL -093-SA8N -SS-0.0-0.5 SL -122-SA8N -SS-0.0-0.5 SL -135-SA8N -SS-0.0-0.5 SL -138-SA8N -SS-0.0-0.5 SL -139-SA8N -SS-0.0-0.5 SL -140-SA8N -SS-0.0-0.5)	NITROBENZENE PETN	124 124	- -	80.00-120.00 80.00-120.00	- -	NITROBENZENE PETN	J(all detects)

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P5LBLCSQ260936 (DUP04 -SA8N -QC-041911 SL -075-SA8N -SS-0.0-0.5 SL -076-SA8N -SS-0.0-0.5 SL -077-SA8N -SS-0.0-0.5 SL -092-SA8N -SS-0.0-0.5 SL -093-SA8N -SS-0.0-0.5 SL -094-SA8N -SS-0.0-0.5 SL -095-SA8N -SS-0.0-0.5 SL -096-SA8N -SS-0.0-0.5 SL -097-SA8N -SS-0.0-0.5 SL -122-SA8N -SS-0.0-0.5 SL -126-SA5A -SB-4.0-5.0 SL -127-SA5A -SB-2.0-3.0 SL -135-SA8N -SS-0.0-0.5 SL -138-SA8N -SS-0.0-0.5 SL -139-SA8N -SS-0.0-0.5 SL -140-SA8N -SS-0.0-0.5 SL -171-SA5A -SB-2.0-3.0)	4-BROMOPHENYL-PHENYLETH	73	-	79.00-117.00	-	4-BROMOPHENYL-PHENYLET	J(all detects) UJ(all non-detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 1625C
Matrix: AQ

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
EB06-SA8N-SS-041911	N-Nitrosodimethylamine-d6	155	50.00-150.00	All Target Analytes	J (all detects)
EB14-SA5A-SB-041911	N-Nitrosodimethylamine-d6	153	50.00-150.00	All Target Analytes	J(all detects)

Method: 1625C
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-077-SA8N-SS-0.0-0.5	N-Nitrosodimethylamine-d6	255	50.00-150.00	All Target Analytes	No Qual, Diluted Out

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-076-SA8N-SS-0.0-0.5	DECACHLOROBIPHENYL	128	45.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-138-SA8N-SS-0.0-0.5	DECACHLOROBIPHENYL	121	45.00-120.00	All Target Analytes	J(all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA8N-SS-0.0-0.5	DUP04-SA8N-QC-041911			
MOISTURE	8.2	8.7	6		No Qualifiers Applied

Method: 1625C
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA8N-SS-0.0-0.5	DUP04-SA8N-QC-041911			
N-NITROSODIMETHYLAMINE	45.2	43.8	3	50.00	No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA8N-SS-0.0-0.5	DUP04-SA8N-QC-041911			
Nitrate-NO3	3.5	3.7	6	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA8N-SS-0.0-0.5	DUP04-SA8N-QC-041911			
ALUMINUM	12500	12400	1	50.00	
CALCIUM	2180	2280	4	50.00	
IRON	18600	19400	4	50.00	
LITHIUM	25.5	25.2	1	50.00	
MAGNESIUM	4060	4100	1	50.00	
MANGANESE	309	306	1	50.00	
PHOSPHORUS	431	439	2	50.00	No Qualifiers Applied
POTASSIUM	3530	3580	1	50.00	
SODIUM	69.8	67.8	3	50.00	
STRONTIUM	14.7	15.5	5	50.00	
TIN	2.38	2.28	4	50.00	
TITANIUM	1080	1050	3	50.00	
Zirconium	1.84	1.51	20	50.00	
BORON	1.44	5.42 U	200	50.00	J(all detects) UJ(all non-detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA8N-SS-0.0-0.5	DUP04-SA8N-QC-041911			
ARSENIC	5.92	6.46	9	50.00	No Qualifiers Applied
BARIUM	116	123	6	50.00	
BERYLLIUM	0.629	0.630	0	50.00	
CADMIUM	0.150	0.224	40	50.00	
CHROMIUM	18.2	19.1	5	50.00	
COBALT	6.90	7.53	9	50.00	
COPPER	10.1	11.7	15	50.00	
LEAD	12.9	13.8	7	50.00	
MOLYBDENUM	0.502	0.591	16	50.00	
NICKEL	13.2	14.1	7	50.00	
SELENIUM	0.122	0.156	24	50.00	
THALLIUM	0.300	0.298	1	50.00	
VANADIUM	37.0	38.9	5	50.00	
ZINC	79.3	85.5	8	50.00	
ANTIMONY	0.218 U	0.123	200	50.00	J(all detects)
SILVER	0.0257	0.0477	60	50.00	UJ(all non-detects)

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA8N-SS-0.0-0.5	DUP04-SA8N-QC-041911			
MERCURY	0.0181	0.0168	7	50.00	No Qualifiers Applied

Method: 8015M
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA8N-SS-0.0-0.5	DUP04-SA8N-QC-041911			
EFH (C15-C20)	0.85	0.97	13	50.00	No Qualifiers Applied
EFH (C21-C30)	5.8	8.6	39	50.00	
EFH (C30-C40)	22	35	46	50.00	

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA8N-SS-0.0-0.5	DUP04-SA8N-QC-041911			
AROCLOR 1254	0.86	0.89	3	50.00	No Qualifiers Applied
AROCLOR 1260	1.2	0.93	25	50.00	
Aroclor 5460	2.2	1.9	15	50.00	

Field Duplicate RPD Report

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA8N-SS-0.0-0.5	DUP04-SA8N-QC-041911			
BENZO(A)PYRENE	0.77	1.8 U	200	50.00	J(all detects) UJ(all non-detects)
BENZO(B)FLUORANTHENE	1.8	1.8 U	200	50.00	
BENZO(K)FLUORANTHENE	0.86	1.8 U	200	50.00	
CHRYSENE	1.5	0.42	113	50.00	
FLUORANTHENE	1.7	1.8 U	200	50.00	
PHENANTHRENE	0.96	1.8 U	200	50.00	
PYRENE	1.1	1.8 U	200	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA8N-SS-0.0-0.5	DUP04-SA8N-QC-041911			
PH	5.92	6.03	2	50.00	No Qualifiers Applied

Method: ASTM D1498
Matrix: SO

Analyte	Concentration (mV)		Sample RPD	eQAPP RPD	Flag
	SL-138-SA8N-SS-0.0-0.5	DUP04-SA8N-QC-041911			
Oxidation Reduction Potential	449	464	3		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB14-SA5A-SB-041911	N-NITROSODIMETHYLAMINE	J	0.808	1.06	PQL	ng/L	J (all detects)

Method: 6010B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB06-SA8N-SS-041911	BORON	J	0.0211	0.0500	PQL	mg/L	J (all detects)
	CALCIUM	J	0.0796	0.200	PQL	mg/L	

Method: 6020

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB06-SA8N-SS-041911	COPPER	J	0.00045	0.0020	PQL	mg/L	J (all detects)

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB06-SA8N-SS-041911	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.13	1.0	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.057	1.0	PQL	ug/L	
	Di-n-butylphthalate	J	0.30	1.0	PQL	ug/L	
	Di-n-octylphthalate	J	0.25	1.0	PQL	ug/L	

Method: 8315A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB06-SA8N-SS-041911	FORMALDEHYDE	J	15	50	PQL	ug/L	J (all detects)

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-075-SA8N-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	303	388	PQL	ng/Kg	J (all detects)
SL-135-SA8N-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	27.3	36.5	PQL	ng/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-076-SA8N-SS-0.0-0.5	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
DUP04-SA8N-QC-041911	SODIUM	J	67.8	108	PQL	mg/Kg	J (all detects)
	TIN	J	2.28	10.8	PQL	mg/Kg	
	Zirconium	J	1.51	5.42	PQL	mg/Kg	
SL-075-SA8N-SS-0.0-0.5	TIN	J	2.35	11.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.10	5.82	PQL	mg/Kg	
SL-076-SA8N-SS-0.0-0.5	BORON	J	1.64	5.57	PQL	mg/Kg	J (all detects)
	TIN	J	2.56	11.1	PQL	mg/Kg	
	Zirconium	J	2.78	5.57	PQL	mg/Kg	
SL-077-SA8N-SS-0.0-0.5	BORON	J	2.67	6.37	PQL	mg/Kg	J (all detects)
	TIN	J	3.00	12.7	PQL	mg/Kg	
	Zirconium	J	3.17	6.37	PQL	mg/Kg	
SL-092-SA8N-SS-0.0-0.5	SODIUM	J	85.5	112	PQL	mg/Kg	J (all detects)
	TIN	J	2.51	11.2	PQL	mg/Kg	
	Zirconium	J	1.80	5.58	PQL	mg/Kg	
SL-093-SA8N-SS-0.0-0.5	BORON	J	1.75	5.60	PQL	mg/Kg	J (all detects)
	SODIUM	J	76.2	112	PQL	mg/Kg	
	TIN	J	2.46	11.2	PQL	mg/Kg	
	Zirconium	J	1.24	5.60	PQL	mg/Kg	
SL-094-SA8N-SS-0.0-0.5	BORON	J	4.41	5.34	PQL	mg/Kg	J (all detects)
	SODIUM	J	84.0	107	PQL	mg/Kg	
	TIN	J	2.56	10.7	PQL	mg/Kg	
	Zirconium	J	3.61	5.34	PQL	mg/Kg	
SL-095-SA8N-SS-0.0-0.5	BORON	J	2.84	5.66	PQL	mg/Kg	J (all detects)
	SODIUM	J	77.9	113	PQL	mg/Kg	
	TIN	J	2.53	11.3	PQL	mg/Kg	
	Zirconium	J	2.88	5.66	PQL	mg/Kg	
SL-096-SA8N-SS-0.0-0.5	BORON	J	4.14	5.27	PQL	mg/Kg	J (all detects)
	SODIUM	J	85.0	105	PQL	mg/Kg	
	TIN	J	2.51	10.5	PQL	mg/Kg	
	Zirconium	J	3.50	5.27	PQL	mg/Kg	
SL-097-SA8N-SS-0.0-0.5	BORON	J	4.55	5.71	PQL	mg/Kg	J (all detects)
	SODIUM	J	94.9	114	PQL	mg/Kg	
	TIN	J	2.55	11.4	PQL	mg/Kg	
	Zirconium	J	3.77	5.71	PQL	mg/Kg	
SL-122-SA8N-SS-0.0-0.5	BORON	J	1.82	5.12	PQL	mg/Kg	J (all detects)
	SODIUM	J	65.8	102	PQL	mg/Kg	
	TIN	J	2.58	10.2	PQL	mg/Kg	
	Zirconium	J	2.53	5.12	PQL	mg/Kg	
SL-126-SA5A-SB-4.0-5.0	SODIUM	J	113	115	PQL	mg/Kg	J (all detects)
	TIN	J	3.04	11.5	PQL	mg/Kg	
	Zirconium	J	1.94	5.76	PQL	mg/Kg	
SL-127-SA5A-SB-2.0-3.0	SODIUM	J	62.0	110	PQL	mg/Kg	J (all detects)
	TIN	J	2.41	11.0	PQL	mg/Kg	
	Zirconium	J	1.22	5.51	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-135-SA8N-SS-0.0-0.5	BORON	J	1.54	5.31	PQL	mg/Kg	J (all detects)
	SODIUM	J	65.0	106	PQL	mg/Kg	
	TIN	J	2.31	10.6	PQL	mg/Kg	
	Zirconium	J	1.61	5.31	PQL	mg/Kg	
SL-138-SA8N-SS-0.0-0.5	BORON	J	1.44	5.39	PQL	mg/Kg	J (all detects)
	SODIUM	J	69.8	108	PQL	mg/Kg	
	TIN	J	2.38	10.8	PQL	mg/Kg	
	Zirconium	J	1.84	5.39	PQL	mg/Kg	
SL-139-SA8N-SS-0.0-0.5	SODIUM	J	70.2	103	PQL	mg/Kg	J (all detects)
	TIN	J	2.39	10.3	PQL	mg/Kg	
	Zirconium	J	1.50	5.14	PQL	mg/Kg	
SL-140-SA8N-SS-0.0-0.5	BORON	J	1.12	5.55	PQL	mg/Kg	J (all detects)
	SODIUM	J	77.7	111	PQL	mg/Kg	
	TIN	J	2.54	11.1	PQL	mg/Kg	
	Zirconium	J	2.13	5.55	PQL	mg/Kg	
SL-171-SA5A-SB-2.0-3.0	SODIUM	J	81.5	118	PQL	mg/Kg	J (all detects)
	TIN	J	2.52	11.8	PQL	mg/Kg	
	Zirconium	J	1.03	5.91	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA8N-QC-041911	ANTIMONY	J	0.123	0.215	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.156	0.430	PQL	mg/Kg	
	SILVER	J	0.0477	0.107	PQL	mg/Kg	
SL-075-SA8N-SS-0.0-0.5	ANTIMONY	J	0.0702	0.231	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.315	0.461	PQL	mg/Kg	
	SILVER	J	0.0324	0.115	PQL	mg/Kg	
SL-076-SA8N-SS-0.0-0.5	ANTIMONY	J	0.128	0.225	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.250	0.450	PQL	mg/Kg	
	SILVER	J	0.0497	0.112	PQL	mg/Kg	
SL-077-SA8N-SS-0.0-0.5	SELENIUM	J	0.490	0.500	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0695	0.125	PQL	mg/Kg	
SL-092-SA8N-SS-0.0-0.5	ANTIMONY	J	0.127	0.213	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.174	0.425	PQL	mg/Kg	
	SILVER	J	0.0490	0.106	PQL	mg/Kg	
SL-093-SA8N-SS-0.0-0.5	ANTIMONY	J	0.0947	0.224	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.223	0.448	PQL	mg/Kg	
SL-094-SA8N-SS-0.0-0.5	ANTIMONY	J	0.144	0.209	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.202	0.419	PQL	mg/Kg	
	SILVER	J	0.0569	0.105	PQL	mg/Kg	
SL-095-SA8N-SS-0.0-0.5	ANTIMONY	J	0.0666	0.220	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.153	0.439	PQL	mg/Kg	
	SILVER	J	0.0523	0.110	PQL	mg/Kg	
SL-096-SA8N-SS-0.0-0.5	ANTIMONY	J	0.119	0.211	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.150	0.421	PQL	mg/Kg	
	SILVER	J	0.0370	0.105	PQL	mg/Kg	
SL-097-SA8N-SS-0.0-0.5	SELENIUM	J	0.177	0.444	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0580	0.111	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-122-SA8N-SS-0.0-0.5	ANTIMONY	J	0.0862	0.205	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.147	0.410	PQL	mg/Kg	
	SILVER	J	0.0520	0.102	PQL	mg/Kg	
SL-126-SA5A-SB-4.0-5.0	ANTIMONY	J	0.0699	0.228	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0612	0.114	PQL	mg/Kg	
	SELENIUM	J	0.0674	0.456	PQL	mg/Kg	
	SILVER	J	0.0569	0.114	PQL	mg/Kg	
SL-127-SA5A-SB-2.0-3.0	ANTIMONY	J	0.0804	0.220	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.133	0.441	PQL	mg/Kg	
	SILVER	J	0.0420	0.110	PQL	mg/Kg	
SL-135-SA8N-SS-0.0-0.5	ANTIMONY	J	0.0727	0.217	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.184	0.433	PQL	mg/Kg	
	SILVER	J	0.0146	0.108	PQL	mg/Kg	
SL-138-SA8N-SS-0.0-0.5	SELENIUM	J	0.122	0.436	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0257	0.109	PQL	mg/Kg	
SL-139-SA8N-SS-0.0-0.5	SELENIUM	J	0.106	0.411	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0434	0.103	PQL	mg/Kg	
SL-140-SA8N-SS-0.0-0.5	SELENIUM	J	0.204	0.444	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0531	0.111	PQL	mg/Kg	
SL-171-SA5A-SB-2.0-3.0	ANTIMONY	J	0.101	0.230	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.182	0.460	PQL	mg/Kg	
	SILVER	J	0.0596	0.115	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-075-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.50	1.2	PQL	mg/Kg	J (all detects)
SL-076-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.50	1.1	PQL	mg/Kg	J (all detects)
SL-094-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.67	1.1	PQL	mg/Kg	J (all detects)
SL-126-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.54	1.2	PQL	mg/Kg	J (all detects)
SL-140-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.49	1.1	PQL	mg/Kg	J (all detects)
SL-171-SA5A-SB-2.0-3.0	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
DUP04-SA8N-QC-041911	MERCURY	J	0.0168	0.105	PQL	mg/Kg	J (all detects)
SL-075-SA8N-SS-0.0-0.5	MERCURY	J	0.0139	0.116	PQL	mg/Kg	J (all detects)
SL-076-SA8N-SS-0.0-0.5	MERCURY	J	0.0303	0.106	PQL	mg/Kg	J (all detects)
SL-077-SA8N-SS-0.0-0.5	MERCURY	J	0.0977	0.124	PQL	mg/Kg	J (all detects)
SL-094-SA8N-SS-0.0-0.5	MERCURY	J	0.0323	0.104	PQL	mg/Kg	J (all detects)
SL-095-SA8N-SS-0.0-0.5	MERCURY	J	0.0151	0.109	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-096-SA8N-SS-0.0-0.5	MERCURY	J	0.0149	0.101	PQL	mg/Kg	J (all detects)
SL-097-SA8N-SS-0.0-0.5	MERCURY	J	0.0149	0.109	PQL	mg/Kg	J (all detects)
SL-122-SA8N-SS-0.0-0.5	MERCURY	J	0.0209	0.101	PQL	mg/Kg	J (all detects)
SL-126-SA5A-SB-4.0-5.0	MERCURY	J	0.0188	0.110	PQL	mg/Kg	J (all detects)
SL-127-SA5A-SB-2.0-3.0	MERCURY	J	0.0035	0.106	PQL	mg/Kg	J (all detects)
SL-135-SA8N-SS-0.0-0.5	MERCURY	J	0.0158	0.102	PQL	mg/Kg	J (all detects)
SL-138-SA8N-SS-0.0-0.5	MERCURY	J	0.0181	0.102	PQL	mg/Kg	J (all detects)
SL-139-SA8N-SS-0.0-0.5	MERCURY	J	0.0089	0.0973	PQL	mg/Kg	J (all detects)
SL-140-SA8N-SS-0.0-0.5	MERCURY	J	0.0268	0.107	PQL	mg/Kg	J (all detects)
SL-171-SA5A-SB-2.0-3.0	MERCURY	J	0.0103	0.114	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA8N-QC-041911	EFH (C15-C20)	J	0.97	1.3	PQL	mg/Kg	J (all detects)
SL-077-SA8N-SS-0.0-0.5	EFH (C15-C20)	J	0.99	1.5	PQL	mg/Kg	J (all detects)
SL-122-SA8N-SS-0.0-0.5	EFH (C15-C20)	J	0.97	1.2	PQL	mg/Kg	J (all detects)
SL-138-SA8N-SS-0.0-0.5	EFH (C15-C20)	J	0.85	1.3	PQL	mg/Kg	J (all detects)
SL-140-SA8N-SS-0.0-0.5	EFH (C15-C20)	J	2.6	2.7	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA8N-QC-041911	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	0.89 0.93 1.9	1.9 1.9 3.6	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-075-SA8N-SS-0.0-0.5	AROCLOR 1254	J	1.2	2.0	PQL	ug/Kg	J (all detects)
SL-076-SA8N-SS-0.0-0.5	Aroclor 5460	J	7.5	18	PQL	ug/Kg	J (all detects)
SL-092-SA8N-SS-0.0-0.5	AROCLOR 1254 Aroclor 5460	J J	1.2 1.4	1.9 3.7	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-093-SA8N-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J J	6.9 7.6	9.7 19	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-094-SA8N-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	1.1 0.79 2.7	1.8 1.8 3.6	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-096-SA8N-SS-0.0-0.5	AROCLOR 1260	J	0.65	1.8	PQL	ug/Kg	J (all detects)
SL-122-SA8N-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	0.70 1.0 2.3	1.8 1.8 3.4	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-135-SA8N-SS-0.0-0.5	AROCLOR 1260	J	1.2	1.8	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	1.6	3.6	PQL	ug/Kg	
SL-138-SA8N-SS-0.0-0.5	AROCLOR 1254	J	0.86	1.8	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	1.2	1.8	PQL	ug/Kg	
	Aroclor 5460	J	2.2	3.6	PQL	ug/Kg	
SL-139-SA8N-SS-0.0-0.5	AROCLOR 1254	J	0.75	1.8	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.68	1.8	PQL	ug/Kg	
	Aroclor 5460	J	1.7	3.5	PQL	ug/Kg	
SL-140-SA8N-SS-0.0-0.5	AROCLOR 1254	J	1.5	1.9	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	1.7	1.9	PQL	ug/Kg	
	Aroclor 5460	J	2.5	3.8	PQL	ug/Kg	

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-126-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.67	4.0	PQL	ug/Kg	J (all detects)
SL-127-SA5A-SB-2.0-3.0	METHYLENE CHLORIDE	J	0.75	4.2	PQL	ug/Kg	J (all detects)
SL-171-SA5A-SB-2.0-3.0	METHYLENE CHLORIDE	J	0.65	3.9	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-077-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	43	420	PQL	ug/Kg	J (all detects)
SL-092-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	370	PQL	ug/Kg	J (all detects)
SL-093-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	32	380	PQL	ug/Kg	J (all detects)
SL-094-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	360	PQL	ug/Kg	J (all detects)
SL-096-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	360	PQL	ug/Kg	J (all detects)
SL-097-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	380	PQL	ug/Kg	J (all detects)
SL-122-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	340	PQL	ug/Kg	J (all detects)
SL-126-SA5A-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	34	380	PQL	ug/Kg	J (all detects)
SL-135-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	360	PQL	ug/Kg	J (all detects)
SL-138-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	360	PQL	ug/Kg	J (all detects)
SL-139-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	340	PQL	ug/Kg	J (all detects)
SL-140-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	28	380	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA8N-QC-041911	CHRYSENE	J	0.42	1.8	PQL	ug/Kg	J (all detects)
SL-077-SA8N-SS-0.0-0.5	BENZO(A)PYRENE	J	1.2	2.1	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.9	2.1	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.89	2.1	PQL	ug/Kg	
	Di-n-octylphthalate	J	10	23	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.2	2.1	PQL	ug/Kg	
	NAPHTHALENE	J	1.3	2.1	PQL	ug/Kg	
	PHENANTHRENE	J	2.0	2.1	PQL	ug/Kg	
	PYRENE	J	1.9	2.1	PQL	ug/Kg	
SL-092-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.6	1.9	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.1	1.9	PQL	ug/Kg	
	CHRYSENE	J	1.6	1.9	PQL	ug/Kg	
	FLUORANTHENE	J	1.6	1.9	PQL	ug/Kg	
	FLUORENE	J	1.7	1.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.81	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	1.9	PQL	ug/Kg	
	PYRENE	J	1.0	1.9	PQL	ug/Kg	
SL-093-SA8N-SS-0.0-0.5	BENZO(A)PYRENE	J	0.93	1.9	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.4	1.9	PQL	ug/Kg	
	FLUORANTHENE	J	1.6	1.9	PQL	ug/Kg	
	FLUORENE	J	1.8	1.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.2	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.0	1.9	PQL	ug/Kg	
	PYRENE	J	1.2	1.9	PQL	ug/Kg	
SL-095-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.3	1.9	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.87	1.9	PQL	ug/Kg	
	CHRYSENE	J	1.1	1.9	PQL	ug/Kg	
	FLUORANTHENE	J	1.5	1.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.0	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	0.89	1.9	PQL	ug/Kg	
	PYRENE	J	0.98	1.9	PQL	ug/Kg	
SL-096-SA8N-SS-0.0-0.5	ANTHRACENE	J	0.49	1.8	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.1	1.8	PQL	ug/Kg	
	CHRYSENE	J	0.86	1.8	PQL	ug/Kg	
	FLUORANTHENE	J	1.3	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.84	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.0	1.8	PQL	ug/Kg	
	PYRENE	J	0.89	1.8	PQL	ug/Kg	
SL-097-SA8N-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.92	1.9	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.88	1.9	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.1	1.9	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.2	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.2	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.95	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.6	1.9	PQL	ug/Kg	
SL-122-SA8N-SS-0.0-0.5	BENZO(A)PYRENE	J	0.85	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.2	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.4	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.6	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.86	1.7	PQL	ug/Kg	
	PYRENE	J	1.2	1.7	PQL	ug/Kg	
SL-127-SA5A-SB-2.0-3.0	CHRYSENE	J	0.71	1.9	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	1.6	1.9	PQL	ug/Kg	
	PYRENE	J	1.2	1.9	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE131 **Laboratory: LL**

EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-138-SA8N-SS-0.0-0.5	BENZO(A)PYRENE	J	0.77	1.8	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	0.86	1.8	PQL	ug/Kg	
	CHRYSENE	J	1.5	1.8	PQL	ug/Kg	
	FLUORANTHENE	J	1.7	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	0.96	1.8	PQL	ug/Kg	
	PYRENE	J	1.1	1.8	PQL	ug/Kg	
SL-139-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	0.96	1.7	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.84	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.0	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.88	1.7	PQL	ug/Kg	
SL-140-SA8N-SS-0.0-0.5	BENZO(A)PYRENE	J	1.0	1.9	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.3	1.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.9	PQL	ug/Kg	
	PYRENE	J	1.5	1.9	PQL	ug/Kg	

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE131 **Laboratory: LL**
EDD Filename: DE131_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8015M **Preparation Method: 3510C**
Matrix: AQ

Sample ID	*Type*	*Actual*	*Criteria*	*Units*	*Flag*
EB06-SA8N-SS-041911 (REA2)	Sampling To Analysis	10.00	7.00	DAYS	J (all detects)
EB14-SA5A-SB-041911 (REA2)		10.00	7.00	DAYS	UJ (all non-detects)
EB14-SA5A-SB-041911 (RES)		8.00	7.00	DAYS	

LDC #: 26078C4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/29-11

SDG #: DE131 ADR Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: OC

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	SW	MS/D
VII.	Duplicate Sample Analysis	SW	D
VIII.	Laboratory Control Samples (LCS)	N	LCS/D
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	(Ba, Ni)
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	SW	EB= 19

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:

1	SL-075-SA8N-SS-0.0-0.5	11	SL-135-SA8N-SS-0.0-0.5	21	SL-138-SA8N-SS-0.0-0.5MSD	31	
2	SL-076-SA8N-SS-0.0-0.5	12	SL-138-SA8N-SS-0.0-0.5	22	SL-138-SA8N-SS-0.0-0.5DUP	32	
3	SL-077-SA8N-SS-0.0-0.5	13	SL-139-SA8N-SS-0.0-0.5	23		33	
4	SL-092-SA8N-SS-0.0-0.5	14	SL-140-SA8N-SS-0.0-0.5	24		34	
5	SL-093-SA8N-SS-0.0-0.5	15	SL-DUP04-SA8N-QC-041911	25		35	
6	SL-094-SA8N-SS-0.0-0.5	16	SL-171-SA5A-SB-2.0-3.0	26		36	
7	SL-095-SA8N-SS-0.0-0.5	17	SL-126-SA5A-SB-4.0-5.0	27		37	
8	SL-096-SA8N-SS-0.0-0.5	18	SL-127-SA5A-SB-2.0-3.0	28		38	
9	SL-097-SA8N-SS-0.0-0.5	19	EB06-SA8N-SS-041911 W	29		39	
10	SL-122-SA8N-SS-0.0-0.5	20	SL-138-SA8N-SS-0.0-0.5MS	30		40	

Notes: _____

LDC #: 26078C4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Reviewer: CR
2nd Reviewer: SK

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x x MS: 2xdil Reason: B
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	19									
Cu			0.24	1.2	0.45									

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 #: 26078C4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: CZ
2nd Reviewer: SM

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: 4/19/11 Soil factor applied 100x

Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: ~~All Soil~~ 1-15 Reason Code: F

Analyte	Blank ID	Sample Identification																		
	8 19	Action Level	1.	2.	3.	5.	6.	7.	8.	9.	10.	11.	12.	14.						
B	21.1	10.55	7.5	1.6	2.7	1.7	4.4	2.8	4.1	4.6	1.8	1.5	1.4	1.1						
Ca	79.6	39.8																		
Cu	0.45	0.225																		

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 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE131
Matrix: SOIL Level (low/med): LOW

74X

Background Lab Sample ID: 6262830BKG Matrix Spike Lab Sample ID: 6262831MS Matrix Spike Duplicate Lab Sample ID: 6262832MSD
% Solids for Sample: 91.8
Batch Id(s): P11608B, P11626B, P11611B

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		12489.1844		14695.8264		14877.5314		213.5931	211.5193	MG/KG	1033		1129		1			20	P
Antimony	121	0.0654	U	0.4505		0.5695		1.2691	1.2942	MG/KG	35	N	44	N	23	*	75 - 125	20	MS
Arsenic	75	5.9194		8.1329		8.3738		2.1152	2.1571	MG/KG	105		114		3		75 - 125	20	MS
Barium	137	116.2745		124.3945		171.2720		10.5760	10.7854	MG/KG	77		510		32	*		20	MS
Beryllium	9	0.6285		1.5824		1.6538		0.8461	0.8628	MG/KG	113		119		4		75 - 125	20	MS
Boron		1.4420	B	212.3350		210.2671		213.5931	211.5193	MG/KG	99		99		1		84 - 115	20	P
Cadmium	111	0.1499		1.3654		1.5304		1.0576	1.0785	MG/KG	115		128	N	11		75 - 125	20	MS
Calcium		2180.5334		2810.9328		2864.6022		427.1861	423.0387	MG/KG	148		162		2			20	P
Chromium	52	18.1939		29.6339		29.5304		10.5760	10.7854	MG/KG	108		105		0		75 - 125	20	MS
Cobalt	59	6.9020		71.9166		75.4330		52.8798	53.9270	MG/KG	123		127	N	5		75 - 125	20	MS
Copper	63	10.1460		22.4634		23.7710		10.5760	10.7854	MG/KG	116		126	N	6		75 - 125	20	MS
Iron		18649.2224		19409.5124		19679.0300		106.7965	105.7597	MG/KG	712		974		1			20	P
Lead	208	12.8715		15.7899		16.1781		3.1728	3.2356	MG/KG	92		102		2			20	MS
Lithium		25.5333		130.8033		130.8596		106.7965	105.7597	MG/KG	99		100		0		82 - 114	20	P
Magnesium		4061.7841		4365.5015		4427.8497		213.5931	211.5193	MG/KG	142		173		1			20	P
Manganese		309.0080		363.8750		367.0982		53.3983	52.8798	MG/KG	103		110		1			20	P
Mercury		0.0181	B	0.1810		0.1749		0.1741	0.1714	MG/KG	94		91		3		65 - 135	20	CV
Molybdenum	98	0.5024		12.5494		13.2358		10.5760	10.7854	MG/KG	114		118		5		75 - 125	20	MS
Nickel	60	13.1939		25.3612		26.9419		10.5760	10.7854	MG/KG	115		127	N	6		75 - 125	20	MS
Phosphorus		431.4437		523.4568		521.3783		106.7965	105.7597	MG/KG	86		85		0			20	P
Potassium		3533.9352		4764.0640		4806.7718		1067.9653	1057.5967	MG/KG	115		120		1		75 - 125	20	P
Selenium	78	0.1224	B	2.5150		2.5756		2.1152	2.1571	MG/KG	113		114		2		75 - 125	20	MS
Silver	107	0.0257	B	13.0804		13.5421		10.5760	10.7854	MG/KG	123		125		3		75 - 125	20	MS
Sodium		69.8138	B	1142.4570		1140.2585		1067.9653	1057.5967	MG/KG	100		101		0		75 - 125	20	P
Strontium		14.7070		124.1616		122.4528		106.7965	105.7597	MG/KG	102		102		1		75 - 115	20	P
Thallium	203	0.2998		0.7712		0.7828		0.4230	0.4314	MG/KG	111		112		1		75 - 125	20	MS
Tin		2.3825	B	371.5473		370.1853		427.1861	423.0387	MG/KG	86		87		0		80 - 110	20	P
Titanium		1081.6282		1294.7221		1333.5787		106.7965	105.7597	MG/KG	200		238		3			20	P
Vanadium	51	36.9717		46.7669		47.9734		10.5760	10.7854	MG/KG	93		102		3		75 - 125	20	MS
Zinc	66	79.3246		86.8287		89.2815		10.5760	10.7854	MG/KG	71		92		3			20	MS
Zirconium		1.8368	B	98.4803		98.4453		106.7965	105.7597	MG/KG	90		91		0		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

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 6
DUPLICATES
SDG No.: DE131
Matrix: SOIL Level (low/med): LOW

<5xRL

Background Lab Sample ID: 6262830BKG
% Solids for Duplicate: 91.7
Batch ID(s): P11608B, P11626B, P11611B
Concentration Units: MG/KG

Duplicate Lab Sample ID: 6262833DUP
% Solids for Sample: 91.8

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			12489.1844		12618.1737		1		P
Antimony	121		0.0654	U	0.0727	B	200		MS
Arsenic	75		5.9194		6.0789		3		MS
Barium	137		116.2745		100.0683		15		MS
Beryllium	9	0.1	0.6285		0.5410		15		MS
Boron			1.4420	B	0.9413	U	200		P
Cadmium	111	0.1	0.1499		0.1905		24		MS
Calcium			2180.5334		2129.1241		2		P
Chromium	52		18.1939		16.2224		11		MS
Cobalt	59		6.9020		5.8418		17		MS
Copper	63		10.1460		8.9218		13		MS
Iron			18649.2224		18991.6207		2		P
Lead	208		12.8715		11.5511		11		MS
Lithium			25.5333		25.6235		0		P
Magnesium			4061.7841		4049.4627		0		P
Manganese			309.0080		312.1391		1		P
Mercury			0.0181	B	0.0192	B	6		CV
Molybdenum	98	0.1	0.5024		0.5133		2		MS
Nickel	60		13.1939		11.3610		15		MS
Phosphorus			431.4437		423.2925		2		P
Potassium			3533.9352		3496.8462		1		P
Selenium	78		0.1224	B	0.1265	B	3		MS
Silver	107		0.0257	B	0.0348	B	30		MS
Sodium			69.8138	B	67.3795	B	4		P
Strontium			14.7070		14.3146		3		P
Thallium	203	0.1	0.2998		0.3101		3		MS
Tin			2.3825	B	2.5319	B	6		P
Titanium			1081.6282		1050.8355		3		P
Vanadium	51		36.9717		33.0215		11		MS
Zinc	66		79.3246		68.7342		14		MS
Zirconium			1.8368	B	2.4060	B	27		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.

DE131 5824

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

5/05/A

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE131
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6262830BKG Serial Dilution Lab Sample ID: 6262830L
Batch ID(s): P11608B, P11626B
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		115797.2200		118967.9500		3		P
Antimony	121	0.3000	U	1.5000	U			MS
Arsenic	75	27.1700		23.0850		15		MS
Barium	137	533.7000		442.7000		17	E	MS
Beryllium	9	2.8850		2.7295		5		MS
Boron		13.3700	B	44.5000	U	100		P
Cadmium	111	0.6881		1.1800	B	71		MS
Calcium		20217.4700		21961.7000		9		P
Chromium	52	83.5100		78.1500		6		MS
Cobalt	59	31.6800		30.7350		3		MS
Copper	63	46.5700		44.2200		5		MS
Iron		172911.8600		189954.8000		10		P
Lead	208	59.0800		55.5500		6		MS
Lithium		236.7400		239.4000		1		P
Magnesium		37660.0500		40600.5500		8		P
Manganese		2865.0600		3128.2000		9		P
Molybdenum	98	2.3060		2.2785	B	1		MS
Nickel	60	60.5600		53.2000		12	E	MS
Phosphorus		4000.2600		4162.1000		4		P
Potassium		32765.9400		34613.0000		6		P
Selenium	78	0.5619	B	1.0000	U	100		MS
Silver	107	0.1181	B	0.3000	U	100		MS
Sodium		647.3000	B	1865.0000	U	100		P
Strontium		136.3600		146.5000		7		P
Thallium	203	1.3760		1.3165	B	4		MS
Tin		22.0900	B	50.0000	U	100		P
Titanium		10028.6400		10649.7500		6		P
Vanadium	51	169.7000		160.8500		5		MS
Zinc	66	364.1000		362.3500		0		MS
Zirconium		17.0300	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: DE131 5638
U= Below MDL
B= Below LOQ
FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

SAMPLE DELIVERY GROUP

DE132

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
20-Apr-2011	SL-129-SA8N-SS-0.0-0.5	6264825	N	3050B	6010B	III
20-Apr-2011	SL-129-SA8N-SS-0.0-0.5	6264825	N	3050B	6020	III
20-Apr-2011	SL-129-SA8N-SS-0.0-0.5	6264825	N	3060A	7199	III
20-Apr-2011	SL-129-SA8N-SS-0.0-0.5	6264825	N	3550B	8015M	III
20-Apr-2011	SL-129-SA8N-SS-0.0-0.5	6264825	N	3550B	8082	III
20-Apr-2011	SL-129-SA8N-SS-0.0-0.5	6264825	N	3550B	8270C	III
20-Apr-2011	SL-129-SA8N-SS-0.0-0.5	6264825	N	3550B	8270C SIM	III
20-Apr-2011	SL-129-SA8N-SS-0.0-0.5	6264825	N	METHOD	300.0	III
20-Apr-2011	SL-129-SA8N-SS-0.0-0.5	6264825	N	METHOD	314.0	III
20-Apr-2011	SL-129-SA8N-SS-0.0-0.5	6264825	N	METHOD	7471A	III
20-Apr-2011	SL-128-SA8N-SS-0.0-0.5	6264824	N	3050B	6010B	III
20-Apr-2011	SL-128-SA8N-SS-0.0-0.5	6264824	N	3050B	6020	III
20-Apr-2011	SL-128-SA8N-SS-0.0-0.5	6264824	N	3060A	7199	III
20-Apr-2011	SL-128-SA8N-SS-0.0-0.5	6264824	N	3550B	8015M	III
20-Apr-2011	SL-128-SA8N-SS-0.0-0.5	6264824	N	3550B	8082	III
20-Apr-2011	SL-128-SA8N-SS-0.0-0.5	6264824	N	3550B	8270C	III
20-Apr-2011	SL-128-SA8N-SS-0.0-0.5	6264824	N	3550B	8270C SIM	III
20-Apr-2011	SL-128-SA8N-SS-0.0-0.5	6264824	N	METHOD	300.0	III
20-Apr-2011	SL-128-SA8N-SS-0.0-0.5	6264824	N	METHOD	314.0	III
20-Apr-2011	SL-128-SA8N-SS-0.0-0.5	6264824	N	METHOD	7471A	III
20-Apr-2011	SL-127-SA8N-SS-0.0-0.5	6264823	N	3050B	6010B	III
20-Apr-2011	SL-127-SA8N-SS-0.0-0.5	6264823	N	3050B	6020	III
20-Apr-2011	SL-127-SA8N-SS-0.0-0.5	6264823	N	3060A	7199	III
20-Apr-2011	SL-127-SA8N-SS-0.0-0.5	6264823	N	3550B	8015M	III
20-Apr-2011	SL-127-SA8N-SS-0.0-0.5	6264823	N	3550B	8082	III
20-Apr-2011	SL-127-SA8N-SS-0.0-0.5	6264823	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
20-Apr-2011	SL-127-SA8N-SS-0.0-0.5	6264823	N	3550B	8270C SIM	III
20-Apr-2011	SL-127-SA8N-SS-0.0-0.5	6264823	N	METHOD	300.0	III
20-Apr-2011	SL-127-SA8N-SS-0.0-0.5	6264823	N	METHOD	314.0	III
20-Apr-2011	SL-127-SA8N-SS-0.0-0.5	6264823	N	METHOD	7471A	III
20-Apr-2011	SL-136-SA8N-SS-0.0-0.5	6264826	N	3050B	6010B	III
20-Apr-2011	SL-136-SA8N-SS-0.0-0.5	6264826	N	3050B	6020	III
20-Apr-2011	SL-136-SA8N-SS-0.0-0.5	6264826	N	3060A	7199	III
20-Apr-2011	SL-136-SA8N-SS-0.0-0.5	6264826	N	3550B	8082	III
20-Apr-2011	SL-136-SA8N-SS-0.0-0.5	6264826	N	3550B	8270C	III
20-Apr-2011	SL-136-SA8N-SS-0.0-0.5	6264826	N	3550B	8270C SIM	III
20-Apr-2011	SL-136-SA8N-SS-0.0-0.5	6264826	N	METHOD	300.0	III
20-Apr-2011	SL-136-SA8N-SS-0.0-0.5	6264826	N	METHOD	314.0	III
20-Apr-2011	SL-136-SA8N-SS-0.0-0.5	6264826	N	METHOD	7471A	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	N	3050B	6010B	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	N	3050B	6020	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	N	3060A	7199	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	N	3546	1625C	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	N	3550B	8015B	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	N	3550B	8015M	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	N	3550B	8082	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	N	3550B	8270C	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	N	3550B	8270C SIM	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	N	8330	8330A	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	N	METHOD	300.0	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	N	METHOD	314.0	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	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
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	N	METHOD	8015B	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	N	METHOD	8015M	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	N	METHOD	8315A	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5	6264819	N	METHOD	9012B	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	3050B	6010B	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	3050B	6020	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	3060A	7199	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	3546	1625C	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	3550B	8015B	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	3550B	8015M	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	3550B	8082	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	3550B	8270C	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	3550B	8270C SIM	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	8330	8330A	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	METHOD	300.0	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	METHOD	314.0	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	METHOD	7471A	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	METHOD	8015B	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	METHOD	8015M	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	METHOD	8315A	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MS	6264820	MS	METHOD	9012B	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MSD	6264821	MSD	3050B	6010B	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MSD	6264821	MSD	3050B	6020	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MSD	6264821	MSD	3546	1625C	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MSD	6264821	MSD	3550B	8015B	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MSD	6264821	MSD	3550B	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
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MSD	6264821	MSD	3550B	8082	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MSD	6264821	MSD	3550B	8270C	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MSD	6264821	MSD	3550B	8270C SIM	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MSD	6264821	MSD	8330	8330A	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MSD	6264821	MSD	METHOD	7471A	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MSD	6264821	MSD	METHOD	8015B	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MSD	6264821	MSD	METHOD	8015M	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5MSD	6264821	MSD	METHOD	8315A	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5DUP	6264822	DUP	3050B	6010B	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5DUP	6264822	DUP	3050B	6020	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5DUP	6264822	DUP	3060A	7199	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5DUP	6264822	DUP	METHOD	300.0	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5DUP	6264822	DUP	METHOD	314.0	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5DUP	6264822	DUP	METHOD	7471A	III
20-Apr-2011	SL-120-SA8N-SS-0.0-0.5DUP	6264822	DUP	METHOD	9012B	III
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	FD	3050B	6010B	III
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	FD	3050B	6020	III
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	FD	3060A	7199	III
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	FD	3546	1625C	III
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	FD	3550B	8015B	III
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	FD	3550B	8015M	III
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	FD	3550B	8082	III
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	FD	3550B	8270C	III
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	FD	3550B	8270C SIM	III
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	FD	8330	8330A	III
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	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
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	FD	METHOD	314.0	III
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	FD	METHOD	7471A	III
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	FD	METHOD	8015B	III
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	FD	METHOD	8015M	III
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	FD	METHOD	8315A	III
20-Apr-2011	DUP05-SA8N-QC-042011	6264828	FD	METHOD	9012B	III
20-Apr-2011	SL-137-SA8N-SS-0.0-0.5	6264827	N	3050B	6010B	III
20-Apr-2011	SL-137-SA8N-SS-0.0-0.5	6264827	N	3050B	6020	III
20-Apr-2011	SL-137-SA8N-SS-0.0-0.5	6264827	N	3060A	7199	III
20-Apr-2011	SL-137-SA8N-SS-0.0-0.5	6264827	N	3550B	8082	III
20-Apr-2011	SL-137-SA8N-SS-0.0-0.5	6264827	N	3550B	8270C	III
20-Apr-2011	SL-137-SA8N-SS-0.0-0.5	6264827	N	3550B	8270C SIM	III
20-Apr-2011	SL-137-SA8N-SS-0.0-0.5	6264827	N	METHOD	300.0	III
20-Apr-2011	SL-137-SA8N-SS-0.0-0.5	6264827	N	METHOD	314.0	III
20-Apr-2011	SL-137-SA8N-SS-0.0-0.5	6264827	N	METHOD	7471A	III
20-Apr-2011	EB07-SA8N-SS-042011	6264829	EB	3005A	6010B	III
20-Apr-2011	EB07-SA8N-SS-042011	6264829	EB	3020A	6020	III
20-Apr-2011	EB07-SA8N-SS-042011	6264829	EB	3510C	8082	III
20-Apr-2011	EB07-SA8N-SS-042011	6264829	EB	3510C	8270C	III
20-Apr-2011	EB07-SA8N-SS-042011	6264829	EB	3510C	8270C SIM	III
20-Apr-2011	EB07-SA8N-SS-042011	6264829	EB	Gen Prep	300.0	III
20-Apr-2011	EB07-SA8N-SS-042011	6264829	EB	Gen Prep	314.0	III
20-Apr-2011	EB07-SA8N-SS-042011	6264829	EB	Gen Prep	7199	III
20-Apr-2011	EB07-SA8N-SS-042011	6264829	EB	METHOD	7470A	III
20-Apr-2011	SL-098-SA8N-SS-0.0-0.5	6264815	N	3050B	6010B	III
20-Apr-2011	SL-098-SA8N-SS-0.0-0.5	6264815	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
20-Apr-2011	SL-098-SA8N-SS-0.0-0.5	6264815	N	3060A	7199	III
20-Apr-2011	SL-098-SA8N-SS-0.0-0.5	6264815	N	3550B	8082	III
20-Apr-2011	SL-098-SA8N-SS-0.0-0.5	6264815	N	3550B	8270C	III
20-Apr-2011	SL-098-SA8N-SS-0.0-0.5	6264815	N	3550B	8270C SIM	III
20-Apr-2011	SL-098-SA8N-SS-0.0-0.5	6264815	N	METHOD	300.0	III
20-Apr-2011	SL-098-SA8N-SS-0.0-0.5	6264815	N	METHOD	314.0	III
20-Apr-2011	SL-098-SA8N-SS-0.0-0.5	6264815	N	METHOD	7471A	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	3050B	6010B	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	3050B	6020	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	3060A	7199	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	3546	1625C	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	3550B	8015B	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	3550B	8015M	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	3550B	8082	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	3550B	8270C	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	3550B	8270C SIM	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	8330	8330A	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	METHOD	300.0	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	METHOD	314.0	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	METHOD	7471A	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	METHOD	8015B	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	METHOD	8015M	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	METHOD	8315A	III
20-Apr-2011	SL-101-SA8N-SS-0.0-0.5	6264816	N	METHOD	9012B	III
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	N	3050B	6010B	III
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	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
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	N	3060A	7199	III
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	N	3546	1625C	III
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	N	3550B	8015B	III
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	N	3550B	8015M	III
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	N	3550B	8082	III
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	N	3550B	8270C	III
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	N	3550B	8270C SIM	III
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	N	8330	8330A	III
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	N	METHOD	300.0	III
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	N	METHOD	314.0	III
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	N	METHOD	7471A	III
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	N	METHOD	8015B	III
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	N	METHOD	8015M	III
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	N	METHOD	8315A	III
20-Apr-2011	SL-102-SA8N-SS-0.0-0.5	6264817	N	METHOD	9012B	III
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	N	3050B	6010B	III
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	N	3050B	6020	III
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	N	3060A	7199	III
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	N	3546	1625C	III
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	N	3550B	8015B	III
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	N	3550B	8015M	III
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	N	3550B	8082	III
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	N	3550B	8270C	III
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	N	3550B	8270C SIM	III
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	N	8330	8330A	III
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	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
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	N	METHOD	314.0	III
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	N	METHOD	7471A	III
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	N	METHOD	8015B	III
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	N	METHOD	8015M	III
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	N	METHOD	8315A	III
20-Apr-2011	SL-108-SA8N-SS-0.0-0.5	6264818	N	METHOD	9012B	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: DE132 **Laboratory: LL**

EDD Filename: PrepDE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: AQ**

Sample ID: EB07-SA8N-SS-042011 *Collected:* 4/20/2011 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
BORON	0.0199	J	0.0138	MDL	0.0500	PQL	mg/L	UJ	B
CALCIUM	0.0800	J	0.0702	MDL	0.200	PQL	mg/L	J	Z

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: DUP05-SA8N-QC-042011 *Collected:* 4/20/2011 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
MANGANESE	322		0.0836	MDL	0.536	PQL	mg/Kg	J	E
PHOSPHORUS	463		0.600	MDL	10.7	PQL	mg/Kg	J	E
POTASSIUM	4010		19.3	MDL	53.6	PQL	mg/Kg	J	E
SODIUM	94.9	J	40.0	MDL	107	PQL	mg/Kg	J	Z
TIN	2.72	J	1.07	MDL	10.7	PQL	mg/Kg	U	B

Sample ID: SL-098-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	322		0.0905	MDL	0.580	PQL	mg/Kg	J	E
PHOSPHORUS	312		0.650	MDL	11.6	PQL	mg/Kg	J	E
POTASSIUM	3210		20.9	MDL	58.0	PQL	mg/Kg	J	E
SODIUM	101	J	43.3	MDL	116	PQL	mg/Kg	J	Z
TIN	2.80	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	0.979	J	0.974	MDL	5.80	PQL	mg/Kg	J	Z

Sample ID: SL-101-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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
MANGANESE	395		0.0901	MDL	0.578	PQL	mg/Kg	J	E
PHOSPHORUS	456		0.647	MDL	11.6	PQL	mg/Kg	J	E
POTASSIUM	4030		20.8	MDL	57.8	PQL	mg/Kg	J	E
SODIUM	86.1	J	43.1	MDL	116	PQL	mg/Kg	J	Z
TIN	2.82	J	1.16	MDL	11.6	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: DE132 **Laboratory:** LL

EDD Filename: PrepDE132_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-102-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 1:30:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.46	J	1.02	MDL	5.73	PQL	mg/Kg	J	Z
MANGANESE	258		0.0894	MDL	0.573	PQL	mg/Kg	J	E
PHOSPHORUS	372		0.642	MDL	11.5	PQL	mg/Kg	J	E
POTASSIUM	3010		20.6	MDL	57.3	PQL	mg/Kg	J	E
SODIUM	85.9	J	42.7	MDL	115	PQL	mg/Kg	J	Z
TIN	2.66	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

Sample ID: SL-108-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 1:50:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	259		0.0789	MDL	0.506	PQL	mg/Kg	J	E
PHOSPHORUS	813		0.566	MDL	10.1	PQL	mg/Kg	J	E
POTASSIUM	3040		18.2	MDL	50.6	PQL	mg/Kg	J	E
TIN	5.98	J	1.01	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: SL-120-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 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
MANGANESE	371		0.0799	MDL	0.512	PQL	mg/Kg	J	E
PHOSPHORUS	467		0.573	MDL	10.2	PQL	mg/Kg	J	E
POTASSIUM	4980		18.4	MDL	51.2	PQL	mg/Kg	J	E
TIN	2.81	J	1.02	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: SL-127-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 9:10:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	344		0.0820	MDL	0.525	PQL	mg/Kg	J	E
PHOSPHORUS	407		0.588	MDL	10.5	PQL	mg/Kg	J	E
POTASSIUM	3750		18.9	MDL	52.5	PQL	mg/Kg	J	E
TIN	2.57	J	1.05	MDL	10.5	PQL	mg/Kg	U	B

Sample ID: SL-128-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 8:55:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	378		0.0910	MDL	0.583	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: DE132 **Laboratory:** LL

EDD Filename: PrepDE132_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-128-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 8:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	278		0.653	MDL	11.7	PQL	mg/Kg	J	E
POTASSIUM	3140		21.0	MDL	58.3	PQL	mg/Kg	J	E
SODIUM	107	J	43.5	MDL	117	PQL	mg/Kg	J	Z
TIN	2.94	J	1.17	MDL	11.7	PQL	mg/Kg	U	B

Sample ID: SL-129-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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
MANGANESE	335		0.0835	MDL	0.535	PQL	mg/Kg	J	E
PHOSPHORUS	281		0.599	MDL	10.7	PQL	mg/Kg	J	E
POTASSIUM	3590		19.3	MDL	53.5	PQL	mg/Kg	J	E
TIN	2.67	J	1.07	MDL	10.7	PQL	mg/Kg	U	B

Sample ID: SL-136-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 9:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.67	J	1.02	MDL	5.76	PQL	mg/Kg	J	Z
MANGANESE	302		0.0898	MDL	0.576	PQL	mg/Kg	J	E
PHOSPHORUS	345		0.645	MDL	11.5	PQL	mg/Kg	J	E
POTASSIUM	2540		20.7	MDL	57.6	PQL	mg/Kg	J	E
SODIUM	108	J	43.0	MDL	115	PQL	mg/Kg	J	Z
TIN	3.20	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

Sample ID: SL-137-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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
MANGANESE	270		0.0782	MDL	0.501	PQL	mg/Kg	J	E
PHOSPHORUS	503		0.561	MDL	10.0	PQL	mg/Kg	J	E
POTASSIUM	3350		18.0	MDL	50.1	PQL	mg/Kg	J	E
TIN	2.43	J	1.00	MDL	10.0	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: DE132 **Laboratory:** LL

EDD Filename: PrepDE132_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP05-SA8N-QC-042011 ***Collected:*** 4/20/2011 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	0.216		0.0624	MDL	0.208	PQL	mg/Kg	J	Q
ARSENIC	5.86		0.0832	MDL	0.416	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.658		0.0166	MDL	0.104	PQL	mg/Kg	J	Q
CADMIUM	0.438		0.0416	MDL	0.104	PQL	mg/Kg	J	Q
CHROMIUM	24.0		0.125	MDL	0.416	PQL	mg/Kg	J	E, A
COBALT	12.6		0.0208	MDL	0.104	PQL	mg/Kg	J	Q, E
COPPER	17.0		0.0687	MDL	0.416	PQL	mg/Kg	J	Q, A
LEAD	20.8		0.0108	MDL	0.208	PQL	mg/Kg	J	E, A
NICKEL	16.6		0.104	MDL	0.416	PQL	mg/Kg	J	Q, E
SILVER	0.106		0.0125	MDL	0.104	PQL	mg/Kg	J	Q
VANADIUM	44.0		0.0229	MDL	0.104	PQL	mg/Kg	J	A
ZINC	118		0.583	MDL	3.12	PQL	mg/Kg	J	A

Sample ID: DUP05-SA8N-QC-042011 ***Collected:*** 4/20/2011 10:10:00 ***Analysis Type:*** REA6 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.193	J	0.0416	MDL	0.416	PQL	mg/Kg	J	Z

Sample ID: DUP05-SA8N-QC-042011 ***Collected:*** 4/20/2011 10:10:00 ***Analysis Type:*** REA8 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	113		0.112	MDL	0.416	PQL	mg/Kg	J	E

Sample ID: SL-098-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 12:45:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.175	J	0.0703	MDL	0.234	PQL	mg/Kg	J	Z, Q
ARSENIC	5.04		0.0937	MDL	0.468	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.707		0.0187	MDL	0.117	PQL	mg/Kg	J	Q
CADMIUM	0.255		0.0468	MDL	0.117	PQL	mg/Kg	J	Q
CHROMIUM	20.8		0.141	MDL	0.468	PQL	mg/Kg	J	E, A
COBALT	6.68		0.0234	MDL	0.117	PQL	mg/Kg	J	Q, E
COPPER	10.2		0.0773	MDL	0.468	PQL	mg/Kg	J	Q, A
LEAD	9.23		0.0122	MDL	0.234	PQL	mg/Kg	J	E, A
NICKEL	13.1		0.117	MDL	0.468	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: DE132 **Laboratory:** LL

EDD Filename: PrepDE132_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-098-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 12:45:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0280	J	0.0141	MDL	0.117	PQL	mg/Kg	J	Z, Q
VANADIUM	40.8		0.0258	MDL	0.117	PQL	mg/Kg	J	A
ZINC	76.9		0.656	MDL	3.51	PQL	mg/Kg	J	A

Sample ID: SL-098-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 12:45:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.139	J	0.0468	MDL	0.468	PQL	mg/Kg	J	Z

Sample ID: SL-098-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 12:45:00 *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	109		0.126	MDL	0.468	PQL	mg/Kg	J	E

Sample ID: SL-101-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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
ANTIMONY	0.142	J	0.0680	MDL	0.227	PQL	mg/Kg	J	Z, Q
ARSENIC	4.24		0.0906	MDL	0.453	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.631		0.0181	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.230		0.0453	MDL	0.113	PQL	mg/Kg	J	Q
CHROMIUM	17.8		0.136	MDL	0.453	PQL	mg/Kg	J	E, A
COBALT	6.05		0.0227	MDL	0.113	PQL	mg/Kg	J	Q, E
COPPER	10.4		0.0748	MDL	0.453	PQL	mg/Kg	J	Q, A
LEAD	16.9		0.0118	MDL	0.227	PQL	mg/Kg	J	E, A
NICKEL	12.3		0.113	MDL	0.453	PQL	mg/Kg	J	Q, E
SILVER	0.0376	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z, Q
VANADIUM	33.6		0.0249	MDL	0.113	PQL	mg/Kg	J	A
ZINC	71.8		0.634	MDL	3.40	PQL	mg/Kg	J	A

Sample ID: SL-101-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 1:10:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.127	J	0.0453	MDL	0.453	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: DE132 **Laboratory:** LL

EDD Filename: PrepDE132_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-101-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 1:10:00 *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	105		0.122	MDL	0.453	PQL	mg/Kg	J	E

Sample ID: SL-102-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 1:30:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.224	J	0.0694	MDL	0.231	PQL	mg/Kg	J	Z, Q
ARSENIC	4.94		0.0926	MDL	0.463	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.794		0.0185	MDL	0.116	PQL	mg/Kg	J	Q
CADMIUM	0.469		0.0463	MDL	0.116	PQL	mg/Kg	J	Q
CHROMIUM	21.7		0.139	MDL	0.463	PQL	mg/Kg	J	E, A
COBALT	7.38		0.0231	MDL	0.116	PQL	mg/Kg	J	Q, E
COPPER	12.5		0.0764	MDL	0.463	PQL	mg/Kg	J	Q, A
LEAD	17.2		0.0120	MDL	0.231	PQL	mg/Kg	J	E, A
NICKEL	14.6		0.116	MDL	0.463	PQL	mg/Kg	J	Q, E
SILVER	0.0460	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z, Q
VANADIUM	41.9		0.0255	MDL	0.116	PQL	mg/Kg	J	A
ZINC	115		0.648	MDL	3.47	PQL	mg/Kg	J	A

Sample ID: SL-102-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 1:30:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.145	J	0.0463	MDL	0.463	PQL	mg/Kg	J	Z

Sample ID: SL-102-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 1:30:00 *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	110		0.125	MDL	0.463	PQL	mg/Kg	J	E

Sample ID: SL-108-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 1:50:00 *Analysis Type:* REA10 *Dilution:* 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	649		2.78	MDL	14.9	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: DE132 **Laboratory: LL**

EDD Filename: PrepDE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: **SL-108-SA8N-SS-0.0-0.5** ***Collected:*** **4/20/2011 1:50:00** ***Analysis Type:*** **REA11** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.279	J	0.0397	MDL	0.397	PQL	mg/Kg	J	Z, Q

Sample ID: **SL-108-SA8N-SS-0.0-0.5** ***Collected:*** **4/20/2011 1:50:00** ***Analysis Type:*** **REA13** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	126		0.107	MDL	0.397	PQL	mg/Kg	J	A

Sample ID: **SL-108-SA8N-SS-0.0-0.5** ***Collected:*** **4/20/2011 1:50:00** ***Analysis Type:*** **REA9** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.15		0.0595	MDL	0.198	PQL	mg/Kg	J	Q
BERYLLIUM	0.331		0.0159	MDL	0.0991	PQL	mg/Kg	J	Q
CHROMIUM	24.7		0.119	MDL	0.397	PQL	mg/Kg	J	A
COBALT	6.91		0.0198	MDL	0.0991	PQL	mg/Kg	J	A
COPPER	29.2		0.0654	MDL	0.397	PQL	mg/Kg	J	A
LEAD	57.6		0.0103	MDL	0.198	PQL	mg/Kg	J	A
NICKEL	23.7		0.0991	MDL	0.397	PQL	mg/Kg	J	A
VANADIUM	40.4		0.0218	MDL	0.0991	PQL	mg/Kg	J	A

Sample ID: **SL-120-SA8N-SS-0.0-0.5** ***Collected:*** **4/20/2011 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
ANTIMONY	0.308		0.0620	MDL	0.207	PQL	mg/Kg	J	Q
ARSENIC	6.25		0.0827	MDL	0.414	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.758		0.0165	MDL	0.103	PQL	mg/Kg	J	Q
CADMIUM	0.466		0.0414	MDL	0.103	PQL	mg/Kg	J	Q
CHROMIUM	28.3		0.124	MDL	0.414	PQL	mg/Kg	J	E, A
COBALT	9.63		0.0207	MDL	0.103	PQL	mg/Kg	J	Q, E
COPPER	17.8		0.0682	MDL	0.414	PQL	mg/Kg	J	Q, A
LEAD	20.4		0.0108	MDL	0.207	PQL	mg/Kg	J	E, A
NICKEL	18.3		0.103	MDL	0.414	PQL	mg/Kg	J	Q, E
SILVER	0.0736	J	0.0124	MDL	0.103	PQL	mg/Kg	J	Z, Q
VANADIUM	50.4		0.0227	MDL	0.103	PQL	mg/Kg	J	A
ZINC	121		0.579	MDL	3.10	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: DE132 **Laboratory:** LL

EDD Filename: PrepDE132_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-120-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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
SELENIUM	0.165	J	0.0414	MDL	0.414	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 10:05:00 *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	129		0.112	MDL	0.414	PQL	mg/Kg	J	E

Sample ID: SL-127-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 9:10:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.206	J	0.0630	MDL	0.210	PQL	mg/Kg	J	Z, Q
ARSENIC	4.64		0.0841	MDL	0.420	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.638		0.0168	MDL	0.105	PQL	mg/Kg	J	Q
CADMIUM	0.301		0.0420	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	19.4		0.126	MDL	0.420	PQL	mg/Kg	J	E, A
COBALT	7.15		0.0210	MDL	0.105	PQL	mg/Kg	J	Q, E
COPPER	11.8		0.0694	MDL	0.420	PQL	mg/Kg	J	Q, A
LEAD	16.8		0.0109	MDL	0.210	PQL	mg/Kg	J	E, A
NICKEL	14.0		0.105	MDL	0.420	PQL	mg/Kg	J	Q, E
SILVER	0.0470	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z, Q
VANADIUM	36.7		0.0231	MDL	0.105	PQL	mg/Kg	J	A
ZINC	103		0.588	MDL	3.15	PQL	mg/Kg	J	A

Sample ID: SL-127-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 9:10:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.186	J	0.0420	MDL	0.420	PQL	mg/Kg	J	Z

Sample ID: SL-127-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 9:10:00 *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	108		0.113	MDL	0.420	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: DE132 **Laboratory:** LL

EDD Filename: PrepDE132_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-128-SA8N-SS-0.0-0.5 **Collected:** 4/20/2011 8:55:00 **Analysis Type:** REA4 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.109	J	0.0714	MDL	0.238	PQL	mg/Kg	J	Z, Q
ARSENIC	5.97		0.0952	MDL	0.476	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.845		0.0190	MDL	0.119	PQL	mg/Kg	J	Q
CADMIUM	0.350		0.0476	MDL	0.119	PQL	mg/Kg	J	Q
CHROMIUM	27.0		0.143	MDL	0.476	PQL	mg/Kg	J	E, A
COBALT	9.50		0.0238	MDL	0.119	PQL	mg/Kg	J	Q, E
COPPER	14.9		0.0785	MDL	0.476	PQL	mg/Kg	J	Q, A
LEAD	17.7		0.0124	MDL	0.238	PQL	mg/Kg	J	E, A
NICKEL	19.8		0.119	MDL	0.476	PQL	mg/Kg	J	Q, E
SILVER	0.0511	J	0.0143	MDL	0.119	PQL	mg/Kg	J	Z, Q
VANADIUM	48.5		0.0262	MDL	0.119	PQL	mg/Kg	J	A
ZINC	109		0.666	MDL	3.57	PQL	mg/Kg	J	A

Sample ID: SL-128-SA8N-SS-0.0-0.5 **Collected:** 4/20/2011 8:55:00 **Analysis Type:** REA6 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.167	J	0.0476	MDL	0.476	PQL	mg/Kg	J	Z

Sample ID: SL-128-SA8N-SS-0.0-0.5 **Collected:** 4/20/2011 8:55:00 **Analysis Type:** REA8 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	153		0.129	MDL	0.476	PQL	mg/Kg	J	E

Sample ID: SL-129-SA8N-SS-0.0-0.5 **Collected:** 4/20/2011 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	0.129	J	0.0630	MDL	0.210	PQL	mg/Kg	J	Z, Q
ARSENIC	5.47		0.0840	MDL	0.420	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.713		0.0168	MDL	0.105	PQL	mg/Kg	J	Q
CADMIUM	0.189		0.0420	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	21.0		0.126	MDL	0.420	PQL	mg/Kg	J	E, A
COBALT	7.43		0.0210	MDL	0.105	PQL	mg/Kg	J	Q, E
COPPER	11.6		0.0693	MDL	0.420	PQL	mg/Kg	J	Q, A
LEAD	9.59		0.0109	MDL	0.210	PQL	mg/Kg	J	E, A
NICKEL	14.7		0.105	MDL	0.420	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: DE132 **Laboratory: LL**

EDD Filename: PrepDE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-129-SA8N-SS-0.0-0.5 **Collected:** 4/20/2011 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
SILVER	0.0305	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z, Q
VANADIUM	41.1		0.0231	MDL	0.105	PQL	mg/Kg	J	A
ZINC	74.2		0.588	MDL	3.15	PQL	mg/Kg	J	A

Sample ID: SL-129-SA8N-SS-0.0-0.5 **Collected:** 4/20/2011 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
SELENIUM	0.149	J	0.0420	MDL	0.420	PQL	mg/Kg	J	Z

Sample ID: SL-129-SA8N-SS-0.0-0.5 **Collected:** 4/20/2011 8:35:00 **Analysis Type:** REA8 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	119		0.113	MDL	0.420	PQL	mg/Kg	J	E

Sample ID: SL-136-SA8N-SS-0.0-0.5 **Collected:** 4/20/2011 9:55:00 **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	0.0698	MDL	0.233	PQL	mg/Kg	J	Z, Q
ARSENIC	6.93		0.0930	MDL	0.465	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.826		0.0186	MDL	0.116	PQL	mg/Kg	J	Q
CADMIUM	0.119		0.0465	MDL	0.116	PQL	mg/Kg	J	Q
CHROMIUM	25.2		0.140	MDL	0.465	PQL	mg/Kg	J	E, A
COBALT	8.15		0.0233	MDL	0.116	PQL	mg/Kg	J	Q, E
COPPER	14.8		0.0767	MDL	0.465	PQL	mg/Kg	J	Q, A
LEAD	8.98		0.0121	MDL	0.233	PQL	mg/Kg	J	E, A
NICKEL	17.1		0.116	MDL	0.465	PQL	mg/Kg	J	Q, E
SILVER	0.0360	J	0.0140	MDL	0.116	PQL	mg/Kg	J	Z, Q
VANADIUM	45.1		0.0256	MDL	0.116	PQL	mg/Kg	J	A
ZINC	65.7		0.651	MDL	3.49	PQL	mg/Kg	J	A

Sample ID: SL-136-SA8N-SS-0.0-0.5 **Collected:** 4/20/2011 9:55:00 **Analysis Type:** REA6 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.143	J	0.0465	MDL	0.465	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: DE132 **Laboratory: LL**

EDD Filename: PrepDE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-136-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 9:55:00 *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	124		0.126	MDL	0.465	PQL	mg/Kg	J	E

Sample ID: SL-137-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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	0.105	J	0.0607	MDL	0.202	PQL	mg/Kg	J	Z, Q
ARSENIC	4.70		0.0810	MDL	0.405	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.489		0.0162	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.362		0.0405	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	21.3		0.121	MDL	0.405	PQL	mg/Kg	J	E, A
COBALT	6.95		0.0202	MDL	0.101	PQL	mg/Kg	J	Q, E
COPPER	12.2		0.0668	MDL	0.405	PQL	mg/Kg	J	Q, A
LEAD	29.7		0.0105	MDL	0.202	PQL	mg/Kg	J	E, A
NICKEL	14.3		0.101	MDL	0.405	PQL	mg/Kg	J	Q, E
SILVER	0.0667	J	0.0121	MDL	0.101	PQL	mg/Kg	J	Z, Q
VANADIUM	37.5		0.0223	MDL	0.101	PQL	mg/Kg	J	A
ZINC	84.5		0.567	MDL	3.04	PQL	mg/Kg	J	A

Sample ID: SL-137-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 10:25:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.106	J	0.0405	MDL	0.405	PQL	mg/Kg	J	Z

Sample ID: SL-137-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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
BARIUM	95.1		0.109	MDL	0.405	PQL	mg/Kg	J	E

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: DUP05-SA8N-QC-042011 *Collected:* 4/20/2011 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	0.91	J	0.21	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: DE132 **Laboratory: LL**

EDD Filename: PrepDE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-098-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.70	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-101-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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	1.1	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-102-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 1:30:00 *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	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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
HEXAVALENT CHROMIUM	0.89	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-127-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 9:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.57	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-128-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 8:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.43	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-129-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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	0.44	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: PrepDE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **7470A** ***Matrix:*** **AQ**

Sample ID: EB07-SA8N-SS-042011 ***Collected:*** 4/20/2011 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	0.000046	U	0.000046	MDL	0.00020	PQL	mg/L	UJ	L

Method Category: **METALS**

Method: **7471A** ***Matrix:*** **SO**

Sample ID: DUP05-SA8N-QC-042011 ***Collected:*** 4/20/2011 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	0.0556	J	0.0028	MDL	0.0992	PQL	mg/Kg	J	Z, Q, FD

Sample ID: SL-102-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 1:30:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0058	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z, Q

Sample ID: SL-108-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 1:50:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0294	J	0.0027	MDL	0.0934	PQL	mg/Kg	J	Z, Q

Sample ID: SL-120-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 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	0.0277	J	0.0029	MDL	0.102	PQL	mg/Kg	J	Z, Q, FD

Sample ID: SL-127-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 9:10:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0188	J	0.0029	MDL	0.102	PQL	mg/Kg	J	Z, Q

Sample ID: SL-128-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 8:55:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0148	J	0.0033	MDL	0.115	PQL	mg/Kg	J	Z, 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: DE132 **Laboratory: LL**

EDD Filename: PrepDE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-129-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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
MERCURY	0.0049	J	0.0029	MDL	0.100	PQL	mg/Kg	J	Z, Q

Sample ID: SL-136-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 9:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0093	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z, Q

Sample ID: SL-137-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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	0.267		0.0028	MDL	0.0978	PQL	mg/Kg	J	Q

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: DUP05-SA8N-QC-042011 *Collected:* 4/20/2011 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
N-NITROSODIMETHYLAMINE	58.8		17.8	MDL	35.5	PQL	ng/Kg	J	FD

Sample ID: SL-108-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 1:50:00 *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	616	J	337	MDL	674	PQL	ng/Kg	J	Z

Sample ID: SL-120-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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
N-NITROSODIMETHYLAMINE	149		17.8	MDL	35.5	PQL	ng/Kg	J	Q, FD

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: PrepDE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-101-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 1:10:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	1.1	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-102-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 1:30:00 *Analysis Type:* REA2 *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	2.4	J	2.3	MDL	6.9	PQL	mg/Kg	J	Z

Sample ID: SL-108-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 1:50:00 *Analysis Type:* REA2 *Dilution:* 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	61	J	40	MDL	120	PQL	mg/Kg	J	Z

Sample ID: SL-127-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 9:10:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	1.1	J	0.43	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-128-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 8:55:00 *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)	1.0	J	0.96	MDL	2.9	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-098-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 12:45:00 *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	0.92	J	0.40	MDL	2.1	PQL	ug/Kg	J	Z
AROCLOR 1260	0.59	J	0.47	MDL	2.1	PQL	ug/Kg	J	Z

Sample ID: SL-101-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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
AROCLOR 1254	1.4	J	0.38	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: DE132 **Laboratory:** LL

EDD Filename: PrepDE132_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-101-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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 5460	3.5	J	1.2	MDL	3.8	PQL	ug/Kg	J	Z

Sample ID: SL-102-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 1:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	3.3	J	1.2	MDL	3.8	PQL	ug/Kg	J	Z

Sample ID: SL-128-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 8:55:00 *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	1.0	J	0.47	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-136-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 9:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	3.3	J	1.2	MDL	3.9	PQL	ug/Kg	J	Z

Sample ID: SL-137-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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	8.1	J	2.0	MDL	8.8	PQL	ug/Kg	J	Z
Aroclor 5460	9.4	J	5.2	MDL	17	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix:** AQ

Sample ID: EB07-SA8N-SS-042011 *Collected:* 4/20/2011 12:30:00 *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	6	U	6	MDL	16	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: DE132 **Laboratory:** LL

EDD Filename: PrepDE132_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: DUP05-SA8N-QC-042011 *Collected:* 4/20/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	40	J	18	MDL	350	PQL	ug/Kg	J	Z
Di-n-butylphthalate	38	J	18	MDL	180	PQL	ug/Kg	J	Z, FD

Sample ID: SL-098-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 12:45:00 *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	36	J	20	MDL	400	PQL	ug/Kg	J	Z

Sample ID: SL-101-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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	43	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-102-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 1:30:00 *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	36	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-108-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 1:50:00 *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(B)FLUORANTHENE	100	J	84	MDL	840	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	98	J	84	MDL	840	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	520	J	84	MDL	1700	PQL	ug/Kg	J	Z
Di-n-butylphthalate	110	J	84	MDL	840	PQL	ug/Kg	J	Z
FLUORANTHENE	110	J	84	MDL	840	PQL	ug/Kg	J	Z
PYRENE	100	J	84	MDL	840	PQL	ug/Kg	J	Z

Sample ID: SL-120-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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
BENZIDINE	1200	U	1200	MDL	3500	PQL	ug/Kg	R	Q
BIS(2-ETHYLHEXYL)PHTHALATE	28	J	18	MDL	350	PQL	ug/Kg	J	Z
Di-n-butylphthalate	18	U	18	MDL	180	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: DE132 **Laboratory: LL**

EDD Filename: PrepDE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-127-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 9:10:00 *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	39	J	18	MDL	350	PQL	ug/Kg	J	Z
Butylbenzylphthalate	20	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-128-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 8:55:00 *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	39	J	20	MDL	400	PQL	ug/Kg	J	Z
Di-n-butylphthalate	23	J	20	MDL	200	PQL	ug/Kg	J	Z

Sample ID: SL-129-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	22	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-136-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 9:55:00 *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	33	J	20	MDL	390	PQL	ug/Kg	J	Z
CHRYSENE	21	J	20	MDL	200	PQL	ug/Kg	J	Z
Di-n-butylphthalate	110	J	20	MDL	200	PQL	ug/Kg	J	Z
PYRENE	21	J	20	MDL	200	PQL	ug/Kg	J	Z

Sample ID: SL-137-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 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
ACENAPHTHENE	120	J	86	MDL	860	PQL	ug/Kg	J	Z
ANTHRACENE	190	J	86	MDL	860	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	140	J	86	MDL	1700	PQL	ug/Kg	J	Z
CARBAZOLE	110	J	86	MDL	860	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	280	J	86	MDL	860	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	790	J	86	MDL	860	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: PrepDE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C SIM **Matrix: AQ**

Sample ID: EB07-SA8N-SS-042011 *Collected:* 4/20/2011 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
2-METHYLNAPHTHALENE	0.0099	U	0.0099	MDL	0.050	PQL	ug/L	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	0.16	J	0.050	MDL	0.99	PQL	ug/L	J	Z
Diethylphthalate	0.074	J	0.050	MDL	0.99	PQL	ug/L	J	Z
Di-n-butylphthalate	0.31	J	0.050	MDL	0.99	PQL	ug/L	J	Z
NAPHTHALENE	0.033	J	0.030	MDL	0.050	PQL	ug/L	J	Z

Method Category: SVOA

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

Sample ID: DUP05-SA8N-QC-042011 *Collected:* 4/20/2011 10:10:00 *Analysis Type:* RES *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	3.8	J	3.6	MDL	8.9	PQL	ug/Kg	J	Z, FD
2-METHYLNAPHTHALENE	6.0	J	3.6	MDL	8.9	PQL	ug/Kg	J	Z, FD
ACENAPHTHENE	37		3.6	MDL	8.9	PQL	ug/Kg	J	FD
ANTHRACENE	89		1.8	MDL	8.9	PQL	ug/Kg	J	FD
BENZO(A)ANTHRACENE	390		3.6	MDL	8.9	PQL	ug/Kg	J	FD
BENZO(A)PYRENE	340		3.6	MDL	8.9	PQL	ug/Kg	J	FD
BENZO(B)FLUORANTHENE	570		3.6	MDL	8.9	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	87		3.6	MDL	8.9	PQL	ug/Kg	J	FD
BENZO(K)FLUORANTHENE	320		3.6	MDL	8.9	PQL	ug/Kg	J	FD
CHRYSENE	480		1.8	MDL	8.9	PQL	ug/Kg	J	FD
DIBENZO(A,H)ANTHRACENE	43		3.6	MDL	8.9	PQL	ug/Kg	J	FD
FLUORANTHENE	1000		3.6	MDL	8.9	PQL	ug/Kg	J	FD
FLUORENE	41		3.6	MDL	8.9	PQL	ug/Kg	J	FD
INDENO(1,2,3-CD)PYRENE	120		3.6	MDL	8.9	PQL	ug/Kg	J	FD
NAPHTHALENE	7.6	J	3.6	MDL	8.9	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	630		3.6	MDL	8.9	PQL	ug/Kg	J	FD
PYRENE	630		3.6	MDL	8.9	PQL	ug/Kg	J	FD

Sample ID: SL-098-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 12:45:00 *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	0.43	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: DE132 **Laboratory:** LL

EDD Filename: PrepDE132_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

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

Sample ID: SL-098-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 12:45:00 ***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	1.5	J	0.80	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	0.80	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.1	J	0.80	MDL	2.0	PQL	ug/Kg	J	Z
CHRYSENE	1.6	J	0.40	MDL	2.0	PQL	ug/Kg	J	Z
FLUORANTHENE	1.2	J	0.80	MDL	2.0	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.0	J	0.80	MDL	2.0	PQL	ug/Kg	J	Z
PYRENE	0.93	J	0.80	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-101-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 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
CHRYSENE	0.46	J	0.39	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-102-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 1:30:00 ***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)ANTHRACENE	1.5	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.4	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	17	J	6.9	MDL	21	PQL	ug/Kg	J	Z
FLUORENE	0.87	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.2	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.1	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-108-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 1:50:00 ***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	1.9	J	1.7	MDL	8.4	PQL	ug/Kg	J	Z
ANTHRACENE	3.5	J	1.7	MDL	8.4	PQL	ug/Kg	J	Z

Sample ID: SL-120-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 10:05:00 ***Analysis Type:*** RES ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	3.5	U	3.5	MDL	8.9	PQL	ug/Kg	UJ	FD
2-METHYLNAPHTHALENE	3.5	U	3.5	MDL	8.9	PQL	ug/Kg	UJ	FD
ACENAPHTHENE	3.5	U	3.5	MDL	8.9	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: DE132 **Laboratory:** LL

EDD Filename: PrepDE132_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

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

Sample ID: SL-120-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 10:05:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	1.8	U	1.8	MDL	8.9	PQL	ug/Kg	UJ	FD
BENZO(A)ANTHRACENE	3.5	U	3.5	MDL	8.9	PQL	ug/Kg	UJ	FD
BENZO(A)PYRENE	3.6	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z, FD
BENZO(B)FLUORANTHENE	8.1	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z, Q, FD
BENZO(G,H,I)PERYLENE	4.2	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z, FD
BENZO(K)FLUORANTHENE	3.5	U	3.5	MDL	8.9	PQL	ug/Kg	UJ	FD
CHRYSENE	6.9	J	1.8	MDL	8.9	PQL	ug/Kg	J	Z, FD
DIBENZO(A,H)ANTHRACENE	3.5	U	3.5	MDL	8.9	PQL	ug/Kg	UJ	FD
FLUORANTHENE	9.5		3.5	MDL	8.9	PQL	ug/Kg	J	FD
FLUORENE	3.5	U	3.5	MDL	8.9	PQL	ug/Kg	UJ	FD
INDENO(1,2,3-CD)PYRENE	3.5	U	3.5	MDL	8.9	PQL	ug/Kg	UJ	FD
NAPHTHALENE	3.5	U	3.5	MDL	8.9	PQL	ug/Kg	UJ	FD
PHENANTHRENE	5.4	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z, FD
PYRENE	6.6	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z, Q, FD

Sample ID: SL-127-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 9:10:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	3.8	J	3.5	MDL	8.9	PQL	ug/Kg	J	Z
CHRYSENE	3.1	J	1.8	MDL	8.9	PQL	ug/Kg	J	Z

Sample ID: SL-128-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 8:55:00 ***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	0.91	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.0	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	0.87	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z
PHENANTHRENE	1.2	J	0.79	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-129-SA8N-SS-0.0-0.5 ***Collected:*** 4/20/2011 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
CHRYSENE	0.40	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: DE132 Laboratory: LL

EDD Filename: PrepDE132_v1 eQAPP Name: CDM_SSFL_110509

Method Category: VOA

Method: 8015B **Matrix:** SO

Sample ID: SL-108-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 1:50:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
p-Terphenyl	3.0	J	3.0	MDL	7.1	PQL	mg/Kg	J	Z

Sample ID: SL-108-SA8N-SS-0.0-0.5 *Collected:* 4/20/2011 1:50:00 *Analysis Type:* REA4 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Isopropanol	340	J	100	MDL	510	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: PrepDE132_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

Data Qualifier Summary

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: PrepDE132_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	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: PrepDE132_v1 **eQAPP Name: CDM_SSFL_110509**

Q	Matrix Spike Upper Rejection
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

DE132

Method Blank Outlier Report

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: DE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11748AB221924	4/29/2011 7:24:00 PM	BORON	0.0156 mg/L	EB07-SA8N-SS-042011

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-SA8N-SS-042011(REA)	BORON	0.0199 mg/L	0.0199U mg/L

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11608FB221532	5/3/2011 3:32:00 PM	LITHIUM PHOSPHORUS TIN	0.27 mg/Kg 1.20 mg/Kg 1.37 mg/Kg	DUP05-SA8N-QC-042011 SL-098-SA8N-SS-0.0-0.5 SL-101-SA8N-SS-0.0-0.5 SL-102-SA8N-SS-0.0-0.5 SL-108-SA8N-SS-0.0-0.5 SL-120-SA8N-SS-0.0-0.5 SL-127-SA8N-SS-0.0-0.5 SL-128-SA8N-SS-0.0-0.5 SL-129-SA8N-SS-0.0-0.5 SL-136-SA8N-SS-0.0-0.5 SL-137-SA8N-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
DUP05-SA8N-QC-042011(RES)	TIN	2.72 mg/Kg	2.72U mg/Kg
SL-098-SA8N-SS-0.0-0.5(RES)	TIN	2.80 mg/Kg	2.80U mg/Kg
SL-101-SA8N-SS-0.0-0.5(RES)	TIN	2.82 mg/Kg	2.82U mg/Kg
SL-102-SA8N-SS-0.0-0.5(RES)	TIN	2.66 mg/Kg	2.66U mg/Kg
SL-108-SA8N-SS-0.0-0.5(RES)	TIN	5.98 mg/Kg	5.98U mg/Kg
SL-120-SA8N-SS-0.0-0.5(RES)	TIN	2.81 mg/Kg	2.81U mg/Kg
SL-127-SA8N-SS-0.0-0.5(RES)	TIN	2.57 mg/Kg	2.57U mg/Kg
SL-128-SA8N-SS-0.0-0.5(RES)	TIN	2.94 mg/Kg	2.94U mg/Kg
SL-129-SA8N-SS-0.0-0.5(RES)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-136-SA8N-SS-0.0-0.5(RES)	TIN	3.20 mg/Kg	3.20U mg/Kg
SL-137-SA8N-SS-0.0-0.5(RES)	TIN	2.43 mg/Kg	2.43U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P12326AB221311A	5/5/2011 1:11:00 PM	COPPER VANADIUM	0.142 mg/Kg 0.0876 mg/Kg	SL-108-SA8N-SS-0.0-0.5

Method Blank Outlier Report

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: DE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: DE132_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-120-SA8N-SS-0.0-0.5MS SL-120-SA8N-SS-0.0-0.5MSD (SL-120-SA8N-SS-0.0-0.5)	PETN	125	124	80.00-121.00	-	PETN	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-120-SA8N-SS-0.0-0.5MS SL-120-SA8N-SS-0.0-0.5MSD (SL-120-SA8N-SS-0.0-0.5)	EFH (C15-C20)	237	350	49.00-123.00	38 (20.00)	EFH (C15-C20)	J(all detects)
SL-120-SA8N-SS-0.0-0.5MS SL-120-SA8N-SS-0.0-0.5MSD (SL-120-SA8N-SS-0.0-0.5)	EFH (C21-C30) EFH (C30-C40)	-12 -1388	- -1500	49.00-123.00 49.00-123.00	- -	EFH (C21-C30) EFH (C30-C40)	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-120-SA8N-SS-0.0-0.5MS SL-120-SA8N-SS-0.0-0.5MSD (DUP05-SA8N-QC-042011 SL-098-SA8N-SS-0.0-0.5 SL-101-SA8N-SS-0.0-0.5 SL-102-SA8N-SS-0.0-0.5 SL-108-SA8N-SS-0.0-0.5 SL-120-SA8N-SS-0.0-0.5 SL-127-SA8N-SS-0.0-0.5 SL-128-SA8N-SS-0.0-0.5 SL-129-SA8N-SS-0.0-0.5 SL-136-SA8N-SS-0.0-0.5 SL-137-SA8N-SS-0.0-0.5)	CALCIUM TITANIUM	877 234	1377 -	75.00-125.00 75.00-125.00	- -	CALCIUM TITANIUM	No Qual, >4x
SL-120-SA8N-SS-0.0-0.5MS SL-120-SA8N-SS-0.0-0.5MSD (DUP05-SA8N-QC-042011 SL-098-SA8N-SS-0.0-0.5 SL-101-SA8N-SS-0.0-0.5 SL-102-SA8N-SS-0.0-0.5 SL-108-SA8N-SS-0.0-0.5 SL-120-SA8N-SS-0.0-0.5 SL-127-SA8N-SS-0.0-0.5 SL-128-SA8N-SS-0.0-0.5 SL-129-SA8N-SS-0.0-0.5 SL-136-SA8N-SS-0.0-0.5 SL-137-SA8N-SS-0.0-0.5)	ALUMINUM IRON MAGNESIUM MANGANESE PHOSPHORUS POTASSIUM	472 -1469 -292 127 - 32	-69 -4441 -602 -77 -8 -16	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - 28 (20.00) 24 (20.00) -	ALUMINUM IRON MAGNESIUM MANGANESE PHOSPHORUS POTASSIUM	J(all detects) UJ(all non-detects) No Qual based on %R, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: DE132_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-120-SA8N-SS-0.0-0.5MS (DUP05-SA8N-QC-042011 SL-098-SA8N-SS-0.0-0.5 SL-101-SA8N-SS-0.0-0.5 SL-102-SA8N-SS-0.0-0.5 SL-108-SA8N-SS-0.0-0.5 SL-120-SA8N-SS-0.0-0.5 SL-127-SA8N-SS-0.0-0.5 SL-128-SA8N-SS-0.0-0.5 SL-129-SA8N-SS-0.0-0.5 SL-136-SA8N-SS-0.0-0.5 SL-137-SA8N-SS-0.0-0.5)	MERCURY	139	-	65.00-135.00	-	MERCURY	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-120-SA8N-SS-0.0-0.5MS	BENZO(B)FLUORANTHENE	-	-	43.00-155.00	41 (30.00)	BENZO(B)FLUORANTHENE	J(all detects)
SL-120-SA8N-SS-0.0-0.5MSD	BIS(2-ETHYLHEXYL)PHTHALAT	400	-	39.00-167.00	93 (30.00)	BIS(2-ETHYLHEXYL)PHTHALA	
(SL-120-SA8N-SS-0.0-0.5)	Di-n-octylphthalate	216	216	40.00-192.00	-	Di-n-octylphthalate	
	PYRENE	-	-	15.00-153.00	33 (30.00)	PYRENE	
SL-120-SA8N-SS-0.0-0.5MS	Butylbenzylphthalate	0	-	57.00-173.00	200 (30.00)	Butylbenzylphthalate	J(all detects) R(all non-detects)
SL-120-SA8N-SS-0.0-0.5MSD	Diethylphthalate	0	0	70.00-136.00	-	Diethylphthalate	
(SL-120-SA8N-SS-0.0-0.5)	Dimethylphthalate	0	-	74.00-118.00	200 (30.00)	Dimethylphthalate	
	Di-n-butylphthalate	0	-	65.00-148.00	200 (30.00)	Di-n-butylphthalate	

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-120-SA8N-SS-0.0-0.5MS	ARSENIC	-	176	75.00-125.00	-	ARSENIC	J(all detects) Pb, V, Zn No Qual, >4x
SL-120-SA8N-SS-0.0-0.5MSD	BERYLLIUM	-	133	75.00-125.00	-	BERYLLIUM	
(DUP05-SA8N-QC-042011	CADMIUM	-	127	75.00-125.00	-	CADMIUM	
SL-098-SA8N-SS-0.0-0.5	COBALT	-	130	75.00-125.00	-	COBALT	
SL-101-SA8N-SS-0.0-0.5	COPPER	127	140	75.00-125.00	-	COPPER	
SL-102-SA8N-SS-0.0-0.5	LEAD	211	281	75.00-125.00	-	LEAD	
SL-120-SA8N-SS-0.0-0.5	NICKEL	144	144	75.00-125.00	-	NICKEL	
SL-127-SA8N-SS-0.0-0.5	SILVER	-	127	75.00-125.00	-	SILVER	
SL-128-SA8N-SS-0.0-0.5	VANADIUM	-	133	75.00-125.00	-	VANADIUM	
SL-129-SA8N-SS-0.0-0.5	ZINC	183	249	75.00-125.00	-	ZINC	
SL-136-SA8N-SS-0.0-0.5							
SL-137-SA8N-SS-0.0-0.5)							
SL-120-SA8N-SS-0.0-0.5MS	ANTIMONY	39	39	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)
SL-120-SA8N-SS-0.0-0.5MSD							
(DUP05-SA8N-QC-042011							
SL-098-SA8N-SS-0.0-0.5							
SL-101-SA8N-SS-0.0-0.5							
SL-102-SA8N-SS-0.0-0.5							
SL-120-SA8N-SS-0.0-0.5							
SL-127-SA8N-SS-0.0-0.5							
SL-128-SA8N-SS-0.0-0.5							
SL-129-SA8N-SS-0.0-0.5							
SL-136-SA8N-SS-0.0-0.5							
SL-137-SA8N-SS-0.0-0.5)							

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: DE132_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-120-SA8N-SS-0.0-0.5MS SL-120-SA8N-SS-0.0-0.5MSD (DUP05-SA8N-QC-042011 SL -098-SA8N-SS-0.0-0.5 SL -101-SA8N-SS-0.0-0.5 SL -102-SA8N-SS-0.0-0.5 SL -120-SA8N-SS-0.0-0.5 SL -127-SA8N-SS-0.0-0.5 SL -128-SA8N-SS-0.0-0.5 SL -129-SA8N-SS-0.0-0.5 SL -136-SA8N-SS-0.0-0.5 SL -137-SA8N-SS-0.0-0.5)	BARIUM	142	380	75.00-125.00	-	BARIUM	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-120-SA8N-SS-0.0-0.5MSD (SL-120-SA8N-SS-0.0-0.5)	2,4-DINITROPHENOL 3,3'-DICHLOROBENZIDINE 4,6-DINITRO-2-METHYLPHENOL 4-CHLOROANILINE	- - - -	- - - -	20.00-143.00 16.00-119.00 24.00-116.00 23.00-95.00	45 (30.00) 40 (30.00) 35 (30.00) 35 (30.00)	2,4-DINITROPHENOL 3,3'-DICHLOROBENZIDINE 4,6-DINITRO-2-METHYLPHEN 4-CHLOROANILINE	J(all detects)
SL-120-SA8N-SS-0.0-0.5MS SL-120-SA8N-SS-0.0-0.5MSD (SL-120-SA8N-SS-0.0-0.5)	BENZIDINE	0	0	35.00-141.00	-	BENZIDINE	J(all detects) R(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-120-SA8N-SS-0.0-0.5MS SL-120-SA8N-SS-0.0-0.5MSD (SL-120-SA8N-SS-0.0-0.5)	N-NITROSODIMETHYLAMINE	67	67	70.00-130.00	-	N-NITROSODIMETHYLAMINE	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: DE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-120-SA8N-SS-0.0-0.5DUP	POTASSIUM	23	20.00	
(DUP05-SA8N-QC-042011	SODIUM	21	20.00	
SL-098-SA8N-SS-0.0-0.5	Zirconium	200	20.00	
SL-101-SA8N-SS-0.0-0.5				
SL-102-SA8N-SS-0.0-0.5				
SL-108-SA8N-SS-0.0-0.5				J (all detects)
SL-120-SA8N-SS-0.0-0.5				UJ (all non-detects)
SL-127-SA8N-SS-0.0-0.5				Na, Zr No Qual, OK
SL-128-SA8N-SS-0.0-0.5				by difference
SL-129-SA8N-SS-0.0-0.5				
SL-136-SA8N-SS-0.0-0.5				
SL-137-SA8N-SS-0.0-0.5)				

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-120-SA8N-SS-0.0-0.5DUP	ANTIMONY	61	20.00	
(DUP05-SA8N-QC-042011	ARSENIC	23	20.00	
SL-098-SA8N-SS-0.0-0.5	BARIUM	23	20.00	
SL-101-SA8N-SS-0.0-0.5	CADMIUM	53	20.00	
SL-102-SA8N-SS-0.0-0.5	CHROMIUM	22	20.00	
SL-120-SA8N-SS-0.0-0.5	COBALT	24	20.00	J(all detects)
SL-127-SA8N-SS-0.0-0.5	LEAD	32	20.00	UJ(all non-detects)
SL-128-SA8N-SS-0.0-0.5	MOLYBDENUM	22	20.00	Sb, Cd, Mo, Ag No
SL-129-SA8N-SS-0.0-0.5	NICKEL	24	20.00	Qual, OK by
SL-136-SA8N-SS-0.0-0.5	SILVER	40	20.00	difference
SL-137-SA8N-SS-0.0-0.5)				

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-120-SA8N-SS-0.0-0.5DUP	MERCURY	29	20.00	
(DUP05-SA8N-QC-042011				
SL-098-SA8N-SS-0.0-0.5				
SL-101-SA8N-SS-0.0-0.5				
SL-102-SA8N-SS-0.0-0.5				
SL-108-SA8N-SS-0.0-0.5				
SL-120-SA8N-SS-0.0-0.5				No Qual, OK by
SL-127-SA8N-SS-0.0-0.5				difference
SL-128-SA8N-SS-0.0-0.5				
SL-129-SA8N-SS-0.0-0.5				
SL-136-SA8N-SS-0.0-0.5				
SL-137-SA8N-SS-0.0-0.5)				

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: DE132 **Laboratory: LL**

EDD Filename: DE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8082
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11114AQ242158A P11114AY242139A (EB07-SA8N-SS-042011)	Aroclor 5442	92	96	35.00-84.00	-	Aroclor 5432 Aroclor 5442 Aroclor 5460	J (all detects)

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P2WJLCSY261109 (EB07-SA8N-SS-042011)	BENZOIC ACID	-	-	10.00-69.00	31 (30.00)	BENZOIC ACID	J(all detects) UJ(all non-detects)

Method: 8270C SIM
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P2WKLCSQ260855 P2WKLCSY260927 (EB07-SA8N-SS-042011)	2-METHYLNAPHTHALENE	73	71	75.00-115.00	-	2-METHYLNAPHTHALENE	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
P11813EY220701 (EB07-SA8N-SS-042011)	MERCURY	-	87	90.00-115.00	-	MERCURY	J(all detects) UJ(all non-detects)

Method: 8330A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11184AQ240252A (DUP05-SA8N-QC-042011 SL-101-SA8N-SS-0.0-0.5 SL-102-SA8N-SS-0.0-0.5 SL-108-SA8N-SS-0.0-0.5 SL-120-SA8N-SS-0.0-0.5)	PETN	124	-	80.00-120.00	-	PETN	J(all detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: DE132_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*
P11826BQ220942C (DUP05-SA8N-QC-042011 SL-098-SA8N-SS-0.0-0.5 SL-101-SA8N-SS-0.0-0.5 SL-102-SA8N-SS-0.0-0.5 SL-120-SA8N-SS-0.0-0.5 SL-127-SA8N-SS-0.0-0.5 SL-128-SA8N-SS-0.0-0.5 SL-129-SA8N-SS-0.0-0.5 SL-136-SA8N-SS-0.0-0.5 SL-137-SA8N-SS-0.0-0.5)	MOLYBDENUM	122	-	80.00-120.00	-	MOLYBDENUM	No Qual, SRM within QC limits

Surrogate Outlier Report

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: DE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1625C**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-101-SA8N-SS-0.0-0.5	N-Nitrosodimethylamine-d6	174	50.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-108-SA8N-SS-0.0-0.5	N-Nitrosodimethylamine-d6	200	50.00-150.00	All Target Analytes	No Qual, Diluted Out

Method: **8015M**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-108-SA8N-SS-0.0-0.5	TETRAMETHYLENE GLYCOL	160	29.00-137.00	All Target Analytes	J(all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: DE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA8N-SS-0.0-0.5	DUP05-SA8N-QC-042011			
MOISTURE	6.1	6.7	9		No Qualifiers Applied

Method: 1625C
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA8N-SS-0.0-0.5	DUP05-SA8N-QC-042011			
N-NITROSODIMETHYLAMINE	149	58.8	87	50.00	J(all detects)

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA8N-SS-0.0-0.5	DUP05-SA8N-QC-042011			
FLUORIDE	1.6	1.3	21	50.00	No Qualifiers Applied
Nitrate-NO3	3.6	2.8	25	50.00	

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA8N-SS-0.0-0.5	DUP05-SA8N-QC-042011			
ALUMINUM	24500	23600	4	50.00	
BORON	9.27	10.6	13	50.00	
CALCIUM	6510	6500	0	50.00	
IRON	26600	25400	5	50.00	
LITHIUM	26.1	24.7	6	50.00	
MAGNESIUM	6290	5280	17	50.00	
MANGANESE	371	322	14	50.00	No Qualifiers Applied
PHOSPHORUS	467	463	1	50.00	
POTASSIUM	4980	4010	22	50.00	
SODIUM	120	94.9	23	50.00	
STRONTIUM	32.7	32.9	1	50.00	
TIN	2.81	2.72	3	50.00	
TITANIUM	1270	1260	1	50.00	

Field Duplicate RPD Report

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: DE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg) SL-120-SA8N-SS-0.0-0.5	Concentration (mg/Kg) DUP05-SA8N-QC-042011	Sample RPD	eQAPP RPD	Flag
ANTIMONY	0.308	0.216	35	50.00	No Qualifiers Applied
ARSENIC	6.25	5.86	6	50.00	
BARIUM	129	113	13	50.00	
BERYLLIUM	0.758	0.658	14	50.00	
CADMIUM	0.466	0.438	6	50.00	
CHROMIUM	28.3	24.0	16	50.00	
COBALT	9.63	12.6	27	50.00	
COPPER	17.8	17.0	5	50.00	
LEAD	20.4	20.8	2	50.00	
MOLYBDENUM	0.603	0.679	12	50.00	
NICKEL	18.3	16.6	10	50.00	
SELENIUM	0.165	0.193	16	50.00	
SILVER	0.0736	0.106	36	50.00	
THALLIUM	0.324	0.310	4	50.00	
VANADIUM	50.4	44.0	14	50.00	
ZINC	121	118	3	50.00	

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg) SL-120-SA8N-SS-0.0-0.5	Concentration (mg/Kg) DUP05-SA8N-QC-042011	Sample RPD	eQAPP RPD	Flag
HEXAVALENT CHROMIUM	0.89	0.91	2	50.00	No Qualifiers Applied

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg) SL-120-SA8N-SS-0.0-0.5	Concentration (mg/Kg) DUP05-SA8N-QC-042011	Sample RPD	eQAPP RPD	Flag
MERCURY	0.0277	0.0556	67	50.00	J(all detects)

Method: 8015M
Matrix: SO

Analyte	Concentration (mg/Kg) SL-120-SA8N-SS-0.0-0.5	Concentration (mg/Kg) DUP05-SA8N-QC-042011	Sample RPD	eQAPP RPD	Flag
EFH (C21-C30)	48	62	25	50.00	No Qualifiers Applied
EFH (C30-C40)	200	240	18	50.00	

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg) SL-120-SA8N-SS-0.0-0.5	Concentration (ug/Kg) DUP05-SA8N-QC-042011	Sample RPD	eQAPP RPD	Flag
AROCLOR 1254	56	75	29	50.00	No Qualifiers Applied
AROCLOR 1260	17	21	21	50.00	

Field Duplicate RPD Report

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: DE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA8N-SS-0.0-0.5	DUP05-SA8N-QC-042011			
1-METHYLNAPHTHALENE	8.9 U	3.8	200	50.00	
2-METHYLNAPHTHALENE	8.9 U	6.0	200	50.00	
ACENAPHTHENE	8.9 U	37	200	50.00	
ANTHRACENE	8.9 U	89	200	50.00	
BENZO(A)ANTHRACENE	8.9 U	390	200	50.00	
BENZO(A)PYRENE	3.6	340	196	50.00	
BENZO(B)FLUORANTHENE	8.1	570	194	50.00	
BENZO(G,H,I)PERYLENE	4.2	87	182	50.00	
BENZO(K)FLUORANTHENE	8.9 U	320	200	50.00	J(all detects) UJ(all non-detects)
CHRYSENE	6.9	480	194	50.00	
DIBENZO(A,H)ANTHRACENE	8.9 U	43	200	50.00	
FLUORANTHENE	9.5	1000	196	50.00	
FLUORENE	8.9 U	41	200	50.00	
INDENO(1,2,3-CD)PYRENE	8.9 U	120	200	50.00	
NAPHTHALENE	8.9 U	7.6	200	50.00	
PHENANTHRENE	5.4	630	197	50.00	
PYRENE	6.6	630	196	50.00	

Method: 8270C
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA8N-SS-0.0-0.5	DUP05-SA8N-QC-042011			
BIS(2-ETHYLHEXYL)PHTHALATE	28	40	35	50.00	No Qualifiers Applied
Di-n-butylphthalate	180 U	38	200	50.00	J(all detects) UJ(all non-detects)

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA8N-SS-0.0-0.5	DUP05-SA8N-QC-042011			
PH	7.80	7.00	11	50.00	No Qualifiers Applied

Method: ASTM D1498
Matrix: SO

Analyte	Concentration (mV)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA8N-SS-0.0-0.5	DUP05-SA8N-QC-042011			
Oxidation Reduction Potential	449	411	9		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: DE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB07-SA8N-SS-042011	BORON	J	0.0199	0.0500	PQL	mg/L	J (all detects)
	CALCIUM	J	0.0800	0.200	PQL	mg/L	

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB07-SA8N-SS-042011	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.16	0.99	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.074	0.99	PQL	ug/L	
	Di-n-butylphthalate	J	0.31	0.99	PQL	ug/L	
	NAPHTHALENE	J	0.033	0.050	PQL	ug/L	

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-108-SA8N-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	616	674	PQL	ng/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP05-SA8N-QC-042011	SODIUM	J	94.9	107	PQL	mg/Kg	J (all detects)
	TIN	J	2.72	10.7	PQL	mg/Kg	
SL-098-SA8N-SS-0.0-0.5	SODIUM	J	101	116	PQL	mg/Kg	J (all detects)
	TIN	J	2.80	11.6	PQL	mg/Kg	
	Zirconium	J	0.979	5.80	PQL	mg/Kg	
SL-101-SA8N-SS-0.0-0.5	SODIUM	J	86.1	116	PQL	mg/Kg	J (all detects)
	TIN	J	2.82	11.6	PQL	mg/Kg	
SL-102-SA8N-SS-0.0-0.5	BORON	J	5.46	5.73	PQL	mg/Kg	J (all detects)
	SODIUM	J	85.9	115	PQL	mg/Kg	
	TIN	J	2.66	11.5	PQL	mg/Kg	
SL-108-SA8N-SS-0.0-0.5	TIN	J	5.98	10.1	PQL	mg/Kg	J (all detects)
SL-120-SA8N-SS-0.0-0.5	TIN	J	2.81	10.2	PQL	mg/Kg	J (all detects)
SL-127-SA8N-SS-0.0-0.5	TIN	J	2.57	10.5	PQL	mg/Kg	J (all detects)
SL-128-SA8N-SS-0.0-0.5	SODIUM	J	107	117	PQL	mg/Kg	J (all detects)
	TIN	J	2.94	11.7	PQL	mg/Kg	
SL-129-SA8N-SS-0.0-0.5	TIN	J	2.67	10.7	PQL	mg/Kg	J (all detects)
SL-136-SA8N-SS-0.0-0.5	BORON	J	5.67	5.76	PQL	mg/Kg	J (all detects)
	SODIUM	J	108	115	PQL	mg/Kg	
	TIN	J	3.20	11.5	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: DE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-137-SA8N-SS-0.0-0.5	TIN	J	2.43	10.0	PQL	mg/Kg	J (all detects)

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP05-SA8N-QC-042011	SELENIUM	J	0.193	0.416	PQL	mg/Kg	J (all detects)
SL-098-SA8N-SS-0.0-0.5	ANTIMONY	J	0.175	0.234	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.139	0.468	PQL	mg/Kg	
	SILVER	J	0.0280	0.117	PQL	mg/Kg	
SL-101-SA8N-SS-0.0-0.5	ANTIMONY	J	0.142	0.227	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.127	0.453	PQL	mg/Kg	
	SILVER	J	0.0376	0.113	PQL	mg/Kg	
SL-102-SA8N-SS-0.0-0.5	ANTIMONY	J	0.224	0.231	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.145	0.463	PQL	mg/Kg	
	SILVER	J	0.0460	0.116	PQL	mg/Kg	
SL-108-SA8N-SS-0.0-0.5	SELENIUM	J	0.279	0.397	PQL	mg/Kg	J (all detects)
SL-120-SA8N-SS-0.0-0.5	SELENIUM	J	0.165	0.414	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0736	0.103	PQL	mg/Kg	
SL-127-SA8N-SS-0.0-0.5	ANTIMONY	J	0.206	0.210	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.186	0.420	PQL	mg/Kg	
	SILVER	J	0.0470	0.105	PQL	mg/Kg	
SL-128-SA8N-SS-0.0-0.5	ANTIMONY	J	0.109	0.238	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.167	0.476	PQL	mg/Kg	
	SILVER	J	0.0511	0.119	PQL	mg/Kg	
SL-129-SA8N-SS-0.0-0.5	ANTIMONY	J	0.129	0.210	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.149	0.420	PQL	mg/Kg	
	SILVER	J	0.0305	0.105	PQL	mg/Kg	
SL-136-SA8N-SS-0.0-0.5	ANTIMONY	J	0.108	0.233	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.143	0.465	PQL	mg/Kg	
	SILVER	J	0.0360	0.116	PQL	mg/Kg	
SL-137-SA8N-SS-0.0-0.5	ANTIMONY	J	0.105	0.202	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.106	0.405	PQL	mg/Kg	
	SILVER	J	0.0667	0.101	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP05-SA8N-QC-042011	HEXAVALENT CHROMIUM	J	0.91	1.1	PQL	mg/Kg	J (all detects)
SL-098-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.70	1.2	PQL	mg/Kg	J (all detects)
SL-101-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	1.1	1.2	PQL	mg/Kg	J (all detects)
SL-102-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.50	1.2	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: DE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-120-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.89	1.1	PQL	mg/Kg	J (all detects)
SL-127-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.57	1.1	PQL	mg/Kg	J (all detects)
SL-128-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.43	1.2	PQL	mg/Kg	J (all detects)
SL-129-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.44	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP05-SA8N-QC-042011	MERCURY	J	0.0556	0.0992	PQL	mg/Kg	J (all detects)
SL-102-SA8N-SS-0.0-0.5	MERCURY	J	0.0058	0.112	PQL	mg/Kg	J (all detects)
SL-108-SA8N-SS-0.0-0.5	MERCURY	J	0.0294	0.0934	PQL	mg/Kg	J (all detects)
SL-120-SA8N-SS-0.0-0.5	MERCURY	J	0.0277	0.102	PQL	mg/Kg	J (all detects)
SL-127-SA8N-SS-0.0-0.5	MERCURY	J	0.0188	0.102	PQL	mg/Kg	J (all detects)
SL-128-SA8N-SS-0.0-0.5	MERCURY	J	0.0148	0.115	PQL	mg/Kg	J (all detects)
SL-129-SA8N-SS-0.0-0.5	MERCURY	J	0.0049	0.100	PQL	mg/Kg	J (all detects)
SL-136-SA8N-SS-0.0-0.5	MERCURY	J	0.0093	0.111	PQL	mg/Kg	J (all detects)

Method: 8015B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-108-SA8N-SS-0.0-0.5	Isopropanol p-Terphenyl	J J	340 3.0	510 7.1	PQL PQL	ug/Kg mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-101-SA8N-SS-0.0-0.5	EFH (C15-C20)	J	1.1	1.4	PQL	mg/Kg	J (all detects)
SL-102-SA8N-SS-0.0-0.5	EFH (C15-C20)	J	2.4	6.9	PQL	mg/Kg	J (all detects)
SL-108-SA8N-SS-0.0-0.5	EFH (C15-C20)	J	61	120	PQL	mg/Kg	J (all detects)
SL-127-SA8N-SS-0.0-0.5	EFH (C15-C20)	J	1.1	1.3	PQL	mg/Kg	J (all detects)
SL-128-SA8N-SS-0.0-0.5	EFH (C15-C20)	J	1.0	2.9	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE132 **Laboratory: LL**

EDD Filename: DE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-098-SA8N-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260	J J	0.92 0.59	2.1 2.1	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-101-SA8N-SS-0.0-0.5	AROCLOR 1254 Aroclor 5460	J J	1.4 3.5	2.0 3.8	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-102-SA8N-SS-0.0-0.5	Aroclor 5460	J	3.3	3.8	PQL	ug/Kg	J (all detects)
SL-128-SA8N-SS-0.0-0.5	AROCLOR 1260	J	1.0	2.0	PQL	ug/Kg	J (all detects)
SL-136-SA8N-SS-0.0-0.5	Aroclor 5460	J	3.3	3.9	PQL	ug/Kg	J (all detects)
SL-137-SA8N-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J J	8.1 9.4	8.8 17	PQL PQL	ug/Kg ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP05-SA8N-QC-042011	BIS(2-ETHYLHEXYL)PHTHALATE Di-n-butylphthalate	J J	40 38	350 180	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-098-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	36	400	PQL	ug/Kg	J (all detects)
SL-101-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	43	390	PQL	ug/Kg	J (all detects)
SL-102-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	36	380	PQL	ug/Kg	J (all detects)
SL-108-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE BENZO(G,H,I)PERYLENE BIS(2-ETHYLHEXYL)PHTHALATE Di-n-butylphthalate FLUORANTHENE PYRENE	J J J J J J	100 98 520 110 110 100	840 840 1700 840 840 840	PQL PQL PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)
SL-120-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	28	350	PQL	ug/Kg	J (all detects)
SL-127-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE Butylbenzylphthalate	J J	39 20	350 180	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-128-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE Di-n-butylphthalate	J J	39 23	400 200	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-129-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	22	360	PQL	ug/Kg	J (all detects)
SL-136-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE CHRYSENE Di-n-butylphthalate PYRENE	J J J J	33 21 110 21	390 200 200 200	PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)
SL-137-SA8N-SS-0.0-0.5	ACENAPHTHENE ANTHRACENE BIS(2-ETHYLHEXYL)PHTHALATE CARBAZOLE DIBENZO(A,H)ANTHRACENE INDENO(1,2,3-CD)PYRENE	J J J J J J	120 190 140 110 280 790	860 860 1700 860 860 860	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: DE132 **Laboratory: LL**

EDD Filename: DE132_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP05-SA8N-QC-042011	1-METHYLNAPHTHALENE	J	3.8	8.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	6.0	8.9	PQL	ug/Kg	
	NAPHTHALENE	J	7.6	8.9	PQL	ug/Kg	
SL-098-SA8N-SS-0.0-0.5	ANTHRACENE	J	0.43	2.0	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.5	2.0	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.2	2.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.1	2.0	PQL	ug/Kg	
	CHRYSENE	J	1.6	2.0	PQL	ug/Kg	
	FLUORANTHENE	J	1.2	2.0	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.0	2.0	PQL	ug/Kg	
	PYRENE	J	0.93	2.0	PQL	ug/Kg	
SL-101-SA8N-SS-0.0-0.5	CHRYSENE	J	0.46	1.9	PQL	ug/Kg	J (all detects)
SL-102-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.5	1.9	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.4	1.9	PQL	ug/Kg	
	Di-n-octylphthalate	J	17	21	PQL	ug/Kg	
	FLUORENE	J	0.87	1.9	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.2	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	1.9	PQL	ug/Kg	
SL-108-SA8N-SS-0.0-0.5	ACENAPHTHYLENE	J	1.9	8.4	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	3.5	8.4	PQL	ug/Kg	
SL-120-SA8N-SS-0.0-0.5	BENZO(A)PYRENE	J	3.6	8.9	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	8.1	8.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	4.2	8.9	PQL	ug/Kg	
	CHRYSENE	J	6.9	8.9	PQL	ug/Kg	
	PHENANTHRENE	J	5.4	8.9	PQL	ug/Kg	
	PYRENE	J	6.6	8.9	PQL	ug/Kg	
SL-127-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	3.8	8.9	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	3.1	8.9	PQL	ug/Kg	
SL-128-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.91	2.0	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.0	2.0	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.1	2.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.87	2.0	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	2.0	PQL	ug/Kg	
SL-129-SA8N-SS-0.0-0.5	CHRYSENE	J	0.40	1.8	PQL	ug/Kg	J (all detects)

LDC #: 26275A4 **VALIDATION COMPLETENESS WORKSHEET** Date: 9/28/11
SDG #: DE132 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: MH
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: 4/20/11
II.	ICP/MS Tune	N	
III.	Calibration	N	
IV.	Blanks	A	Not qual by EQB/CCB's
V.	ICP Interference Check Sample (ICS) Analysis	N	→ qual for RPD
VI.	Matrix Spike Analysis	N	Al, Ba, Ca, Fe, Pb, Mg, Mn, P, K, Ti, V, Zn >4X → qual for RPD & R
VII.	Duplicate Sample Analysis	N	Sb, Cd, Hg, Mo, Ag, Na, Be, <5X No qual for RPD & R
VIII.	Laboratory Control Samples (LCS)	N A	SRM, Difference OK
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Ca, Cu, Pb, V, Zn J/UJ
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
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:

1	SL-098-SA8N-SS-0.0-0.5	11	DUP05-SA8N-QC-042011	21		31	
2	SL-101-SA8N-SS-0.0-0.5	12	EB07-SA8N-SS-042011	22		32	
3	SL-102-SA8N-SS-0.0-0.5	13	SL-120-SA8N-SS-0.0-0.5MS	23		33	
4	SL-108-SA8N-SS-0.0-0.5	14	SL-120-SA8N-SS-0.0-0.5MSD	24		34	
5	SL-120-SA8N-SS-0.0-0.5	15	SL-120-SA8N-SS-0.0-0.5DUP	25		35	
6	SL-127-SA8N-SS-0.0-0.5	16		26		36	
7	SL-128-SA8N-SS-0.0-0.5	17		27		37	
8	SL-129-SA8N-SS-0.0-0.5	18		28		38	
9	SL-136-SA8N-SS-0.0-0.5	19		29		39	
10	SL-137-SA8N-SS-0.0-0.5	20		30		40	

Notes: * Sample #4 batched with DE140. (LDC# 26275E)
ICP-MS.

LDC #: 26275A4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: [illegible]
2nd Reviewer: [illegible]

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: mg/L **Associated sample units:** mg/Kg
Sampling date: 4/20/11 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	1	2	3	4	5	6	7	8	9	10	
B	0.0199	9.95	8.0	8.3	5.5	6.7	9.3	6.4	6.2	6.1	5.7	6.5	
Ca	0.0800	40											

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 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE132
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6264819BKG Matrix Spike Lab Sample ID: 6264820MS Matrix Spike Duplicate Lab Sample ID: 6264821MSD
% Solids for Sample: 93.9
Batch Id(s): P11608F, P11826B, P11611F

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		24542.1203		25528.4126		24400.4322		208.8162	206.7889	MG/KG	472		-69		5			20	P
Antimony	121	0.3083		0.8005		0.7850		1.2653	1.2288	MG/KG	39	N	39	N	2		75 - 125	20	MS
Arsenic	75	6.2471		8.5851		9.8468		2.1088	2.0480	MG/KG	111		176	N	14		75 - 125	20	MS
Barium	137	128.9122		143.8438		167.8545		10.5442	10.2400	MG/KG	142		380		15			20	MS
Beryllium	9	0.7583		1.7651		1.8459		0.8435	0.8192	MG/KG	119		133	N	4		75 - 125	20	MS
Boron		9.2682		215.2164		208.9995		208.8162	206.7889	MG/KG	99		97		3		84 - 115	20	P
Cadmium	111	0.4661		1.6622		1.7627		1.0544	1.0240	MG/KG	113		127	N	6		75 - 125	20	MS
Calcium		6513.7421		10176.9509		12210.7199		417.6324	413.5778	MG/KG	877		1377		18			20	P
Chromium	52	28.3094		39.3720		39.8132		10.5442	10.2400	MG/KG	105		112		1		75 - 125	20	MS
Cobalt	59	9.6260		72.6073		76.0424		52.7209	51.2001	MG/KG	119		130	N	5		75 - 125	20	MS
Copper	63	17.8479		31.1897		32.2151		10.5442	10.2400	MG/KG	127	N	140	N	3		75 - 125	20	MS
Iron		26553.6997		25019.4230		21961.8495		104.4081	103.3944	MG/KG	-1469		-4441		13			20	P
Lead	208	20.4163		27.0986		29.0612		3.1633	3.0720	MG/KG	211		281		7			20	MS
Lithium		26.0865		131.4790		126.6665		104.4081	103.3944	MG/KG	101		97		4		82 - 114	20	P
Magnesium		6291.6001		5681.8612		5047.5108		208.8162	206.7889	MG/KG	-292		-602		12			20	P
Manganese		371.0238		437.4606		331.2758		52.2041	51.6972	MG/KG	127		-77		28	*		20	P
Mercury		0.0277	B	0.2660		0.2504		0.1716	0.1703	MG/KG	139	N	131		6		65 - 135	20	CV
Molybdenum	98	0.6034		12.8196		12.8082		10.5442	10.2400	MG/KG	116		119		0		75 - 125	20	MS
Nickel	60	18.2801		33.4462		33.0138		10.5442	10.2400	MG/KG	144	N	144	N	1		75 - 125	20	MS
Phosphorus		466.6687		585.7076		458.2803		104.4081	103.3944	MG/KG	114		-8		24	*		20	P
Potassium		4976.9251		5309.2391		4806.5749		1044.0811	1033.9444	MG/KG	32		-16		10			20	P
Selenium	78	0.1650	B	2.5243		2.4658		2.1088	2.0480	MG/KG	112		112		2		75 - 125	20	MS
Silver	107	0.0736	B	12.7796		13.0683		10.5442	10.2400	MG/KG	121		127	N	2		75 - 125	20	MS
Sodium		120.4340		1221.0017		1186.8617		1044.0811	1033.9444	MG/KG	105		103		3		75 - 125	20	P
Strontium		32.6831		138.6863		134.5751		104.4081	103.3944	MG/KG	102		99		3		75 - 115	20	P
Thallium	203	0.3245		0.8056		0.8208		0.4218	0.4096	MG/KG	114		121		2		75 - 125	20	MS
Tin		2.8140	B	362.6135		355.1475		417.6324	413.5778	MG/KG	86		85		2		80 - 110	20	P
Titanium		1268.7352		1513.2212		1395.6533		104.4081	103.3944	MG/KG	234		123		8			20	P
Vanadium	51	50.3738		61.7257		64.0206		10.5442	10.2400	MG/KG	108		133		4			20	MS
Zinc	66	121.3851		140.7016		146.8829		10.5442	10.2400	MG/KG	183		249		4			20	MS
Zirconium		0.8602	U	92.6789		91.3014		104.4081	103.3944	MG/KG	89		88		1		75 - 125	20	P

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 6
DUPLICATES
SDG No.: DE132
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6264819BKG
% Solids for Duplicate: 93.1
Batch ID(s): P11608F, P11826B, P11611F
Concentration Units: MG/KG

Duplicate Lab Sample ID: 6264822DUP
% Solids for Sample: 93.9

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			24542.1203		23335.2226		5		P
Antimony	121	0.2	0.3083		0.1635	B	61		MS
Arsenic	75		6.2471		4.9684		23	*	MS
Barium	137		128.9122		102.2997		23	*	MS
Beryllium	9		0.7583		0.6312		18		MS
Boron		5.1	9.2682		9.0133		3		P
Cadmium	111	0.1	0.4661		0.2704		53	*	MS
Calcium			6513.7421		6160.9916		6		P
Chromium	52		28.3094		22.6700		22	*	MS
Cobalt	59		9.6260		7.5370		24	*	MS
Copper	63		17.8479		15.5885		14		MS
Iron			26553.6997		23937.5113		10		P
Lead	208		20.4163		14.7513		32	*	MS
Lithium			26.0865		24.7676		5		P
Magnesium			6291.6001		5196.4774		19		P
Manganese			371.0238		335.8575		10		P
Mercury			0.0277	B	0.0371	B	29		CV
Molybdenum	98	0.1	0.6034		0.4825		22	*	MS
Nickel	60		18.2801		14.3928		24	*	MS
Phosphorus			466.6687		409.0860		13		P
Potassium			4976.9251		3952.6214		23	*	P
Selenium	78		0.1650	B	0.1426	B	15		MS
Silver	107	0.1	0.0736	B	0.1104		40		MS
Sodium		102.4	120.4340		97.6284	B	21		P
Strontium			32.6831		31.7943		3		P
Thallium	203	0.1	0.3245		0.2708		18		MS
Tin			2.8140	B	2.6757	B	5		P
Titanium			1268.7352		1224.8648		4		P
Vanadium	51		50.3738		42.2822		17		MS
Zinc	66		121.3851		103.7126		16		MS
Zirconium			0.8602	U	1.4572	B	200		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.

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METHODS:	CONCENTRATION QUALIFIERS:
P = ICP Atomic Emission Spectrometer	U= Below MDL
MS = ICP Mass Spectrometry	B= Below LOQ
CV = Cold Vapor	FLAGS:
AF = Cold Vapor Atomic Fluorescence	* = Duplicate Out of Spec

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE132
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6264819BKG Serial Dilution Lab Sample ID: 6264819L
Batch ID(s): P11608F, P11826B
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		239668.5300		238922.4500		0		P
Antimony	121	1.4910		1.5000	U	100		MS
Arsenic	75	30.2100		33.7450		12		MS
Barium	137	623.4000		681.0000		9		MS
Beryllium	9	3.6670		4.1945		14		MS
Boron		90.5100		101.0000	B	12		P
Cadmium	111	2.2540		1.8810	B	17		MS
Calcium		63610.6000		66982.2000		5		P
Chromium	52	136.9000		157.1500		15	E	MS
Cobalt	59	46.5500		48.9600		5		MS
Copper	63	86.3100		97.5500		13	E	MS
Iron		259312.8100		270567.4500		4		P
Lead	208	98.7300		112.4000		14	E	MS
Lithium		254.7500		253.4500		1		P
Magnesium		61441.2500		63895.9000		4		P
Manganese		3623.2700		3951.0500		9		P
Molybdenum	98	2.9180		2.9095		0		MS
Nickel	60	88.4000		93.9500		6		MS
Phosphorus		4557.3000		4666.6000		2		P
Potassium		48602.6600		48340.4000		1		P
Selenium	78	0.7981	B	1.0000	U	100		MS
Silver	107	0.3558	B	0.4917	B	38		MS
Sodium		1176.1100		1865.0000	U	100		P
Strontium		319.1700		328.0000		3		P
Thallium	203	1.5690		1.8830	B	20		MS
Tin		27.4800	B	50.0000	U	100		P
Titanium		12389.9600		13161.7500		6		P
Vanadium	51	243.6000		283.4500		16	E	MS
Zinc	66	587.0000		665.0000		13	E	MS
Zirconium		8.4000	U	42.0000	U			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

DE132 3795

SAMPLE DELIVERY GROUP

DE134

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-Apr-2011	TB-042111	6266027	TB	5030B	8260B	IV
21-Apr-2011	TB-042111	6266027	TB	5030B	8260B SIM	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	3050B	6010B	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	3050B	6020	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	3060A	7199	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	3546	1625C	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	3550B	8015B	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	3550B	8015M	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	3550B	8082	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	3550B	8270C	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	3550B	8270C SIM	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	8330	8330A	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	METHOD	300.0	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	METHOD	314.0	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	METHOD	7471A	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	METHOD	8015B	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	METHOD	8015M	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	METHOD	8315A	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5	6266014	N	METHOD	9012B	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MS	6266015	MS	3050B	6010B	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MS	6266015	MS	3050B	6020	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MS	6266015	MS	3060A	7199	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MS	6266015	MS	3550B	8082	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MS	6266015	MS	3550B	8270C	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MS	6266015	MS	3550B	8270C SIM	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MS	6266015	MS	METHOD	300.0	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
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MS	6266015	MS	METHOD	314.0	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MS	6266015	MS	METHOD	7471A	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MSD	6266016	MSD	3050B	6010B	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MSD	6266016	MSD	3050B	6020	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MSD	6266016	MSD	3550B	8082	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MSD	6266016	MSD	3550B	8270C	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MSD	6266016	MSD	3550B	8270C SIM	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MSD	6266016	MSD	METHOD	7471A	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5DUP	6266017	DUP	3050B	6010B	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5DUP	6266017	DUP	3050B	6020	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5DUP	6266017	DUP	3060A	7199	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5DUP	6266017	DUP	METHOD	300.0	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5DUP	6266017	DUP	METHOD	314.0	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5DUP	6266017	DUP	METHOD	7471A	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5DUP	P266014D270948B	DUP	METHOD	9012B	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MSD	P266014M240452A	MSD	METHOD	8315A	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MSD	P266014M261439	MSD	3546	1625C	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MSD	P266014M320337A	MSD	3550B	8015M	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MSD	P266014M321303A	MSD	3550B	8015B	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MS	P266014R240443A	MS	METHOD	8315A	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MS	P266014R261422	MS	3546	1625C	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MS	P266014R270949B	MS	METHOD	9012B	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MS	P266014R320247A	MS	3550B	8015M	IV
21-Apr-2011	SL-119-SA8N-SS-0.0-0.5MS	P266014R321133A	MS	3550B	8015B	IV
21-Apr-2011	DUP06-SA8N-QC-042111	6266020	FD	3050B	6010B	IV
21-Apr-2011	DUP06-SA8N-QC-042111	6266020	FD	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
21-Apr-2011	DUP06-SA8N-QC-042111	6266020	FD	3060A	7199	IV
21-Apr-2011	DUP06-SA8N-QC-042111	6266020	FD	3550B	8082	IV
21-Apr-2011	DUP06-SA8N-QC-042111	6266020	FD	3550B	8270C	IV
21-Apr-2011	DUP06-SA8N-QC-042111	6266020	FD	3550B	8270C SIM	IV
21-Apr-2011	DUP06-SA8N-QC-042111	6266020	FD	METHOD	300.0	IV
21-Apr-2011	DUP06-SA8N-QC-042111	6266020	FD	METHOD	314.0	IV
21-Apr-2011	DUP06-SA8N-QC-042111	6266020	FD	METHOD	7471A	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	3050B	6010B	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	3050B	6020	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	3060A	7199	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	3546	1625C	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	3550B	8015B	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	3550B	8015M	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	3550B	8082	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	3550B	8270C	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	3550B	8270C SIM	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	8330	8330A	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	METHOD	300.0	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	METHOD	314.0	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	METHOD	7471A	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	METHOD	8015B	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	METHOD	8015M	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	METHOD	8315A	IV
21-Apr-2011	SL-117-SA8N-SS-0.0-0.5	6266012	N	METHOD	9012B	IV
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	N	3050B	6010B	IV
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	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
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	N	3060A	7199	IV
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	N	3546	1625C	IV
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	N	3550B	8015B	IV
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	N	3550B	8015M	IV
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	N	3550B	8082	IV
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	N	3550B	8270C	IV
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	N	3550B	8270C SIM	IV
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	N	8330	8330A	IV
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	N	METHOD	300.0	IV
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	N	METHOD	314.0	IV
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	N	METHOD	7471A	IV
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	N	METHOD	8015B	IV
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	N	METHOD	8015M	IV
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	N	METHOD	8315A	IV
21-Apr-2011	SL-126-SA8N-SS-0.0-0.5	6266019	N	METHOD	9012B	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	3050B	6010B	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	3050B	6020	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	3060A	7199	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	3546	1625C	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	3550B	8015B	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	3550B	8015M	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	3550B	8082	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	3550B	8270C	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	3550B	8270C SIM	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	8330	8330A	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	METHOD	300.0	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
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	METHOD	314.0	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	METHOD	6850	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	METHOD	7471A	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	METHOD	8015B	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	METHOD	8015M	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	METHOD	8315A	IV
21-Apr-2011	SL-118-SA8N-SS-0.0-0.5	6266013	N	METHOD	9012B	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	3050B	6010B	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	3050B	6020	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	3060A	7199	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	3546	1625C	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	3550B	8015B	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	3550B	8015M	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	3550B	8082	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	3550B	8270C	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	3550B	8270C SIM	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	8330	8330A	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	METHOD	300.0	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	METHOD	314.0	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	METHOD	6850	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	METHOD	7471A	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	METHOD	8015B	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	METHOD	8015M	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	METHOD	8315A	IV
21-Apr-2011	SL-116-SA8N-SS-0.0-0.5	6266011	N	METHOD	9012B	IV
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0	6266021	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
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0	6266021	N	3050B	6020	IV
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0	6266021	N	3060A	7199	IV
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0	6266021	N	3550B	8082	IV
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0	6266021	N	3550B	8270C	IV
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0	6266021	N	3550B	8270C SIM	IV
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0	6266021	N	5035	8260B	IV
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0	6266021	N	5035	8260B SIM	IV
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0	6266021	N	8330	8330A	IV
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0	6266021	N	METHOD	300.0	IV
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0	6266021	N	METHOD	314.0	IV
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0	6266021	N	METHOD	7471A	IV
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0	6266021	N	METHOD	8015M	IV
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0DUP	P266021D271623B	DUP	METHOD	314.0	IV
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0DUP	P266021D272207B	DUP	METHOD	300.0	IV
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0MS	P266021R271645B	MS	METHOD	314.0	IV
21-Apr-2011	SL-004-SA8N-SB-4.0-5.0MS	P266021R272221B	MS	METHOD	300.0	IV
21-Apr-2011	SL-004-SA8N-SB-9.0-10.0	6266022	N	3050B	6010B	IV
21-Apr-2011	SL-004-SA8N-SB-9.0-10.0	6266022	N	3050B	6020	IV
21-Apr-2011	SL-004-SA8N-SB-9.0-10.0	6266022	N	3060A	7199	IV
21-Apr-2011	SL-004-SA8N-SB-9.0-10.0	6266022	N	3550B	8082	IV
21-Apr-2011	SL-004-SA8N-SB-9.0-10.0	6266022	N	3550B	8270C	IV
21-Apr-2011	SL-004-SA8N-SB-9.0-10.0	6266022	N	3550B	8270C SIM	IV
21-Apr-2011	SL-004-SA8N-SB-9.0-10.0	6266022	N	8330	8330A	IV
21-Apr-2011	SL-004-SA8N-SB-9.0-10.0	6266022	N	METHOD	300.0	IV
21-Apr-2011	SL-004-SA8N-SB-9.0-10.0	6266022	N	METHOD	314.0	IV
21-Apr-2011	SL-004-SA8N-SB-9.0-10.0	6266022	N	METHOD	7471A	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
21-Apr-2011	SL-004-SA8N-SB-9.0-10.0	6266022	N	METHOD	8015M	IV
21-Apr-2011	SL-005-SA8N-SB-4.0-5.0	6266023	N	3050B	6010B	IV
21-Apr-2011	SL-005-SA8N-SB-4.0-5.0	6266023	N	3050B	6020	IV
21-Apr-2011	SL-005-SA8N-SB-4.0-5.0	6266023	N	3060A	7199	IV
21-Apr-2011	SL-005-SA8N-SB-4.0-5.0	6266023	N	3550B	8082	IV
21-Apr-2011	SL-005-SA8N-SB-4.0-5.0	6266023	N	3550B	8270C	IV
21-Apr-2011	SL-005-SA8N-SB-4.0-5.0	6266023	N	3550B	8270C SIM	IV
21-Apr-2011	SL-005-SA8N-SB-4.0-5.0	6266023	N	5035	8260B	IV
21-Apr-2011	SL-005-SA8N-SB-4.0-5.0	6266023	N	5035	8260B SIM	IV
21-Apr-2011	SL-005-SA8N-SB-4.0-5.0	6266023	N	8330	8330A	IV
21-Apr-2011	SL-005-SA8N-SB-4.0-5.0	6266023	N	METHOD	300.0	IV
21-Apr-2011	SL-005-SA8N-SB-4.0-5.0	6266023	N	METHOD	314.0	IV
21-Apr-2011	SL-005-SA8N-SB-4.0-5.0	6266023	N	METHOD	7471A	IV
21-Apr-2011	SL-005-SA8N-SB-4.0-5.0	6266023	N	METHOD	8015M	IV
21-Apr-2011	SL-005-SA8N-SB-8.0-9.0	6266024	N	3050B	6010B	IV
21-Apr-2011	SL-005-SA8N-SB-8.0-9.0	6266024	N	3050B	6020	IV
21-Apr-2011	SL-005-SA8N-SB-8.0-9.0	6266024	N	3060A	7199	IV
21-Apr-2011	SL-005-SA8N-SB-8.0-9.0	6266024	N	3550B	8082	IV
21-Apr-2011	SL-005-SA8N-SB-8.0-9.0	6266024	N	3550B	8270C	IV
21-Apr-2011	SL-005-SA8N-SB-8.0-9.0	6266024	N	3550B	8270C SIM	IV
21-Apr-2011	SL-005-SA8N-SB-8.0-9.0	6266024	N	8330	8330A	IV
21-Apr-2011	SL-005-SA8N-SB-8.0-9.0	6266024	N	METHOD	300.0	IV
21-Apr-2011	SL-005-SA8N-SB-8.0-9.0	6266024	N	METHOD	314.0	IV
21-Apr-2011	SL-005-SA8N-SB-8.0-9.0	6266024	N	METHOD	7471A	IV
21-Apr-2011	SL-005-SA8N-SB-8.0-9.0	6266024	N	METHOD	8015M	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	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
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	3050B	6020	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	3060A	7199	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	3546	1625C	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	3550B	8015B	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	3550B	8015M	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	3550B	8082	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	3550B	8270C	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	3550B	8270C SIM	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	8330	8330A	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	METHOD	300.0	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	METHOD	314.0	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	METHOD	6850	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	METHOD	7471A	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	METHOD	8015B	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	METHOD	8015M	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	METHOD	8315A	IV
21-Apr-2011	SL-115-SA8N-SS-0.0-0.5	6266010	N	METHOD	9012B	IV
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	3050B	6010B	IV
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	3050B	6020	IV
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	3060A	7199	IV
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	3546	1625C	IV
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	3550B	8015B	IV
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	3550B	8015M	IV
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	3550B	8082	IV
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	3550B	8270C	IV
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	3550B	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
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	8330	8330A	IV
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	METHOD	300.0	IV
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	METHOD	314.0	IV
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	METHOD	7471A	IV
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	METHOD	8015B	IV
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	METHOD	8015M	IV
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	METHOD	8315A	IV
21-Apr-2011	SL-112-SA8N-SS-0.0-0.5	6266009	N	METHOD	9012B	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	3050B	6010B	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	3050B	6020	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	3060A	7199	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	3546	1625C	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	3550B	8015B	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	3550B	8015M	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	3550B	8082	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	3550B	8270C	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	3550B	8270C SIM	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	8330	8330A	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	METHOD	300.0	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	METHOD	314.0	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	METHOD	6850	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	METHOD	7471A	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	METHOD	8015B	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	METHOD	8015M	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	N	METHOD	8315A	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5	6266008	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*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5MSD	P266008M241044A	MSD	METHOD	6850	IV
21-Apr-2011	SL-111-SA8N-SS-0.0-0.5MS	P266008R241037A	MS	METHOD	6850	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	3050B	6010B	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	3050B	6020	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	3060A	7199	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	3546	1625C	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	3550B	8015B	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	3550B	8015M	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	3550B	8082	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	3550B	8270C	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	3550B	8270C SIM	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	8330	8330A	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	METHOD	300.0	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	METHOD	314.0	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	METHOD	6850	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	METHOD	7471A	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	METHOD	8015B	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	METHOD	8015M	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	METHOD	8315A	IV
21-Apr-2011	SL-125-SA8N-SS-0.0-0.5	6266018	N	METHOD	9012B	IV
21-Apr-2011	SL-006-SA8N-SB-4.0-5.0	6266025	N	3050B	6010B	IV
21-Apr-2011	SL-006-SA8N-SB-4.0-5.0	6266025	N	3050B	6020	IV
21-Apr-2011	SL-006-SA8N-SB-4.0-5.0	6266025	N	3060A	7199	IV
21-Apr-2011	SL-006-SA8N-SB-4.0-5.0	6266025	N	3550B	8082	IV
21-Apr-2011	SL-006-SA8N-SB-4.0-5.0	6266025	N	3550B	8270C	IV
21-Apr-2011	SL-006-SA8N-SB-4.0-5.0	6266025	N	3550B	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
21-Apr-2011	SL-006-SA8N-SB-4.0-5.0	6266025	N	5035	8260B	IV
21-Apr-2011	SL-006-SA8N-SB-4.0-5.0	6266025	N	5035	8260B SIM	IV
21-Apr-2011	SL-006-SA8N-SB-4.0-5.0	6266025	N	8330	8330A	IV
21-Apr-2011	SL-006-SA8N-SB-4.0-5.0	6266025	N	METHOD	300.0	IV
21-Apr-2011	SL-006-SA8N-SB-4.0-5.0	6266025	N	METHOD	314.0	IV
21-Apr-2011	SL-006-SA8N-SB-4.0-5.0	6266025	N	METHOD	7471A	IV
21-Apr-2011	SL-006-SA8N-SB-4.0-5.0	6266025	N	METHOD	8015M	IV
21-Apr-2011	SL-006-SA8N-SB-8.0-9.0	6266026	N	3050B	6010B	IV
21-Apr-2011	SL-006-SA8N-SB-8.0-9.0	6266026	N	3050B	6020	IV
21-Apr-2011	SL-006-SA8N-SB-8.0-9.0	6266026	N	3060A	7199	IV
21-Apr-2011	SL-006-SA8N-SB-8.0-9.0	6266026	N	3550B	8082	IV
21-Apr-2011	SL-006-SA8N-SB-8.0-9.0	6266026	N	3550B	8270C	IV
21-Apr-2011	SL-006-SA8N-SB-8.0-9.0	6266026	N	3550B	8270C SIM	IV
21-Apr-2011	SL-006-SA8N-SB-8.0-9.0	6266026	N	8330	8330A	IV
21-Apr-2011	SL-006-SA8N-SB-8.0-9.0	6266026	N	METHOD	300.0	IV
21-Apr-2011	SL-006-SA8N-SB-8.0-9.0	6266026	N	METHOD	314.0	IV
21-Apr-2011	SL-006-SA8N-SB-8.0-9.0	6266026	N	METHOD	7471A	IV
21-Apr-2011	SL-006-SA8N-SB-8.0-9.0	6266026	N	METHOD	8015M	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: DE134 **Laboratory:** LL

EDD Filename: PrepDE134_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: DUP06-SA8N-QC-042111 *Collected:* 4/21/2011 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	1.9		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-004-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 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	8.6		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-004-SA8N-SB-9.0-10.0 *Collected:* 4/21/2011 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	3.5		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-005-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 11:57:00 *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		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-005-SA8N-SB-8.0-9.0 *Collected:* 4/21/2011 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	5.0		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-006-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 3:03:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	6.7		0.97	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-006-SA8N-SB-8.0-9.0 *Collected:* 4/21/2011 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	9.1		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-111-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	1.5		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: DE134 **Laboratory:** LL

EDD Filename: PrepDE134_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-112-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 1:15:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-115-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 12:40:00 ***Analysis Type:*** RES ***Dilution:*** 1

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

Sample ID: SL-116-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 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	1.8		0.96	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-117-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 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	1.4		0.84	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-118-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 9:55:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-119-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 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
FLUORIDE	1.4		0.85	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.5	J	0.85	MDL	1.6	PQL	mg/Kg	J	Z

Sample ID: SL-125-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 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	2.0		0.98	MDL	1.2	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: PrepDE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-126-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	1.9		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: GENCHEM

Method: 9012B **Matrix: SO**

Sample ID: SL-115-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 12:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CYANIDE	0.21	J	0.20	MDL	0.55	PQL	mg/Kg	J	Z

Sample ID: SL-116-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
CYANIDE	0.40	J	0.22	MDL	0.60	PQL	mg/Kg	J	Z

Sample ID: SL-125-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
CYANIDE	0.24	J	0.22	MDL	0.60	PQL	mg/Kg	J	Z

Sample ID: SL-126-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
CYANIDE	0.21	J	0.20	MDL	0.55	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: DUP06-SA8N-QC-042111 *Collected:* 4/21/2011 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	3.04	J	0.945	MDL	5.31	PQL	mg/Kg	J	Z
POTASSIUM	3680		19.1	MDL	53.1	PQL	mg/Kg	J	Q
SODIUM	82.1	J	39.6	MDL	106	PQL	mg/Kg	J	Z
TIN	2.53	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: DE134 **Laboratory:** LL

EDD Filename: PrepDE134_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-004-SA8N-SB-4.0-5.0 ***Collected:*** 4/21/2011 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
POTASSIUM	3930		21.1	MDL	58.7	PQL	mg/Kg	J	Q
TIN	2.88	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	2.97	J	0.985	MDL	5.87	PQL	mg/Kg	J	Z

Sample ID: SL-004-SA8N-SB-9.0-10.0 ***Collected:*** 4/21/2011 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	3.68	J	0.985	MDL	5.53	PQL	mg/Kg	J	Z
POTASSIUM	1630		19.9	MDL	55.3	PQL	mg/Kg	J	Q
SODIUM	106	J	41.3	MDL	111	PQL	mg/Kg	J	Z
TIN	2.42	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.87	J	0.929	MDL	5.53	PQL	mg/Kg	J	Z

Sample ID: SL-005-SA8N-SB-4.0-5.0 ***Collected:*** 4/21/2011 11:57:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2720		20.6	MDL	57.3	PQL	mg/Kg	J	Q
TIN	2.64	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	2.60	J	0.963	MDL	5.73	PQL	mg/Kg	J	Z

Sample ID: SL-005-SA8N-SB-8.0-9.0 ***Collected:*** 4/21/2011 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	2.35	J	0.976	MDL	5.48	PQL	mg/Kg	J	Z
POTASSIUM	1320		19.7	MDL	54.8	PQL	mg/Kg	J	Q
TIN	2.24	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.25	J	0.921	MDL	5.48	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA8N-SB-4.0-5.0 ***Collected:*** 4/21/2011 3:03:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.77	J	1.06	MDL	5.97	PQL	mg/Kg	J	Z
POTASSIUM	1920		21.5	MDL	59.7	PQL	mg/Kg	J	Q
TIN	2.20	J	1.19	MDL	11.9	PQL	mg/Kg	U	B
Zirconium	2.47	J	1.00	MDL	5.97	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: DE134 **Laboratory:** LL

EDD Filename: PrepDE134_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-006-SA8N-SB-8.0-9.0 ***Collected:*** 4/21/2011 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	4.57	J	1.05	MDL	5.89	PQL	mg/Kg	J	Z
POTASSIUM	2470		21.2	MDL	58.9	PQL	mg/Kg	J	Q
TIN	2.78	J	1.18	MDL	11.8	PQL	mg/Kg	U	B
Zirconium	1.88	J	0.989	MDL	5.89	PQL	mg/Kg	J	Z

Sample ID: SL-111-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 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
POTASSIUM	4990		19.9	MDL	55.3	PQL	mg/Kg	J	Q
SODIUM	80.4	J	41.2	MDL	111	PQL	mg/Kg	J	Z
TIN	3.00	J	1.11	MDL	11.1	PQL	mg/Kg	U	B

Sample ID: SL-112-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 1:15:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.43	J	0.985	MDL	5.54	PQL	mg/Kg	J	Z
POTASSIUM	4220		19.9	MDL	55.4	PQL	mg/Kg	J	Q
SODIUM	73.1	J	41.3	MDL	111	PQL	mg/Kg	J	Z
TIN	2.67	J	1.11	MDL	11.1	PQL	mg/Kg	U	B

Sample ID: SL-115-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 12:40:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.06	J	0.971	MDL	5.45	PQL	mg/Kg	J	Z
POTASSIUM	3710		19.6	MDL	54.5	PQL	mg/Kg	J	Q
SODIUM	80.0	J	40.7	MDL	109	PQL	mg/Kg	J	Z
TIN	2.68	J	1.09	MDL	10.9	PQL	mg/Kg	U	B

Sample ID: SL-116-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 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
BORON	5.32	J	1.07	MDL	6.02	PQL	mg/Kg	J	Z
POTASSIUM	2690		21.7	MDL	60.2	PQL	mg/Kg	J	Q
SODIUM	104	J	44.9	MDL	120	PQL	mg/Kg	J	Z
TIN	2.40	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: DE134 **Laboratory:** LL

EDD Filename: PrepDE134_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-117-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	4.32	J	0.937	MDL	5.26	PQL	mg/Kg	J	Z
POTASSIUM	4030		18.9	MDL	52.6	PQL	mg/Kg	J	Q
SODIUM	85.3	J	39.3	MDL	105	PQL	mg/Kg	J	Z
TIN	2.64	J	1.05	MDL	10.5	PQL	mg/Kg	U	B

Sample ID: SL-118-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 9:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3630		20.9	MDL	58.2	PQL	mg/Kg	J	Q
TIN	2.94	J	1.16	MDL	11.6	PQL	mg/Kg	U	B

Sample ID: SL-119-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
BORON	3.66	J	0.932	MDL	5.24	PQL	mg/Kg	J	Z
POTASSIUM	3760		18.9	MDL	52.4	PQL	mg/Kg	J	Q
SODIUM	89.8	J	39.1	MDL	105	PQL	mg/Kg	J	Z
TIN	2.63	J	1.05	MDL	10.5	PQL	mg/Kg	U	B

Sample ID: SL-125-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	5.34	J	1.06	MDL	5.95	PQL	mg/Kg	J	Z
POTASSIUM	3640		21.4	MDL	59.5	PQL	mg/Kg	J	Q
SODIUM	88.0	J	44.4	MDL	119	PQL	mg/Kg	J	Z
TIN	2.53	J	1.19	MDL	11.9	PQL	mg/Kg	U	B

Sample ID: SL-126-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
BORON	5.02	J	0.988	MDL	5.55	PQL	mg/Kg	J	Z
POTASSIUM	3850		20.0	MDL	55.5	PQL	mg/Kg	J	Q
SODIUM	74.1	J	41.4	MDL	111	PQL	mg/Kg	J	Z
TIN	2.32	J	1.11	MDL	11.1	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: DE134 **Laboratory: LL**

EDD Filename: PrepDE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: DUP06-SA8N-QC-042111 *Collected:* 4/21/2011 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	0.166	J	0.0421	MDL	0.421	PQL	mg/Kg	J	Z

Sample ID: DUP06-SA8N-QC-042111 *Collected:* 4/21/2011 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	0.110	J	0.0631	MDL	0.210	PQL	mg/Kg	UJ	Q, B
CHROMIUM	26.2		0.126	MDL	0.421	PQL	mg/Kg	J	Q, A
COPPER	11.9		0.0694	MDL	0.421	PQL	mg/Kg	J	A
LEAD	8.66		0.0109	MDL	0.210	PQL	mg/Kg	J	Q
SILVER	0.0469	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z
VANADIUM	43.7		0.0231	MDL	0.105	PQL	mg/Kg	J	A

Sample ID: SL-004-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 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	0.0723	J	0.0460	MDL	0.460	PQL	mg/Kg	J	Z

Sample ID: SL-004-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 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	0.107	J	0.0690	MDL	0.230	PQL	mg/Kg	UJ	Q, B
CHROMIUM	49.0		0.138	MDL	0.460	PQL	mg/Kg	J	Q, A
COPPER	18.9		0.0759	MDL	0.460	PQL	mg/Kg	J	A
LEAD	9.80		0.0120	MDL	0.230	PQL	mg/Kg	J	Q
SILVER	0.0295	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	69.5		0.0253	MDL	0.115	PQL	mg/Kg	J	A

Sample ID: SL-004-SA8N-SB-9.0-10.0 *Collected:* 4/21/2011 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	0.0645	U	0.0645	MDL	0.215	PQL	mg/Kg	UJ	Q
CHROMIUM	23.9		0.129	MDL	0.430	PQL	mg/Kg	J	Q, A
COPPER	7.95		0.0709	MDL	0.430	PQL	mg/Kg	J	A
LEAD	8.44		0.0112	MDL	0.215	PQL	mg/Kg	J	Q
SILVER	0.0221	J	0.0129	MDL	0.107	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: DE134 **Laboratory: LL**

EDD Filename: PrepDE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-004-SA8N-SB-9.0-10.0 *Collected:* 4/21/2011 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
VANADIUM	37.5		0.0236	MDL	0.107	PQL	mg/Kg	J	A

Sample ID: SL-005-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 11:57:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.582		0.0661	MDL	0.220	PQL	mg/Kg	J	Q

Sample ID: SL-005-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 11:57:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0886	J	0.0441	MDL	0.441	PQL	mg/Kg	J	Z

Sample ID: SL-005-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 11:57:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	36.4		0.132	MDL	0.441	PQL	mg/Kg	J	Q, A
COPPER	16.0		0.0728	MDL	0.441	PQL	mg/Kg	J	A
LEAD	54.0		0.0115	MDL	0.220	PQL	mg/Kg	J	Q
SILVER	0.0528	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z
VANADIUM	56.7		0.0243	MDL	0.110	PQL	mg/Kg	J	A

Sample ID: SL-005-SA8N-SB-8.0-9.0 *Collected:* 4/21/2011 12:30:00 *Analysis Type:* REA *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	115		0.0282	MDL	0.543	PQL	mg/Kg	J	Q

Sample ID: SL-005-SA8N-SB-8.0-9.0 *Collected:* 4/21/2011 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	0.0844	J	0.0434	MDL	0.434	PQL	mg/Kg	J	Z

Sample ID: SL-005-SA8N-SB-8.0-9.0 *Collected:* 4/21/2011 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	1.90		0.0652	MDL	0.217	PQL	mg/Kg	J	Q
CHROMIUM	19.2		0.130	MDL	0.434	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: DE134 Laboratory: LL

EDD Filename: PrepDE134_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-005-SA8N-SB-8.0-9.0 *Collected:* 4/21/2011 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
COPPER	7.79		0.0717	MDL	0.434	PQL	mg/Kg	J	A
SILVER	0.0420	J	0.0130	MDL	0.109	PQL	mg/Kg	J	Z
VANADIUM	36.9		0.0239	MDL	0.109	PQL	mg/Kg	J	A

Sample ID: SL-006-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 3:03:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0818	J	0.0473	MDL	0.473	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 3:03:00 *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	0.0710	MDL	0.237	PQL	mg/Kg	UJ	Q, B
CHROMIUM	30.8		0.142	MDL	0.473	PQL	mg/Kg	J	Q, A
COPPER	13.6		0.0781	MDL	0.473	PQL	mg/Kg	J	A
LEAD	9.99		0.0123	MDL	0.237	PQL	mg/Kg	J	Q
SILVER	0.0343	J	0.0142	MDL	0.118	PQL	mg/Kg	J	Z
VANADIUM	49.3		0.0260	MDL	0.118	PQL	mg/Kg	J	A

Sample ID: SL-006-SA8N-SB-8.0-9.0 *Collected:* 4/21/2011 3:10:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0801	J	0.0471	MDL	0.471	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA8N-SB-8.0-9.0 *Collected:* 4/21/2011 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	0.129	J	0.0707	MDL	0.236	PQL	mg/Kg	UJ	Q, B
CHROMIUM	36.3		0.141	MDL	0.471	PQL	mg/Kg	J	Q, A
COPPER	13.7		0.0777	MDL	0.471	PQL	mg/Kg	J	A
LEAD	7.12		0.0122	MDL	0.236	PQL	mg/Kg	J	Q
SILVER	0.0438	J	0.0141	MDL	0.118	PQL	mg/Kg	J	Z
VANADIUM	49.2		0.0259	MDL	0.118	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: DE134 **Laboratory: LL**

EDD Filename: PrepDE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-111-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	0.144	J	0.0451	MDL	0.451	PQL	mg/Kg	J	Z

Sample ID: SL-111-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	0.116	J	0.0676	MDL	0.225	PQL	mg/Kg	UJ	Q, B
CHROMIUM	21.0		0.135	MDL	0.451	PQL	mg/Kg	J	Q, A
COPPER	12.2		0.0744	MDL	0.451	PQL	mg/Kg	J	A
LEAD	17.8		0.0117	MDL	0.225	PQL	mg/Kg	J	Q
SILVER	0.0394	J	0.0135	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	33.8		0.0248	MDL	0.113	PQL	mg/Kg	J	A

Sample ID: SL-112-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 1:15:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.226	J	0.0443	MDL	0.443	PQL	mg/Kg	J	Z

Sample ID: SL-112-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 1:15:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.104	J	0.0664	MDL	0.221	PQL	mg/Kg	UJ	Q, B
CHROMIUM	23.9		0.133	MDL	0.443	PQL	mg/Kg	J	Q, A
COPPER	12.4		0.0731	MDL	0.443	PQL	mg/Kg	J	A
LEAD	8.26		0.0115	MDL	0.221	PQL	mg/Kg	J	Q
SILVER	0.0473	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z
VANADIUM	37.3		0.0244	MDL	0.111	PQL	mg/Kg	J	A

Sample ID: SL-115-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 12:40:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0910	J	0.0445	MDL	0.445	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: DE134 **Laboratory:** LL

EDD Filename: PrepDE134_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-115-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 12:40:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.129	J	0.0667	MDL	0.222	PQL	mg/Kg	UJ	Q, B
CHROMIUM	19.0		0.133	MDL	0.445	PQL	mg/Kg	J	Q, A
COPPER	10.1		0.0734	MDL	0.445	PQL	mg/Kg	J	A
LEAD	19.2		0.0116	MDL	0.222	PQL	mg/Kg	J	Q
VANADIUM	29.7		0.0245	MDL	0.111	PQL	mg/Kg	J	A

Sample ID: SL-116-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 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	0.150	J	0.0477	MDL	0.477	PQL	mg/Kg	J	Z

Sample ID: SL-116-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 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	0.165	J	0.0715	MDL	0.238	PQL	mg/Kg	UJ	Q, B
CHROMIUM	15.5		0.143	MDL	0.477	PQL	mg/Kg	J	Q, A
COPPER	10.6		0.0786	MDL	0.477	PQL	mg/Kg	J	A
LEAD	19.6		0.0124	MDL	0.238	PQL	mg/Kg	J	Q
SILVER	0.0525	J	0.0143	MDL	0.119	PQL	mg/Kg	J	Z
VANADIUM	29.5		0.0262	MDL	0.119	PQL	mg/Kg	J	A

Sample ID: SL-117-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 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	0.144	J	0.0401	MDL	0.401	PQL	mg/Kg	J	Z

Sample ID: SL-117-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 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	0.0883	J	0.0602	MDL	0.201	PQL	mg/Kg	UJ	Q, B
CHROMIUM	25.8		0.120	MDL	0.401	PQL	mg/Kg	J	Q, A
COPPER	12.9		0.0662	MDL	0.401	PQL	mg/Kg	J	A
LEAD	11.5		0.0104	MDL	0.201	PQL	mg/Kg	J	Q
SILVER	0.0795	J	0.0120	MDL	0.100	PQL	mg/Kg	J	Z
VANADIUM	41.6		0.0221	MDL	0.100	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: DE134 **Laboratory:** LL

EDD Filename: PrepDE134_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-118-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 9:55:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.176	J	0.0465	MDL	0.465	PQL	mg/Kg	J	Z

Sample ID: SL-118-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 9:55:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.113	J	0.0698	MDL	0.233	PQL	mg/Kg	UJ	Q, B
CHROMIUM	21.0		0.140	MDL	0.465	PQL	mg/Kg	J	Q, A
COPPER	12.0		0.0768	MDL	0.465	PQL	mg/Kg	J	A
LEAD	12.9		0.0121	MDL	0.233	PQL	mg/Kg	J	Q
SILVER	0.0411	J	0.0140	MDL	0.116	PQL	mg/Kg	J	Z
VANADIUM	40.6		0.0256	MDL	0.116	PQL	mg/Kg	J	A

Sample ID: SL-119-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 9:00:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.171	J	0.0419	MDL	0.419	PQL	mg/Kg	J	Z

Sample ID: SL-119-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	0.143	J	0.0628	MDL	0.209	PQL	mg/Kg	UJ	Q, B
CHROMIUM	23.5		0.126	MDL	0.419	PQL	mg/Kg	J	Q, A
COPPER	10.1		0.0691	MDL	0.419	PQL	mg/Kg	J	A
LEAD	7.08		0.0109	MDL	0.209	PQL	mg/Kg	J	Q
SILVER	0.0481	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z
VANADIUM	39.4		0.0230	MDL	0.105	PQL	mg/Kg	J	A

Sample ID: SL-125-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	0.226	J	0.0476	MDL	0.476	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: PrepDE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-125-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	0.152	J	0.0714	MDL	0.238	PQL	mg/Kg	UJ	Q, B
CHROMIUM	19.0		0.143	MDL	0.476	PQL	mg/Kg	J	Q, A
COPPER	11.5		0.0785	MDL	0.476	PQL	mg/Kg	J	A
LEAD	17.0		0.0124	MDL	0.238	PQL	mg/Kg	J	Q
SILVER	0.0510	J	0.0143	MDL	0.119	PQL	mg/Kg	J	Z
VANADIUM	32.1		0.0262	MDL	0.119	PQL	mg/Kg	J	A

Sample ID: SL-126-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
SELENIUM	0.244	J	0.0431	MDL	0.431	PQL	mg/Kg	J	Z

Sample ID: SL-126-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	0.138	J	0.0647	MDL	0.216	PQL	mg/Kg	UJ	Q, B
CHROMIUM	26.6		0.129	MDL	0.431	PQL	mg/Kg	J	Q, A
COPPER	13.8		0.0711	MDL	0.431	PQL	mg/Kg	J	A
LEAD	23.0		0.0112	MDL	0.216	PQL	mg/Kg	J	Q
SILVER	0.0760	J	0.0129	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	44.9		0.0237	MDL	0.108	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: DUP06-SA8N-QC-042111 *Collected:* 4/21/2011 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	0.21	U	0.21	MDL	1.1	PQL	mg/Kg	UJ	FD

Sample ID: SL-004-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 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	0.33	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z, 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: DE134 **Laboratory: LL**

EDD Filename: PrepDE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-005-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 11:57:00 *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	0.23	MDL	1.2	PQL	mg/Kg	J	Z, Q

Sample ID: SL-006-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 3:03:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.39	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z, Q

Sample ID: SL-115-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 12:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.37	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z, Q

Sample ID: SL-116-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	1.4		0.24	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-119-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
HEXAVALENT CHROMIUM	0.43	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z, Q, FD

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: DUP06-SA8N-QC-042111 *Collected:* 4/21/2011 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	0.0221	J	0.0029	MDL	0.0997	PQL	mg/Kg	J	Z

Sample ID: SL-004-SA8N-SB-9.0-10.0 *Collected:* 4/21/2011 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	0.0071	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: DE134 **Laboratory:** LL

EDD Filename: PrepDE134_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: SL-005-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 11:57:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0109	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-005-SA8N-SB-8.0-9.0 *Collected:* 4/21/2011 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	0.0112	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 3:03:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0087	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-111-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	0.0178	J	0.0031	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-112-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 1:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0066	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: SL-115-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 12:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0172	J	0.0031	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-116-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	0.0755	J	0.0032	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-117-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
MERCURY	0.0181	J	0.0029	MDL	0.103	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: DE134 **Laboratory: LL**

EDD Filename: PrepDE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-118-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 9:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0315	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: SL-119-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	0.0190	J	0.0029	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-125-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	0.0288	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-126-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
MERCURY	0.0347	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-112-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 1:15:00 *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	34.5	J	19.0	MDL	38.0	PQL	ng/Kg	J	Z

Sample ID: SL-116-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 10:20:00 *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	242	J	198	MDL	396	PQL	ng/Kg	J	Z

Sample ID: SL-119-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	101		17.7	MDL	35.4	PQL	ng/Kg	J	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: DE134 Laboratory: LL

EDD Filename: PrepDE134_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 1625C **Matrix:** SO

Sample ID: SL-125-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 2:00:00 *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	254	J	204	MDL	408	PQL	ng/Kg	J	Z

Method Category: SVOA **Method:** 8015M **Matrix:** SO

Sample ID: SL-116-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 10:20:00 *Analysis Type:* REA2 *Dilution:* 25

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	13	J	12	MDL	36	PQL	mg/Kg	J	Z

Sample ID: SL-119-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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 (C15-C20)	2.8		0.43	MDL	1.3	PQL	mg/Kg	J	Q, Q

Sample ID: SL-125-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 2:00:00 *Analysis Type:* REA2 *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	5.6	J	2.5	MDL	7.4	PQL	mg/Kg	J	Z

Method Category: SVOA **Method:** 8082 **Matrix:** SO

Sample ID: DUP06-SA8N-QC-042111 *Collected:* 4/21/2011 9:05:00 *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	1.3	J	0.71	MDL	3.6	PQL	ug/Kg	J	Z
AROCLOR 1260	1.6	J	0.83	MDL	3.6	PQL	ug/Kg	J	Z
Aroclor 5460	2.1	U	2.1	MDL	7.1	PQL	ug/Kg	UJ	FD

Sample ID: SL-111-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 1:40:00 *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	3.3	J	0.88	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: DE134 **Laboratory: LL**

EDD Filename: PrepDE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-117-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
Aroclor 5460	1.9	J	1.1	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-118-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 9:55:00 *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	5.7		0.39	MDL	2.0	PQL	ug/Kg	J	*#
AROCLOR 1260	2.8		0.46	MDL	2.0	PQL	ug/Kg	J	*#

Sample ID: SL-119-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
AROCLOR 1254	0.82	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
AROCLOR 1260	0.96	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	4.0		1.1	MDL	3.5	PQL	ug/Kg	J	FD

Sample ID: SL-125-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	2.0	J	0.47	MDL	2.1	PQL	ug/Kg	J	Z

Sample ID: SL-126-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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	3.8		0.43	MDL	1.9	PQL	ug/Kg	J	*#

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: DUP06-SA8N-QC-042111 *Collected:* 4/21/2011 9:05:00 *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-DINITROPHENOL	350	U	350	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	57	J	18	MDL	350	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: DE134 **Laboratory:** LL

EDD Filename: PrepDE134_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-004-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 10:25:00 *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-DINITROPHENOL	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	23	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-004-SA8N-SB-9.0-10.0 *Collected:* 4/21/2011 10:35:00 *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-DINITROPHENOL	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	24	J	19	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-005-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 11:57:00 *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-DINITROPHENOL	380	U	380	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	21	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-005-SA8N-SB-8.0-9.0 *Collected:* 4/21/2011 12:30:00 *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-DINITROPHENOL	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	26	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-006-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 3:03:00 *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-DINITROPHENOL	400	U	400	MDL	1200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	20	J	20	MDL	400	PQL	ug/Kg	J	Z

Sample ID: SL-006-SA8N-SB-8.0-9.0 *Collected:* 4/21/2011 3:10:00 *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-DINITROPHENOL	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	24	J	19	MDL	390	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: PrepDE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-111-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 1:40:00 *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-DINITROPHENOL	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L
4,6-DINITRO-2-METHYLPHENOL	190	U	190	MDL	560	PQL	ug/Kg	UJ	C
BIS(2-ETHYLHEXYL)PHTHALATE	36	J	19	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-112-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 1:15:00 *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-DINITROPHENOL	380	U	380	MDL	1100	PQL	ug/Kg	UJ	L
4,6-DINITRO-2-METHYLPHENOL	190	U	190	MDL	560	PQL	ug/Kg	UJ	C
BIS(2-ETHYLHEXYL)PHTHALATE	28	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-115-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 12:40:00 *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-DINITROPHENOL	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L
4,6-DINITRO-2-METHYLPHENOL	190	U	190	MDL	560	PQL	ug/Kg	UJ	C
BIS(2-ETHYLHEXYL)PHTHALATE	20	J	19	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-116-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 10:20:00 *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-DINITROPHENOL	400	U	400	MDL	1200	PQL	ug/Kg	UJ	L
4,6-DINITRO-2-METHYLPHENOL	200	U	200	MDL	590	PQL	ug/Kg	UJ	C
BIS(2-ETHYLHEXYL)PHTHALATE	33	J	20	MDL	400	PQL	ug/Kg	J	Z

Sample ID: SL-117-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 9:20:00 *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-DINITROPHENOL	350	U	350	MDL	1000	PQL	ug/Kg	UJ	L
BENZO(B)FLUORANTHENE	17	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	24	J	17	MDL	170	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	34	J	17	MDL	350	PQL	ug/Kg	J	Z
CHRYSENE	31	J	17	MDL	170	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: PrepDE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-118-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 9:55:00 *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-DINITROPHENOL	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L
BENZO(B)FLUORANTHENE	26	J	19	MDL	190	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	23	J	19	MDL	190	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	46	J	19	MDL	390	PQL	ug/Kg	J	Z
CHRYSENE	39	J	19	MDL	190	PQL	ug/Kg	J	Z
FLUORANTHENE	23	J	19	MDL	190	PQL	ug/Kg	J	Z
PYRENE	27	J	19	MDL	190	PQL	ug/Kg	J	Z, L

Sample ID: SL-119-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 9:00:00 *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-DINITROPHENOL	350	U	350	MDL	1100	PQL	ug/Kg	UJ	L
4,6-DINITRO-2-METHYLPHENOL	180	U	180	MDL	530	PQL	ug/Kg	UJ	C
BENZIDINE	1200	U	1200	MDL	3500	PQL	ug/Kg	R	Q

Sample ID: SL-125-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 2:00:00 *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-DINITROPHENOL	400	U	400	MDL	1200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	48	J	20	MDL	400	PQL	ug/Kg	J	Z

Sample ID: SL-126-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 9:40:00 *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-DINITROPHENOL	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	50	J	18	MDL	370	PQL	ug/Kg	J	Z
Butylbenzylphthalate	26	J	18	MDL	180	PQL	ug/Kg	J	Z, L

Method Category: SVOA

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

Sample ID: DUP06-SA8N-QC-042111 *Collected:* 4/21/2011 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
BENZO(A)ANTHRACENE	0.79	J	0.71	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: DE134 **Laboratory:** LL

EDD Filename: PrepDE134_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

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

Sample ID: DUP06-SA8N-QC-042111 ***Collected:*** 4/21/2011 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
BENZO(A)PYRENE	0.94	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z, FD
BENZO(B)FLUORANTHENE	2.0		0.71	MDL	1.8	PQL	ug/Kg	J	C
BENZO(G,H,I)PERYLENE	0.97	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z, FD
BENZO(K)FLUORANTHENE	0.75	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	13	J	6.4	MDL	19	PQL	ug/Kg	J	Z, FD
CHRYSENE	1.4	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
Diethylphthalate	6.4	U	6.4	MDL	19	PQL	ug/Kg	UJ	FD
Di-n-octylphthalate	6.4	U	6.4	MDL	19	PQL	ug/Kg	UJ	C
FLUORANTHENE	1.6	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.71	U	0.71	MDL	1.8	PQL	ug/Kg	UJ	FD
PHENANTHRENE	0.87	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	1.3	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-004-SA8N-SB-4.0-5.0 ***Collected:*** 4/21/2011 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
BENZO(B)FLUORANTHENE	0.78	U	0.78	MDL	2.0	PQL	ug/Kg	UJ	C
Di-n-octylphthalate	7.0	U	7.0	MDL	21	PQL	ug/Kg	UJ	C

Sample ID: SL-004-SA8N-SB-9.0-10.0 ***Collected:*** 4/21/2011 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
BENZO(B)FLUORANTHENE	0.74	U	0.74	MDL	1.9	PQL	ug/Kg	UJ	C
Di-n-octylphthalate	6.7	U	6.7	MDL	20	PQL	ug/Kg	UJ	C

Sample ID: SL-005-SA8N-SB-4.0-5.0 ***Collected:*** 4/21/2011 11:57:00 ***Analysis Type:*** RES-BASE/NEUTRAL ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.77	U	0.77	MDL	1.9	PQL	ug/Kg	UJ	C
Di-n-octylphthalate	6.9	U	6.9	MDL	21	PQL	ug/Kg	UJ	C

Sample ID: SL-005-SA8N-SB-8.0-9.0 ***Collected:*** 4/21/2011 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(B)FLUORANTHENE	0.75	U	0.75	MDL	1.9	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: DE134 **Laboratory: LL**

EDD Filename: PrepDE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-005-SA8N-SB-8.0-9.0 *Collected:* 4/21/2011 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	6.7	U	6.7	MDL	20	PQL	ug/Kg	UJ	C

Sample ID: SL-006-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 3:03:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.80	U	0.80	MDL	2.0	PQL	ug/Kg	UJ	C
Di-n-octylphthalate	7.2	U	7.2	MDL	22	PQL	ug/Kg	UJ	C

Sample ID: SL-006-SA8N-SB-8.0-9.0 *Collected:* 4/21/2011 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
BENZO(B)FLUORANTHENE	0.78	U	0.78	MDL	2.0	PQL	ug/Kg	UJ	C
Di-n-octylphthalate	7.0	U	7.0	MDL	21	PQL	ug/Kg	UJ	C

Sample ID: SL-111-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 1:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	5.1	J	3.7	MDL	9.3	PQL	ug/Kg	J	Z, C
BENZO(G,H,I)PERYLENE	4.0	J	3.7	MDL	9.3	PQL	ug/Kg	J	Z
CHRYSENE	4.3	J	1.9	MDL	9.3	PQL	ug/Kg	J	Z
FLUORANTHENE	5.1	J	3.7	MDL	9.3	PQL	ug/Kg	J	Z
PYRENE	3.8	J	3.7	MDL	9.3	PQL	ug/Kg	J	Z

Sample ID: SL-112-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 1:15:00 *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(B)FLUORANTHENE	1.0	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z, C
CHRYSENE	0.95	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	6.8	U	6.8	MDL	20	PQL	ug/Kg	UJ	C
FLUORANTHENE	0.93	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
FLUORENE	0.82	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.1	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	0.76	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: DE134 **Laboratory: LL**

EDD Filename: PrepDE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-115-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 12:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	2.1	J	1.9	MDL	9.3	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	220		3.7	MDL	9.3	PQL	ug/Kg	J	C

Sample ID: SL-116-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 10:20:00 *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	4.6	J	2.0	MDL	10	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	24		4.0	MDL	10	PQL	ug/Kg	J	C
BENZO(K)FLUORANTHENE	8.1	J	4.0	MDL	10	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	4.1	J	4.0	MDL	10	PQL	ug/Kg	J	Z
FLUORENE	5.1	J	4.0	MDL	10	PQL	ug/Kg	J	Z

Sample ID: SL-117-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 9:20:00 *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	5.4	J	3.5	MDL	8.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	7.8	J	3.5	MDL	8.7	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	3.6	J	3.5	MDL	8.7	PQL	ug/Kg	J	Z
FLUORANTHENE	6.1	J	3.5	MDL	8.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	4.0	J	3.5	MDL	8.7	PQL	ug/Kg	J	Z
PYRENE	6.1	J	3.5	MDL	8.7	PQL	ug/Kg	J	Z

Sample ID: SL-118-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 9:55:00 *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	6.0	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	9.0	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	3.9	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	5.2	J	3.9	MDL	9.7	PQL	ug/Kg	J	Z

Sample ID: SL-119-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
BENZO(A)ANTHRACENE	1.4	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	1.8	J	0.71	MDL	1.8	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: DE134 **Laboratory:** LL

EDD Filename: PrepDE134_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

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

Sample ID: SL-119-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 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
BENZO(B)FLUORANTHENE	2.6		0.71	MDL	1.8	PQL	ug/Kg	J	C
BENZO(G,H,I)PERYLENE	1.8		0.71	MDL	1.8	PQL	ug/Kg	J	FD
BENZO(K)FLUORANTHENE	0.75	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.4	U	6.4	MDL	19	PQL	ug/Kg	UJ	FD
Diethylphthalate	8.9	J	6.4	MDL	19	PQL	ug/Kg	J	Z, Q, FD
Di-n-octylphthalate	6.4	U	6.4	MDL	19	PQL	ug/Kg	UJ	C
INDENO(1,2,3-CD)PYRENE	1.0	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	1.4	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	1.7	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-125-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 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
BENZO(A)ANTHRACENE	1.4	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	4.2		0.81	MDL	2.0	PQL	ug/Kg	J	C
BENZO(G,H,I)PERYLENE	1.9	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.5	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-butylphthalate	7.5	J	7.3	MDL	22	PQL	ug/Kg	J	Z
Di-n-octylphthalate	7.3	U	7.3	MDL	22	PQL	ug/Kg	UJ	C
INDENO(1,2,3-CD)PYRENE	1.4	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
NAPHTHALENE	1.8	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-126-SA8N-SS-0.0-0.5 ***Collected:*** 4/21/2011 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
ANTHRACENE	0.40	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	5.0		0.73	MDL	1.8	PQL	ug/Kg	J	C
Di-n-octylphthalate	6.6	U	6.6	MDL	20	PQL	ug/Kg	UJ	C
NAPHTHALENE	1.2	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE134 **Laboratory:** LL

EDD Filename: PrepDE134_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8315A **Matrix:** SO

Sample ID: SL-111-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
FORMALDEHYDE	1500	J	670	MDL	1700	PQL	ug/Kg	J	Z

Sample ID: SL-112-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 1:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	780	J	680	MDL	1700	PQL	ug/Kg	J	Z

Sample ID: SL-116-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
FORMALDEHYDE	1600	J	710	MDL	1800	PQL	ug/Kg	J	Z

Sample ID: SL-117-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
FORMALDEHYDE	1300	J	630	MDL	1600	PQL	ug/Kg	J	Z

Sample ID: SL-118-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 9:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	1100	J	710	MDL	1800	PQL	ug/Kg	J	Z

Sample ID: SL-119-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
FORMALDEHYDE	1000	J	640	MDL	1600	PQL	ug/Kg	J	Z

Sample ID: SL-125-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
FORMALDEHYDE	1700	J	730	MDL	1800	PQL	ug/Kg	J	Z

Sample ID: SL-126-SA8N-SS-0.0-0.5 *Collected:* 4/21/2011 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
FORMALDEHYDE	870	J	660	MDL	1600	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: DE134 **Laboratory: LL**

EDD Filename: PrepDE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8315A **Matrix: SO**

Method Category: VOA

Method: 8260B **Matrix: AQ**

Sample ID: TB-042111 *Collected:* 4/21/2011 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
1,2-DICHLOROETHANE	1	U	1	MDL	5	PQL	ug/L	UJ	C
2,2-DICHLOROPROPANE	1	U	1	MDL	5	PQL	ug/L	UJ	C
BROMODICHLOROMETHANE	1	U	1	MDL	5	PQL	ug/L	UJ	C
CARBON TETRACHLORIDE	1	U	1	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-004-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 10:25:00 *Analysis Type:* RES *Dilution:* 0.84

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLOROETHYL VINYL ETHER	0.30	U	0.30	MDL	4.0	PQL	ug/Kg	UJ	C
BROMOCHLOROMETHANE	0.33	U	0.33	MDL	4.0	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	0.59	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: SL-005-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 11:57:00 *Analysis Type:* RES *Dilution:* 0.88

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLOROETHYL VINYL ETHER	0.31	U	0.31	MDL	4.1	PQL	ug/Kg	UJ	C
BROMOCHLOROMETHANE	0.34	U	0.34	MDL	4.1	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	0.44	J	0.25	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: SL-006-SA8N-SB-4.0-5.0 *Collected:* 4/21/2011 3:03:00 *Analysis Type:* RES *Dilution:* 0.93

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-CHLOROETHYL VINYL ETHER	0.34	U	0.34	MDL	4.5	PQL	ug/Kg	UJ	C
BROMOCHLOROMETHANE	0.37	U	0.37	MDL	4.5	PQL	ug/Kg	UJ	C
METHYLENE CHLORIDE	0.52	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: DE134 **Laboratory: LL**

EDD Filename: PrepDE134_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
*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
C	Initial Calibration Verification Percent Recovery Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: PrepDE134_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	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: PrepDE134_v1 **eQAPP Name: CDM_SSFL_110509**

Q	Matrix Spike Upper Rejection
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

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE134

Method Blank Outlier Report

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11708CB220407	5/4/2011 4:07:00 AM	CALCIUM PHOSPHORUS TIN	7.67 mg/Kg 1.17 mg/Kg 1.33 mg/Kg	DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0 SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-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
DUP06-SA8N-QC-042111(RES)	TIN	2.53 mg/Kg	2.53U mg/Kg
SL-004-SA8N-SB-4.0-5.0(RES)	TIN	2.88 mg/Kg	2.88U mg/Kg
SL-004-SA8N-SB-9.0-10.0(RES)	TIN	2.42 mg/Kg	2.42U mg/Kg
SL-005-SA8N-SB-4.0-5.0(RES)	TIN	2.64 mg/Kg	2.64U mg/Kg
SL-005-SA8N-SB-8.0-9.0(RES)	TIN	2.24 mg/Kg	2.24U mg/Kg
SL-006-SA8N-SB-4.0-5.0(RES)	TIN	2.20 mg/Kg	2.20U mg/Kg
SL-006-SA8N-SB-8.0-9.0(RES)	TIN	2.78 mg/Kg	2.78U mg/Kg
SL-111-SA8N-SS-0.0-0.5(RES)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-112-SA8N-SS-0.0-0.5(RES)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-115-SA8N-SS-0.0-0.5(RES)	TIN	2.68 mg/Kg	2.68U mg/Kg
SL-116-SA8N-SS-0.0-0.5(RES)	TIN	2.40 mg/Kg	2.40U mg/Kg
SL-117-SA8N-SS-0.0-0.5(RES)	TIN	2.64 mg/Kg	2.64U mg/Kg
SL-118-SA8N-SS-0.0-0.5(RES)	TIN	2.94 mg/Kg	2.94U mg/Kg
SL-119-SA8N-SS-0.0-0.5(RES)	TIN	2.63 mg/Kg	2.63U mg/Kg
SL-125-SA8N-SS-0.0-0.5(RES)	TIN	2.53 mg/Kg	2.53U mg/Kg
SL-126-SA8N-SS-0.0-0.5(RES)	TIN	2.32 mg/Kg	2.32U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11726CB221215A	5/2/2011 12:15:00 PM	ANTIMONY COPPER VANADIUM	0.0810 mg/Kg 0.394 mg/Kg 0.0871 mg/Kg	DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0 SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-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
DUP06-SA8N-QC-042111(RES)	ANTIMONY	0.110 mg/Kg	0.110U mg/Kg
SL-004-SA8N-SB-4.0-5.0(RES)	ANTIMONY	0.107 mg/Kg	0.107U mg/Kg
SL-006-SA8N-SB-4.0-5.0(RES)	ANTIMONY	0.118 mg/Kg	0.118U mg/Kg
SL-006-SA8N-SB-8.0-9.0(RES)	ANTIMONY	0.129 mg/Kg	0.129U mg/Kg
SL-111-SA8N-SS-0.0-0.5(RES)	ANTIMONY	0.116 mg/Kg	0.116U mg/Kg
SL-112-SA8N-SS-0.0-0.5(RES)	ANTIMONY	0.104 mg/Kg	0.104U mg/Kg
SL-115-SA8N-SS-0.0-0.5(RES)	ANTIMONY	0.129 mg/Kg	0.129U mg/Kg
SL-116-SA8N-SS-0.0-0.5(RES)	ANTIMONY	0.165 mg/Kg	0.165U mg/Kg
SL-117-SA8N-SS-0.0-0.5(RES)	ANTIMONY	0.0883 mg/Kg	0.0883U mg/Kg
SL-118-SA8N-SS-0.0-0.5(RES)	ANTIMONY	0.113 mg/Kg	0.113U mg/Kg
SL-119-SA8N-SS-0.0-0.5(RES)	ANTIMONY	0.143 mg/Kg	0.143U mg/Kg
SL-125-SA8N-SS-0.0-0.5(RES)	ANTIMONY	0.152 mg/Kg	0.152U mg/Kg
SL-126-SA8N-SS-0.0-0.5(RES)	ANTIMONY	0.138 mg/Kg	0.138U mg/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB38B210138A	4/27/2011 1:38:00 AM	METHYLENE CHLORIDE TOLUENE	0.46 ug/Kg 0.08 ug/Kg	SL-004-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-4.0-5.0 SL-006-SA8N-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-004-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.59 ug/Kg	4.0U ug/Kg
SL-005-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.44 ug/Kg	4.1U ug/Kg
SL-006-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.52 ug/Kg	4.5U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_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-119-SA8N-SS-0.0-0.5MSD (SL-119-SA8N-SS-0.0-0.5)	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	- - -	186 1098 1367	49.00-123.00 49.00-123.00 49.00-123.00	29 (20.00) 89 (20.00) 69 (20.00)	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	J (all detects) EFH (C21-C30) and (C30-C40), 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-119-SA8N-SS-0.0-0.5MS SL-119-SA8N-SS-0.0-0.5MSD (DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0 SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5)	CHROMIUM LEAD ZINC	133 - -	- 140 127	75.00-125.00 75.00-125.00 75.00-125.00	- - -	CHROMIUM LEAD ZINC	J(all detects) Zn, No Qual, >4x
SL-119-SA8N-SS-0.0-0.5MS SL-119-SA8N-SS-0.0-0.5MSD (DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0 SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5)	ANTIMONY	42	33	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_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-119-SA8N-SS-0.0-0.5MS SL-119-SA8N-SS-0.0-0.5MSD (DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0 SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5)	BARIUM	255	134	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-119-SA8N-SS-0.0-0.5MS	ALUMINUM	950	718	75.00-125.00	-	ALUMINUM	
SL-119-SA8N-SS-0.0-0.5MSD	POTASSIUM	126	-	75.00-125.00	-	POTASSIUM	
(DUP06-SA8N-QC-042111	TITANIUM	220	210	75.00-125.00	-	TITANIUM	
SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0 SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5)							J(all detects) Al, Ti, No Qual, >4x
SL-119-SA8N-SS-0.0-0.5MS	IRON	246	-498	75.00-125.00	-	IRON	
SL-119-SA8N-SS-0.0-0.5MSD	MAGNESIUM	135	-11	75.00-125.00	-	MAGNESIUM	
(DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0 SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5)							No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_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-119-SA8N-SS-0.0-0.5MS SL-119-SA8N-SS-0.0-0.5MSD (DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0 SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5)	MANGANESE	66	61	75.00-125.00	-	MANGANESE	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-119-SA8N-SS-0.0-0.5MS SL-119-SA8N-SS-0.0-0.5MSD (SL-119-SA8N-SS-0.0-0.5)	4-CHLOROANILINE	-	-	23.00-95.00	40 (30.00)	4-CHLOROANILINE	J(all detects)
	Di-n-butylphthalate	-	-	67.00-123.00	35 (30.00)	Di-n-butylphthalate	
	HEXACHLOROETHANE	-	-	57.00-109.00	31 (30.00)	HEXACHLOROETHANE	
	NITROBENZENE	118	123	72.00-106.00	-	NITROBENZENE	
	N-NITROSODIMETHYLAMINE	-	-	47.00-116.00	69 (30.00)	N-NITROSODIMETHYLAMINE	
SL-119-SA8N-SS-0.0-0.5MS SL-119-SA8N-SS-0.0-0.5MSD (SL-119-SA8N-SS-0.0-0.5)	BENZIDINE	0	0	35.00-141.00	-	BENZIDINE	J(all detects) R(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-119-SA8N-SS-0.0-0.5MSD (SL-119-SA8N-SS-0.0-0.5)	N-NITROSODIMETHYLAMINE	-	68	70.00-130.00	35 (30.00)	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-119-SA8N-SS-0.0-0.5MS SL-119-SA8N-SS-0.0-0.5MSD (SL-119-SA8N-SS-0.0-0.5)	Diethylphthalate	67	66	70.00-136.00	-	Diethylphthalate	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_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-119-SA8N-SS-0.0-0.5MS (DUP06-SA8N-QC-042111 SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5)	FLUORIDE	64	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-004-SA8N-SB-4.0-5.0MS (SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0)	FLUORIDE	48	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Method: 7199
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-119-SA8N-SS-0.0-0.5MS (DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0 SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5)	HEXAVALENT CHROMIUM	131	-	75.00-125.00	-	HEXAVALENT CHROMIUM	J(all detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-119-SA8N-SS-0.0-0.5DUP (DUP06-SA8N-QC-042111 SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5)	Nitrate-NO3	30	20.00	No Qual, OK by Difference

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-119-SA8N-SS-0.0-0.5DUP (DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0 SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5)	Zirconium	200	20.00	No Qual, OK by Difference

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-119-SA8N-SS-0.0-0.5DUP	ANTIMONY	75	20.00	
(DUP06-SA8N-QC-042111	MOLYBDENUM	25	20.00	
SL -004-SA8N-SB-4.0-5.0	SELENIUM	29	20.00	
SL -004-SA8N-SB-9.0-10.0	SILVER	55	20.00	
SL -005-SA8N-SB-4.0-5.0				
SL -005-SA8N-SB-8.0-9.0				
SL -006-SA8N-SB-4.0-5.0				
SL -006-SA8N-SB-8.0-9.0				
SL -111-SA8N-SS-0.0-0.5				No Qual, OK by Difference
SL -112-SA8N-SS-0.0-0.5				
SL -115-SA8N-SS-0.0-0.5				
SL -116-SA8N-SS-0.0-0.5				
SL -117-SA8N-SS-0.0-0.5				
SL -118-SA8N-SS-0.0-0.5				
SL -119-SA8N-SS-0.0-0.5				
SL -125-SA8N-SS-0.0-0.5				
SL -126-SA8N-SS-0.0-0.5)				

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-119-SA8N-SS-0.0-0.5DUP	HEXAVALENT CHROMIUM	200	20.00	
(DUP06-SA8N-QC-042111				
SL -004-SA8N-SB-4.0-5.0				
SL -004-SA8N-SB-9.0-10.0				
SL -005-SA8N-SB-4.0-5.0				
SL -005-SA8N-SB-8.0-9.0				
SL -006-SA8N-SB-4.0-5.0				
SL -006-SA8N-SB-8.0-9.0				
SL -111-SA8N-SS-0.0-0.5				No Qual, OK by Difference
SL -112-SA8N-SS-0.0-0.5				
SL -115-SA8N-SS-0.0-0.5				
SL -116-SA8N-SS-0.0-0.5				
SL -117-SA8N-SS-0.0-0.5				
SL -118-SA8N-SS-0.0-0.5				
SL -119-SA8N-SS-0.0-0.5				
SL -125-SA8N-SS-0.0-0.5				
SL -126-SA8N-SS-0.0-0.5)				

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_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
LCS1Y32Q211104A	1,2-DICHLOROETHANE	131	-	70.00-130.00	-	1,2-DICHLOROETHANE	J(all detects)
LCS1Y32Y211125A	2-Chloro-1,1,1-trifluoroethane	132	132	77.00-120.00	-	2-Chloro-1,1,1-trifluoroethane	
LCSY32Q211001A	BROMOMETHANE	121	125	44.00-120.00	-	BROMOMETHANE	
LCSY32Y211043A	CHLOROMETHANE	-	139	60.00-129.00	-	CHLOROMETHANE	
(TB-042111)	DICHLORODIFLUOROMETHAN	123	122	47.00-120.00	-	DICHLORODIFLUOROMETHA	
	VINYL CHLORIDE	-	127	65.00-125.00	-	VINYL CHLORIDE	

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11726CQ221219A	ANTIMONY	63	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC Limits
(DUP06-SA8N-QC-042111							
SL-004-SA8N-SB-4.0-5.0							
SL-004-SA8N-SB-9.0-10.0							
SL-005-SA8N-SB-4.0-5.0							
SL-005-SA8N-SB-8.0-9.0							
SL-006-SA8N-SB-4.0-5.0							
SL-006-SA8N-SB-8.0-9.0							
SL-111-SA8N-SS-0.0-0.5							
SL-112-SA8N-SS-0.0-0.5							
SL-115-SA8N-SS-0.0-0.5							
SL-116-SA8N-SS-0.0-0.5							
SL-117-SA8N-SS-0.0-0.5							
SL-118-SA8N-SS-0.0-0.5							
SL-119-SA8N-SS-0.0-0.5							
SL-125-SA8N-SS-0.0-0.5							
SL-126-SA8N-SS-0.0-0.5)							

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P9LALCSQ261028	1-METHYLNAPHTHALENE	131	-	74.00-105.00	-	1-METHYLNAPHTHALENE	J(all detects)
(DUP06-SA8N-QC-042111	2-METHYLNAPHTHALENE	116	-	76.00-105.00	-	2-METHYLNAPHTHALENE	
SL-004-SA8N-SB-4.0-5.0	Butylbenzylphthalate	136	-	75.00-115.00	-	Butylbenzylphthalate	
SL-004-SA8N-SB-9.0-10.0	PYRENE	154	-	75.00-115.00	-	PYRENE	
SL-005-SA8N-SB-4.0-5.0							
SL-005-SA8N-SB-8.0-9.0							
SL-006-SA8N-SB-4.0-5.0							
SL-006-SA8N-SB-8.0-9.0							
SL-111-SA8N-SS-0.0-0.5							
SL-112-SA8N-SS-0.0-0.5							
SL-115-SA8N-SS-0.0-0.5							
SL-116-SA8N-SS-0.0-0.5							
SL-117-SA8N-SS-0.0-0.5							
SL-118-SA8N-SS-0.0-0.5							
SL-119-SA8N-SS-0.0-0.5							
SL-125-SA8N-SS-0.0-0.5							
SL-126-SA8N-SS-0.0-0.5)							

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_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*
P9LALCSQ261028 (DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0 SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5)	2,4-DINITROPHENOL	35	-	37.00-120.00	-	2,4-DINITROPHENOL	J(all detects) UJ(all non-detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_v1 **eQAPP Name: CDM_SSFL_110509**

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

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-111-SA8N-SS-0.0-0.5	2-FLUOROBIPHENYL Nitrobenzene-d5 Terphenyl-d14	145 139 136	45.00-130.00 40.00-130.00 45.00-135.00	All Base/Neutral Target Analytes	No Qual, Diluted Out
SL-115-SA8N-SS-0.0-0.5	2-FLUOROBIPHENYL Nitrobenzene-d5 Terphenyl-d14	143 136 149	45.00-130.00 40.00-130.00 45.00-135.00	All Base/Neutral Target Analytes	No Qual, Diluted Out
SL-116-SA8N-SS-0.0-0.5	2-FLUOROBIPHENYL Nitrobenzene-d5 Terphenyl-d14	143 146 142	45.00-130.00 40.00-130.00 45.00-135.00	All Base/Neutral Target Analytes	No Qual, Diluted Out
SL-117-SA8N-SS-0.0-0.5	2-FLUOROBIPHENYL Nitrobenzene-d5 Terphenyl-d14	147 154 158	45.00-130.00 40.00-130.00 45.00-135.00	All Base/Neutral Target Analytes	No Qual, Diluted Out
SL-118-SA8N-SS-0.0-0.5	2-FLUOROBIPHENYL Nitrobenzene-d5 Terphenyl-d14	133 151 150	45.00-130.00 40.00-130.00 45.00-135.00	All Base/Neutral Target Analytes	No Qual, Diluted Out

Field Duplicate RPD Report

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
MOISTURE	6.4	6.8	6		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
FLUORIDE	1.4	1.9	30	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
ALUMINUM	15200	14600	4	50.00	No Qualifiers Applied
BORON	3.66	3.04	19	50.00	
CALCIUM	3370	3270	3	50.00	
IRON	22400	22000	2	50.00	
LITHIUM	27.5	26.2	5	50.00	
MAGNESIUM	6160	6220	1	50.00	
MANGANESE	311	301	3	50.00	
PHOSPHORUS	485	459	6	50.00	
POTASSIUM	3760	3680	2	50.00	
SODIUM	89.8	82.1	9	50.00	
STRONTIUM	16.8	15.7	7	50.00	
TIN	2.63	2.53	4	50.00	
TITANIUM	1220	1190	2	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
ANTIMONY	0.143	0.110	26	50.00	No Qualifiers Applied
ARSENIC	5.13	5.09	1	50.00	
BARIUM	95.2	110	14	50.00	
BERYLLIUM	0.519	0.547	5	50.00	
CADMIUM	0.128	0.178	33	50.00	
CHROMIUM	23.5	26.2	11	50.00	
COBALT	6.61	8.11	20	50.00	
COPPER	10.1	11.9	16	50.00	
LEAD	7.08	8.66	20	50.00	
MOLYBDENUM	0.452	0.449	1	50.00	
NICKEL	13.9	16.7	18	50.00	
SELENIUM	0.171	0.166	3	50.00	
SILVER	0.0481	0.0469	3	50.00	
THALLIUM	0.266	0.270	1	50.00	
VANADIUM	39.4	43.7	10	50.00	
ZINC	61.1	70.2	14	50.00	

Field Duplicate RPD Report

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
HEXAVALENT CHROMIUM	0.43	1.1 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
MERCURY	0.0190	0.0221	15	50.00	No Qualifiers Applied

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
AROCLOR 1254	0.82	1.3	45	50.00	No Qualifiers Applied
AROCLOR 1260	0.96	1.6	50	50.00	
Aroclor 5460	4.0	7.1 U	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-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
BENZO(B)FLUORANTHENE	2.6	2.0	26	50.00	No Qualifiers Applied
BENZO(K)FLUORANTHENE	0.75	0.75	0	50.00	
CHRYSENE	2.2	1.4	44	50.00	
FLUORANTHENE	2.3	1.6	36	50.00	
PHENANTHRENE	1.4	0.87	47	50.00	
PYRENE	1.7	1.3	27	50.00	
BENZO(A)ANTHRACENE	1.4	0.79	56	50.00	J(all detects) UJ(all non-detects)
BENZO(A)PYRENE	1.8	0.94	63	50.00	
BENZO(G,H,I)PERYLENE	1.8	0.97	60	50.00	
Butylbenzylphthalate	19 U	13	200	50.00	
Diethylphthalate	8.9	19 U	200	50.00	
INDENO(1,2,3-CD)PYRENE	1.0	1.8 U	200	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
PH	6.83	6.93	1	50.00	No Qualifiers Applied

Field Duplicate RPD Report

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method: ASTM D1498
Matrix: SO

Analyte	Concentration (mV)		Sample RPD	eQAPP RPD	Flag
	SL-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
Oxidation Reduction Potential	389	470	19		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-112-SA8N-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	34.5	38.0	PQL	ng/Kg	J (all detects)
SL-116-SA8N-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	242	396	PQL	ng/Kg	J (all detects)
SL-125-SA8N-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	254	408	PQL	ng/Kg	J (all detects)

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-119-SA8N-SS-0.0-0.5	Nitrate-NO3	J	1.5	1.6	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP06-SA8N-QC-042111	BORON	J	3.04	5.31	PQL	mg/Kg	J (all detects)
	SODIUM	J	82.1	106	PQL	mg/Kg	
	TIN	J	2.53	10.6	PQL	mg/Kg	
SL-004-SA8N-SB-4.0-5.0	TIN	J	2.88	11.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.97	5.87	PQL	mg/Kg	
SL-004-SA8N-SB-9.0-10.0	BORON	J	3.68	5.53	PQL	mg/Kg	J (all detects)
	SODIUM	J	106	111	PQL	mg/Kg	
	TIN	J	2.42	11.1	PQL	mg/Kg	
	Zirconium	J	1.87	5.53	PQL	mg/Kg	
SL-005-SA8N-SB-4.0-5.0	TIN	J	2.64	11.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.60	5.73	PQL	mg/Kg	
SL-005-SA8N-SB-8.0-9.0	BORON	J	2.35	5.48	PQL	mg/Kg	J (all detects)
	TIN	J	2.24	11.0	PQL	mg/Kg	
	Zirconium	J	1.25	5.48	PQL	mg/Kg	
SL-006-SA8N-SB-4.0-5.0	BORON	J	5.77	5.97	PQL	mg/Kg	J (all detects)
	TIN	J	2.20	11.9	PQL	mg/Kg	
	Zirconium	J	2.47	5.97	PQL	mg/Kg	
SL-006-SA8N-SB-8.0-9.0	BORON	J	4.57	5.89	PQL	mg/Kg	J (all detects)
	TIN	J	2.78	11.8	PQL	mg/Kg	
	Zirconium	J	1.88	5.89	PQL	mg/Kg	
SL-111-SA8N-SS-0.0-0.5	SODIUM	J	80.4	111	PQL	mg/Kg	J (all detects)
	TIN	J	3.00	11.1	PQL	mg/Kg	
SL-112-SA8N-SS-0.0-0.5	BORON	J	5.43	5.54	PQL	mg/Kg	J (all detects)
	SODIUM	J	73.1	111	PQL	mg/Kg	
	TIN	J	2.67	11.1	PQL	mg/Kg	
SL-115-SA8N-SS-0.0-0.5	BORON	J	5.06	5.45	PQL	mg/Kg	J (all detects)
	SODIUM	J	80.0	109	PQL	mg/Kg	
	TIN	J	2.68	10.9	PQL	mg/Kg	
SL-116-SA8N-SS-0.0-0.5	BORON	J	5.32	6.02	PQL	mg/Kg	J (all detects)
	SODIUM	J	104	120	PQL	mg/Kg	
	TIN	J	2.40	12.0	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-117-SA8N-SS-0.0-0.5	BORON	J	4.32	5.26	PQL	mg/Kg	
	SODIUM	J	85.3	105	PQL	mg/Kg	J (all detects)
	TIN	J	2.64	10.5	PQL	mg/Kg	
SL-118-SA8N-SS-0.0-0.5	TIN	J	2.94	11.6	PQL	mg/Kg	J (all detects)
SL-119-SA8N-SS-0.0-0.5	BORON	J	3.66	5.24	PQL	mg/Kg	
	SODIUM	J	89.8	105	PQL	mg/Kg	J (all detects)
	TIN	J	2.63	10.5	PQL	mg/Kg	
SL-125-SA8N-SS-0.0-0.5	BORON	J	5.34	5.95	PQL	mg/Kg	
	SODIUM	J	88.0	119	PQL	mg/Kg	J (all detects)
	TIN	J	2.53	11.9	PQL	mg/Kg	
SL-126-SA8N-SS-0.0-0.5	BORON	J	5.02	5.55	PQL	mg/Kg	
	SODIUM	J	74.1	111	PQL	mg/Kg	J (all detects)
	TIN	J	2.32	11.1	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP06-SA8N-QC-042111	ANTIMONY	J	0.110	0.210	PQL	mg/Kg	
	SELENIUM	J	0.166	0.421	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0469	0.105	PQL	mg/Kg	
SL-004-SA8N-SB-4.0-5.0	ANTIMONY	J	0.107	0.230	PQL	mg/Kg	
	SELENIUM	J	0.0723	0.460	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0295	0.115	PQL	mg/Kg	
SL-004-SA8N-SB-9.0-10.0	SILVER	J	0.0221	0.107	PQL	mg/Kg	J (all detects)
SL-005-SA8N-SB-4.0-5.0	SELENIUM	J	0.0886	0.441	PQL	mg/Kg	
	SILVER	J	0.0528	0.110	PQL	mg/Kg	J (all detects)
SL-005-SA8N-SB-8.0-9.0	SELENIUM	J	0.0844	0.434	PQL	mg/Kg	
	SILVER	J	0.0420	0.109	PQL	mg/Kg	J (all detects)
SL-006-SA8N-SB-4.0-5.0	ANTIMONY	J	0.118	0.237	PQL	mg/Kg	
	SELENIUM	J	0.0818	0.473	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0343	0.118	PQL	mg/Kg	
SL-006-SA8N-SB-8.0-9.0	ANTIMONY	J	0.129	0.236	PQL	mg/Kg	
	SELENIUM	J	0.0801	0.471	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0438	0.118	PQL	mg/Kg	
SL-111-SA8N-SS-0.0-0.5	ANTIMONY	J	0.116	0.225	PQL	mg/Kg	
	SELENIUM	J	0.144	0.451	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0394	0.113	PQL	mg/Kg	
SL-112-SA8N-SS-0.0-0.5	ANTIMONY	J	0.104	0.221	PQL	mg/Kg	
	SELENIUM	J	0.226	0.443	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0473	0.111	PQL	mg/Kg	
SL-115-SA8N-SS-0.0-0.5	ANTIMONY	J	0.129	0.222	PQL	mg/Kg	
	SELENIUM	J	0.0910	0.445	PQL	mg/Kg	J (all detects)
SL-116-SA8N-SS-0.0-0.5	ANTIMONY	J	0.165	0.238	PQL	mg/Kg	
	SELENIUM	J	0.150	0.477	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0525	0.119	PQL	mg/Kg	
SL-117-SA8N-SS-0.0-0.5	ANTIMONY	J	0.0883	0.201	PQL	mg/Kg	
	SELENIUM	J	0.144	0.401	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0795	0.100	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-118-SA8N-SS-0.0-0.5	ANTIMONY	J	0.113	0.233	PQL	mg/Kg	
	SELENIUM	J	0.176	0.465	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0411	0.116	PQL	mg/Kg	
SL-119-SA8N-SS-0.0-0.5	ANTIMONY	J	0.143	0.209	PQL	mg/Kg	
	SELENIUM	J	0.171	0.419	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0481	0.105	PQL	mg/Kg	
SL-125-SA8N-SS-0.0-0.5	ANTIMONY	J	0.152	0.238	PQL	mg/Kg	
	SELENIUM	J	0.226	0.476	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0510	0.119	PQL	mg/Kg	
SL-126-SA8N-SS-0.0-0.5	ANTIMONY	J	0.138	0.216	PQL	mg/Kg	
	SELENIUM	J	0.244	0.431	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0760	0.108	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-004-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.33	1.2	PQL	mg/Kg	J (all detects)
SL-005-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.32	1.2	PQL	mg/Kg	J (all detects)
SL-006-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.39	1.2	PQL	mg/Kg	J (all detects)
SL-115-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.37	1.1	PQL	mg/Kg	J (all detects)
SL-119-SA8N-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.43	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP06-SA8N-QC-042111	MERCURY	J	0.0221	0.0997	PQL	mg/Kg	J (all detects)
SL-004-SA8N-SB-9.0-10.0	MERCURY	J	0.0071	0.105	PQL	mg/Kg	J (all detects)
SL-005-SA8N-SB-4.0-5.0	MERCURY	J	0.0109	0.114	PQL	mg/Kg	J (all detects)
SL-005-SA8N-SB-8.0-9.0	MERCURY	J	0.0112	0.108	PQL	mg/Kg	J (all detects)
SL-006-SA8N-SB-4.0-5.0	MERCURY	J	0.0087	0.114	PQL	mg/Kg	J (all detects)
SL-111-SA8N-SS-0.0-0.5	MERCURY	J	0.0178	0.110	PQL	mg/Kg	J (all detects)
SL-112-SA8N-SS-0.0-0.5	MERCURY	J	0.0066	0.109	PQL	mg/Kg	J (all detects)
SL-115-SA8N-SS-0.0-0.5	MERCURY	J	0.0172	0.110	PQL	mg/Kg	J (all detects)
SL-116-SA8N-SS-0.0-0.5	MERCURY	J	0.0755	0.112	PQL	mg/Kg	J (all detects)
SL-117-SA8N-SS-0.0-0.5	MERCURY	J	0.0181	0.103	PQL	mg/Kg	J (all detects)
SL-118-SA8N-SS-0.0-0.5	MERCURY	J	0.0315	0.109	PQL	mg/Kg	J (all detects)
SL-119-SA8N-SS-0.0-0.5	MERCURY	J	0.0190	0.101	PQL	mg/Kg	J (all detects)
SL-125-SA8N-SS-0.0-0.5	MERCURY	J	0.0288	0.114	PQL	mg/Kg	J (all detects)
SL-126-SA8N-SS-0.0-0.5	MERCURY	J	0.0347	0.106	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-116-SA8N-SS-0.0-0.5	EFH (C15-C20)	J	13	36	PQL	mg/Kg	J (all detects)
SL-125-SA8N-SS-0.0-0.5	EFH (C15-C20)	J	5.6	7.4	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP06-SA8N-QC-042111	AROCLOR 1254 AROCLOR 1260	J J	1.3 1.6	3.6 3.6	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-111-SA8N-SS-0.0-0.5	AROCLOR 1260	J	3.3	3.8	PQL	ug/Kg	J (all detects)
SL-117-SA8N-SS-0.0-0.5	Aroclor 5460	J	1.9	3.5	PQL	ug/Kg	J (all detects)
SL-119-SA8N-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260	J J	0.82 0.96	1.8 1.8	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-125-SA8N-SS-0.0-0.5	AROCLOR 1260	J	2.0	2.1	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-004-SA8N-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.59	4.0	PQL	ug/Kg	J (all detects)
SL-005-SA8N-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.44	4.1	PQL	ug/Kg	J (all detects)
SL-006-SA8N-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.52	4.5	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP06-SA8N-QC-042111	BIS(2-ETHYLHEXYL)PHTHALATE	J	57	350	PQL	ug/Kg	J (all detects)
SL-004-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	23	390	PQL	ug/Kg	J (all detects)
SL-004-SA8N-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	370	PQL	ug/Kg	J (all detects)
SL-005-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	21	380	PQL	ug/Kg	J (all detects)
SL-005-SA8N-SB-8.0-9.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	26	370	PQL	ug/Kg	J (all detects)
SL-006-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	400	PQL	ug/Kg	J (all detects)
SL-006-SA8N-SB-8.0-9.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	390	PQL	ug/Kg	J (all detects)
SL-111-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	36	370	PQL	ug/Kg	J (all detects)
SL-112-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	28	380	PQL	ug/Kg	J (all detects)
SL-115-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	370	PQL	ug/Kg	J (all detects)
SL-116-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	33	400	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-117-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	17	170	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	24	170	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	34	350	PQL	ug/Kg	
	CHRYSENE	J	31	170	PQL	ug/Kg	
SL-118-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	26	190	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	23	190	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	46	390	PQL	ug/Kg	
	CHRYSENE	J	39	190	PQL	ug/Kg	
	FLUORANTHENE	J	23	190	PQL	ug/Kg	
	PYRENE	J	27	190	PQL	ug/Kg	
SL-125-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	48	400	PQL	ug/Kg	J (all detects)
SL-126-SA8N-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	50	370	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	26	180	PQL	ug/Kg	

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP06-SA8N-QC-042111	BENZO(A)ANTHRACENE	J	0.79	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.94	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.97	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.75	1.8	PQL	ug/Kg	
	Butylbenzylphthalate	J	13	19	PQL	ug/Kg	
	CHRYSENE	J	1.4	1.8	PQL	ug/Kg	
	FLUORANTHENE	J	1.6	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	0.87	1.8	PQL	ug/Kg	
	PYRENE	J	1.3	1.8	PQL	ug/Kg	
SL-111-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	5.1	9.3	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	4.0	9.3	PQL	ug/Kg	
	CHRYSENE	J	4.3	9.3	PQL	ug/Kg	
	FLUORANTHENE	J	5.1	9.3	PQL	ug/Kg	
	PYRENE	J	3.8	9.3	PQL	ug/Kg	
SL-112-SA8N-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.0	1.9	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.95	1.9	PQL	ug/Kg	
	FLUORANTHENE	J	0.93	1.9	PQL	ug/Kg	
	FLUORENE	J	0.82	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	0.76	1.9	PQL	ug/Kg	
SL-115-SA8N-SS-0.0-0.5	ANTHRACENE	J	2.1	9.3	PQL	ug/Kg	J (all detects)
SL-116-SA8N-SS-0.0-0.5	ANTHRACENE	J	4.6	10	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	8.1	10	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	4.1	10	PQL	ug/Kg	
	FLUORENE	J	5.1	10	PQL	ug/Kg	
SL-117-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	5.4	8.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	7.8	8.7	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	3.6	8.7	PQL	ug/Kg	
	FLUORANTHENE	J	6.1	8.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	4.0	8.7	PQL	ug/Kg	
	PYRENE	J	6.1	8.7	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE134 **Laboratory: LL**

EDD Filename: DE134_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-118-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	6.0	9.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	9.0	9.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	3.9	9.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	5.2	9.7	PQL	ug/Kg	
SL-119-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.4	1.8	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	0.75	1.8	PQL	ug/Kg	
	Diethylphthalate	J	8.9	19	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.0	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	1.8	PQL	ug/Kg	
	PYRENE	J	1.7	1.8	PQL	ug/Kg	
SL-125-SA8N-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.4	2.0	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.9	2.0	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.5	2.0	PQL	ug/Kg	
	Di-n-butylphthalate	J	7.5	22	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.4	2.0	PQL	ug/Kg	
	NAPHTHALENE	J	1.8	2.0	PQL	ug/Kg	
SL-126-SA8N-SS-0.0-0.5	ANTHRACENE	J	0.40	1.8	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	1.2	1.8	PQL	ug/Kg	

Method: 8315A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-111-SA8N-SS-0.0-0.5	FORMALDEHYDE	J	1500	1700	PQL	ug/Kg	J (all detects)
SL-112-SA8N-SS-0.0-0.5	FORMALDEHYDE	J	780	1700	PQL	ug/Kg	J (all detects)
SL-116-SA8N-SS-0.0-0.5	FORMALDEHYDE	J	1600	1800	PQL	ug/Kg	J (all detects)
SL-117-SA8N-SS-0.0-0.5	FORMALDEHYDE	J	1300	1600	PQL	ug/Kg	J (all detects)
SL-118-SA8N-SS-0.0-0.5	FORMALDEHYDE	J	1100	1800	PQL	ug/Kg	J (all detects)
SL-119-SA8N-SS-0.0-0.5	FORMALDEHYDE	J	1000	1600	PQL	ug/Kg	J (all detects)
SL-125-SA8N-SS-0.0-0.5	FORMALDEHYDE	J	1700	1800	PQL	ug/Kg	J (all detects)
SL-126-SA8N-SS-0.0-0.5	FORMALDEHYDE	J	870	1600	PQL	ug/Kg	J (all detects)

Method: 9012B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-115-SA8N-SS-0.0-0.5	CYANIDE	J	0.21	0.55	PQL	mg/Kg	J (all detects)
SL-116-SA8N-SS-0.0-0.5	CYANIDE	J	0.40	0.60	PQL	mg/Kg	J (all detects)
SL-125-SA8N-SS-0.0-0.5	CYANIDE	J	0.24	0.60	PQL	mg/Kg	J (all detects)
SL-126-SA8N-SS-0.0-0.5	CYANIDE	J	0.21	0.55	PQL	mg/Kg	J (all detects)

Enclosure II

Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: April 21, 2011

LDC Report Date: October 12, 2011

Matrix: Soil/Water

Parameters: Volatiles

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE134

Sample Identification

SL-004-SA8N-SB-4.0-5.0
SL-005-SA8N-SB-4.0-5.0
SL-006-SA8N-SB-4.0-5.0
TB-042111

Introduction

This data review covers 3 soil samples and one water samples 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
4/27/11 (00:45)	2-Chloroethylvinyl ether	30	All soil samples in SDG DE134	J (all detects) UJ (all non-detects)	A
4/27/11 (08:38)	Dichlorodifluoromethane 2,2-Dichloropropane Carbon tetrachloride 1,2-Dichloroethane Bromodichloromethane	30 26 33 35 26	All water samples in SDG DE134	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 DE134	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
VBLKB38	4/27/11	Methylene chloride Toluene	0.46 ug/Kg 0.08 ug/Kg	All soil samples in SDG DE134

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-004-SA8N-SB-4.0-5.0	Methylene chloride	0.59 ug/Kg	4.0U ug/Kg
SL-005-SA8N-SB-4.0-5.0	Methylene chloride	0.44 ug/Kg	4.1U ug/Kg
SL-006-SA8N-SB-4.0-5.0	Methylene chloride	0.52 ug/Kg	4.5U ug/Kg

Sample TB-042111 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 with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
LCS/D 1Y32 (All water samples in SDG DE134)	Freon-133a	132 (77-120)	132 (77-120)	-	J (all detects)	P
	Dichlorodifluoromethane	123 (47-120)	122 (47-120)	-	J (all detects)	
	Chloromethane	-	139 (60-129)	-	J (all detects)	
	Vinyl chloride	-	127 (65-125)	-	J (all detects)	
	Bromomethane	121 (44-120)	125 (44-120)	-	J (all detects)	
	1,2-Dichloroethane	131 (70-130)	-	-	J (all 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 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 DE134	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 DE134

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE134	SL-004-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-4.0-5.0	2-Chloroethylvinyl ether	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE134	TB-042111	Dichlorodifluoromethane 2,2-Dichloropropane Carbon tetrachloride 1,2-Dichloroethane Bromodichloromethane	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE134	SL-004-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-4.0-5.0	Bromochloromethane	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE134	TB-042111	Freon-133a Dichlorodifluoromethane Chloromethane Vinyl chloride Bromomethane 1,2-Dichloroethane	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	P	Laboratory control samples (%R) (L)
DE134	SL-004-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-4.0-5.0 TB-042111	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Volatiles - Laboratory Blank Data Qualification Summary - SDG DE134

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE134	SL-004-SA8N-SB-4.0-5.0	Methylene chloride	4.0U ug/Kg	A	B
DE134	SL-005-SA8N-SB-4.0-5.0	Methylene chloride	4.1U ug/Kg	A	B
DE134	SL-006-SA8N-SB-4.0-5.0	Methylene chloride	4.5U ug/Kg	A	B

Santa Susana Field Laboratory
Volatiles - Field Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

LDC #: 26275B1a **VALIDATION COMPLETENESS WORKSHEET** Date: 10/12/11
SDG #: DE134 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: FP
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: 4/21/11
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	SW	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	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 = 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: soil + water

1	SL-004-SA8N-SB-4.0-5.0	11	VBLKB38	21		31	
2	SL-005-SA8N-SB-4.0-5.0	12	VBLKY32	22		32	
3	SL-006-SA8N-SB-4.0-5.0	13		23		33	
4	TB-042111	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 #: 26275B/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 ≥ 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 chloride**	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 #: 26275B/2

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

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 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)
	4/27/11 00:45	CCV	II	30		↓	↓ (C)
	4/27/11 08:38	CCV	JJ	30		All water	(C)
			OO	26			
			O	33			
			L	35			
			P	26			

LDC #: 26275B/2a

VALIDATION FINDINGS WORKSHEET
Blanks

Page: 1 of 1
Reviewer: FT
2nd Reviewer: C

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: 4/27/11
Conc. units: ug/kg
Associated Samples: All SOILS

Compound	Blank ID	Sample Identification								
[redacted]	VBLKB38		1	2	3					
E	0.46		0.59/4.04	0.44/4.11	0.52/4.54					
CC	0.08		-		-					
CRQL										

Blank analysis date:
Conc. units:
Associated Samples:

Compound	Blank ID	Sample Identification								
[redacted]										
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 #: 26275 B1a

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
		LCS/D 1Y32	Freon 133a	132 (77-120)	132 (77-120)	( )	All water	J/Pdet (L)
			JJ	123 (47-120)	122 (47-120)	( )		
			A	( )	139 (60-129)	( )		
			C	( )	127 (65-125)	( )		
			B	121 (44-129)	125 (44-120)	( )		
			L	131 (70-130)	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		

LDC #: 36275B1a

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	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	4/25/11	C (1st internal standard)	0.3025	0.3025	0.3153	0.3153	12	12
			EE (2nd internal standard)	2.0871	2.0871	2.0680	2.0680	6	6
			JJJ (3rd internal standard)	1.8352	1.8352	1.8409	1.8409	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 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 #: 26275 B/a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
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	4/27/11	C (1st internal standard)	0.4296	0.3832	0.3832	11	11
	0045		EE (2nd internal standard)	1.5916	1.5709	1.5709	1	1
			JJJ (3rd internal standard)	1.3506	1.3339	1.3339	1	1
			(4th internal standard)					
2	CCV	4/27/11	C (1st internal standard)	0.3153	0.3720	0.3720	18	18
	08:38		EE (2nd internal standard)	2.0680	2.1605	2.1605	4	4
			JJJ (3rd internal standard)	1.8409	1.8088	1.8088	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 #: 26275B/9

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	50.0	48.479	97	97	0
1,2-Dichloroethane-d4	↓	48.963	98	98	
Toluene-d8		50.265	101	101	
Bromofluorobenzene		44.551	89	89	↓

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: LCS/B38

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
[illegible]	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene	20	NA	21.79	NA	109	109				
Trichloroethene			19.84		99	99				
Benzene			21.51		108	108				
Toluene			20.6		103	103				
Chlorobenzene			20.01		100	100	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 #: 26275B1a

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. = $\frac{(3750)(50)(5)}{(1068407)(0.3108)(5.96)(0.84)}$

=

0.6 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: April 21, 2011

LDC Report Date: October 11, 2011

Matrix: Soil/Water

Parameters: 1,4-Dioxane

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE134

Sample Identification

SL-004-SA8N-SB-4.0-5.0
SL-005-SA8N-SB-4.0-5.0
SL-006-SA8N-SB-4.0-5.0
TB-042111

Introduction

This data review covers 3 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-042111 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 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 DE134	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 DE134

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE134	SL-004-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-4.0-5.0 TB-042111	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
1,4-Dioxane - Laboratory Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
1,4-Dioxane - Field Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

LDC #: 26275B1b **VALIDATION COMPLETENESS WORKSHEET** Date: 10/11/11
SDG #: DE134 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: FT
2nd Reviewer: A

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: 4/21/11
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/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation (RL/LOQ/LODs)	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 = 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: soil + water

1	SL-004-SA8N-SB-4.0-5.0	11	1 VBLKE01	21		31	
2	SL-005-SA8N-SB-4.0-5.0	12	2 VBLKE99	22		32	
3	SL-006-SA8N-SB-4.0-5.0	13		23		33	
4	2 TB-042111 W	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 #: 26275B1b

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
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?	✓			

SDC #: 26275B1b

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

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-Propylbenzena	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 #: 26275B16

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

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	11/7/10	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	11/01/10	1,4-Dioxane (1st internal standard)	1.3359	1.3359	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 #: 26275B1b

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
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	4/25/11	1,4-Dioxane (1st internal standard)	1.3396	1.4257	1.4257	6	6
	14:23		(2nd internal standard)					
			(3rd internal standard)					
			(4th internal standard)					
2	CCV	4/22/11	√ (1st internal standard)	1.3219	1.4247	1.4247	8	8
	15:39		(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 #: 26275B16

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~~					
~~1,2-Dichloroethane-d4~~					
Toluene-d8	10	9.646	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 #: 28913D

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: LCSD E01

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	131.32	148.6	105	105	119	119	12	12
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 #: 26275B1b

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
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. = $\frac{(\quad)(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)}$

= 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: April 21, 2011

LDC Report Date: October 12, 2011

Matrix: Soil

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE134

Sample Identification

SL-111-SA8N-SS-0.0-0.5
SL-112-SA8N-SS-0.0-0.5
SL-115-SA8N-SS-0.0-0.5
SL-116-SA8N-SS-0.0-0.5
SL-117-SA8N-SS-0.0-0.5
SL-118-SA8N-SS-0.0-0.5
SL-119-SA8N-SS-0.0-0.5
SL-125-SA8N-SS-0.0-0.5
SL-126-SA8N-SS-0.0-0.5
DUP06-SA8N-QC-042111
SL-004-SA8N-SB-4.0-5.0
SL-004-SA8N-SB-9.0-10.0
SL-005-SA8N-SB-4.0-5.0
SL-005-SA8N-SB-8.0-9.0
SL-006-SA8N-SB-4.0-5.0
SL-006-SA8N-SB-8.0-9.0
SL-119-SA8N-SS-0.0-0.5MS
SL-119-SA8N-SS-0.0-0.5MSD

Introduction

This data review covers 18 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.

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
5/3/11	4,6-Dinitro-2-methylphenol	36	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5MS SL-119-SA8N-SS-0.0-0.5MSD SBLKA119	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-119-SA8N-SS-0.0-0.5MS/MSD (SL-119-SA8N-SS-0.0-0.5)	N-Nitrosodimethylamine Hexachloroethane Nitrobenzene 4-Chloroaniline	- - 118 (72-106) -	- - 123 (72-106) -	69 (≤30) 31 (≤30) - 40 (≤30)	J (all detects) J (all detects) J (all detects) J (all detects)	A
SL-119-SA8N-SS-0.0-0.5MS/MSD (SL-119-SA8N-SS-0.0-0.5)	Benzidine	0 (35-141)	0 (35-141)	-	J (all detects) R (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 with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
119LALCS	2,4-Dinitrophenol	35 (37-120)	All samples in SDG DE134	J (all detects) UJ (all non-detects)	P
119LALCS	Pyrene	154 (75-115)	All samples in SDG DE134	J (all detects)	P
119LALCS	Butylbenzylphthalate	136 (75-115)	SL-111-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 SBLKA119	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 DE134	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-119-SA8N-SS-0.0-0.5 and DUP06-SA8N-QC-042111 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-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
Bis(2-ethylhexyl)phthalate	Not reported	57	-	-	-

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG DE134

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5	4,6-Dinitro-2-methylphenol	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE134	SL-119-SA8N-SS-0.0-0.5	N-Nitrosodimethylamine Hexachloroethane 4-Chloroaniline	J (all detects) J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (RPD) (Q)
DE134	SL-119-SA8N-SS-0.0-0.5	Nitrobenzene	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE134	SL-119-SA8N-SS-0.0-0.5	Benzidine	J (all detects) R (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0	2,4-Dinitrophenol	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0	Pyrene	J (all detects)	P	Laboratory control samples (%R) (L)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5	Butylbenzylphthalate	J (all detects)	P	Laboratory control samples (%R) (L)

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0	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 DE134

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

LDC #: 26275B2a **VALIDATION COMPLETENESS WORKSHEET** Date: 10/12/11
SDG #: DE134 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: EJ
2nd Reviewer: E

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: 4/21/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤ 30, r^2
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/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 7, 10
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-111-SA8N-SS-0.0-0.5	11	SL-004-SA8N-SB-4.0-5.0	21	SBLKLA119	31	
2	SL-112-SA8N-SS-0.0-0.5	12	SL-004-SA8N-SB-9.0-10.0	22		32	
3	SL-115-SA8N-SS-0.0-0.5	13	SL-005-SA8N-SB-4.0-5.0	23		33	
4	SL-116-SA8N-SS-0.0-0.5	14	SL-005-SA8N-SB-8.0-9.0	24		34	
5	SL-117-SA8N-SS-0.0-0.5	15	SL-006-SA8N-SB-4.0-5.0	25		35	
6	SL-118-SA8N-SS-0.0-0.5	16	SL-006-SA8N-SB-8.0-9.0	26		36	
7	SL-119-SA8N-SS-0.0-0.5	17	SL-119-SA8N-SS-0.0-0.5MS	27		37	
8	SL-125-SA8N-SS-0.0-0.5	18	SL-119-SA8N-SS-0.0-0.5MSD	28		38	
9	SL-126-SA8N-SS-0.0-0.5	19		29		39	
10	DUP06-SA8N-QC-042111	20		30		40	

LDC #: 26275132a

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. 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 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. LCS/LCSD				
Was an LCS analyzed for this SDG?				

LDC #: 26275B29

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				
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 #: 26275B2a

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
	5/3/11	CCV	PP	36		SBLKLA119,	J/UJ/A (C)
	05:42					1-P4, 7, 17, 18	

LDC #: 26275B2q

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
		17+18	~~OOO~~	( )	( )	69 (30)	7	J/A det (Q
			K	( )	( )	31 (30)		
			L	118 (72-106)	123 (72-106)	( )		
			T	( )	( )	40 (30)		
			~~XX~~	( )	( )	~~35~~ ( )		
			SSS	0 (35-141)	0 (35-141)	( )		J/R/A
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )	

LDC #: 26275B2a

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
		119LALCS	HH	35 (37-120)	( )	( )	All	J/UJ/P (2)
			ZZ	154 (75-115)	( )	( )	↓	J/Pdet (2)
				( )	( )	( )		
				( )	( )	( )		
		↓	AAA	136 (75-115)	( )	( )	SBLKLA119,	J/Pdet (2)
				( )	( )	( )	1, 3-6, 9	↓ ↓
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )	

LDC #: 26275B2Q

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT
2nd reviewer:

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?

Compound	Concentration (ug/kg)		RPD
	7	10	
EEE	Not reported	57	—

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

LDC #: 26275B29

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 (SD std)	Recalculated RRF (SD std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	4/28/11	Phenol (1st internal standard)	2.807	2.807	2.817	2.817	4	4
			Nitrobenzene Naphthalene (2nd internal standard)	0.436	0.436	0.428	0.428	4	4
			~~Acenaphthene~~ Diphenylether ~~Fluorene~~ (3rd internal standard)	~~0.725~~	~~0.725~~	~~0.723~~	~~0.723~~	~~2~~	~~2~~
			Pentachlorophenol (4th internal standard)	0.135	0.135	0.134	0.134	5	5
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.808	0.808	0.797	0.797	2	2
			Di-n-octylphthalate Benzo(a)pyrene (6th internal standard)	1.561	1.561	1.509	1.509	6	6
2			2-Nitroaniline ~~Phenol~~ (1st internal standard)	0.413	0.413	0.402	0.402	4	4
			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 #: 26275B09

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

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 0542	5/3/11	Phenol (1st internal standard)	2.817	2.804	2.804	0	0
			~~Naphthalene~~ Nitrobenzene (2nd internal standard)	0.478	0.430	0.430	1	1
			~~Fluorene~~ 2-Nitroaniline (3rd internal standard)	~~0.723~~ 0.402	0.415	0.415	3	3
			Pentachlorophenol (4th internal standard)	0.134	0.150	0.150	11	11
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.797	0.828	0.828	4	4
			~~Benzo(a)pyrene~~ Di-n-octylphthalate (6th internal standard)	1.509	1.514	1.514	0	0
2	CCV 0802	5/4/11	Phenol (1st internal standard)	2.817	2.852	2.852	1	1
			~~Naphthalene~~ Nitrobenzene (2nd internal standard)	0.478	0.453	0.453	6	6
			~~Fluorene~~ 2-Nitroaniline (3rd internal standard)	0.723 0.402	~~0.402~~ 0.398	0.398	1	1
			Pentachlorophenol (4th internal standard)	0.134	0.137	0.137	2	2
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.797	0.845	0.845	6	6
			~~Benzo(a)pyrene~~ Di-n-octylphthalate (6th internal standard)	1.509	1.597	1.597	6	6
3	CCV 0325	5/5/11	Phenol (1st internal standard)	2.817	2.817	2.817	0	0
			~~Naphthalene~~ Nitrobenzene (2nd internal standard)	0.478	0.453	0.453	6	6
			~~Fluorene~~ 2-Nitroaniline (3rd internal standard)	0.402	0.408	0.408	1	1
			Pentachlorophenol (4th internal standard)	0.134	0.124	0.124	8	8
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.797	0.870	0.870	9	9
			~~Benzo(a)pyrene~~ Di-n-octylphthalate (6th internal standard)	1.509	1.613	1.613	7	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 #: 26275329

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

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	75.838	76	76	0
2-Fluorobiphenyl	↓	95.475	95	95	
Terphenyl-d14		72.447	72	72	
Phenol-d5	200	150.558	75	75	
2-Fluorophenol	↓	154.331	77	77	
2,4,6-Tribromophenol		140.827	70	70	↓
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 #: 26275B29

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: 17 + 18

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	1644.74	1644.74	ND	1371.54	1364.24	83	83	83	83	1	1
N-Nitroso-di-n-propylamine				1274.8	1342.14	78	78	82	82	5	5
4-Chloro-3-methylphenol				1295.73	1427.09	79	79	87	87	10	10
Acenaphthene				1368.71	1471.12	83	83	89	89	7	7
Pentachlorophenol				1140.01	903.22	69	69	55	55	23	23
Pyrene				1474.32	1557.15	90	90	95	95	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 #: 26275B29

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: 119LALCS

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	1508.57	NA	91	91				
N-Nitroso-di-n-propylamine			1459.78		88	88				
4-Chloro-3-methylphenol			1629.39		98	98				
Acenaphthene			1613.65		97	97				
Pentachlorophenol			1388.32		83	83				
Pyrene			2573.8		154	154	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 #: 26275829

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. #1, ~~Isophorone~~ EEE

Conc. = (8597)(40)(1000)( )( )( )
( )(0.865)( )( )( )( )
443302 0.797 (30) (0.89)
=

36 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: April 21, 2011

LDC Report Date: October 12, 2011

Matrix: Soil

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: Lancaster laboratories

Sample Delivery Group (SDG): DE134

Sample Identification

SL-111-SA8N-SS-0.0-0.5
SL-112-SA8N-SS-0.0-0.5
SL-115-SA8N-SS-0.0-0.5
SL-116-SA8N-SS-0.0-0.5
SL-117-SA8N-SS-0.0-0.5
SL-118-SA8N-SS-0.0-0.5
SL-119-SA8N-SS-0.0-0.5
SL-125-SA8N-SS-0.0-0.5
SL-126-SA8N-SS-0.0-0.5
DUP06-SA8N-QC-042111
SL-004-SA8N-SB-4.0-5.0
SL-004-SA8N-SB-9.0-10.0
SL-005-SA8N-SB-4.0-5.0
SL-005-SA8N-SB-8.0-9.0
SL-006-SA8N-SB-4.0-5.0
SL-006-SA8N-SB-8.0-9.0
SL-119-SA8N-SS-0.0-0.5MS
SL-119-SA8N-SS-0.0-0.5MSD

Introduction

This data review covers 18 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 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.

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 with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
4/15/11	Benzo(b)fluoranthene	30	All samples in SDG DE134	J (all detects) UJ (all non-detects)	A
4/15/11	Di-n-octylphthalate	26	SL-112-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0 SBLKLC120	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 semivolatiles 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 several samples. 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 with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-119-SA8N-SS-0.0-0.5MS/MSD (SL-119-SA8N-SS-0.0-0.5)	Diethylphthalate	67 (70-136)	66 (70-136)	-	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. 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 DE134	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

Samples SL-119-SA8N-SS-0.0-0.5 and DUP06-SA8N-QC-042111 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-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
Butylbenzylphthalate	19U	13	200 (≤50)	J (all detects) UJ (all non-detects)	A
Bis(2-ethylhexyl)phthalate	56	Not Reported	-	-	-
Diethylphthalate	8.9	19U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Phenanthrene	1.4	0.87	47 (≤50)	-	-
Fluoranthene	2.3	1.6	36 (≤50)	-	-
Pyrene	1.7	1.3	27 (≤50)	-	-
Benzo(a)anthracene	1.4	0.79	56 (≤50)	J (all detects)	A
Chrysene	2.2	1.4	44 (≤50)	-	-
Benzo(b)fluoranthene	2.6	2.0	26 (≤50)	-	-

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG DE134

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0	Benzo(b)fluoranthene	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE134	SL-112-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0	Di-n-octylphthalate	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE134	SL-119-SA8N-SS-0.0-0.5	Diethylphthalate	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0	All TCL compounds	J (all detects)	A	Compound quantitation and RLs (Z)
DE134	SL-119-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111	Butylbenzylphthalate Diethylphthalate Indeno(1,2,3-cd)pyrene	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)
DE134	SL-119-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111	Benzo(a)anthracene Benzo(a)pyrene Benzo(g,h,i)perylene	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 DE134

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

LDC #: 26275B2b **VALIDATION COMPLETENESS WORKSHEET** Date: 10/12/11

SDG #: DE134 Level IV Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: FD

2nd Reviewer: A

METHOD: GC/MS ~~Polynuclear Aromatic Hydrocarbons~~ SW846 (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: 4/21/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%D RSD ≤ 30, r^2
IV.	Continuing calibration/ICV	SW	ICV/CCV ≤ 20
V.	Blanks	~~SW~~ A	
VI.	Surrogate spikes	SW	
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 (RL)/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D - 7, 10
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-111-SA8N-SS-0.0-0.5	11	SL-004-SA8N-SB-4.0-5.0	21	SBLKLC120	31	
2	SL-112-SA8N-SS-0.0-0.5	12	SL-004-SA8N-SB-9.0-10.0	22		32	
3	SL-115-SA8N-SS-0.0-0.5	13	SL-005-SA8N-SB-4.0-5.0	23		33	
4	SL-116-SA8N-SS-0.0-0.5	14	SL-005-SA8N-SB-8.0-9.0	24		34	
5	SL-117-SA8N-SS-0.0-0.5	15	SL-006-SA8N-SB-4.0-5.0	25		35	
6	SL-118-SA8N-SS-0.0-0.5	16	SL-006-SA8N-SB-8.0-9.0	26		36	
7	SL-119-SA8N-SS-0.0-0.5	17	SL-119-SA8N-SS-0.0-0.5MS	27		37	
8	SL-125-SA8N-SS-0.0-0.5	18	SL-119-SA8N-SS-0.0-0.5MSD	28		38	
9	SL-126-SA8N-SS-0.0-0.5	19		29		39	
10	DUP06-SA8N-QC-042111	20		30		40	

LDC #: 26275B26

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. 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 #: 26275 B2b

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				
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 #: 26275B2b

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
	4/15/11	ICV	GGG	30		All	J/UJ/A (c)
	↓	↓	FFF	26		SBLKLC120, 2, 7→16	J/UJ/A (c)

CONCAL.2S

LDC #: 26275B2b

VALIDATION FINDINGS WORKSHEET
Surrogate Recovery

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualification below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were percent recoveries (%R) for surrogates within QC limits?
Y N N/A If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?
Y N N/A If any %R was less than 10 percent, was a reanalysis performed to confirm %R?

#	Date	Sample ID	Surrogate	%R (Limits)	Qualifications
		1, 3→6	several surrogates were outside limit	( )	no qual 5x DL
				( )	1
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

* QC limits are advisory	QC Limits (Soil)	QC Limits (Water)		QC Limits (Soil)	QC Limits (Water)
S1 (NBZ) = Nitrobenzene-d5	23-120	35-114	S5 (2FP)= 2-Fluorophenol	25-121	21-100
S2 (FBP) = 2-Fluorobiphenyl	30-115	43-116	S6 (TBP) = 2,4,6-Tribromophenol	19-122	10-123
S3 (TPH) = Terphenyl-d14	18-137	33-141	S7 (2CP) = 2-Chlorophenol-d4	20-130*	33-110*
S4 (PHL) = Phenol-d5	24-113	10-94	S8 (DCB) = 1,2-Dichlorobenzene-d4	20-130*	16-110*

LDC #: 26275B26

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
		17W18	LL	67 (70-136	66 (70-136	( )	7	J/UJ/A (Q)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

26275B2b

LDC#: 11825C2

SDG#: ~~170532~~ See comments

VALIDATION FINDINGS WORKSHEET

Field Duplicates

Page: 1 of 1

Reviewer: MT

2nd Reviewer: C

METHOD: GC/MS BNA (EPA SW 846 Method 8270-SIM)

(Y) N NA Were field duplicate pairs identified in this SDG?

Y/N NA Were target analytes detected in the field duplicate pairs?

(Fd)

Compound	Concentration (ug/Kg) 7	Concentration (ug/Kg) 10	≤50 RPD	
Butylbenzylphthalate	19U	13	200	J/UJ/A
Bis-(2-Ethylhexyl)phthalate	56	Not Reported	-	
Diethylphthalate	8.9	19U	200	J/UJ/A
Phenanthrene	1.4	0.87	47	
Fluoranthene	2.3	1.6	36	
Pyrene	1.7	1.3	27	
Benzo(a)anthracene	1.4	0.79	56	J/Adet
Chrysene	2.2	1.4	44	
Benzo(b)fluoranthene	2.6	2.0	26	
Benzo(k)fluoranthene	0.75	0.75	0	
Benzo(a)pyrene	1.8	0.94	63	J/Adet
Indeno(1,2,3-cd)pyrene	1.0	1.8U	200	J/UJ/A
Benzo(g,h,i)perylene	1.8	0.97	60	J/Adet

LDC #: 26275B2D

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,
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	4/15/11	~~Phenol (1st internal standard)~~						
			Naphthalene (2nd internal standard)	1.061	1.061	1.029	1.029	4	4
			Fluorene (3rd internal standard)	1.310	1.310	1.260	1.260	7	7
			~~Pentachlorophenol~~ Anthracene (4th internal standard)	1.119	1.119	1.080	1.080	9	9
			~~Bis(2-ethylhexyl)phthalate~~ chrysene (5th internal standard)	1.188	1.188	1.146	1.146	4	4
			Benzo(a)pyrene (6th internal standard)	1.092	1.092	1.034	1.034	12	12
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 #: 26275B06

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

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 6:58	5/3/11	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)	1.029	1.041	1.041	1.0	1.0
			Fluorene (3rd internal standard)	1.260	1.256	1.256	0	0
			~~Pentachlorophenol~~ Anthracene (4th internal standard)	1.080	1.095	1.095	1	1
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)	1.146	1.205	1.205	5	5
			Benzo(a)pyrene (6th internal standard)	1.034	1.092	1.092	6	6
2	ccv 18:05	5/3/11	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)	1.029	1.002	1.002	3	3
			Fluorene (3rd internal standard)	1.260	1.260	1.260	0	0
			~~Pentachlorophenol~~ Anthracene (4th internal standard)	1.080	1.107	1.107	3	3
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)	1.146	1.161	1.161	1	1
			Benzo(a)pyrene (6th internal standard)	1.034	1.098	1.098	6	6
3	ccv 6:08	5/4/11	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)		1.037	1.037	1.0	1
			Fluorene (3rd internal standard)		1.299	1.299	3	3
			~~Pentachlorophenol~~ Anthracene (4th internal standard)		1.105	1.105	2	2
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)		1.171	1.171	2	2
			Benzo(a)pyrene (6th internal standard)		1.094	1.094	6	6

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 #: 26275 B2 b

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	0.200	0.278	139	139	0
2-Fluorobiphenyl	↓	0.291	145	145	↓
Terphenyl-d14		0.273	136	136	
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 #: 26275 B0 b

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT
2nd Reviewer: C

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: 17 + 18

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	33.11	33.11	ND	28.11	28.53	85	85	86	86	1	1
Pentachlorophenol											
Pyrene	33.11	33.11	1.59	26.46	26.4	75	75	75	75	0	0

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 #: 26275B2D

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
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	33.33	NA	30.95	NA	93	93				
Pentachlorophenol										
Pyrene	↓	↓	30.16	↓	90	90	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 #: 26275B26

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
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_t = Volume of extract injected in microliters (ul)

V_i = 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, chrysene

Conc. = $\frac{(13878)(1.0)(1000)(5)(\quad)}{(525023)(1.146)(30)(0.89)(\quad)}$

=

4.32 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:	April 21, 2011
LDC Report Date:	October 11, 2011
Matrix:	Soil
Parameters:	N-Nitrosodimethylamine
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE134

Sample Identification

SL-111-SA8N-SS-0.0-0.5
SL-112-SA8N-SS-0.0-0.5
SL-115-SA8N-SS-0.0-0.5
SL-116-SA8N-SS-0.0-0.5
SL-117-SA8N-SS-0.0-0.5
SL-118-SA8N-SS-0.0-0.5
SL-119-SA8N-SS-0.0-0.5
SL-125-SA8N-SS-0.0-0.5
SL-126-SA8N-SS-0.0-0.5
SL-119-SA8N-SS-0.0-0.5MS
SL-119-SA8N-SS-0.0-0.5MSD

Introduction

This data review covers 11 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 differences (%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

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-119-SA8N-SS-0.0-0.5MS/MSD (SL-119-SA8N-SS-0.0-0.5)	N-Nitrosodimethylamine	-	68 (70-130)	35 (≤30)	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. 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 DE134	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 DE134

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE134	SL-119-SA8N-SS-0.0-0.5	N-Nitrosodimethylamine	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Laboratory Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Field Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

LDC #: 26275B2c **VALIDATION COMPLETENESS WORKSHEET** Date: 10/11/11
SDG #: DE134 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
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: 4/21/11
II.	GC/MS Instrument performance check	N	not Required
III.	Initial calibration	A	%D ≤ 30
IV.	Continuing calibration/ICV	A	ICV ≤ 30 CCV ≤ 20
V.	Blanks	A	
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 (RL/LOQ/LODs	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-111-SA8N-SS-0.0-0.5	11	SBLKLB120	21		31	
2	SL-112-SA8N-SS-0.0-0.5	12	#7MS	22		32	
3	SL-115-SA8N-SS-0.0-0.5	13	#7MSD	23		33	
4	SL-116-SA8N-SS-0.0-0.5	14		24		34	
5	SL-117-SA8N-SS-0.0-0.5	15		25		35	
6	SL-118-SA8N-SS-0.0-0.5	16		26		36	
7	SL-119-SA8N-SS-0.0-0.5	17		27		37	
8	SL-125-SA8N-SS-0.0-0.5	18		28		38	
9	SL-126-SA8N-SS-0.0-0.5	19		29		39	
10		20		30		40	

LDC #: 26275B2C

VALIDATION FINDINGS CHECKLIST

Page: 1 of 1
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%~~ 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. 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 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 sample				
Was an LCS analyzed for this SDG?	✓			

LDC #: 26275 B2C

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: C

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.			✓	

VALIDATION FINDINGS WORKSHEET

NDMA 1625C

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 #: 26275B2C

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: FT
2nd Reviewer: C

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 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
		12 + 13	~~000~~	( )	68 < (70-130)	35 (30)	7	J/UJ/A (a)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		

LDC #: 26275B2c

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 (25 std)	Recalculated RRF (25 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	5/11/11	~~Phenol~~ (1st internal standard) NDMA	1.280	1.280	1.395	1.395	18	18
			~~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	5/16/11	~~Phenol~~ (1st internal standard) NDMA	1.120	1.120	1.240	1.240	18	18
			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 #: 26275B2C

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	5/11/11	~~Phenol~~ (1st internal standard) NDMA	1.39537	1.23804	1.23804	11.274999	11.27
	22:37		~~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	5/16/11	~~Phenol (1st internal standard)~~ NDMA	1.24046	1.12392	1.12392	9.39575	9.39
	10:52		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	5/16/11	~~Phenol (1st internal standard)~~ NDMA	1.24046	1.08012	1.08012	12.926	12.93
	13:48		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 #: 26275B2C

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer:

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
N-Nitrosodimethylamine-d5	25	31.503	126	126	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 #: 26275B2C

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT
2nd Reviewer: [illegible]

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: 12 & 13

Compound	Spike Added (ng/kg)		Sample Concentration (ng/kg)	Spiked Sample Concentration (ng/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
~~Phenol~~ NDMA	825.08	825.08	94.32	929.03	634.5	101	101	68	68	35	35
~~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 #: 26275B2C

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)~~ 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 = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 1201LBLC

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	833.33	NA	740.97	NA	89	89	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 #: 26275B2C

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer: A

METHOD: ~~GC/MS BNA (EPA SW-846 Method 8270)~~ 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 = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

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, NDMA

Conc. = $\frac{(56734)(25)(1000)(\quad)(\quad)}{(605959)(1.240)(30)(0.89)(\quad)}$

=

70 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: April 21, 2011

LDC Report Date: October 12, 2011

Matrix: Soil

Parameters: Polychlorinated Biphenyls

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE134

Sample Identification

SL-111-SA8N-SS-0.0-0.5
SL-112-SA8N-SS-0.0-0.5
SL-115-SA8N-SS-0.0-0.5
SL-116-SA8N-SS-0.0-0.5
SL-117-SA8N-SS-0.0-0.5
SL-118-SA8N-SS-0.0-0.5
SL-119-SA8N-SS-0.0-0.5
SL-125-SA8N-SS-0.0-0.5
SL-126-SA8N-SS-0.0-0.5
DUP06-SA8N-QC-042111
SL-004-SA8N-SB-4.0-5.0
SL-004-SA8N-SB-9.0-10.0
SL-005-SA8N-SB-4.0-5.0
SL-005-SA8N-SB-8.0-9.0
SL-006-SA8N-SB-4.0-5.0
SL-006-SA8N-SB-8.0-9.0
SL-119-SA8N-SS-0.0-0.5MS
SL-119-SA8N-SS-0.0-0.5MSD

Introduction

This data review covers 18 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 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.

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 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-118-SA8N-SS-0.0-0.5	Aroclor-1260 Aroclor-1254	45.46 41.44	J (all detects) J (all detects)	A
SL-126-SA8N-SS-0.0-0.5	Aroclor-1260	51.62	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE134	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-119-SA8N-SS-0.0-0.5 and DUP06-SA8N-QC-042111 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-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
Aroclor-5460	4.0	2.1U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Aroclor-1254	0.82	1.3	45 (≤50)	-	-
Aroclor-1260	0.96	1.6	50 (≤50)	-	-

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Data Qualification Summary - SDG DE134

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE134	SL-118-SA8N-SS-0.0-0.5	Aroclor-1260 Aroclor-1254	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE134	SL-126-SA8N-SS-0.0-0.5	Aroclor-1260	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
DE134	SL-119-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111	Aroclor-5460	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

LDC #: 26275B3b **VALIDATION COMPLETENESS WORKSHEET** Date: 10/12/11
SDG #: DE134 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

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: 4/21/11
II.	GC/ECD Instrument Performance Check	NA	
III.	Initial calibration	A	% 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/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 RL/LOQ/LODs	SW	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	SW	D = 7, 10
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-111-SA8N-SS-0.0-0.5	11	SL-004-SA8N-SB-4.0-5.0	21	PBLK03118	31	
2	SL-112-SA8N-SS-0.0-0.5	12	SL-004-SA8N-SB-9.0-10.0	22		32	
3	SL-115-SA8N-SS-0.0-0.5	13	SL-005-SA8N-SB-4.0-5.0	23		33	
4	SL-116-SA8N-SS-0.0-0.5	14	SL-005-SA8N-SB-8.0-9.0	24		34	
5	SL-117-SA8N-SS-0.0-0.5	15	SL-006-SA8N-SB-4.0-5.0	25		35	
6	SL-118-SA8N-SS-0.0-0.5	16	SL-006-SA8N-SB-8.0-9.0	26		36	
7	SL-119-SA8N-SS-0.0-0.5 ✓	17	SL-119-SA8N-SS-0.0-0.5MS	27		37	
8	SL-125-SA8N-SS-0.0-0.5	18	SL-119-SA8N-SS-0.0-0.5MSD	28		38	
9	SL-126-SA8N-SS-0.0-0.5	19		29		39	
10	DUP06-SA8N-QC-042111 ✓	20		30		40	

Notes: _____

DC #: 260275B3b
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

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?			✓	

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 #: 26275B3b
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Reviewer: EJ
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 But 2 ws/ Finding ≤ 40	Associated Samples	Qualifications
	BB	45.46	6	J/A det * X111
	AA	41.44		↓
	BB	51.62	9	↓ * X111

Comments: See sample calculation verification worksheet for recalculations

LDC#: 26275B3b **VALIDATION FINDINGS WORKSHEET**
Field Duplicates

Page: 1 of 1
Reviewer: EJ
2nd Reviewer: A

METHOD: PCB Method 8082

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

FD

Compound	Concentration (ug/kg)		≤50 RPD	
	7	10		
Aroclor -5460	4.0	2.1U	200	J/UJ/A
PCB-1254	0.82	1.3	45	
PCB-1260	0.96	1.6	50	

V:\FIELD DUPLICATES\templates\BTEXalkydup.wpd

LDC #: 26275B3b
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

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

#	Standard ID	Calibration Date	Compound	Reported CF (200 std)	Recalculated CF (200 std)	Reported Average CF (Initial)	Recalculated Average CF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL 1C20122	5/2/11	1260-1 Aroclor	37	37	39	39	10.2	10.2
			↓ R2	189	189	200	200	13.3	13.3
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 #: 76275B3b
SDG #: w 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 1:10	5/3/11	Aroclor 1260 R1	200.20	190.39	190.39	4.9	4.9
			R2	200.20	191.13	191.13	4.5	4.5
2	CCV 7:37	5/3/11	↓	200.0	183.74	183.74	8.1	8.1
			↓	200.0	198.51	198.51	0.7	0.7
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 #: [illegible]

SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1

Reviewer: FT

2nd reviewer: [illegible]

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	ZBR1	1.037	0.840778	81	80.9	0
DCB	ZBR2		0.972694	93	93.6	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 #:_____ VALIDATION FINDINGS WORKSHEET Page:__of__

SDG #: per cover

Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FZ

2nd Reviewer:

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; SA = Spike added; SC = Sample concentration

RPD =(((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike; MSD = Matrix spike duplicate

MS/MSD samples: 17 + 18

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)											
PCB-1260	16.67	16.67	0.9	17.93	17.48	102	102	99	99	3	3

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 #: 26275B3D
SDG #: pu cover

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 = | 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: LCS031118

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	13.24	NA	79	79	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 #: 26275B35
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer:
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 agree 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 1254

Concentration = 4.031603 / 0.887

= 4.5 ug/kg

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications
	PCB 1254-1 =	1555.943726 (Σ)(2) / (26)(60.1)	= 3.983	1254-1 =	3.983
				2 =	3.767
				4 =	4.352
				Avg	4.031603

Comments:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: April 21, 2011

LDC Report Date: October 7, 2011

Matrix: Soil

Parameters: Metals

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE134

Sample Identification

SL-111-SA8N-SS-0.0-0.5
SL-112-SA8N-SS-0.0-0.5
SL-115-SA8N-SS-0.0-0.5
SL-116-SA8N-SS-0.0-0.5
SL-117-SA8N-SS-0.0-0.5
SL-118-SA8N-SS-0.0-0.5
SL-119-SA8N-SS-0.0-0.5
SL-125-SA8N-SS-0.0-0.5
SL-126-SA8N-SS-0.0-0.5
DUP06-SA8N-QC-042111
SL-004-SA8N-SB-4.0-5.0
SL-004-SA8N-SB-9.0-10.0
SL-005-SA8N-SB-4.0-5.0
SL-005-SA8N-SB-8.0-9.0
SL-006-SA8N-SB-4.0-5.0
SL-006-SA8N-SB-8.0-9.0
SL-119-SA8N-SS-0.0-0.5MS
SL-119-SA8N-SS-0.0-0.5MSD
SL-119-SA8N-SS-0.0-0.5DUP

Introduction

This data review covers 19 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B, 6020, and 7471A for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Molybdenum, Mercury, 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.

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. 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)	Antimony Calcium Copper Phosphorus Tin Vanadium	0.081 mg/Kg 7.666 mg/Kg 0.394 mg/Kg 1.172 mg/Kg 1.333 mg/Kg 0.087 mg/Kg	All samples in SDG DE134
ICB/CCB	Titanium	0.57 ug/L	SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0
ICB/CCB	Titanium	0.51 ug/L	SL-111-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
ICB/CCB	Calcium	88.9 ug/L	SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0
ICB/CCB	Iron	97.8 ug/L	SL-004-SA8N-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-111-SA8N-SS-0.0-0.5	Antimony Tin	0.12 mg/Kg 3.0 mg/Kg	0.12U mg/Kg 3.0U mg/Kg
SL-112-SA8N-SS-0.0-0.5	Antimony Tin	0.10 mg/Kg 2.7 mg/Kg	0.10U mg/Kg 2.7U mg/Kg
SL-115-SA8N-SS-0.0-0.5	Antimony Tin	0.13 mg/Kg 2.7 mg/Kg	0.13U mg/Kg 2.7U mg/Kg
SL-116-SA8N-SS-0.0-0.5	Antimony Tin	0.17 mg/Kg 2.4 mg/Kg	0.17U mg/Kg 2.4U mg/Kg
SL-117-SA8N-SS-0.0-0.5	Antimony Tin	0.088 mg/Kg 2.6 mg/Kg	0.088U mg/Kg 2.6U mg/Kg
SL-118-SA8N-SS-0.0-0.5	Antimony Tin	0.11 mg/Kg 2.9 mg/Kg	0.11U mg/Kg 2.9U mg/Kg
SL-119-SA8N-SS-0.0-0.5	Antimony Tin	0.14 mg/Kg 2.6 mg/Kg	0.14U mg/Kg 2.6U mg/Kg
SL-125-SA8N-SS-0.0-0.5	Antimony Tin	0.15 mg/Kg 2.5 mg/Kg	0.15U mg/Kg 2.5U mg/Kg
SL-126-SA8N-SS-0.0-0.5	Antimony Tin	0.14 mg/Kg 2.3 mg/Kg	0.14U mg/Kg 2.3U mg/Kg
DUP06-SA8N-QC-042111	Antimony Tin	0.11 mg/Kg 2.5 mg/Kg	0.11U mg/Kg 2.5U mg/Kg
SL-004-SA8N-SB-4.0-5.0	Antimony Tin	0.11 mg/Kg 2.9 mg/Kg	0.11U mg/Kg 2.9U mg/Kg

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-004-SA8N-SB-9.0-10.0	Tin	2.4 mg/Kg	2.4U mg/Kg
SL-005-SA8N-SB-4.0-5.0	Tin	2.6 mg/Kg	2.6U mg/Kg
SL-005-SA8N-SB-8.0-9.0	Tin	2.2 mg/Kg	2.2U mg/Kg
SL-006-SA8N-SB-4.0-5.0	Antimony Tin	0.12 mg/Kg 2.2 mg/Kg	0.12U mg/Kg 2.2U mg/Kg
SL-006-SA8N-SB-8.0-9.0	Antimony Tin	0.13 mg/Kg 2.8 mg/Kg	0.13U mg/Kg 2.8U 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-119-SA8N-SS-0.0-0.5MS/MSD (All samples in SDG DE134)	Antimony	42 (75-125)	33 (75-125)	-	J (all detects) UJ (all non-detects)	A
SL-119-SA8N-SS-0.0-0.5MS/MSD (All samples in SDG DE134)	Chromium Lead Potassium	133 (75-125) - 126 (75-125)	- 140 (75-125) -	- - -	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.

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-119-SA8N-SS-0.0-0.5	Chromium Copper Vanadium	11 (≤10) 11 (≤10) 14 (≤10)	All samples in SDG DE134	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 DE134	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-119-SA8N-SS-0.0-0.5 and DUP06-SA8N-QC-042111 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-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
Aluminum	15200	14600	4 (≤50)	-	-
Antimony	0.14	0.11	24 (≤50)	-	-

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
Arsenic	5.1	5.1	0 (≤50)	-	-
Barium	95.2	110	14 (≤50)	-	-
Beryllium	0.52	0.55	6 (≤50)	-	-
Boron	3.7	3.0	21 (≤50)	-	-
Cadmium	0.13	0.18	32 (≤50)	-	-
Calcium	3370	3270	3 (≤50)	-	-
Chromium	23.5	26.2	11 (≤50)	-	-
Cobalt	6.6	8.1	20 (≤50)	-	-
Copper	10.1	11.9	16 (≤50)	-	-
Iron	22400	22000	2 (≤50)	-	-
Lead	7.1	8.7	20 (≤50)	-	-
Lithium	27.5	26.2	5 (≤50)	-	-
Magnesium	6160	6220	1 (≤50)	-	-
Manganese	311	301	3 (≤50)	-	-
Mercury	0.019	0.022	15 (≤50)	-	-
Molybdenum	0.45	0.45	0 (≤50)	-	-
Nickel	13.9	16.7	18 (≤50)	-	-
Phosphorus	485	459	6 (≤50)	-	-
Potassium	3760	3680	2 (≤50)	-	-
Selenium	0.17	0.17	0 (≤50)	-	-
Silver	0.048	0.047	2 (≤50)	-	-
Sodium	89.8	82.1	9 (≤50)	-	-

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
Strontium	16.8	15.7	7 (≤50)	-	-
Thallium	0.27	0.27	0 (≤50)	-	-
Tin	2.6	2.5	4 (≤50)	-	-
Titanium	1220	1190	2 (≤50)	-	-
Vanadium	39.4	43.7	10 (≤50)	-	-
Zinc	61.1	70.2	14 (≤50)	-	-

Santa Susana Field Laboratory
Metals - Data Qualification Summary - SDG DE134

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0	Antimony	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0	Chromium Lead Potassium	J (all detects) J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0	Chromium Copper Vanadium	J (all detects) UJ (all non-detects)	A	ICP serial dilution (%D) (A)

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0	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 DE134

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE134	SL-111-SA8N-SS-0.0-0.5	Antimony Tin	0.12U mg/Kg 3.0U mg/Kg	A	B
DE134	SL-112-SA8N-SS-0.0-0.5	Antimony Tin	0.10U mg/Kg 2.7U mg/Kg	A	B
DE134	SL-115-SA8N-SS-0.0-0.5	Antimony Tin	0.13U mg/Kg 2.7U mg/Kg	A	B
DE134	SL-116-SA8N-SS-0.0-0.5	Antimony Tin	0.17U mg/Kg 2.4U mg/Kg	A	B
DE134	SL-117-SA8N-SS-0.0-0.5	Antimony Tin	0.088U mg/Kg 2.6U mg/Kg	A	B
DE134	SL-118-SA8N-SS-0.0-0.5	Antimony Tin	0.11U mg/Kg 2.9U mg/Kg	A	B
DE134	SL-119-SA8N-SS-0.0-0.5	Antimony Tin	0.14U mg/Kg 2.6U mg/Kg	A	B
DE134	SL-125-SA8N-SS-0.0-0.5	Antimony Tin	0.15U mg/Kg 2.5U mg/Kg	A	B
DE134	SL-126-SA8N-SS-0.0-0.5	Antimony Tin	0.14U mg/Kg 2.3U mg/Kg	A	B
DE134	DUP06-SA8N-QC-042111	Antimony Tin	0.11U mg/Kg 2.5U mg/Kg	A	B

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE134	SL-004-SA8N-SB-4.0-5.0	Antimony Tin	0.11U mg/Kg 2.9U mg/Kg	A	B
DE134	SL-004-SA8N-SB-9.0-10.0	Tin	2.4U mg/Kg	A	B
DE134	SL-005-SA8N-SB-4.0-5.0	Tin	2.6U mg/Kg	A	B
DE134	SL-005-SA8N-SB-8.0-9.0	Tin	2.2U mg/Kg	A	B
DE134	SL-006-SA8N-SB-4.0-5.0	Antimony Tin	0.12U mg/Kg 2.2U mg/Kg	A	B
DE134	SL-006-SA8N-SB-8.0-9.0	Antimony Tin	0.13U mg/Kg 2.8U mg/Kg	A	B

Santa Susana Field Laboratory
Metals - Field Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

LDC #: 26275B4 **VALIDATION COMPLETENESS WORKSHEET** Date: 10-7-11

SDG #: DE134 Level IV Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: QC

2nd Reviewer: VC

METHOD: Metals (EPA SW 846 Method 6010B/6020~~A~~/~~7000~~) 7471A

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: 4/21/11
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	~~A~~SW	
V.	ICP Interference Check Sample (ICS) Analysis	SW	~~A~~
VI.	Matrix Spike Analysis	SW	MS/D
VII.	Duplicate Sample Analysis	A	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	(7,10)
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-111-SA8N-SS-0.0-0.5	11	SL-004-SA8N-SB-4.0-5.0	21		31	
2	SL-112-SA8N-SS-0.0-0.5	12	SL-004-SA8N-SB-9.0-10.0	22		32	
3	SL-115-SA8N-SS-0.0-0.5	13	SL-005-SA8N-SB-4.0-5.0	23		33	
4	SL-116-SA8N-SS-0.0-0.5	14	SL-005-SA8N-SB-8.0-9.0	24		34	
5	SL-117-SA8N-SS-0.0-0.5	15	SL-006-SA8N-SB-4.0-5.0	25		35	
6	SL-118-SA8N-SS-0.0-0.5	16	SL-006-SA8N-SB-8.0-9.0	26		36	
7	SL-119-SA8N-SS-0.0-0.5	17	SL-119-SA8N-SS-0.0-0.5MS	27		37	
8	SL-125-SA8N-SS-0.0-0.5	18	SL-119-SA8N-SS-0.0-0.5MSD	28		38	
9	SL-126-SA8N-SS-0.0-0.5	19	SL-119-SA8N-SS-0.0-0.5DUP	29		39	
10	DUP06-SA8N-QC-042111	20		30		40	

Notes: _____

DC #: 262784

VALIDATION FINDINGS CHECKLIST

Reviewer: CR
2nd Reviewer: [illegible]

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 isolopes 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?	✓			

DC #: 26275B4

VALIDATION FINDINGS CHECKLIST

Reviewer: AC
2nd Reviewer: [signature]

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 #: 26275B4

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)
1-16		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 17-19		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
		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
		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
		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
		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
		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
		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
		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
		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
		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
		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
Analysis Method		
ICP		Al, B, Ca, Fe, Li, Mg, Mn, P, K, Na, Sr, Sn, Ti, Zr
ICP-MS		~~Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, Ag, Tl, V, Zn~~

Comments: Mercury by CVAA if performed

LDC #: 26275B4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Page: 1 of 1
Reviewer: CR
2nd Reviewer: L

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: 100x; Hg:167
Reason: B
Sample Concentration units, unless otherwise noted: mg/Kg
Associated Samples: All

Analyte	Maximum PB[a] (mg/Kg)	Action Limit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16			
Sb	0.081	0.405	0.12	0.10	0.13	0.17	0.088	0.11	0.14	0.15	0.14	0.11	0.11				0.12	0.13			
Ca	7.666	38.33																			
Cu	0.394	1.97																			
P	1.172	5.86																			
Sn	1.333	6.665	3.0	2.7	2.7	2.4	2.6	2.9	2.6	2.5	2.3	2.5	2.9	2.4	2.6	2.2	2.2	2.8			
V	0.087	0.435																			

Sample Concentration units, unless otherwise noted: mg/Kg
Associated Samples: 2-6, 8-16

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	No Qualifiers										
Ti			0.57	0.285											

Sample Concentration units, unless otherwise noted: mg/Kg
Associated Samples: 1, 7

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	No Qualifiers										
Ti			0.51	0.255											

Sample Concentration units, unless otherwise noted: mg/Kg
Associated Samples: 12, 14, 15

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	No Qualifiers										
Ca			88.9	222.3											

Sample Concentration units, unless otherwise noted: mg/Kg
Associated Samples: 11

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	No Qualifiers										
Fe			97.8	244.5											

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 #: 26275B4

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
	5/4/11	ICSA (03:52/0603)	Mn	5	0.78	All	No Qual (>10x)

Comments:

LDC #: 26275B4

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: QR
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
	17/18	S	Sb	42	33		All	J/UJ/A (Q)
			Cr	133				J det/A
			Pb		140			
			K	126				

Comments:

LDC #: 26275C34

VALIDATION FINDINGS WORKSHEET
ICP Serial Dilution

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 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
		7	S	Cr	11	All	J/UJ/A (A)
				Cu	11	J	J
				V	14		

Comments:

LDC#: 26275B4

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: AV
2nd Reviewer: TC

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)	
	7	10		
Aluminum	15200	14600	4	
Antimony	0.14	0.11	24	
Arsenic	5.1	5.1	0	
Barium	95.2	110	14	
Beryllium	0.52	0.55	6	
Boron	3.7	3.0	21	
Cadmium	0.13	0.18	32	
Calcium	3370	3270	3	
Chromium	23.5	26.2	11	
Cobalt	6.6	8.1	20	
Copper	10.1	11.9	16	
Iron	22400	22000	2	
Lead	7.1	8.7	20	
Lithium	27.5	26.2	5	
Magnesium	6160	6220	1	
Manganese	311	301	3	
Mercury	0.019	0.022	15	
Molybdenum	0.45	0.45	0	
Nickel	13.9	16.7	18	

LDC#: 26275B4

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)	
	7	10		
Phosphorus	485	459	6	
Potassium	3760	3680	2	
Selenium	0.17	0.17	0	
Silver	0.048	0.047	2	
Sodium	89.8	82.1	9	
Strontium	16.8	15.7	7	
Thallium	0.27	0.27	0	
Tin	2.6	2.5	4	
Titanium	1220	1190	2	
Vanadium	39.4	43.7	10	
Zinc	61.1	70.2	14	

LDC #: 26275B4

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Reviewer: CS
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 / 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)	Fe	32666.13	30000	108.9	108.9	Y
ICV	ICP/MS (Initial calibration)	Mo	51.59	50	103.2	103.2	
ICV	CVAA (Initial calibration)	Hg	2.48	2.5	99.2	99.2	
CCV	ICP (Continuing calibration)	Sr	525.12	500	105.0	105.0	
CCV	ICP/MS (Continuing calibration)	Ni	257.9	250	103.2	103.2	
CCV	CVAA (Continuing calibration)	Hg	1.06	1	106.	106	
	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 #: 26275B4

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	Zn	22.4	20	112	112	Y
LCS	Laboratory control sample	As	46.6	48.0	97	97	
17	Matrix spike	Mo	(SSR-SR) 10.7969	10.2728	105	105	
19	Duplicate	Li	27.5274	27.2558	1	1	
7	ICP serial dilution	P	4633.51	4793.40	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 #: 26275B4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 3
Reviewer: CC
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 Ni 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:

$$\frac{(100mL)(2)(61.74\ ug/L)}{0.887(g)(1000)} = 13.9\ mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	Al	19500	19500	Y
		Sb	0.12	0.12	
		As	4.3	4.3	
		Ba	127	127	
		Be	0.63	0.63	
		B	5.6	5.6	
		Cd	0.37	0.37	
		Ca	3460	3460	
		Cr	21.0	21.0	
		Co	7.2	7.2	
		Cu	12.2	12.2	
		Fe	25000	25000	
		Pb	17.8	17.8	
		Li	27.9	27.9	
		Mg	4690	4690	
		Mn	448	448	
		Hg	0.018	0.018	
		Mo	0.50	0.50	
		Ni	13.9	13.9	
		P	614	614	

Note:

LDC #: 26275B4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 3
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 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 Tl 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:

$$\frac{100mL(2)(1.272ng/L)}{0.9366(1.02g)(1000)} = 0.268 mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	K	4990	4990	
		Se	0.14	0.14	
		As	0.039	0.039	
		Na	80.4	80.4	
		Sr	25.0	25.0	
		Tl	0.31	0.31	
		Sn	3.0	3.0	
		Ti	1160	1160	
		V	33.8	33.8	
		Zn	101	101	
	7	Al	15200	15200	
		Sb	0.14	0.14	
		As	5.1	5.1	
		Ba	95.2	95.2	
		Be	0.52	0.52	
		B	3.7	3.7	
		Cd	0.13	0.13	
		Ca	3370	3370	
		Cr	23.5	23.5	

Note:

LDC #: 26275B4

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: AC
2nd reviewer: N

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 = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)}$

Recalculation: See previous page

RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	7	C6	6.6	6.6	Y
		Cu	10.1	10.1	
		Fe	22400	22400	
		P5	7.1	7.1	
		Li	27.5	27.5	
		Mg	6160	6160	
		Mn	311	311	
		Hg	0.019	0.019	
		Mo	0.45	0.45	
		Ni	13.9	13.9	
		P	485	485	
		K	3760	3760	
		Se	0.17	0.17	
		As	0.048	0.048	
		Na	89.8	89.8	
		Sr	16.8	16.8	
		Tl	0.27	0.27	
		Sn	2.6	2.6	
		Ti	1220	1220	
		V	39.4	39.4	
		Zn	61.1	61.1	

Note: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: April 21, 2011

LDC Report Date: October 17, 2011

Matrix: Soil

Parameters: Wet Chemistry

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE134

Sample Identification

SL-111-SA8N-SS-0.0-0.5
SL-112-SA8N-SS-0.0-0.5
SL-115-SA8N-SS-0.0-0.5
SL-116-SA8N-SS-0.0-0.5
SL-117-SA8N-SS-0.0-0.5
SL-118-SA8N-SS-0.0-0.5
SL-119-SA8N-SS-0.0-0.5
SL-125-SA8N-SS-0.0-0.5
SL-126-SA8N-SS-0.0-0.5
DUP06-SA8N-QC-042111
SL-004-SA8N-SB-4.0-5.0
SL-004-SA8N-SB-9.0-10.0
SL-005-SA8N-SB-4.0-5.0
SL-005-SA8N-SB-8.0-9.0
SL-006-SA8N-SB-4.0-5.0
SL-006-SA8N-SB-8.0-9.0
SL-119-SA8N-SS-0.0-0.5MS
SL-119-SA8N-SS-0.0-0.5DUP
SL-004-SA8N-SB-4.0-5.0MS
SL-004-SA8N-SB-4.0-5.0DUP

Introduction

This data review covers 18 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, 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.

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

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-119-SA8N-SS-0.0-0.5MS (SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111)	Fluoride	64 (80-120)	J (all detects) UJ (all non-detects)	A
SL-119-SA8N-SS-0.0-0.5MS (All samples in SDG DE134)	Hexavalent chromium	131 (75-125)	J (all detects)	A
SL-004-SA8N-SB-4.0-5.0MS (SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0)	Fluoride	48 (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 DE134	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-119-SA8N-SS-0.0-0.5 and DUP06-SA8N-QC-042111 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flag	A or P
	SL-119-SA8N-SS-0.0-0.5	DUP06-SA8N-QC-042111			
Fluoride	1.4	1.9	30 (≤50)	-	-
Hexavalent chromium	0.43	0.21U	200 (≤50)	J (all detects) UJ (all non-detects)	A

Santa Susana Field Laboratory
Wet Chemistry - Data Qualification Summary - SDG DE134

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0	Fluoride	J (all detects) UJ (all non-detects)	A	Matrix spike analysis (%R) (Q)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0	Hexavalent chromium	J (all detects)	A	Matrix spike analysis (%R) (Q)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)
DE134	SL-119-SA8N-SS-0.0-0.5 DUP06-SA8N-QC-042111	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 DE134

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Wet Chemistry - Field Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

LDC #: 26275B6 **VALIDATION COMPLETENESS WORKSHEET** Date: 10/7/11
SDG #: DE134 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: dc
2nd Reviewer: W

METHOD: (Analyte) Cyanide (EPA SW846 Method 9012B), Nitrate-N, Fluoride (EPA Method 300.0), Hexavalent Chromium (EPA SW846 Method 7199), 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: 4/21/11
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	(7,10)
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-111-SA8N-SS-0.0-0.5	11	SL-004-SA8N-SB-4.0-5.0	21		31	
2	SL-112-SA8N-SS-0.0-0.5	12	SL-004-SA8N-SB-9.0-10.0	22		32	
3	SL-115-SA8N-SS-0.0-0.5	13	SL-005-SA8N-SB-4.0-5.0	23		33	
4	SL-116-SA8N-SS-0.0-0.5	14	SL-005-SA8N-SB-8.0-9.0	24		34	
5	SL-117-SA8N-SS-0.0-0.5	15	SL-006-SA8N-SB-4.0-5.0	25		35	
6	SL-118-SA8N-SS-0.0-0.5	16	SL-006-SA8N-SB-8.0-9.0	26		36	
7	SL-119-SA8N-SS-0.0-0.5	17	SL-119-SA8N-SS-0.0-0.5MS	27		37	
8	SL-125-SA8N-SS-0.0-0.5	18	SL-119-SA8N-SS-0.0-0.5~~MSD~~ DUP	28		38	
9	SL-126-SA8N-SS-0.0-0.5	19	# 11 MS	29		39	
10	DUP06-SA8N-QC-042111	20	↓ DUP	30		40	

Notes:

DC #: 760C7536

VALIDATION FINDINGS CHECKLIST

Reviewer: CC
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.			✓	

SDG #: 1627586

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Reviewer: AE
2nd reviewer:

All circled methods are applicable to each sample.

Sample ID	Matrix	Parameter
1-9		pH TDS Cl (F) (NO3) NO2 SO4 PO4 ALK (CN-) NH3 TKN TOC (CR6+) (ClO4)
10-16		pH TDS Cl (F) NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC (CR6+) (ClO4)
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
QC-17, 18		pH TDS Cl (F) NO3 NO2 SO4 PO4 ALK (CN) NH3 TKN TOC (CR6+) ClO4
		pH TDS Cl (F) NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC (CR6+) (ClO4)
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4
		pH TDS Cl F NO3 NO2 SO4 PO4 ALK CN- NH3 TKN TOC CR6+ ClO4

Comments:

LDC #: 76275B6

VALIDATION FINDINGS WORKSHEET
Matrix Spike Analysis

Page: 1 of 1
Reviewer: CR
2nd Reviewer:

METHOD: Inorganics, Method Seacar

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	Matrix	Analyte	%R	Associated Samples	Qualifications
		17	S	F	64 (80-120)	~~All~~ 1-10	J/UJ/A (Q)
				Cr	131 (75-125)	All	J det/A
		19	S	F	48 (80-120)	11-16	J/UJ/A

Comments:

LDC# 26275B6

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: ___ of ___
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/L)		RPD (≤50)	
	7	10		
Fluoride	1.4	1.9	30	
Hexavalent Chromium	0.43	0.21U	200	J/UJ/A (FD)

V:\FIELD DUPLICATES\FD_inorganic\26275B6.wpd

LDC #: 26275B6

Validation Findings Worksheet
Initial and Continuing Calibration Calculation Verification

Reviewer: AR
2nd Reviewer: LA

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of ClO4 was recalculated. Calibration date: ~~01/01/01~~ 5/8/11

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. (mg/L)	Area	Recalculated r or r^2	Reported r or r^2	Acceptable (Y/N)
Initial calibration	ClO4	s1	2	0.007	*0.9998*	0.9998	Y
		s2	4	0.008			
		s3	10	0.023			
		s4	25	0.071			
		s5	100	0.287			
Calibration verification	CN	CCV	0.15	0.15590	104	104	
Calibration verification	F	↓	1.5	1.6149	108	108	
Calibration verification	NO3	↓	↓	1.5552	104	104	↓

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 #: CE-5105

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Reviewer: GR
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:

$\%R = \frac{Found}{True} \times 100$ 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)
LCS	Laboratory control sample	NO3	10.7	10	107	-	Y
17	Matrix spike sample	CN	(SSR-SR) 4.8	4.9	98	98	Y
18	Duplicate sample	ClO4	ND	ND	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 #: 162586

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 F/NO3 reported with a positive detect were recalculated and verified using the following equation:

Concentration =

F: $y = 0.1890x - 0.0044$

NO_3: $y = 0.2959x - 0.0064$

Recalculation:

1: $F = \frac{(0.02 + 0.0044)50mL}{0.189(4.9g)(0.887)} = 1.5 mg/kg$

7: $NO_3 = \frac{(0.043 + 0.0064)50mL}{0.2959(4.985)(0.936)} = 1.8 mg/kg$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
0.887	1	F	1.5	1.5	Y
		NO3	1.9	1.9	
0.936	7	F	1.4	1.4	
		NO3	1.5	1.8	
		Cr6+	0.43	0.44	

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: April 21, 2011

LDC Report Date: October 11, 2011

Matrix: Soil

Parameters: Total Petroleum Hydrocarbons as Extractables

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE134

Sample Identification

SL-111-SA8N-SS-0.0-0.5
SL-112-SA8N-SS-0.0-0.5
SL-115-SA8N-SS-0.0-0.5
SL-116-SA8N-SS-0.0-0.5
SL-117-SA8N-SS-0.0-0.5
SL-118-SA8N-SS-0.0-0.5
SL-119-SA8N-SS-0.0-0.5
SL-125-SA8N-SS-0.0-0.5
SL-126-SA8N-SS-0.0-0.5
SL-119-SA8N-SS-0.0-0.5MS
SL-119-SA8N-SS-0.0-0.5MSD

Introduction

This data review covers 11 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.

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 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. Surrogate recoveries (%R) were not within QC limits for several samples. Since the samples were 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) 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-119-SA8N-SS-0.0-0.5MS/MSD (SL-119-SA8N-SS-0.0-0.5)	Extractable fuel hydrocarbons (C15-C20)	-	185 (49-123)	29 (≤20)	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.

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.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE134	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 DE134

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE134	SL-119-SA8N-SS-0.0-0.5	Extractable fuel hydrocarbons (C15-C20)	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

LDC #: 26275B8
SDG #: DE134
Laboratory: Lancaster Laboratories

VALIDATION COMPLETENESS WORKSHEET
Level IV

Date: 10/11/11
Page: 1 of 1
Reviewer: FD
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: 4/21/11
II	Initial calibration	A	% RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
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/RL/LOQ/LODs	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-111-SA8N-SS-0.0-0.5	11	#7 MSD	21		31	
2	SL-112-SA8N-SS-0.0-0.5	12		22		32	
3	SL-115-SA8N-SS-0.0-0.5	13	1P BLK 37118	23		33	
4	SL-116-SA8N-SS-0.0-0.5	14		24		34	
5	SL-117-SA8N-SS-0.0-0.5	15		25		35	
6	SL-118-SA8N-SS-0.0-0.5	16		26		36	
7	SL-119-SA8N-SS-0.0-0.5	17		27		37	
8	SL-125-SA8N-SS-0.0-0.5	18		28		38	
9	SL-126-SA8N-SS-0.0-0.5	19		29		39	
10	#7 MS	20		30		40	

Notes:

DC #: 26275B8
SDG #: all waters

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?			✓	

.DC #: 260275 BY
SDG #: see 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 #: 26275138

VALIDATION FINDINDS WORKSHEET
Surrogate Recovery

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
	3, 5, 6	surrogate	outside	limit ( )	no qual 75% DL
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

	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 #: 26275B8

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

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
	10 + 11	EFH (C15-C20)	( )	186 (49-123)	29 (20)	# 7	J/Adt (a)
		EFH (C21-C30)	( )	1098 (49-123)	89 (20)	↓	no qual pamt 7 fr sp limit
		EFH (C30-C40)	( )	136 (↓)	69 (20)	↓	↓
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 26275 B8
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

#	Standard ID	Calibration Date	Compound	Reported CF (788 std)	Recalculated CF (788 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	4/20/11	C8 – C40	[illegible]	–	23827.7	23827.7	1.8	1.8
				23757.59	23757.6				
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 #: 26275B8
SDG #: pw conn

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 0:42	5/3/11	C8-C40	143.99	149.26	149.26	3.7	3.7
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 #: 26243 15X

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	
chlorobenzene	NS	1.0	0.648643	65	65	0
orthoterphenyl	✓	1.0	1.008418	101	101	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 #: 26213-0
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 2
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: 10 and 11

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	ND	0.51	0.58	68	68	69	69	13	13

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 #: 26275B8
SDG #: mi cover

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 = | 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 37118

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	0.52	NA	62	62	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 #: 26275B8
SDG #: pu soil

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

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 EFH (C30-C40)

Concentration = $\frac{71955238\ (1000)}{23827.7\ (60)(0.887)(1000)}$

= 57 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: April 21, 2011

LDC Report Date: October 12, 2011

Matrix: Soil

Parameters: Explosives

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE134

Sample Identification

SL-111-SA8N-SS-0.0-0.5
SL-112-SA8N-SS-0.0-0.5
SL-115-SA8N-SS-0.0-0.5
SL-116-SA8N-SS-0.0-0.5
SL-117-SA8N-SS-0.0-0.5
SL-118-SA8N-SS-0.0-0.5
SL-119-SA8N-SS-0.0-0.5
SL-125-SA8N-SS-0.0-0.5
SL-126-SA8N-SS-0.0-0.5
SL-004-SA8N-SB-4.0-5.0
SL-004-SA8N-SB-9.0-10.0
SL-005-SA8N-SB-4.0-5.0
SL-005-SA8N-SB-8.0-9.0
SL-006-SA8N-SB-4.0-5.0
SL-006-SA8N-SB-8.0-9.0

Introduction

This data review covers 15 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) 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 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 DE134	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.

LDC #: 26275B40 **VALIDATION COMPLETENESS WORKSHEET** Date: 10/11/11

SDG #: DE134 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: 4/21/11
II	Initial calibration	A	%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 ID
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	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-111-SA8N-SS-0.0-0.5	11	SL-004-SA8N-SB-9.0-10.0	21	PBLK20120	31	
2	SL-112-SA8N-SS-0.0-0.5	12	SL-005-SA8N-SB-4.0-5.0	22		32	
3	SL-115-SA8N-SS-0.0-0.5	13	SL-005-SA8N-SB-8.0-9.0	23		33	
4	SL-116-SA8N-SS-0.0-0.5	14	SL-006-SA8N-SB-4.0-5.0	24		34	
5	SL-117-SA8N-SS-0.0-0.5	15	SL-006-SA8N-SB-8.0-9.0	25		35	
6	SL-118-SA8N-SS-0.0-0.5	16		26		36	
7	SL-119-SA8N-SS-0.0-0.5	17		27		37	
8	SL-125-SA8N-SS-0.0-0.5	18		28		38	
9	SL-126-SA8N-SS-0.0-0.5	19		29		39	
10	SL-004-SA8N-SB-4.0-5.0	20		30		40	

Notes: _____

DC #: 260275BLD
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

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 #: 26275 B4C
SDG #: all 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 #: 26278V0
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

#	Standard ID	Calibration Date	Compound	Reported CF (500.5/499.50 std)	Recalculated CF (500.5/499.50 std)	Reported Average CF (Initial)	Recalculated Average CF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL	5/17/11	1,3,5-TNB chrompack	1.99×10^2	1.99×10^2	2.02×10^2	2.02×10^2	2.7	2.7
			Nitrobenzene	2.09×10^2	2.09×10^2	2.11×10^2	2.11×10^2	3.3	3.3
2	ICAL	5/17/11	↓ Capcell	3.43×10^2	3.43×10^2	3.52×10^2	3.52×10^2	2.8	2.8
				1.69×10^2	1.69×10^2	1.80×10^2	1.80×10^2	6.3	6.3
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 #: 26275B4/0
SDG #: fw conn

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 7
Reviewer: FD
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_28	5/18/11	1,3,5- TNB chrompack	500.50	494.90	494.90	1.1	1.1
	12:17		Nitro benzene	499.50	501.40	501.40	0.4	0.4
2	CCV_40	5/19/11	↓	1001.00	994.92	994.92	0.6	0.6
	0:51		↓	999.00	1036.11	1036.11	3.7	3.7
3	CCV_52	5/19/11	↓	500.50	492.39	492.39	1.6	1.6
	9:20		↓	499.50	502.62	502.62	0.2	0.2
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 #: 26275B4O
SDG #: fw 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_28	5/18/11	1,3,5-TNB (except chrompack)	NA				
	12:17		nitrobenzene	499.50	472.27	472.27	5.5	5.5
2	CCV_40	5/19/11	↓	NA				
	0:51			999.00	959.75	959.75	3.9	3.9
3	CCV_52	5/19/11	↓	NA				
	9:20			474.32	474.32	474.32	5.0	5.0
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 #: _____

SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: FT

2nd reviewer: [signature]

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	chrompack	1922.767	2253.483	117	117	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 #: 26275B4U
SDG #: all cores

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: EO
2nd Reviewer: A

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)	2000.75	NA	1898.99	NA	95	95				
2,4,6-Trinitrotoluene (8330)	1999.2	NA	2179.46	NA	109	109	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 #: 26275B40
SDG #: pu ones

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 = _____

MD

#	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:	April 21, 2011
LDC Report Date:	October 11, 2011
Matrix:	Soil
Parameters:	Terphenyls
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE134

Sample Identification

SL-111-SA8N-SS-0.0-0.5
SL-112-SA8N-SS-0.0-0.5
SL-115-SA8N-SS-0.0-0.5
SL-116-SA8N-SS-0.0-0.5
SL-117-SA8N-SS-0.0-0.5
SL-118-SA8N-SS-0.0-0.5
SL-119-SA8N-SS-0.0-0.5
SL-125-SA8N-SS-0.0-0.5
SL-126-SA8N-SS-0.0-0.5
SL-119-SA8N-SS-0.0-0.5MS
SL-119-SA8N-SS-0.0-0.5MSD

Introduction

This data review covers 11 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.

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 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.

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 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 DE134	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 DE134

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Terphenyls - Laboratory Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Terphenyls - Field Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

LDC #: 26275B41 **VALIDATION COMPLETENESS WORKSHEET** Date: 10/11/11
SDG #: DE134 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: EJ
2nd Reviewer:

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: 9/21/11
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/RL/LOQ/LODs	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-111-SA8N-SS-0.0-0.5	11	PBLK18123	21		31	
2	SL-112-SA8N-SS-0.0-0.5	12		22		32	
3	SL-115-SA8N-SS-0.0-0.5	13	#7MS	23		33	
4	SL-116-SA8N-SS-0.0-0.5	14	#7MSD	24		34	
5	SL-117-SA8N-SS-0.0-0.5	15		25		35	
6	SL-118-SA8N-SS-0.0-0.5	16		26		36	
7	SL-119-SA8N-SS-0.0-0.5	17		27		37	
8	SL-125-SA8N-SS-0.0-0.5	18		28		38	
9	SL-126-SA8N-SS-0.0-0.5	19		29		39	
10		20		30		40	

Notes:

DC #: 260275B41
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 #: 26275B4)
SDG #: all cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
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 #: 26275B4/
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

#	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	4/14/11	m-Terphenyl	3.42×10^4	3.42×10^4	3.30×10^4	3.30×10^4	2.4	2.4
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 #: 26275 B4/
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 4:06	5/6/11	m-Terphenyl	31.04	32.74	32.74	5.5	5.5
	CCV 12:18	5/6/11	↓	31.04	33.55	33.55	8.1	8.1
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 #: [illegible]

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	
n-Triacontane-d62	NS	0.333	0.21356	64	64	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 #:_____ VALIDATION FINDINGS WORKSHEET Page:___of___

SDG #: [illegible] Matrix Spike/Matrix Spike Duplicates Results Verification Reviewer: FZ

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 (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	1.67	1.67	ND	1.35	1.39	81	81	83	83	3	3

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 #: 26275B41
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: JD
2nd Reviewer: A

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: lcs18123

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	1.67	NA	1.42	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 #: 26275B4/
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: _____

SAMPCALew.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: April 21, 2011

LDC Report Date: October 11, 2011

Matrix: Soil

Parameters: Alcohols

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE134

Sample Identification

SL-111-SA8N-SS-0.0-0.5
SL-112-SA8N-SS-0.0-0.5
SL-115-SA8N-SS-0.0-0.5
SL-116-SA8N-SS-0.0-0.5
SL-117-SA8N-SS-0.0-0.5
SL-118-SA8N-SS-0.0-0.5
SL-119-SA8N-SS-0.0-0.5
SL-125-SA8N-SS-0.0-0.5
SL-126-SA8N-SS-0.0-0.5

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 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 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 DE134	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 DE134

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Alcohols - Laboratory Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Alcohols - Field Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

LDC #: 26275B43 **VALIDATION COMPLETENESS WORKSHEET** Date: 10/11/11
SDG #: DE134 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: EZ
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: 4/21/11
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
VIII.	Target compound identification	A	
IX.	Compound quantitation RL/LOQ/LODs	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-111-SA8N-SS-0.0-0.5	11	PBLK37116	21		31	
2	SL-112-SA8N-SS-0.0-0.5	12		22		32	
3	SL-115-SA8N-SS-0.0-0.5	13		23		33	
4	SL-116-SA8N-SS-0.0-0.5	14		24		34	
5	SL-117-SA8N-SS-0.0-0.5	15		25		35	
6	SL-118-SA8N-SS-0.0-0.5	16		26		36	
7	SL-119-SA8N-SS-0.0-0.5	17		27		37	
8	SL-125-SA8N-SS-0.0-0.5	18		28		38	
9	SL-126-SA8N-SS-0.0-0.5	19		29		39	
10		20		30		40	

Notes:

DC #: 26275 B43
SDG #: per cover

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?			✓	

.DC #: 26275 B43
SDG #: pc conf

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 #: 26275 B43
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

#	Standard ID	Calibration Date	Compound	Reported $CF_{(SMV\ std)}$	Recalculated $CF_{(SMV\ std)}$	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	2/23/11	methanol	8.63×10^{0}	8.63×10^{0}	8.50×10^{0}	8.50×10^{0}	3.0	3.0
2	ICAL	4/20/11	methanol	3.37×10^{0}	3.37×10^{0}	3.49×10^{0}	3.49×10^{0}	3.3	3.3
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.

INICIAL ISB

LDC #: 26275 B43
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	CCV 16:18	4/27/11	methanol	5000.00	5143.53	5143.53	2.9	2.9
	CCV 19:17	4/27/11	methanol	5000.00	4999.51	4999.51	0	0
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 #: [illegible]

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	
Acetone	NA	2500	1919.04	77	77	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 #: 26575B43
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: FR
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: LCS37116

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	2326.78	NA	93	93	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 #: 26275 B43
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:	April 21, 2011
LDC Report Date:	October 11, 2011
Matrix:	Soil
Parameters:	Glycols
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE134

Sample Identification

SL-111-SA8N-SS-0.0-0.5
SL-112-SA8N-SS-0.0-0.5
SL-115-SA8N-SS-0.0-0.5
SL-116-SA8N-SS-0.0-0.5
SL-117-SA8N-SS-0.0-0.5
SL-118-SA8N-SS-0.0-0.5
SL-119-SA8N-SS-0.0-0.5
SL-125-SA8N-SS-0.0-0.5
SL-126-SA8N-SS-0.0-0.5
SL-004-SA8N-SB-4.0-5.0
SL-004-SA8N-SB-9.0-10.0
SL-005-SA8N-SB-4.0-5.0
SL-005-SA8N-SB-8.0-9.0
SL-006-SA8N-SB-4.0-5.0
SL-006-SA8N-SB-8.0-9.0
SL-119-SA8N-SS-0.0-0.5MS
SL-119-SA8N-SS-0.0-0.5MSD

Introduction

This data review covers 17 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 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 DE134	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 DE134

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5 SL-004-SA8N-SB-4.0-5.0 SL-004-SA8N-SB-9.0-10.0 SL-005-SA8N-SB-4.0-5.0 SL-005-SA8N-SB-8.0-9.0 SL-006-SA8N-SB-4.0-5.0 SL-006-SA8N-SB-8.0-9.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Glycols - Laboratory Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Glycols - Field Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

LDC #: 26275B45 **VALIDATION COMPLETENESS WORKSHEET** Date: 10/11/11
SDG #: DE134 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: D
2nd Reviewer: A

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: 4/21/11
II	Initial calibration	A	% PSD ≤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	
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	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 3	SL-111-SA8N-SS-0.0-0.5	11 2	SL-004-SA8N-SB-9.0-10.0	21 1	PBLK03115	31	
2 3	SL-112-SA8N-SS-0.0-0.5	12 2	SL-005-SA8N-SB-4.0-5.0	22 2	PBLK 24116	32	
3 1	SL-115-SA8N-SS-0.0-0.5	13 2	SL-005-SA8N-SB-8.0-9.0	23 3	PBLK01117	33	
4 1	SL-116-SA8N-SS-0.0-0.5	14 2	SL-006-SA8N-SB-4.0-5.0	24		34	
5 1	SL-117-SA8N-SS-0.0-0.5	15 2	SL-006-SA8N-SB-8.0-9.0	25		35	
6 1	SL-118-SA8N-SS-0.0-0.5	16	#7 MS	26		36	
7 2	SL-119-SA8N-SS-0.0-0.5	17	#7 MSD	27		37	
8 2	SL-125-SA8N-SS-0.0-0.5	18		28		38	
9 2	SL-126-SA8N-SS-0.0-0.5	19		29		39	
10 2	SL-004-SA8N-SB-4.0-5.0	20		30		40	

Notes:

DC #: 20275B45
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: AC

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?			✓	

.DC #: 26275 B45
SDG #: all cmpd

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 #: 26275 B45
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
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 (A_i/C_i std)	Recalculated CF (A_i/C_i std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	4/26/11	ethylene Glycol	4.96×10^2	4.96×10^2	4.98×10^2	4.98×10^2	5.6	5.6
2	ICAL	4/27/11	"	5.07×10^2	5.07×10^2	5.09×10^2	5.09×10^2	6.3	6.3
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.

INIC! C 1SB

LDC #: 26275B45
SDG #: fw 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 13:26	4/26/11	ethylene glycol	302.10	333.75	333.73	10.5	10.5
	CCV 16:39	4/26/11	↓	105.56	120.71	120.71	14.4	14.4
2								
	CCV 15:27	4/27/11	↓	302.10	320.00	320.00	5.9	5.9
3	CCV 18:41	4/27/11	↓	105.56	111.26	111.26	5.4	5.4
	CCV 21:55	4/27/11	↓	105.56	110.21	110.21	4.4	4.4
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 #: 42715 T3

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	ND	192.66	158.94154	82	82	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 #:_____ VALIDATION FINDINGS WORKSHEET Page: 1 of 2

SDG #: jw comer

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: 16 & 17

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	179.75	197.71	91	91	100	100	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 #: 26275B15
SDG #: all covers

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: EO
2nd Reviewer: A

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: LCS03115

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	200.95	NA	101	101	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 #: 26275B45
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: April 21, 2011

LDC Report Date: October 12, 2011

Matrix: Soil

Parameters: Formaldehyde

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE134

Sample Identification

SL-111-SA8N-SS-0.0-0.5
SL-112-SA8N-SS-0.0-0.5
SL-115-SA8N-SS-0.0-0.5
SL-116-SA8N-SS-0.0-0.5
SL-117-SA8N-SS-0.0-0.5
SL-118-SA8N-SS-0.0-0.5
SL-119-SA8N-SS-0.0-0.5
SL-125-SA8N-SS-0.0-0.5
SL-126-SA8N-SS-0.0-0.5
SL-119-SA8N-SS-0.0-0.5MS
SL-119-SA8N-SS-0.0-0.5MSD

Introduction

This data review covers 11 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 RLs

All compound quantitation and RLs were within validation criteria.

Santa Susana Field Laboratory
Formaldehyde - Data Qualification Summary - SDG DE134

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE134	SL-111-SA8N-SS-0.0-0.5 SL-112-SA8N-SS-0.0-0.5 SL-115-SA8N-SS-0.0-0.5 SL-116-SA8N-SS-0.0-0.5 SL-117-SA8N-SS-0.0-0.5 SL-118-SA8N-SS-0.0-0.5 SL-119-SA8N-SS-0.0-0.5 SL-125-SA8N-SS-0.0-0.5 SL-126-SA8N-SS-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Formaldehyde - Laboratory Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Formaldehyde - Field Blank Data Qualification Summary - SDG DE134

No Sample Data Qualified in this SDG

LDC #: 26275B71 **VALIDATION COMPLETENESS WORKSHEET** Date: 10/11/11
SDG #: DE134 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: 4/21/11
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/RL/LOQ/LODs	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-111-SA8N-SS-0.0-0.5	11	PBLK04117	21		31	
2	SL-112-SA8N-SS-0.0-0.5	12		22		32	
3	SL-115-SA8N-SS-0.0-0.5	13		23		33	
4	SL-116-SA8N-SS-0.0-0.5	14	#7MS	24		34	
5	SL-117-SA8N-SS-0.0-0.5	15	#7MSD	25		35	
6	SL-118-SA8N-SS-0.0-0.5	16		26		36	
7	SL-119-SA8N-SS-0.0-0.5	17		27		37	
8	SL-125-SA8N-SS-0.0-0.5	18		28		38	
9	SL-126-SA8N-SS-0.0-0.5	19		29		39	
10		20		30		40	

Notes:

DC #: 26275 B71
SDG #: all cover

VALIDATION FINDINGS CHECKLIST

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?			✓	

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 #: 26275B7 1
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FJ
2nd Reviewer:

METHOD: GC VA 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 (2002std)	Recalculated CF (2002std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	4/28/11	Formaldehyde	6.47X10^1	6.47X10^1	6.11 X10^1	6.11X10^1	3.7	3.7
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 #: 26275B71
SDG #: fw 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	CCV 2:39	4/29/11	Formaldehyde	2002.00	2078.33	2078.33	3.8	3.8
2	CCV 4:24	4/29/11	✓	✓	2048.02	2048.02	2.3	2.3
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 #: [illegible]

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	
Butyraldehyde	NS	2000	3943.7 1118/2	100	99.0	1.0

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 #: [illegible]
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET

Matrix Spike/Matrix Spike Duplicates Results Verification

Page: [illegible]
Reviewer: [illegible]
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: 14 & 15

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	948.37	5337.24	5552.2	88	88	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 #: 26275B71
SDG #: all covers

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 = | 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: LCS04117

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	486066	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 #: 26275B71
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 Formaldehyde

Concentration = $\frac{8353)\ (20)}{6.11\times10^{7}\ (20.2)\ (0.887)}$

= 1526 ug/kg

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALow.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: April 21, 2011

LDC Report Date: October 11, 2011

Matrix: Soil

Parameters: Perchlorate

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE134

Sample Identification

SL-111-SA8N-SS-0.0-0.5
SL-115-SA8N-SS-0.0-0.5
SL-116-SA8N-SS-0.0-0.5
SL-118-SA8N-SS-0.0-0.5
SL-125-SA8N-SS-0.0-0.5
SL-111-SA8N-SS-0.0-0.5MS
SL-111-SA8N-SS-0.0-0.5MSD

Introduction

This data review covers 7 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 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.

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

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. 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 DE134	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.

LDC #: 26275B87 **VALIDATION COMPLETENESS WORKSHEET** Date: 10/11/11
SDG #: DE134 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: FJ
2nd Reviewer: C

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: 4/21/11
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	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/RL/LOQ/LODs	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-111-SA8N-SS-0.0-0.5	11	PBLK20122	21		31	
2	SL-115-SA8N-SS-0.0-0.5	12		22		32	
3	SL-116-SA8N-SS-0.0-0.5	13		23		33	
4	SL-118-SA8N-SS-0.0-0.5	14		24		34	
5	SL-125-SA8N-SS-0.0-0.5	15		25		35	
6	#1MS	16		26		36	
7	#1MSD	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

LDC #: 42758B7

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: A

LCMS Perchlorate Method 6850

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 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 #: 26275B87

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.			✓	

LDC # 26275B87
SDG# see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: PJ
2nd Reviewer:

METHOD: Method 6850

Parameter: perchlorate

Date	Column	Compound	y	x	
05/04/2011	LCMS	perchlorate	0.03	0.020	0.0004
			0.04	0.040	0.0016
			0.10	0.100	0.0100
			0.20	0.200	0.0400
			0.42	0.400	0.1600
			1.03	1.000	1.0000
			2.56	2.500	6.2500

Regression Output:		Regression Output:	Reported	
Constant		0.00322		3.2000E-003
Std Err of Y Est		0.00484		
R Squared		0.99998		0.99990
No. of Observations		7.00000		
Degrees of Freedom		5.00000		
X Coefficient(s)	1.022E+000		0.10220	
Std Err of Coef.	0.002195	0.02		

LDC #: 26275B87

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
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	MS6P1241101C	5/4/11	~~Phenol~~ Perchlorate (1st internal standard)	4	4.2	4.2	5	5
	10:13		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	MS6P1241102C	5/4/11	~~Phenol~~ Perchlorate (1st internal standard)	0.4	0.336	0.336	16	16
	11:21		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 #: 26275B87

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: C

Perchlorate Meth 6850

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: 6 + 7

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/g)		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											
Perchlorate	100	100	ND	107	111	107	107	111	111	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 #: 26275B87

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 = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboraotry control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS 20122

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	10U	NA	10U	NA	10U	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 #: 26275887

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer: C

METHOD: ~~GC/MS BNA (EPA SW 846 Method 8270)~~ 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. = $\frac{(\quad)(\quad)(\quad)(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)(\quad)(\quad)}$

ND

=

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

SAMPLE DELIVERY GROUP

DE135

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-Apr-2011	TB-042211	6267481	TB	5030B	8015M	III
22-Apr-2011	TB-042211	6267481	TB	5030B	8260B	III
22-Apr-2011	TB-042211	6267481	TB	5030B	8260B SIM	III
22-Apr-2011	SL-007-SA8N-SB-4.0-5.0	6267467	N	3050B	6010B	III
22-Apr-2011	SL-007-SA8N-SB-4.0-5.0	6267467	N	3050B	6020	III
22-Apr-2011	SL-007-SA8N-SB-4.0-5.0	6267467	N	3060A	7199	III
22-Apr-2011	SL-007-SA8N-SB-4.0-5.0	6267467	N	3550B	8082	III
22-Apr-2011	SL-007-SA8N-SB-4.0-5.0	6267467	N	3550B	8270C	III
22-Apr-2011	SL-007-SA8N-SB-4.0-5.0	6267467	N	3550B	8270C SIM	III
22-Apr-2011	SL-007-SA8N-SB-4.0-5.0	6267467	N	5035	8260B	III
22-Apr-2011	SL-007-SA8N-SB-4.0-5.0	6267467	N	5035	8260B SIM	III
22-Apr-2011	SL-007-SA8N-SB-4.0-5.0	6267467	N	METHOD	300.0	III
22-Apr-2011	SL-007-SA8N-SB-4.0-5.0	6267467	N	METHOD	314.0	III
22-Apr-2011	SL-007-SA8N-SB-4.0-5.0	6267467	N	METHOD	7471A	III
22-Apr-2011	SL-007-SA8N-SB-4.0-5.0	6267467	N	METHOD	8015M	III
22-Apr-2011	SL-007-SA8N-SB-4.0-5.0MSD	P267467M321858A	MSD	METHOD	8015M	III
22-Apr-2011	SL-007-SA8N-SB-4.0-5.0MS	P267467R321823A	MS	METHOD	8015M	III
22-Apr-2011	SL-007-SA8N-SB-9.0-10	6267468	N	3050B	6010B	III
22-Apr-2011	SL-007-SA8N-SB-9.0-10	6267468	N	3050B	6020	III
22-Apr-2011	SL-007-SA8N-SB-9.0-10	6267468	N	3060A	7199	III
22-Apr-2011	SL-007-SA8N-SB-9.0-10	6267468	N	3550B	8082	III
22-Apr-2011	SL-007-SA8N-SB-9.0-10	6267468	N	3550B	8270C	III
22-Apr-2011	SL-007-SA8N-SB-9.0-10	6267468	N	3550B	8270C SIM	III
22-Apr-2011	SL-007-SA8N-SB-9.0-10	6267468	N	METHOD	300.0	III
22-Apr-2011	SL-007-SA8N-SB-9.0-10	6267468	N	METHOD	314.0	III
22-Apr-2011	SL-007-SA8N-SB-9.0-10	6267468	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
22-Apr-2011	SL-007-SA8N-SB-9.0-10	6267468	N	METHOD	8015M	III
22-Apr-2011	SL-007-SA8N-SB-9.0-10MSD	P267468M321956A	MSD	METHOD	8015M	III
22-Apr-2011	SL-007-SA8N-SB-9.0-10MS	P267468R321938A	MS	METHOD	8015M	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	3050B	6010B	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	3050B	6020	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	3060A	7199	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	3546	1625C	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	3550B	8015B	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	3550B	8015M	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	3550B	8082	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	3550B	8270C	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	3550B	8270C SIM	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	5035	8015M	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	5035	8260B	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	5035	8260B SIM	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	8330	8330A	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	METHOD	300.0	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	METHOD	314.0	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	METHOD	7471A	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	METHOD	8015B	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	METHOD	8015M	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	METHOD	8315A	III
22-Apr-2011	SL-010-SA8N-SB-4.0-5.0	6267469	N	METHOD	9012B	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0	6267473	N	3050B	6010B	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0	6267473	N	3050B	6020	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0	6267473	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
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0	6267473	N	3550B	8082	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0	6267473	N	3550B	8270C	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0	6267473	N	3550B	8270C SIM	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0	6267473	N	5035	8260B	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0	6267473	N	5035	8260B SIM	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0	6267473	N	METHOD	300.0	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0	6267473	N	METHOD	314.0	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0	6267473	N	METHOD	7471A	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MS	6267474	MS	3050B	6010B	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MS	6267474	MS	3050B	6020	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MS	6267474	MS	3060A	7199	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MS	6267474	MS	3550B	8082	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MS	6267474	MS	3550B	8270C	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MS	6267474	MS	3550B	8270C SIM	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MS	6267474	MS	5035	8260B	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MS	6267474	MS	5035	8260B SIM	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MS	6267474	MS	METHOD	300.0	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MS	6267474	MS	METHOD	314.0	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MS	6267474	MS	METHOD	7471A	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MSD	6267475	MSD	3050B	6010B	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MSD	6267475	MSD	3050B	6020	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MSD	6267475	MSD	3550B	8082	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MSD	6267475	MSD	3550B	8270C	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MSD	6267475	MSD	3550B	8270C SIM	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MSD	6267475	MSD	5035	8260B	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MSD	6267475	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
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0MSD	6267475	MSD	METHOD	7471A	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0DUP	6267476	DUP	3050B	6010B	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0DUP	6267476	DUP	3050B	6020	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0DUP	6267476	DUP	3060A	7199	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0DUP	6267476	DUP	METHOD	300.0	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0DUP	6267476	DUP	METHOD	314.0	III
22-Apr-2011	SL-064-SA5A-SB-3.0-4.0DUP	6267476	DUP	METHOD	7471A	III
22-Apr-2011	DUP16-SA5A-QC-042211	6267480	FD	3050B	6010B	III
22-Apr-2011	DUP16-SA5A-QC-042211	6267480	FD	3050B	6020	III
22-Apr-2011	DUP16-SA5A-QC-042211	6267480	FD	3060A	7199	III
22-Apr-2011	DUP16-SA5A-QC-042211	6267480	FD	3550B	8082	III
22-Apr-2011	DUP16-SA5A-QC-042211	6267480	FD	3550B	8270C	III
22-Apr-2011	DUP16-SA5A-QC-042211	6267480	FD	3550B	8270C SIM	III
22-Apr-2011	DUP16-SA5A-QC-042211	6267480	FD	5035	8260B	III
22-Apr-2011	DUP16-SA5A-QC-042211	6267480	FD	5035	8260B SIM	III
22-Apr-2011	DUP16-SA5A-QC-042211	6267480	FD	METHOD	300.0	III
22-Apr-2011	DUP16-SA5A-QC-042211	6267480	FD	METHOD	314.0	III
22-Apr-2011	DUP16-SA5A-QC-042211	6267480	FD	METHOD	7471A	III
22-Apr-2011	DUP16-SA5A-QC-042211DUP	P267480D270416B	DUP	METHOD	300.0	III
22-Apr-2011	DUP16-SA5A-QC-042211DUP	P267480D270431B	DUP	METHOD	314.0	III
22-Apr-2011	DUP16-SA5A-QC-042211MS	P267480R270430B	MS	METHOD	300.0	III
22-Apr-2011	DUP16-SA5A-QC-042211MS	P267480R270453B	MS	METHOD	314.0	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	3050B	6010B	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	3050B	6020	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	3060A	7199	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	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
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	3550B	8015B	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	3550B	8015M	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	3550B	8082	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	3550B	8270C	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	3550B	8270C SIM	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	5035	8015M	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	5035	8260B	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	5035	8260B SIM	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	8330	8330A	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	METHOD	300.0	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	METHOD	314.0	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	METHOD	7471A	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	METHOD	8015B	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	METHOD	8015M	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	METHOD	8315A	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10	6267470	N	METHOD	9012B	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10MSD	P267470M321853A	MSD	METHOD	8015B	III
22-Apr-2011	SL-010-SA8N-SB-9.0-10MS	P267470R321838A	MS	METHOD	8015B	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	3050B	6010B	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	3050B	6020	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	3060A	7199	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	3546	1625C	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	3550B	8015B	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	3550B	8015M	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	3550B	8082	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	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
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	3550B	8270C SIM	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	5035	8015M	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	5035	8260B	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	5035	8260B SIM	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	8330	8330A	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	METHOD	300.0	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	METHOD	314.0	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	METHOD	7471A	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	METHOD	8015B	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	METHOD	8015M	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	METHOD	8315A	III
22-Apr-2011	SL-011-SA8N-SB-9.0-10.0	6267472	N	METHOD	9012B	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	3050B	6010B	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	3050B	6020	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	3060A	7199	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	3546	1625C	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	3550B	8015B	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	3550B	8015M	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	3550B	8082	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	3550B	8270C	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	3550B	8270C SIM	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	5035	8015M	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	5035	8260B	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	5035	8260B SIM	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	8330	8330A	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	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
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	METHOD	314.0	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	METHOD	7471A	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	METHOD	8015B	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	METHOD	8015M	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	METHOD	8315A	III
22-Apr-2011	SL-011-SA8N-SB-4.0-5.0	6267471	N	METHOD	9012B	III
22-Apr-2011	SL-166-SA5A-SS-0.0-0.5	6267477	N	3050B	6010B	III
22-Apr-2011	SL-166-SA5A-SS-0.0-0.5	6267477	N	3050B	6020	III
22-Apr-2011	SL-166-SA5A-SS-0.0-0.5	6267477	N	3060A	7199	III
22-Apr-2011	SL-166-SA5A-SS-0.0-0.5	6267477	N	3550B	8082	III
22-Apr-2011	SL-166-SA5A-SS-0.0-0.5	6267477	N	3550B	8270C	III
22-Apr-2011	SL-166-SA5A-SS-0.0-0.5	6267477	N	3550B	8270C SIM	III
22-Apr-2011	SL-166-SA5A-SS-0.0-0.5	6267477	N	METHOD	300.0	III
22-Apr-2011	SL-166-SA5A-SS-0.0-0.5	6267477	N	METHOD	314.0	III
22-Apr-2011	SL-166-SA5A-SS-0.0-0.5	6267477	N	METHOD	7471A	III
22-Apr-2011	SL-253-SA5A-SB-4.0-5.0	6267478	N	3050B	6010B	III
22-Apr-2011	SL-253-SA5A-SB-4.0-5.0	6267478	N	3050B	6020	III
22-Apr-2011	SL-253-SA5A-SB-4.0-5.0	6267478	N	3060A	7199	III
22-Apr-2011	SL-253-SA5A-SB-4.0-5.0	6267478	N	3550B	8082	III
22-Apr-2011	SL-253-SA5A-SB-4.0-5.0	6267478	N	3550B	8270C	III
22-Apr-2011	SL-253-SA5A-SB-4.0-5.0	6267478	N	3550B	8270C SIM	III
22-Apr-2011	SL-253-SA5A-SB-4.0-5.0	6267478	N	5035	8260B	III
22-Apr-2011	SL-253-SA5A-SB-4.0-5.0	6267478	N	5035	8260B SIM	III
22-Apr-2011	SL-253-SA5A-SB-4.0-5.0	6267478	N	METHOD	300.0	III
22-Apr-2011	SL-253-SA5A-SB-4.0-5.0	6267478	N	METHOD	314.0	III
22-Apr-2011	SL-253-SA5A-SB-4.0-5.0	6267478	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
22-Apr-2011	SL-253-SA5A-SB-8.0-9.0	6267479	N	3050B	6010B	III
22-Apr-2011	SL-253-SA5A-SB-8.0-9.0	6267479	N	3050B	6020	III
22-Apr-2011	SL-253-SA5A-SB-8.0-9.0	6267479	N	3060A	7199	III
22-Apr-2011	SL-253-SA5A-SB-8.0-9.0	6267479	N	3550B	8082	III
22-Apr-2011	SL-253-SA5A-SB-8.0-9.0	6267479	N	3550B	8270C	III
22-Apr-2011	SL-253-SA5A-SB-8.0-9.0	6267479	N	3550B	8270C SIM	III
22-Apr-2011	SL-253-SA5A-SB-8.0-9.0	6267479	N	METHOD	300.0	III
22-Apr-2011	SL-253-SA5A-SB-8.0-9.0	6267479	N	METHOD	314.0	III
22-Apr-2011	SL-253-SA5A-SB-8.0-9.0	6267479	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: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **GENCHEM**

Method: **300.0** ***Matrix:*** **SO**

Sample ID: DUP16-SA5A-QC-042211 ***Collected:*** 4/22/2011 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	3.0		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-007-SA8N-SB-4.0-5.0 ***Collected:*** 4/22/2011 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
FLUORIDE	4.9		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-007-SA8N-SB-9.0-10 ***Collected:*** 4/22/2011 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	4.1		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-010-SA8N-SB-4.0-5.0 ***Collected:*** 4/22/2011 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	8.1		0.94	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.2	J	0.94	MDL	1.8	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA8N-SB-9.0-10 ***Collected:*** 4/22/2011 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	8.5		0.95	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.4	J	0.95	MDL	1.8	PQL	mg/Kg	J	Z

Sample ID: SL-011-SA8N-SB-4.0-5.0 ***Collected:*** 4/22/2011 12:52:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	11.1		0.95	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.5	J	0.95	MDL	1.8	PQL	mg/Kg	J	Z

Sample ID: SL-011-SA8N-SB-9.0-10.0 ***Collected:*** 4/22/2011 12:12:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	6.4		0.94	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.1	J	0.94	MDL	1.8	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: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-064-SA5A-SB-3.0-4.0 *Collected:* 4/22/2011 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	2.3		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-166-SA5A-SS-0.0-0.5 *Collected:* 4/22/2011 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		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-253-SA5A-SB-4.0-5.0 *Collected:* 4/22/2011 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
FLUORIDE	2.9		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-253-SA5A-SB-8.0-9.0 *Collected:* 4/22/2011 4:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.0		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: DUP16-SA5A-QC-042211 *Collected:* 4/22/2011 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
POTASSIUM	2490		19.9	MDL	55.4	PQL	mg/Kg	J	Q
SODIUM	102	J	41.3	MDL	111	PQL	mg/Kg	J	Z
TIN	3.45	J	1.11	MDL	11.1	PQL	mg/Kg	U	B

Sample ID: SL-007-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 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
POTASSIUM	2920		20.3	MDL	56.4	PQL	mg/Kg	J	Q
SODIUM	91.2	J	42.1	MDL	113	PQL	mg/Kg	J	Z
TIN	3.02	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	3.10	J	0.948	MDL	5.64	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: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-007-SA8N-SB-9.0-10 *Collected:* 4/22/2011 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
POTASSIUM	2760		20.6	MDL	57.2	PQL	mg/Kg	J	Q
TIN	3.15	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	3.35	J	0.960	MDL	5.72	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 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
POTASSIUM	2860		20.5	MDL	56.8	PQL	mg/Kg	J	Q
TIN	3.13	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	2.72	J	0.955	MDL	5.68	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA8N-SB-9.0-10 *Collected:* 4/22/2011 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	3080		21.1	MDL	58.6	PQL	mg/Kg	J	Q
TIN	3.31	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	3.23	J	0.984	MDL	5.86	PQL	mg/Kg	J	Z

Sample ID: SL-011-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 12:52:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3190		20.9	MDL	58.0	PQL	mg/Kg	J	Q
TIN	3.26	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	2.78	J	0.975	MDL	5.80	PQL	mg/Kg	J	Z

Sample ID: SL-011-SA8N-SB-9.0-10.0 *Collected:* 4/22/2011 12:12:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2300		21.1	MDL	58.6	PQL	mg/Kg	J	Q
TIN	3.30	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	2.90	J	0.985	MDL	5.86	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: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-064-SA5A-SB-3.0-4.0 *Collected:* 4/22/2011 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
POTASSIUM	2660		20.0	MDL	55.5	PQL	mg/Kg	J	Q
SODIUM	93.2	J	41.4	MDL	111	PQL	mg/Kg	J	Z
TIN	3.50	J	1.11	MDL	11.1	PQL	mg/Kg	U	B

Sample ID: SL-166-SA5A-SS-0.0-0.5 *Collected:* 4/22/2011 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
POTASSIUM	2010		18.1	MDL	50.4	PQL	mg/Kg	J	Q
SODIUM	62.2	J	37.6	MDL	101	PQL	mg/Kg	J	Z
TIN	2.89	J	1.01	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: SL-253-SA5A-SB-4.0-5.0 *Collected:* 4/22/2011 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
POTASSIUM	2090		20.7	MDL	57.6	PQL	mg/Kg	J	Q
TIN	3.19	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

Sample ID: SL-253-SA5A-SB-8.0-9.0 *Collected:* 4/22/2011 4:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2080		19.7	MDL	54.8	PQL	mg/Kg	J	Q
TIN	3.29	J	1.10	MDL	11.0	PQL	mg/Kg	U	B

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: DUP16-SA5A-QC-042211 *Collected:* 4/22/2011 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	0.170	J	0.0443	MDL	0.443	PQL	mg/Kg	J	Z

Sample ID: DUP16-SA5A-QC-042211 *Collected:* 4/22/2011 11:15:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.575		0.0554	MDL	0.111	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: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: DUP16-SA5A-QC-042211 *Collected:* 4/22/2011 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	113		0.120	MDL	0.443	PQL	mg/Kg	J	E, A

Sample ID: DUP16-SA5A-QC-042211 *Collected:* 4/22/2011 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	0.0664	U	0.0664	MDL	0.221	PQL	mg/Kg	UJ	Q, E
ARSENIC	8.02		0.0886	MDL	0.443	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.952		0.0177	MDL	0.111	PQL	mg/Kg	J	E
CADMIUM	0.112		0.0443	MDL	0.111	PQL	mg/Kg	J	Q, E
CHROMIUM	25.9		0.133	MDL	0.443	PQL	mg/Kg	J	Q, A
COBALT	8.70		0.0221	MDL	0.111	PQL	mg/Kg	J	Q, E, A
COPPER	14.5		0.0731	MDL	0.443	PQL	mg/Kg	J	Q, E, A
LEAD	8.33		0.0115	MDL	0.221	PQL	mg/Kg	J	Q, Q, E
NICKEL	20.2		0.111	MDL	0.443	PQL	mg/Kg	J	Q, E, A
SILVER	0.0405	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z, Q, E
VANADIUM	46.5		0.0244	MDL	0.111	PQL	mg/Kg	J	Q, Q, A
ZINC	69.4		0.620	MDL	3.32	PQL	mg/Kg	J	E, A

Sample ID: SL-007-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 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	0.0767	J	0.0452	MDL	0.452	PQL	mg/Kg	J	Z

Sample ID: SL-007-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 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	0.385		0.0564	MDL	0.113	PQL	mg/Kg	J	E

Sample ID: SL-007-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 9:33:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	107		0.122	MDL	0.452	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: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-007-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 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	0.0677	U	0.0677	MDL	0.226	PQL	mg/Kg	UJ	Q, E
ARSENIC	6.81		0.0903	MDL	0.452	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.800		0.0181	MDL	0.113	PQL	mg/Kg	J	E
CADMIUM	0.210		0.0452	MDL	0.113	PQL	mg/Kg	J	Q, E
CHROMIUM	28.1		0.135	MDL	0.452	PQL	mg/Kg	J	Q, A
COBALT	10.4		0.0226	MDL	0.113	PQL	mg/Kg	J	Q, E, A
COPPER	14.4		0.0745	MDL	0.452	PQL	mg/Kg	J	Q, E, A
LEAD	7.94		0.0117	MDL	0.226	PQL	mg/Kg	J	Q, Q, E
NICKEL	18.4		0.113	MDL	0.452	PQL	mg/Kg	J	Q, E, A
SILVER	0.0333	J	0.0135	MDL	0.113	PQL	mg/Kg	J	Z, Q, E
VANADIUM	51.3		0.0248	MDL	0.113	PQL	mg/Kg	J	Q, Q, A
ZINC	64.4		0.632	MDL	3.39	PQL	mg/Kg	J	E, A

Sample ID: SL-007-SA8N-SB-9.0-10 *Collected:* 4/22/2011 9:45:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0562	J	0.0457	MDL	0.457	PQL	mg/Kg	J	Z

Sample ID: SL-007-SA8N-SB-9.0-10 *Collected:* 4/22/2011 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
MOLYBDENUM	0.412		0.0572	MDL	0.114	PQL	mg/Kg	J	E

Sample ID: SL-007-SA8N-SB-9.0-10 *Collected:* 4/22/2011 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
BARIUM	93.2		0.123	MDL	0.457	PQL	mg/Kg	J	E, A

Sample ID: SL-007-SA8N-SB-9.0-10 *Collected:* 4/22/2011 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	0.0686	U	0.0686	MDL	0.229	PQL	mg/Kg	UJ	Q, E
ARSENIC	6.72		0.0915	MDL	0.457	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.821		0.0183	MDL	0.114	PQL	mg/Kg	J	E
CADMIUM	0.259		0.0457	MDL	0.114	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: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-007-SA8N-SB-9.0-10 *Collected:* 4/22/2011 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
CHROMIUM	27.4		0.137	MDL	0.457	PQL	mg/Kg	J	Q, A
COBALT	10.4		0.0229	MDL	0.114	PQL	mg/Kg	J	Q, E, A
COPPER	14.4		0.0755	MDL	0.457	PQL	mg/Kg	J	Q, E, A
LEAD	7.84		0.0119	MDL	0.229	PQL	mg/Kg	J	Q, Q, E
NICKEL	21.1		0.114	MDL	0.457	PQL	mg/Kg	J	Q, E, A
SILVER	0.0318	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z, Q, E
VANADIUM	49.4		0.0252	MDL	0.114	PQL	mg/Kg	J	Q, Q, A
ZINC	61.7		0.640	MDL	3.43	PQL	mg/Kg	J	E, A

Sample ID: SL-010-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 11:10:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0661	J	0.0468	MDL	0.468	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 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
MOLYBDENUM	0.344		0.0585	MDL	0.117	PQL	mg/Kg	J	E

Sample ID: SL-010-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 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
BARIUM	113		0.126	MDL	0.468	PQL	mg/Kg	J	E, A

Sample ID: SL-010-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 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	0.0918	J	0.0703	MDL	0.234	PQL	mg/Kg	J	Z, Q, E
ARSENIC	7.35		0.0937	MDL	0.468	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.879		0.0187	MDL	0.117	PQL	mg/Kg	J	E
CADMIUM	0.196		0.0468	MDL	0.117	PQL	mg/Kg	J	Q, E
CHROMIUM	31.9		0.141	MDL	0.468	PQL	mg/Kg	J	Q, A
COBALT	11.9		0.0234	MDL	0.117	PQL	mg/Kg	J	Q, E, A
COPPER	15.7		0.0773	MDL	0.468	PQL	mg/Kg	J	Q, E, A
LEAD	9.40		0.0122	MDL	0.234	PQL	mg/Kg	J	Q, 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: DE135 **Laboratory:** LL

EDD Filename: PrepDE135_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-010-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 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
NICKEL	20.7		0.117	MDL	0.468	PQL	mg/Kg	J	Q, E, A
SILVER	0.0304	J	0.0141	MDL	0.117	PQL	mg/Kg	J	Z, Q, E
VANADIUM	57.0		0.0258	MDL	0.117	PQL	mg/Kg	J	Q, Q, A
ZINC	65.6		0.656	MDL	3.51	PQL	mg/Kg	J	E, A

Sample ID: SL-010-SA8N-SB-9.0-10 *Collected:* 4/22/2011 11:20:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0669	J	0.0464	MDL	0.464	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA8N-SB-9.0-10 *Collected:* 4/22/2011 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
MOLYBDENUM	0.346		0.0580	MDL	0.116	PQL	mg/Kg	J	E

Sample ID: SL-010-SA8N-SB-9.0-10 *Collected:* 4/22/2011 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
BARIUM	146		0.125	MDL	0.464	PQL	mg/Kg	J	E, A

Sample ID: SL-010-SA8N-SB-9.0-10 *Collected:* 4/22/2011 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	0.0809	J	0.0696	MDL	0.232	PQL	mg/Kg	J	Z, Q, E
ARSENIC	7.63		0.0928	MDL	0.464	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.940		0.0186	MDL	0.116	PQL	mg/Kg	J	E
CADMIUM	0.212		0.0464	MDL	0.116	PQL	mg/Kg	J	Q, E
CHROMIUM	29.8		0.139	MDL	0.464	PQL	mg/Kg	J	Q, A
COBALT	10.9		0.0232	MDL	0.116	PQL	mg/Kg	J	Q, E, A
COPPER	17.4		0.0766	MDL	0.464	PQL	mg/Kg	J	Q, E, A
LEAD	8.42		0.0121	MDL	0.232	PQL	mg/Kg	J	Q, Q, E
NICKEL	23.5		0.116	MDL	0.464	PQL	mg/Kg	J	Q, E, A
SILVER	0.0943	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z, Q, E
VANADIUM	54.3		0.0255	MDL	0.116	PQL	mg/Kg	J	Q, Q, A
ZINC	76.2		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: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-011-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 12:52:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0853	J	0.0460	MDL	0.460	PQL	mg/Kg	J	Z

Sample ID: SL-011-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 12:52:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.550		0.0574	MDL	0.115	PQL	mg/Kg	J	E

Sample ID: SL-011-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 12:52:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	169		0.124	MDL	0.460	PQL	mg/Kg	J	E, A

Sample ID: SL-011-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 12:52:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0689	U	0.0689	MDL	0.230	PQL	mg/Kg	UJ	Q, E
ARSENIC	8.90		0.0919	MDL	0.460	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	1.07		0.0184	MDL	0.115	PQL	mg/Kg	J	E
CADMIUM	0.224		0.0460	MDL	0.115	PQL	mg/Kg	J	Q, E
CHROMIUM	32.8		0.138	MDL	0.460	PQL	mg/Kg	J	Q, A
COBALT	14.7		0.0230	MDL	0.115	PQL	mg/Kg	J	Q, E, A
COPPER	14.5		0.0758	MDL	0.460	PQL	mg/Kg	J	Q, E, A
LEAD	11.1		0.0119	MDL	0.230	PQL	mg/Kg	J	Q, Q, E
NICKEL	25.7		0.115	MDL	0.460	PQL	mg/Kg	J	Q, E, A
SILVER	0.0636	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z, Q, E
VANADIUM	62.0		0.0253	MDL	0.115	PQL	mg/Kg	J	Q, Q, A
ZINC	74.6		0.643	MDL	3.45	PQL	mg/Kg	J	E, A

Sample ID: SL-011-SA8N-SB-9.0-10.0 *Collected:* 4/22/2011 12:12:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0713	J	0.0469	MDL	0.469	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: DE135 **Laboratory:** LL

EDD Filename: PrepDE135_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-011-SA8N-SB-9.0-10.0 *Collected:* 4/22/2011 12:12:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.352		0.0586	MDL	0.117	PQL	mg/Kg	J	E

Sample ID: SL-011-SA8N-SB-9.0-10.0 *Collected:* 4/22/2011 12:12:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	125		0.127	MDL	0.469	PQL	mg/Kg	J	E, A

Sample ID: SL-011-SA8N-SB-9.0-10.0 *Collected:* 4/22/2011 12:12:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0703	U	0.0703	MDL	0.234	PQL	mg/Kg	UJ	Q, E
ARSENIC	8.06		0.0938	MDL	0.469	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.964		0.0188	MDL	0.117	PQL	mg/Kg	J	E
CADMIUM	0.152		0.0469	MDL	0.117	PQL	mg/Kg	J	Q, E
CHROMIUM	32.3		0.141	MDL	0.469	PQL	mg/Kg	J	Q, A
COBALT	13.0		0.0234	MDL	0.117	PQL	mg/Kg	J	Q, E, A
COPPER	15.9		0.0774	MDL	0.469	PQL	mg/Kg	J	Q, E, A
LEAD	9.97		0.0122	MDL	0.234	PQL	mg/Kg	J	Q, Q, E
NICKEL	24.9		0.117	MDL	0.469	PQL	mg/Kg	J	Q, E, A
SILVER	0.0551	J	0.0141	MDL	0.117	PQL	mg/Kg	J	Z, Q, E
VANADIUM	56.8		0.0258	MDL	0.117	PQL	mg/Kg	J	Q, Q, A
ZINC	69.2		0.657	MDL	3.52	PQL	mg/Kg	J	E, A

Sample ID: SL-064-SA5A-SB-3.0-4.0 *Collected:* 4/22/2011 11:10:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.134	J	0.0440	MDL	0.440	PQL	mg/Kg	J	Z

Sample ID: SL-064-SA5A-SB-3.0-4.0 *Collected:* 4/22/2011 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
MOLYBDENUM	0.532		0.0550	MDL	0.110	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: DE135 **Laboratory:** LL

EDD Filename: PrepDE135_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-064-SA5A-SB-3.0-4.0 *Collected:* 4/22/2011 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
BARIUM	102		0.119	MDL	0.440	PQL	mg/Kg	J	E, A

Sample ID: SL-064-SA5A-SB-3.0-4.0 *Collected:* 4/22/2011 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	0.0659	U	0.0659	MDL	0.220	PQL	mg/Kg	UJ	Q, E
ARSENIC	7.42		0.0879	MDL	0.440	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.865		0.0176	MDL	0.110	PQL	mg/Kg	J	E
CADMIUM	0.0937	J	0.0440	MDL	0.110	PQL	mg/Kg	J	Z, Q, E
CHROMIUM	23.6		0.132	MDL	0.440	PQL	mg/Kg	J	Q, A
COBALT	8.10		0.0220	MDL	0.110	PQL	mg/Kg	J	Q, E, A
COPPER	11.4		0.0725	MDL	0.440	PQL	mg/Kg	J	Q, E, A
LEAD	7.52		0.0114	MDL	0.220	PQL	mg/Kg	J	Q, Q, E
NICKEL	18.5		0.110	MDL	0.440	PQL	mg/Kg	J	Q, E, A
SILVER	0.0404	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z, Q, E
VANADIUM	41.7		0.0242	MDL	0.110	PQL	mg/Kg	J	Q, Q, A
ZINC	63.8		0.615	MDL	3.30	PQL	mg/Kg	J	E, A

Sample ID: SL-166-SA5A-SS-0.0-0.5 *Collected:* 4/22/2011 1:45:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0912	J	0.0403	MDL	0.403	PQL	mg/Kg	J	Z

Sample ID: SL-166-SA5A-SS-0.0-0.5 *Collected:* 4/22/2011 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
MOLYBDENUM	0.568		0.0504	MDL	0.101	PQL	mg/Kg	J	E

Sample ID: SL-166-SA5A-SS-0.0-0.5 *Collected:* 4/22/2011 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
BARIUM	71.3		0.109	MDL	0.403	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: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: **SL-166-SA5A-SS-0.0-0.5** ***Collected:*** **4/22/2011 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	0.0667	J	0.0605	MDL	0.202	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.01		0.0806	MDL	0.403	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.696		0.0161	MDL	0.101	PQL	mg/Kg	J	E
CADMIUM	0.167		0.0403	MDL	0.101	PQL	mg/Kg	J	Q, E
CHROMIUM	14.0		0.121	MDL	0.403	PQL	mg/Kg	J	Q, A
COBALT	7.80		0.0202	MDL	0.101	PQL	mg/Kg	J	Q, E, A
COPPER	6.54		0.0665	MDL	0.403	PQL	mg/Kg	J	Q, E, A
LEAD	5.86		0.0105	MDL	0.202	PQL	mg/Kg	J	Q, Q, E
NICKEL	10.4		0.101	MDL	0.403	PQL	mg/Kg	J	Q, E, A
SILVER	0.191		0.0121	MDL	0.101	PQL	mg/Kg	J	Q, E
VANADIUM	29.5		0.0222	MDL	0.101	PQL	mg/Kg	J	Q, Q, A
ZINC	67.6		0.564	MDL	3.02	PQL	mg/Kg	J	E, A

Sample ID: **SL-253-SA5A-SB-4.0-5.0** ***Collected:*** **4/22/2011 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	0.0748	J	0.0456	MDL	0.456	PQL	mg/Kg	J	Z

Sample ID: **SL-253-SA5A-SB-4.0-5.0** ***Collected:*** **4/22/2011 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	0.783		0.0570	MDL	0.114	PQL	mg/Kg	J	E

Sample ID: **SL-253-SA5A-SB-4.0-5.0** ***Collected:*** **4/22/2011 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	139		0.123	MDL	0.456	PQL	mg/Kg	J	E, A

Sample ID: **SL-253-SA5A-SB-4.0-5.0** ***Collected:*** **4/22/2011 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	0.0684	U	0.0684	MDL	0.228	PQL	mg/Kg	UJ	Q, E
ARSENIC	6.07		0.0913	MDL	0.456	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	1.04		0.0183	MDL	0.114	PQL	mg/Kg	J	E
CADMIUM	0.0854	J	0.0456	MDL	0.114	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: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-253-SA5A-SB-4.0-5.0 ***Collected:*** 4/22/2011 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
CHROMIUM	24.8		0.137	MDL	0.456	PQL	mg/Kg	J	Q, A
COBALT	8.59		0.0228	MDL	0.114	PQL	mg/Kg	J	Q, E, A
COPPER	10.3		0.0753	MDL	0.456	PQL	mg/Kg	J	Q, E, A
LEAD	7.08		0.0119	MDL	0.228	PQL	mg/Kg	J	Q, Q, E
NICKEL	20.5		0.114	MDL	0.456	PQL	mg/Kg	J	Q, E, A
SILVER	0.0646	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z, Q, E
VANADIUM	49.5		0.0251	MDL	0.114	PQL	mg/Kg	J	Q, Q, A
ZINC	60.8		0.639	MDL	3.42	PQL	mg/Kg	J	E, A

Sample ID: SL-253-SA5A-SB-8.0-9.0 ***Collected:*** 4/22/2011 4:05:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0882	J	0.0443	MDL	0.443	PQL	mg/Kg	J	Z

Sample ID: SL-253-SA5A-SB-8.0-9.0 ***Collected:*** 4/22/2011 4:05:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.480		0.0554	MDL	0.111	PQL	mg/Kg	J	E

Sample ID: SL-253-SA5A-SB-8.0-9.0 ***Collected:*** 4/22/2011 4:05:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	105		0.120	MDL	0.443	PQL	mg/Kg	J	E, A

Sample ID: SL-253-SA5A-SB-8.0-9.0 ***Collected:*** 4/22/2011 4:05:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0664	U	0.0664	MDL	0.221	PQL	mg/Kg	UJ	Q, E
ARSENIC	5.95		0.0886	MDL	0.443	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.775		0.0177	MDL	0.111	PQL	mg/Kg	J	E
CADMIUM	0.101	J	0.0443	MDL	0.111	PQL	mg/Kg	J	Z, Q, E
CHROMIUM	26.4		0.133	MDL	0.443	PQL	mg/Kg	J	Q, A
COBALT	8.45		0.0221	MDL	0.111	PQL	mg/Kg	J	Q, E, A
COPPER	11.0		0.0731	MDL	0.443	PQL	mg/Kg	J	Q, E, A
LEAD	6.76		0.0115	MDL	0.221	PQL	mg/Kg	J	Q, 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: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-253-SA5A-SB-8.0-9.0 *Collected:* 4/22/2011 4:05:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	15.1		0.111	MDL	0.443	PQL	mg/Kg	J	Q, E, A
SILVER	0.0423	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z, Q, E
VANADIUM	47.6		0.0244	MDL	0.111	PQL	mg/Kg	J	Q, Q, A
ZINC	60.6		0.620	MDL	3.32	PQL	mg/Kg	J	E, A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: DUP16-SA5A-QC-042211 *Collected:* 4/22/2011 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
HEXAVALENT CHROMIUM	0.29	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z, FD

Sample ID: SL-007-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 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
HEXAVALENT CHROMIUM	0.47	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-064-SA5A-SB-3.0-4.0 *Collected:* 4/22/2011 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	0.22	U	0.22	MDL	1.1	PQL	mg/Kg	UJ	FD

Sample ID: SL-253-SA5A-SB-4.0-5.0 *Collected:* 4/22/2011 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
HEXAVALENT CHROMIUM	0.40	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-253-SA5A-SB-8.0-9.0 *Collected:* 4/22/2011 4:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.26	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: DUP16-SA5A-QC-042211 *Collected:* 4/22/2011 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
MERCURY	0.0093	J	0.0032	MDL	0.110	PQL	mg/Kg	UJ	B, FD

Sample ID: SL-007-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 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
MERCURY	0.0224	J	0.0031	MDL	0.108	PQL	mg/Kg	U	B

Sample ID: SL-007-SA8N-SB-9.0-10 *Collected:* 4/22/2011 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
MERCURY	0.0327	J	0.0032	MDL	0.113	PQL	mg/Kg	U	B

Sample ID: SL-010-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 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	0.0174	J	0.0032	MDL	0.111	PQL	mg/Kg	U	B

Sample ID: SL-010-SA8N-SB-9.0-10 *Collected:* 4/22/2011 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	0.0225	J	0.0032	MDL	0.112	PQL	mg/Kg	U	B

Sample ID: SL-011-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 12:52:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0140	J	0.0032	MDL	0.112	PQL	mg/Kg	U	B

Sample ID: SL-011-SA8N-SB-9.0-10.0 *Collected:* 4/22/2011 12:12:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0216	J	0.0032	MDL	0.113	PQL	mg/Kg	U	B

Sample ID: SL-064-SA5A-SB-3.0-4.0 *Collected:* 4/22/2011 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	0.0261	J	0.0031	MDL	0.107	PQL	mg/Kg	UJ	B, 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: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-166-SA5A-SS-0.0-0.5 *Collected:* 4/22/2011 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	0.0823	J	0.0029	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-253-SA5A-SB-4.0-5.0 *Collected:* 4/22/2011 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
MERCURY	0.0124	J	0.0032	MDL	0.113	PQL	mg/Kg	U	B

Sample ID: SL-253-SA5A-SB-8.0-9.0 *Collected:* 4/22/2011 4:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0087	J	0.0031	MDL	0.109	PQL	mg/Kg	U	B

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-010-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 11:10:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.86	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-011-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 12:52:00 *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	0.47	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-011-SA8N-SB-9.0-10.0 *Collected:* 4/22/2011 12:12:00 *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)	0.53	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-064-SA5A-SB-3.0-4.0 *Collected:* 4/22/2011 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
BENZIDINE	1300	U	1300	MDL	3700	PQL	ug/Kg	UJ	Q

Method Category: SVOA

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

Sample ID: DUP16-SA5A-QC-042211 *Collected:* 4/22/2011 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
Diethylphthalate	7.0	J	6.7	MDL	20	PQL	ug/Kg	J	Z, FD
Di-n-butylphthalate	14	J	6.7	MDL	20	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	0.97	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z, FD

Sample ID: SL-011-SA8N-SB-4.0-5.0 *Collected:* 4/22/2011 12:52:00 *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-ETHYLHEXYL)PHTHALATE	9.1	J	7.1	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-064-SA5A-SB-3.0-4.0 *Collected:* 4/22/2011 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
Diethylphthalate	6.6	U	6.6	MDL	20	PQL	ug/Kg	UJ	FD
Di-n-butylphthalate	6.6	U	6.6	MDL	20	PQL	ug/Kg	UJ	FD
FLUORANTHENE	0.74	U	0.74	MDL	1.8	PQL	ug/Kg	UJ	FD

Sample ID: SL-253-SA5A-SB-4.0-5.0 *Collected:* 4/22/2011 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
CHRYSENE	0.48	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
FLUORANTHENE	1.3	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
PHENANTHRENE	1.0	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	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: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **VOA**

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

Sample ID: **DUP16-SA5A-QC-042211** ***Collected:*** **4/22/2011 11:15:00** ***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	0.67	J	0.24	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: **SL-007-SA8N-SB-4.0-5.0** ***Collected:*** **4/22/2011 9:33:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.78**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	0.58	J	0.22	MDL	3.6	PQL	ug/Kg	U	B

Sample ID: **SL-010-SA8N-SB-4.0-5.0** ***Collected:*** **4/22/2011 11:10:00** ***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	0.52	J	0.25	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: **SL-010-SA8N-SB-9.0-10** ***Collected:*** **4/22/2011 11:20:00** ***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	0.43	J	0.24	MDL	3.9	PQL	ug/Kg	U	B

Sample ID: **SL-011-SA8N-SB-4.0-5.0** ***Collected:*** **4/22/2011 12:52:00** ***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	0.51	J	0.24	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: **SL-011-SA8N-SB-9.0-10.0** ***Collected:*** **4/22/2011 12:12:00** ***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	0.46	J	0.25	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: **SL-064-SA5A-SB-3.0-4.0** ***Collected:*** **4/22/2011 11:10:00** ***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	0.45	J	0.22	MDL	3.7	PQL	ug/Kg	U	B

Sample ID: **SL-253-SA5A-SB-4.0-5.0** ***Collected:*** **4/22/2011 3:30:00** ***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	0.41	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: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category:	VOA		
Method:	8260B	*Matrix:*	SO

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_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

Data Qualifier Summary

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_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: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_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

DE135

Method Blank Outlier Report

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: DE135_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11908AB220116	5/5/2011 1:16:00 AM	ALUMINUM IRON PHOSPHORUS STRONTIUM TIN	5.87 mg/Kg 5.63 mg/Kg 1.51 mg/Kg 0.195 mg/Kg 1.76 mg/Kg	DUP16-SA5A-QC-042211 SL-007-SA8N-SB-4.0-5.0 SL-007-SA8N-SB-9.0-10 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-166-SA5A-SS-0.0-0.5 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0
P11908AB220919	5/5/2011 9:19:00 AM	CALCIUM	132 mg/Kg	DUP16-SA5A-QC-042211 SL-007-SA8N-SB-4.0-5.0 SL-007-SA8N-SB-9.0-10 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-166-SA5A-SS-0.0-0.5 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0

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
DUP16-SA5A-QC-042211(RES)	TIN	3.45 mg/Kg	3.45U mg/Kg
SL-007-SA8N-SB-4.0-5.0(RES)	TIN	3.02 mg/Kg	3.02U mg/Kg
SL-007-SA8N-SB-9.0-10(RES)	TIN	3.15 mg/Kg	3.15U mg/Kg
SL-010-SA8N-SB-4.0-5.0(RES)	TIN	3.13 mg/Kg	3.13U mg/Kg
SL-010-SA8N-SB-9.0-10(RES)	TIN	3.31 mg/Kg	3.31U mg/Kg
SL-011-SA8N-SB-4.0-5.0(RES)	TIN	3.26 mg/Kg	3.26U mg/Kg
SL-011-SA8N-SB-9.0-10.0(RES)	TIN	3.30 mg/Kg	3.30U mg/Kg
SL-064-SA5A-SB-3.0-4.0(RES)	TIN	3.50 mg/Kg	3.50U mg/Kg
SL-166-SA5A-SS-0.0-0.5(RES)	TIN	2.89 mg/Kg	2.89U mg/Kg
SL-253-SA5A-SB-4.0-5.0(RES)	TIN	3.19 mg/Kg	3.19U mg/Kg
SL-253-SA5A-SB-8.0-9.0(RES)	TIN	3.29 mg/Kg	3.29U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11926AB221028A	5/3/2011 10:28:00 AM	COPPER	0.0910 mg/Kg	DUP16-SA5A-QC-042211 SL-007-SA8N-SB-4.0-5.0 SL-007-SA8N-SB-9.0-10 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-166-SA5A-SS-0.0-0.5 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: DE135_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **7471A**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11911AB220440	5/3/2011 4:40:00 AM	MERCURY	0.0140 mg/Kg	DUP16-SA5A-QC-042211 SL-007-SA8N-SB-4.0-5.0 SL-007-SA8N-SB-9.0-10 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-166-SA5A-SS-0.0-0.5 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0

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
DUP16-SA5A-QC-042211(RES)	MERCURY	0.0093 mg/Kg	0.0093U mg/Kg
SL-007-SA8N-SB-4.0-5.0(RES)	MERCURY	0.0224 mg/Kg	0.0224U mg/Kg
SL-007-SA8N-SB-9.0-10(RES)	MERCURY	0.0327 mg/Kg	0.0327U mg/Kg
SL-010-SA8N-SB-4.0-5.0(RES)	MERCURY	0.0174 mg/Kg	0.0174U mg/Kg
SL-010-SA8N-SB-9.0-10(RES)	MERCURY	0.0225 mg/Kg	0.0225U mg/Kg
SL-011-SA8N-SB-4.0-5.0(RES)	MERCURY	0.0140 mg/Kg	0.0140U mg/Kg
SL-011-SA8N-SB-9.0-10.0(RES)	MERCURY	0.0216 mg/Kg	0.0216U mg/Kg
SL-064-SA5A-SB-3.0-4.0(RES)	MERCURY	0.0261 mg/Kg	0.0261U mg/Kg
SL-253-SA5A-SB-4.0-5.0(RES)	MERCURY	0.0124 mg/Kg	0.0124U mg/Kg
SL-253-SA5A-SB-8.0-9.0(RES)	MERCURY	0.0087 mg/Kg	0.0087U mg/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB38B210138A	4/27/2011 1:38:00 AM	METHYLENE CHLORIDE TOLUENE	0.46 ug/Kg 0.08 ug/Kg	DUP16-SA5A-QC-042211 SL-007-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-253-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
DUP16-SA5A-QC-042211(RES)	METHYLENE CHLORIDE	0.67 ug/Kg	4.0U ug/Kg
SL-007-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.58 ug/Kg	3.6U ug/Kg
SL-010-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.52 ug/Kg	4.1U ug/Kg
SL-010-SA8N-SB-9.0-10(RES)	METHYLENE CHLORIDE	0.43 ug/Kg	3.9U ug/Kg
SL-011-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.51 ug/Kg	4.1U ug/Kg
SL-011-SA8N-SB-9.0-10.0(RES)	METHYLENE CHLORIDE	0.46 ug/Kg	4.2U ug/Kg
SL-064-SA5A-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	0.45 ug/Kg	3.7U ug/Kg
SL-253-SA5A-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.41 ug/Kg	4.3U ug/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: DE135_v1. **eQAPP Name: CDM_SSFL_110509**

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLD12B260920	5/3/2011 9:20:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE	20 ug/Kg	DUP16-SA5A-QC-042211 SL-007-SA8N-SB-4.0-5.0 SL-007-SA8N-SB-9.0-10 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-166-SA5A-SS-0.0-0.5 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: DE135_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-007-SA8N-SB-9.0-10MSD (SL-007-SA8N-SB-9.0-10)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	- - -	115 116 113	59.00-109.00 63.00-107.00 63.00-107.00	- - -	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	J (all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-064-SA5A-SB-3.0-4.0MS SL-064-SA5A-SB-3.0-4.0MSD (DUP16-SA5A-QC-042211 SL-007-SA8N-SB-4.0-5.0 SL-007-SA8N-SB-9.0-10 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-166-SA5A-SS-0.0-0.5 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0)	ANTIMONY	27	36	75.00-125.00	28 (20.00)	ANTIMONY	J(all detects) UJ(all non-detects) Post Spike = 104%
SL-064-SA5A-SB-3.0-4.0MS SL-064-SA5A-SB-3.0-4.0MSD (DUP16-SA5A-QC-042211 SL-007-SA8N-SB-4.0-5.0 SL-007-SA8N-SB-9.0-10 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-166-SA5A-SS-0.0-0.5 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0)	ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT COPPER LEAD NICKEL SILVER VANADIUM ZINC	70 - - 66 - - 68 - - 59 39	184 - 135 - 133 137 148 153 127 153 209	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	25 (20.00) 22 (20.00) 24 (20.00) - 23 (20.00) 24 (20.00) 24 (20.00) 25 (20.00) 21 (20.00) - 24 (20.00)	ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT COPPER LEAD NICKEL SILVER VANADIUM ZINC	J(all detects) UJ(all non-detects) Zn, No Qual %R, >4x
SL-064-SA5A-SB-3.0-4.0MSD (DUP16-SA5A-QC-042211 SL-007-SA8N-SB-4.0-5.0 SL-007-SA8N-SB-9.0-10 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-166-SA5A-SS-0.0-0.5 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0)	MOLYBDENUM	-	-	75.00-125.00	28 (20.00)	MOLYBDENUM	J(all detects) UJ(all non-detects)
SL-064-SA5A-SB-3.0-4.0MS SL-064-SA5A-SB-3.0-4.0MSD (DUP16-SA5A-QC-042211 SL-007-SA8N-SB-4.0-5.0 SL-007-SA8N-SB-9.0-10 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-166-SA5A-SS-0.0-0.5 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0)	BARIUM	-1	316	75.00-125.00	29 (20.00)	BARIUM	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

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: DE135_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-064-SA5A-SB-3.0-4.0MS SL-064-SA5A-SB-3.0-4.0MSD (DUP16-SA5A-QC-042211 SL-007-SA8N-SB-4.0-5.0 SL-007-SA8N-SB-9.0-10 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-166-SA5A-SS-0.0-0.5 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0)	ALUMINUM CALCIUM IRON MAGNESIUM POTASSIUM TITANIUM	2399 184 2247 360 - 237	2118 139 1156 221 137 231	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 POTASSIUM TITANIUM	J(all detects) Al, Ca, Fe, Mg, Ti, No Qual, >4x
SL-064-SA5A-SB-3.0-4.0MS (DUP16-SA5A-QC-042211 SL-007-SA8N-SB-4.0-5.0 SL-007-SA8N-SB-9.0-10 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-166-SA5A-SS-0.0-0.5 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0)	MANGANESE	67	-	75.00-125.00	-	MANGANESE	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-064-SA5A-SB-3.0-4.0MS SL-064-SA5A-SB-3.0-4.0MSD (SL-064-SA5A-SB-3.0-4.0)	BENZIDINE	14	15	35.00-141.00	-	BENZIDINE	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-064-SA5A-SB-3.0-4.0MS (DUP16-SA5A-QC-042211 SL-064-SA5A-SB-3.0-4.0 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0)	CALCIUM	56	-	75.00-125.00	-	CALCIUM	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: DE135_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-064-SA5A-SB-3.0-4.0MS (SL-007-SA8N-SB-4.0-5.0 SL-007-SA8N-SB-9.0-10 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-166-SA5A-SS-0.0-0.5 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0)	FLUORIDE	47	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
DUP16-SA5A-QC-042211MS (DUP16-SA5A-QC-042211)	FLUORIDE	49	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: DE135_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-064-SA5A-SB-3.0-4.0DUP (DUP16-SA5A-QC-042211 SL-007-SA8N-SB-4.0-5.0 SL-007-SA8N-SB-9.0-10 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-166-SA5A-SS-0.0-0.5 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0)	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-064-SA5A-SB-3.0-4.0DUP (DUP16-SA5A-QC-042211 SL-007-SA8N-SB-4.0-5.0 SL-007-SA8N-SB-9.0-10 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-166-SA5A-SS-0.0-0.5 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0)	SELENIUM	22	20.00	No Qual, OK by difference

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-064-SA5A-SB-3.0-4.0DUP (DUP16-SA5A-QC-042211 SL-007-SA8N-SB-4.0-5.0 SL-007-SA8N-SB-9.0-10 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-166-SA5A-SS-0.0-0.5 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0)	HEXAVALENT CHROMIUM	200	20.00	No Qual, OK by difference

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: DE135_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-064-SA5A-SB-3.0-4.0DUP (DUP16-SA5A-QC-042211 SL -007-SA8N-SB-4.0-5.0 SL -007-SA8N-SB-9.0-10 SL -010-SA8N-SB-4.0-5.0 SL -010-SA8N-SB-9.0-10 SL -011-SA8N-SB-4.0-5.0 SL -011-SA8N-SB-9.0-10.0 SL -064-SA5A-SB-3.0-4.0 SL -166-SA5A-SS-0.0-0.5 SL -253-SA5A-SB-4.0-5.0 SL -253-SA5A-SB-8.0-9.0)	MERCURY	123	20.00	No Qual, OK by difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE135 Laboratory: LL

EDD Filename: DE135_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
LCS1Y32Q211104A	1,2-DICHLOROETHANE	131	-	70.00-130.00	-	1,2-DICHLOROETHANE	J(all detects)
LCS1Y32Y211125A	2-Chloro-1,1,1-trifluoroethane	132	132	77.00-120.00	-	2-Chloro-1,1,1-trifluoroethane	
LCSY32Q211001A	BROMOMETHANE	121	125	44.00-120.00	-	BROMOMETHANE	
LCSY32Y211043A	CHLOROMETHANE	-	139	60.00-129.00	-	CHLOROMETHANE	
(TB-042211)	DICHLORODIFLUOROMETHAN	123	122	47.00-120.00	-	DICHLORODIFLUOROMETHA	
	VINYL CHLORIDE	-	127	65.00-125.00	-	VINYL CHLORIDE	

Method: 8330A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11184AQ240252A (SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0)	PETN	124	-	80.00-120.00	-	PETN	J (all detects)

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11233AY240336A (DUP16-SA5A-QC-042211)	Aroclor 5442	-	115	36.00-106.00	-	Aroclor 5432, 5442, and 5460	J(all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11926AQ221031A (DUP16-SA5A-QC-042211 SL-007-SA8N-SB-4.0-5.0 SL-007-SA8N-SB-9.0-10 SL-010-SA8N-SB-4.0-5.0 SL-010-SA8N-SB-9.0-10 SL-011-SA8N-SB-4.0-5.0 SL-011-SA8N-SB-9.0-10.0 SL-064-SA5A-SB-3.0-4.0 SL-166-SA5A-SS-0.0-0.5 SL-253-SA5A-SB-4.0-5.0 SL-253-SA5A-SB-8.0-9.0)	ANTIMONY	68	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within limits

Field Duplicate RPD Report

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: DE135_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-064-SA5A-SB-3.0-4.0	DUP16-SA5A-QC-042211			
MOISTURE	10.8	10.6	2		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-064-SA5A-SB-3.0-4.0	DUP16-SA5A-QC-042211			
FLUORIDE	2.3	3.0	26	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-064-SA5A-SB-3.0-4.0	DUP16-SA5A-QC-042211			
ALUMINUM	21900	23700	8	50.00	
BORON	8.23	7.87	4	50.00	
CALCIUM	2920	2990	2	50.00	
IRON	24900	26600	7	50.00	
LITHIUM	32.8	36.7	11	50.00	
MAGNESIUM	5460	5980	9	50.00	
MANGANESE	292	296	1	50.00	No Qualifiers Applied
PHOSPHORUS	309	297	4	50.00	
POTASSIUM	2660	2490	7	50.00	
SODIUM	93.2	102	9	50.00	
STRONTIUM	18.3	19.6	7	50.00	
TIN	3.50	3.45	1	50.00	
TITANIUM	1170	1190	2	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-064-SA5A-SB-3.0-4.0	DUP16-SA5A-QC-042211			
ARSENIC	7.42	8.02	8	50.00	
BARIUM	102	113	10	50.00	
BERYLLIUM	0.865	0.952	10	50.00	
CADMIUM	0.0937	0.112	18	50.00	
CHROMIUM	23.6	25.9	9	50.00	
COBALT	8.10	8.70	7	50.00	
COPPER	11.4	14.5	24	50.00	
LEAD	7.52	8.33	10	50.00	No Qualifiers Applied
MOLYBDENUM	0.532	0.575	8	50.00	
NICKEL	18.5	20.2	9	50.00	
SELENIUM	0.134	0.170	24	50.00	
SILVER	0.0404	0.0405	0	50.00	
THALLIUM	0.316	0.353	11	50.00	
VANADIUM	41.7	46.5	11	50.00	
ZINC	63.8	69.4	8	50.00	

Field Duplicate RPD Report

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: PrepDE135_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-064-SA5A-SB-3.0-4.0	DUP16-SA5A-QC-042211			
HEXAVALENT CHROMIUM	1.1 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-064-SA5A-SB-3.0-4.0	DUP16-SA5A-QC-042211			
MERCURY	0.0261	0.0093	95	50.00	J(all detects)

Method: 8260B
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-064-SA5A-SB-3.0-4.0	DUP16-SA5A-QC-042211			
METHYLENE CHLORIDE	0.45	0.67	39	50.00	No Qualifiers Applied

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-064-SA5A-SB-3.0-4.0	DUP16-SA5A-QC-042211			
Diethylphthalate	20 U	7.0	200	50.00	J(all detects) UJ(all non-detects)
Di-n-butylphthalate	20 U	14	200	50.00	
FLUORANTHENE	1.8 U	0.97	200	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-064-SA5A-SB-3.0-4.0	DUP16-SA5A-QC-042211			
PH	6.86	7.08	3	50.00	No Qualifiers Applied

Method: ASTM D1498
Matrix: SO

Analyte	Concentration (mV)		Sample RPD	eQAPP RPD	Flag
	SL-064-SA5A-SB-3.0-4.0	DUP16-SA5A-QC-042211			
Oxidation Reduction Potential	392	454	15		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: DE135_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-010-SA8N-SB-4.0-5.0	Nitrate-NO3	J	1.2	1.8	PQL	mg/Kg	J (all detects)
SL-010-SA8N-SB-9.0-10	Nitrate-NO3	J	1.4	1.8	PQL	mg/Kg	J (all detects)
SL-011-SA8N-SB-4.0-5.0	Nitrate-NO3	J	1.5	1.8	PQL	mg/Kg	J (all detects)
SL-011-SA8N-SB-9.0-10.0	Nitrate-NO3	J	1.1	1.8	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP16-SA5A-QC-042211	SODIUM	J	102	111	PQL	mg/Kg	J (all detects)
	TIN	J	3.45	11.1	PQL	mg/Kg	
SL-007-SA8N-SB-4.0-5.0	SODIUM	J	91.2	113	PQL	mg/Kg	J (all detects)
	TIN	J	3.02	11.3	PQL	mg/Kg	
	Zirconium	J	3.10	5.64	PQL	mg/Kg	
SL-007-SA8N-SB-9.0-10	TIN	J	3.15	11.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.35	5.72	PQL	mg/Kg	
SL-010-SA8N-SB-4.0-5.0	TIN	J	3.13	11.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.72	5.68	PQL	mg/Kg	
SL-010-SA8N-SB-9.0-10	TIN	J	3.31	11.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.23	5.86	PQL	mg/Kg	
SL-011-SA8N-SB-4.0-5.0	TIN	J	3.26	11.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.78	5.80	PQL	mg/Kg	
SL-011-SA8N-SB-9.0-10.0	TIN	J	3.30	11.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.90	5.86	PQL	mg/Kg	
SL-064-SA5A-SB-3.0-4.0	SODIUM	J	93.2	111	PQL	mg/Kg	J (all detects)
	TIN	J	3.50	11.1	PQL	mg/Kg	
SL-166-SA5A-SS-0.0-0.5	SODIUM	J	62.2	101	PQL	mg/Kg	J (all detects)
	TIN	J	2.89	10.1	PQL	mg/Kg	
SL-253-SA5A-SB-4.0-5.0	TIN	J	3.19	11.5	PQL	mg/Kg	J (all detects)
SL-253-SA5A-SB-8.0-9.0	TIN	J	3.29	11.0	PQL	mg/Kg	J (all detects)

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP16-SA5A-QC-042211	SELENIUM	J	0.170	0.443	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0405	0.111	PQL	mg/Kg	
SL-007-SA8N-SB-4.0-5.0	SELENIUM	J	0.0767	0.452	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0333	0.113	PQL	mg/Kg	
SL-007-SA8N-SB-9.0-10	SELENIUM	J	0.0562	0.457	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0318	0.114	PQL	mg/Kg	
SL-010-SA8N-SB-4.0-5.0	ANTIMONY	J	0.0918	0.234	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0661	0.468	PQL	mg/Kg	
	SILVER	J	0.0304	0.117	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: DE135_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-010-SA8N-SB-9.0-10	ANTIMONY	J	0.0809	0.232	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0669	0.464	PQL	mg/Kg	
	SILVER	J	0.0943	0.116	PQL	mg/Kg	
SL-011-SA8N-SB-4.0-5.0	SELENIUM	J	0.0853	0.460	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0636	0.115	PQL	mg/Kg	
SL-011-SA8N-SB-9.0-10.0	SELENIUM	J	0.0713	0.469	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0551	0.117	PQL	mg/Kg	
SL-064-SA5A-SB-3.0-4.0	CADMIUM	J	0.0937	0.110	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.134	0.440	PQL	mg/Kg	
	SILVER	J	0.0404	0.110	PQL	mg/Kg	
SL-166-SA5A-SS-0.0-0.5	ANTIMONY	J	0.0667	0.202	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0912	0.403	PQL	mg/Kg	
SL-253-SA5A-SB-4.0-5.0	CADMIUM	J	0.0854	0.114	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0748	0.456	PQL	mg/Kg	
	SILVER	J	0.0646	0.114	PQL	mg/Kg	
SL-253-SA5A-SB-8.0-9.0	CADMIUM	J	0.101	0.111	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0882	0.443	PQL	mg/Kg	
	SILVER	J	0.0423	0.111	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP16-SA5A-QC-042211	HEXAVALENT CHROMIUM	J	0.29	1.1	PQL	mg/Kg	J (all detects)
SL-007-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.47	1.2	PQL	mg/Kg	J (all detects)
SL-253-SA5A-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.40	1.2	PQL	mg/Kg	J (all detects)
SL-253-SA5A-SB-8.0-9.0	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
DUP16-SA5A-QC-042211	MERCURY	J	0.0093	0.110	PQL	mg/Kg	J (all detects)
SL-007-SA8N-SB-4.0-5.0	MERCURY	J	0.0224	0.108	PQL	mg/Kg	J (all detects)
SL-007-SA8N-SB-9.0-10	MERCURY	J	0.0327	0.113	PQL	mg/Kg	J (all detects)
SL-010-SA8N-SB-4.0-5.0	MERCURY	J	0.0174	0.111	PQL	mg/Kg	J (all detects)
SL-010-SA8N-SB-9.0-10	MERCURY	J	0.0225	0.112	PQL	mg/Kg	J (all detects)
SL-011-SA8N-SB-4.0-5.0	MERCURY	J	0.0140	0.112	PQL	mg/Kg	J (all detects)
SL-011-SA8N-SB-9.0-10.0	MERCURY	J	0.0216	0.113	PQL	mg/Kg	J (all detects)
SL-064-SA5A-SB-3.0-4.0	MERCURY	J	0.0261	0.107	PQL	mg/Kg	J (all detects)
SL-166-SA5A-SS-0.0-0.5	MERCURY	J	0.0823	0.101	PQL	mg/Kg	J (all detects)
SL-253-SA5A-SB-4.0-5.0	MERCURY	J	0.0124	0.113	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE135 **Laboratory: LL**

EDD Filename: DE135_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-253-SA5A-SB-8.0-9.0	MERCURY	J	0.0087	0.109	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-010-SA8N-SB-4.0-5.0	EFH (C30-C40)	J	0.86	1.4	PQL	mg/Kg	J (all detects)
SL-011-SA8N-SB-4.0-5.0	EFH (C30-C40)	J	0.86	1.4	PQL	mg/Kg	J (all detects)
SL-011-SA8N-SB-9.0-10.0	EFH (C30-C40)	J	0.53	1.4	PQL	mg/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP16-SA5A-QC-042211	METHYLENE CHLORIDE	J	0.67	4.0	PQL	ug/Kg	J (all detects)
SL-007-SA8N-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.58	3.6	PQL	ug/Kg	J (all detects)
SL-010-SA8N-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.52	4.1	PQL	ug/Kg	J (all detects)
SL-010-SA8N-SB-9.0-10	METHYLENE CHLORIDE	J	0.43	3.9	PQL	ug/Kg	J (all detects)
SL-011-SA8N-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.51	4.1	PQL	ug/Kg	J (all detects)
SL-011-SA8N-SB-9.0-10.0	METHYLENE CHLORIDE	J	0.46	4.2	PQL	ug/Kg	J (all detects)
SL-064-SA5A-SB-3.0-4.0	METHYLENE CHLORIDE	J	0.45	3.7	PQL	ug/Kg	J (all detects)
SL-253-SA5A-SB-4.0-5.0	METHYLENE CHLORIDE	J	0.41	4.3	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP16-SA5A-QC-042211	Diethylphthalate	J	7.0	20	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	14	20	PQL	ug/Kg	
	FLUORANTHENE	J	0.97	1.9	PQL	ug/Kg	
SL-011-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.1	21	PQL	ug/Kg	J (all detects)
SL-253-SA5A-SB-4.0-5.0	CHRYSENE	J	0.48	1.9	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	1.3	1.9	PQL	ug/Kg	
	PHENANTHRENE	J	1.0	1.9	PQL	ug/Kg	
	PYRENE	J	0.80	1.9	PQL	ug/Kg	

LDC #: 26078E4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-29-11

SDG #: DE135 ADR Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: AC

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 ICB/CCB quals
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	MS ID
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	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: 5

1	SL-007-SA8N-SB-4.0-5.0	11	DUP16-SA5A-QC-042211	21		31	
2	SL-007-SA8N-SB-9.0-10.0	12	SL-064-SA5A-SB-3.0-4.0MS	22		32	
3	SL-010-SA8N-SB-4.0-5.0	13	SL-064-SA5A-SB-3.0-4.0MSD	23		33	
4	SL-010-SA8N-SB-9.0-10.0	14	SL-064-SA5A-SB-3.0-4.0DUP	24		34	
5	SL-011-SA8N-SB-4.0-5.0	15		25		35	
6	SL-011-SA8N-SB-9.0-10.0	16		26		36	
7	SL-064-SA5A-SB-3.0-4.0	17		27		37	
8	SL-166-SA5A-SB-0.0-0.5	18		28		38	
9	SL-256-SA5A-SB-4.0-5.0	19		29		39	
10	SL-256-SA5A-SB-8.0-9.0	20		30		40	

Notes: _____

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE135
Matrix: SOIL Level (low/med): LOW

74X

Background Lab Sample ID: 6267473BKG Matrix Spike Lab Sample ID: 6267474MS Matrix Spike Duplicate Lab Sample ID: 6267475MSD
% Solids for Sample: 89.2
Batch Id(s): P11908A, P11926A, P12508G, P11911A

%R PS 104

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		21926.6283		27200.6067		26629.0337		219.8189	221.9953	MG/KG	2399		2118		2			20	P
Antimony	121	0.0659	U	0.3614		0.4795		1.3320	1.3320	MG/KG	27	N	36	N	28	*	75 - 125	20	MS
Arsenic	75	7.4189		8.9620		11.4971		2.2200	2.2200	MG/KG	70	N	184	N	25	*	75 - 125	20	MS
Barium	137	102.0399		101.9402		137.1265		11.0998	11.0998	MG/KG	-1		316		29	*		20	MS
Beryllium	9	0.8648		1.5824		1.9680		0.8880	0.8880	MG/KG	81		124		22	*	75 - 125	20	MS
Boron		8.2305		217.0096		217.7696		219.8189	221.9953	MG/KG	95		94		0		84 - 115	20	P
Cadmium	111	0.0937	B	1.2496		1.5941		1.1100	1.1100	MG/KG	104		135	N	24	*	75 - 125	20	MS
Calcium		2760.4771		3567.4833		3375.5927		439.6377	443.9906	MG/KG	184		139		6			20	P
Chromium	52	23.5646		30.8351		37.0510		11.0998	11.0998	MG/KG	66	N	122		18		75 - 125	20	MS
Cobalt	59	8.0981		64.6006		81.6499		55.4988	55.4988	MG/KG	102		133	N	23	*	75 - 125	20	MS
Copper	63	11.4086		20.9741		26.5950		11.0998	11.0998	MG/KG	86		137	N	24	*	75 - 125	20	MS
Iron		24884.5891		27354.7492		26167.4977		109.9094	110.9976	MG/KG	2247		1156		4			20	P
Lead	208	7.5178		9.7900		12.4340		3.3299	3.3299	MG/KG	68	N	148	N	24	*	75 - 125	20	MS
Lithium		32.7543		145.5454		142.1336		109.9094	110.9976	MG/KG	103		99		2		82 - 114	20	P
Magnesium		5455.8984		6246.1784		5946.7111		219.8189	221.9953	MG/KG	360		221		5			20	P
Manganese		291.5575		328.4127		344.2492		54.9547	55.4988	MG/KG	67		95		5			20	P
Mercury		0.0261	B	0.1637		0.1689		0.1764	0.1840	MG/KG	78		78		3		65 - 135	20	CV
Molybdenum	98	0.5315		10.7024		14.1766		11.0998	11.0998	MG/KG	92		123		28	*	75 - 125	20	MS
Nickel	60	18.4692		27.6384		35.4082		11.0998	11.0998	MG/KG	83		153	N	25	*	75 - 125	20	MS
Phosphorus		308.9431		418.4406		429.9205		109.9094	110.9976	MG/KG	100		109		3		75 - 125	20	P
Potassium		2664.3265		4007.2804		4180.8240		1099.0943	1109.9765	MG/KG	122		137	N	4		75 - 125	20	P
Selenium	78	0.1344	B	2.3576		2.7328		2.2200	2.2200	MG/KG	100		117		15		75 - 125	20	MS
Silver	107	0.0404	B	11.5260		14.1744		11.0998	11.0998	MG/KG	103		127	N	21	*	75 - 125	20	MS
Sodium		93.1725	B	1157.4771		1153.1523		1099.0943	1109.9765	MG/KG	97		95		0		75 - 125	20	P
Strontium		18.3024		129.1535		128.3177		109.9094	110.9976	MG/KG	101		99		1		75 - 115	20	P
Thallium	203	0.3163		0.6893		0.8460		0.4440	0.4440	MG/KG	84		119		20		75 - 125	20	MS
Tin		3.4953	B	374.4944		374.3440		439.6377	443.9906	MG/KG	84		84		0		80 - 110	20	P
Titanium		1169.3402		1429.5898		1425.9679		109.9094	110.9976	MG/KG	237		231		0			20	P
Vanadium	51	41.6996		48.1952		58.6290		11.0998	11.0998	MG/KG	59	N	153	N	20		75 - 125	20	MS
Zinc	66	63.8354		68.1970		87.0444		11.0998	11.0998	MG/KG	39		209		24	*		20	MS
Zirconium		0.9324	U	107.6332		106.9274		109.9094	110.9976	MG/KG	98		96		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

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 6
DUPLICATES
SDG No.: DE135
Matrix: SOIL Level (low/med): LOW

< 5x RL

Background Lab Sample ID: 6267473BKG
% Solids for Duplicate: 89.0
Batch ID(s): P11908A, P11926A, P12508G, P11911A
Concentration Units: MG/KG

Duplicate Lab Sample ID: 6267476DUP
% Solids for Sample: 89.2

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			21926.6283		21156.0989		4		P
Antimony	121		0.0659	U	0.0673	U			MS
Arsenic	75		7.4189		6.7758		9		MS
Barium	137		102.0399		97.7354		4		MS
Beryllium	9		0.8648		0.8143		6		MS
Boron		5.5	8.2305		8.1861		1		P
Cadmium	111		0.0937	B	0.0816	B	14		MS
Calcium			2760.4771		2793.6802		1		P
Chromium	52		23.5646		22.8924		3		MS
Cobalt	59		8.0981		7.8363		3		MS
Copper	63		11.4086		11.0112		4		MS
Iron			24884.5891		25373.5558		2		P
Lead	208		7.5178		7.0381		7		MS
Lithium			32.7543		32.5376		1		P
Magnesium			5455.8984		5497.0127		1		P
Manganese			291.5575		301.1727		3		P
Mercury			0.0261	B	0.0062	B	123		CV
Molybdenum	98	0.1	0.5315		0.5500		3		MS
Nickel	60		18.4692		18.1704		2		MS
Phosphorus			308.9431		326.9366		6		P
Potassium			2664.3265		2727.7686		2		P
Selenium	78		0.1344	B	0.1073	B	22		MS
Silver	107		0.0404	B	0.0399	B	1		MS
Sodium			93.1725	B	94.2078	B	1		P
Strontium			18.3024		18.2867		0		P
Thallium	203	0.1	0.3163		0.2765		13		MS
Tin			3.4953	B	3.3171	B	5		P
Titanium			1169.3402		1161.7856		1		P
Vanadium	51		41.6996		40.7399		2		MS
Zinc	66		63.8354		62.3767		2		MS
Zirconium			0.9324	U	1.3035	B	200		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:	CONCENTRATION QUALIFIERS:
P = ICP Atomic Emission Spectrometer	U= Below MDL
MS = ICP Mass Spectrometry	B= Below LOQ
CV = Cold Vapor	FLAGS:
AF = Cold Vapor Atomic Fluorescence	* = Duplicate Out of Spec

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE135
Matrix: SOIL Level (low/med): LOW

5105A

Background Lab Sample ID: 6267473BKG Serial Dilution Lab Sample ID: 6267473L
Batch ID(s): P11908A, P11926A, P12508G
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		197541.3800		201598.7000		2		P
Antimony	121	0.3000	U	1.5000	U			MS
Arsenic	75	33.7500		34.2100		1		MS
Barium	137	464.2000		524.0000		13	E	MS
Beryllium	9	3.9340		4.6900		19		MS
Boron		74.1500		93.6500	B	26		P
Cadmium	111	0.4262	B	1.0085	B	137		MS
Calcium		27082.3500		26133.9000		4		P
Chromium	52	107.2000		130.9500		22	E	MS
Cobalt	59	36.8400		41.7100		13	E	MS
Copper	63	51.9000		65.9500		27	E	MS
Iron		224190.2400		233563.6000		4		P
Lead	208	34.2000		37.6000		10		MS
Lithium		295.0900		316.6000		7		P
Magnesium		49153.2800		49870.0000		1		P
Manganese		2626.7000		2763.7500		5		P
Molybdenum	98	2.4180		3.7990		57		MS
Nickel	60	84.0200		100.3000		19	E	MS
Phosphorus		2783.3300		2904.3000		4		P
Potassium		24003.4500		24326.3500		1		P
Selenium	78	0.6112	B	1.0000	U	100		MS
Silver	107	0.1836	B	0.3057	B	67		MS
Sodium		839.4100	B	1865.0000	U	100		P
Strontium		164.8900		175.7500		7		P
Thallium	203	1.4390		1.7005	B	18		MS
Tin		31.4900	B	50.0000	U	100		P
Titanium		10534.8200		11195.9500		6		P
Vanadium	51	189.7000		236.3000		25	E	MS
Zinc	66	290.4000		346.3500		19	E	MS
Zirconium		8.4000	U	42.0000	U			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

DE135 3386

FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

SAMPLE DELIVERY GROUP

DE136

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-Apr-2011	TB-042511	6268206	TB	5030B	8015M	III
25-Apr-2011	TB-042511	6268206	TB	5030B	8260B	III
25-Apr-2011	TB-042511	6268206	TB	5030B	8260B SIM	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0	6268204	N	3050B	6010B	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0	6268204	N	3050B	6020	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0	6268204	N	3060A	7199	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0	6268204	N	3550B	8015M	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0	6268204	N	3550B	8082	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0	6268204	N	3550B	8270C	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0	6268204	N	3550B	8270C SIM	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0	6268204	N	5035	8015M	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0	6268204	N	5035	8260B	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0	6268204	N	5035	8260B SIM	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0	6268204	N	METHOD	300.0	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0	6268204	N	METHOD	314.0	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0	6268204	N	METHOD	7471A	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0DUP	P268204D270537A	DUP	METHOD	300.0	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0DUP	P268204D271637A	DUP	METHOD	314.0	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0MSD	P268204M261211	MSD	3550B	8270C SIM	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0MS	P268204R261139	MS	3550B	8270C SIM	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0MS	P268204R270552A	MS	METHOD	300.0	III
25-Apr-2011	SL-036-SA8N-SB-4.0-5.0MS	P268204R271659A	MS	METHOD	314.0	III
25-Apr-2011	SL-036-SA8N-SB-9.0-10.0	6268205	N	3050B	6010B	III
25-Apr-2011	SL-036-SA8N-SB-9.0-10.0	6268205	N	3050B	6020	III
25-Apr-2011	SL-036-SA8N-SB-9.0-10.0	6268205	N	3060A	7199	III
25-Apr-2011	SL-036-SA8N-SB-9.0-10.0	6268205	N	3550B	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
25-Apr-2011	SL-036-SA8N-SB-9.0-10.0	6268205	N	3550B	8082	III
25-Apr-2011	SL-036-SA8N-SB-9.0-10.0	6268205	N	3550B	8270C	III
25-Apr-2011	SL-036-SA8N-SB-9.0-10.0	6268205	N	3550B	8270C SIM	III
25-Apr-2011	SL-036-SA8N-SB-9.0-10.0	6268205	N	5035	8015M	III
25-Apr-2011	SL-036-SA8N-SB-9.0-10.0	6268205	N	METHOD	300.0	III
25-Apr-2011	SL-036-SA8N-SB-9.0-10.0	6268205	N	METHOD	314.0	III
25-Apr-2011	SL-036-SA8N-SB-9.0-10.0	6268205	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: DE136 **Laboratory:** LL

EDD Filename: DE136_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-036-SA8N-SB-4.0-5.0 *Collected:* 4/25/2011 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
POTASSIUM	4690		21.0	MDL	58.2	PQL	mg/Kg	J	Q
TIN	3.32	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	3.71	J	0.978	MDL	5.82	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA8N-SB-9.0-10.0 *Collected:* 4/25/2011 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
POTASSIUM	2500		21.9	MDL	60.9	PQL	mg/Kg	J	Q
TIN	3.59	J	1.22	MDL	12.2	PQL	mg/Kg	U	B
Zirconium	1.60	J	1.02	MDL	6.09	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-036-SA8N-SB-4.0-5.0 *Collected:* 4/25/2011 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	0.173	J	0.0452	MDL	0.452	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA8N-SB-4.0-5.0 *Collected:* 4/25/2011 11:14:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.361		0.0566	MDL	0.113	PQL	mg/Kg	J	E

Sample ID: SL-036-SA8N-SB-4.0-5.0 *Collected:* 4/25/2011 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	181		0.122	MDL	0.452	PQL	mg/Kg	J	A, E

Sample ID: SL-036-SA8N-SB-4.0-5.0 *Collected:* 4/25/2011 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
ANTIMONY	0.114	J	0.0679	MDL	0.226	PQL	mg/Kg	J	Z, Q, E
ARSENIC	7.35		0.0905	MDL	0.452	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	1.09		0.0181	MDL	0.113	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: DE136 **Laboratory: LL**

EDD Filename: DE136_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-036-SA8N-SB-4.0-5.0 *Collected:* 4/25/2011 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
CADMIUM	0.331		0.0452	MDL	0.113	PQL	mg/Kg	J	Q, E
CHROMIUM	37.0		0.136	MDL	0.452	PQL	mg/Kg	J	A, Q
COBALT	14.7		0.0226	MDL	0.113	PQL	mg/Kg	J	A, Q, E
COPPER	20.5		0.0747	MDL	0.452	PQL	mg/Kg	J	A, Q, E
LEAD	11.8		0.0118	MDL	0.226	PQL	mg/Kg	J	Q, Q, E
NICKEL	26.3		0.113	MDL	0.452	PQL	mg/Kg	J	A, Q, E
SILVER	0.0569	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z, Q, E
VANADIUM	68.6		0.0249	MDL	0.113	PQL	mg/Kg	J	A, Q, Q
ZINC	82.9		0.633	MDL	3.39	PQL	mg/Kg	J	A, E

Sample ID: SL-036-SA8N-SB-9.0-10.0 *Collected:* 4/25/2011 11:18:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.254		0.0497	MDL	0.124	PQL	mg/Kg	J	Q, E

Sample ID: SL-036-SA8N-SB-9.0-10.0 *Collected:* 4/25/2011 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	0.101	J	0.0497	MDL	0.497	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA8N-SB-9.0-10.0 *Collected:* 4/25/2011 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	0.241		0.0621	MDL	0.124	PQL	mg/Kg	J	E

Sample ID: SL-036-SA8N-SB-9.0-10.0 *Collected:* 4/25/2011 11:18:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	143		0.134	MDL	0.497	PQL	mg/Kg	J	A, E

Sample ID: SL-036-SA8N-SB-9.0-10.0 *Collected:* 4/25/2011 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	0.0745	U	0.0745	MDL	0.248	PQL	mg/Kg	UJ	Q, E
ARSENIC	9.21		0.0994	MDL	0.497	PQL	mg/Kg	J	Q, 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: DE136 **Laboratory: LL**

EDD Filename: DE136_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-036-SA8N-SB-9.0-10.0 *Collected:* 4/25/2011 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
BERYLLIUM	0.983		0.0199	MDL	0.124	PQL	mg/Kg	J	E
CHROMIUM	38.1		0.149	MDL	0.497	PQL	mg/Kg	J	A, Q
COBALT	12.8		0.0248	MDL	0.124	PQL	mg/Kg	J	A, Q, E
COPPER	21.1		0.0820	MDL	0.497	PQL	mg/Kg	J	A, Q, E
LEAD	11.4		0.0129	MDL	0.248	PQL	mg/Kg	J	Q, Q, E
NICKEL	27.0		0.124	MDL	0.497	PQL	mg/Kg	J	A, Q, E
SILVER	0.0794	J	0.0149	MDL	0.124	PQL	mg/Kg	J	Z, Q, E
VANADIUM	71.9		0.0273	MDL	0.124	PQL	mg/Kg	J	A, Q, Q
ZINC	80.4		0.696	MDL	3.73	PQL	mg/Kg	J	A, E

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-036-SA8N-SB-4.0-5.0 *Collected:* 4/25/2011 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	0.38	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-036-SA8N-SB-4.0-5.0 *Collected:* 4/25/2011 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
EFH (C30-C40)	0.86	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA8N-SB-9.0-10.0 *Collected:* 4/25/2011 11:18:00 *Analysis Type:* REA *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	0.50	MDL	1.5	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: DE136 **Laboratory: LL**

EDD Filename: DE136_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **SVOA**

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

Sample ID: **SL-036-SA8N-SB-4.0-5.0** ***Collected:*** **4/25/2011 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*
NAPHTHALENE	0.81	J	0.78	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: DE136 **Laboratory: LL**

EDD Filename: DE136_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: DE136 **Laboratory: LL**

EDD Filename: DE136_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: DE136 **Laboratory: LL**

EDD Filename: DE136_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

DE136

Method Blank Outlier Report

Lab Reporting Batch ID: DE136 **Laboratory: LL**

EDD Filename: DE136_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11908AB220116	5/5/2011 1:16:00 AM	ALUMINUM IRON PHOSPHORUS STRONTIUM TIN	5.87 mg/Kg 5.63 mg/Kg 1.51 mg/Kg 0.195 mg/Kg 1.76 mg/Kg	SL-036-SA8N-SB-4.0-5.0 SL-036-SA8N-SB-9.0-10.0
P11908AB220919	5/5/2011 9:19:00 AM	CALCIUM	132 mg/Kg	SL-036-SA8N-SB-4.0-5.0 SL-036-SA8N-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-036-SA8N-SB-4.0-5.0(RES)	TIN	3.32 mg/Kg	3.32U mg/Kg
SL-036-SA8N-SB-9.0-10.0(RES)	TIN	3.59 mg/Kg	3.59U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11926AB221028A	5/3/2011 10:28:00 AM	COPPER	0.0910 mg/Kg	SL-036-SA8N-SB-4.0-5.0 SL-036-SA8N-SB-9.0-10.0

Method: **7471A**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11911AB220440	5/3/2011 4:40:00 AM	MERCURY	0.0140 mg/Kg	SL-036-SA8N-SB-4.0-5.0 SL-036-SA8N-SB-9.0-10.0

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB38B210138A	4/27/2011 1:38:00 AM	METHYLENE CHLORIDE TOLUENE	0.46 ug/Kg 0.08 ug/Kg	SL-036-SA8N-SB-4.0-5.0

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE136 **Laboratory: LL**

EDD Filename: DE136_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
LCS1Y32Q211104A	1,2-DICHLOROETHANE	131	-	70.00-130.00	-	1,2-DICHLOROETHANE	J(all detects)
LCS1Y32Y211125A	2-Chloro-1,1,1-trifluoroethane	132	132	77.00-120.00	-	2-Chloro-1,1,1-trifluoroethane	
LCSY32Q211001A	BROMOMETHANE	121	125	44.00-120.00	-	BROMOMETHANE	
LCSY32Y211043A	CHLOROMETHANE	-	139	60.00-129.00	-	CHLOROMETHANE	
(TB-042511)	DICHLORODIFLUOROMETHAN	123	122	47.00-120.00	-	DICHLORODIFLUOROMETHA	
	VINYL CHLORIDE	-	127	65.00-125.00	-	VINYL CHLORIDE	

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11233AY240336A (SL-036-SA8N-SB-4.0-5.0 SL-036-SA8N-SB-9.0-10.0)	Aroclor 5442	-	115	36.00-106.00	-	Aroclor 5432 Aroclor 5442 Aroclor 5460	J (all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11926AQ221031A (SL-036-SA8N-SB-4.0-5.0 SL-036-SA8N-SB-9.0-10.0)	ANTIMONY	68	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within limits

Reporting Limit Outliers

Lab Reporting Batch ID: DE136 **Laboratory: LL**

EDD Filename: DE136_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA8N-SB-4.0-5.0	TIN	J	3.32	11.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.71	5.82	PQL	mg/Kg	
SL-036-SA8N-SB-9.0-10.0	TIN	J	3.59	12.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.60	6.09	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA8N-SB-4.0-5.0	ANTIMONY	J	0.114	0.226	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.173	0.452	PQL	mg/Kg	
	SILVER	J	0.0569	0.113	PQL	mg/Kg	
SL-036-SA8N-SB-9.0-10.0	SELENIUM	J	0.101	0.497	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0794	0.124	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.38	1.2	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA8N-SB-4.0-5.0	EFH (C30-C40)	J	0.86	1.4	PQL	mg/Kg	J (all detects)
SL-036-SA8N-SB-9.0-10.0	EFH (C30-C40)	J	0.73	1.5	PQL	mg/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA8N-SB-4.0-5.0	NAPHTHALENE	J	0.81	1.9	PQL	ug/Kg	J (all detects)

LDC #: 26078F4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/29-11
SDG #: DE136 ADR Page: 1 of 1
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	—	
III.	Calibration	—	
IV.	Blanks	A	No ICB/CCB qual2
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (SD6: DE135)
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	SW	(SD6: DE135)
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: 3

1	SL-036-SA8N-SB-4.0-5.0	11		21		31	
2	SL-036-SA8N-SB-9.0-10.0	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

DE137

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
26-Apr-2011	TB-042611	6269640	TB	5030B	8015M	III
26-Apr-2011	TB-042611	6269640	TB	5030B	8260B	III
26-Apr-2011	TB-042611	6269640	TB	5030B	8260B SIM	III
26-Apr-2011	SL-027-SA8N-SB-4.0-5.0	6269636	N	3050B	6010B	III
26-Apr-2011	SL-027-SA8N-SB-4.0-5.0	6269636	N	3050B	6020	III
26-Apr-2011	SL-027-SA8N-SB-4.0-5.0	6269636	N	3060A	7199	III
26-Apr-2011	SL-027-SA8N-SB-4.0-5.0	6269636	N	3550B	8015M	III
26-Apr-2011	SL-027-SA8N-SB-4.0-5.0	6269636	N	3550B	8082	III
26-Apr-2011	SL-027-SA8N-SB-4.0-5.0	6269636	N	3550B	8270C	III
26-Apr-2011	SL-027-SA8N-SB-4.0-5.0	6269636	N	3550B	8270C SIM	III
26-Apr-2011	SL-027-SA8N-SB-4.0-5.0	6269636	N	5035	8015M	III
26-Apr-2011	SL-027-SA8N-SB-4.0-5.0	6269636	N	5035	8260B	III
26-Apr-2011	SL-027-SA8N-SB-4.0-5.0	6269636	N	5035	8260B SIM	III
26-Apr-2011	SL-027-SA8N-SB-4.0-5.0	6269636	N	METHOD	300.0	III
26-Apr-2011	SL-027-SA8N-SB-4.0-5.0	6269636	N	METHOD	314.0	III
26-Apr-2011	SL-027-SA8N-SB-4.0-5.0	6269636	N	METHOD	7471A	III
26-Apr-2011	SL-027-SA8N-SB-4.0-5.0MSD	P269636M322106A	MSD	3550B	8015M	III
26-Apr-2011	SL-027-SA8N-SB-4.0-5.0MS	P269636R322041A	MS	3550B	8015M	III
26-Apr-2011	SL-027-SA8N-SB-9.0-10	6269637	N	3050B	6010B	III
26-Apr-2011	SL-027-SA8N-SB-9.0-10	6269637	N	3050B	6020	III
26-Apr-2011	SL-027-SA8N-SB-9.0-10	6269637	N	3060A	7199	III
26-Apr-2011	SL-027-SA8N-SB-9.0-10	6269637	N	3550B	8015M	III
26-Apr-2011	SL-027-SA8N-SB-9.0-10	6269637	N	3550B	8082	III
26-Apr-2011	SL-027-SA8N-SB-9.0-10	6269637	N	3550B	8270C	III
26-Apr-2011	SL-027-SA8N-SB-9.0-10	6269637	N	3550B	8270C SIM	III
26-Apr-2011	SL-027-SA8N-SB-9.0-10	6269637	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
26-Apr-2011	SL-027-SA8N-SB-9.0-10	6269637	N	METHOD	300.0	III
26-Apr-2011	SL-027-SA8N-SB-9.0-10	6269637	N	METHOD	314.0	III
26-Apr-2011	SL-027-SA8N-SB-9.0-10	6269637	N	METHOD	7471A	III
26-Apr-2011	SL-028-SA8N-SB-4.0-5.0	6269638	N	3050B	6010B	III
26-Apr-2011	SL-028-SA8N-SB-4.0-5.0	6269638	N	3050B	6020	III
26-Apr-2011	SL-028-SA8N-SB-4.0-5.0	6269638	N	3060A	7199	III
26-Apr-2011	SL-028-SA8N-SB-4.0-5.0	6269638	N	3550B	8015M	III
26-Apr-2011	SL-028-SA8N-SB-4.0-5.0	6269638	N	3550B	8082	III
26-Apr-2011	SL-028-SA8N-SB-4.0-5.0	6269638	N	3550B	8270C	III
26-Apr-2011	SL-028-SA8N-SB-4.0-5.0	6269638	N	3550B	8270C SIM	III
26-Apr-2011	SL-028-SA8N-SB-4.0-5.0	6269638	N	5035	8015M	III
26-Apr-2011	SL-028-SA8N-SB-4.0-5.0	6269638	N	5035	8260B	III
26-Apr-2011	SL-028-SA8N-SB-4.0-5.0	6269638	N	5035	8260B SIM	III
26-Apr-2011	SL-028-SA8N-SB-4.0-5.0	6269638	N	METHOD	300.0	III
26-Apr-2011	SL-028-SA8N-SB-4.0-5.0	6269638	N	METHOD	314.0	III
26-Apr-2011	SL-028-SA8N-SB-4.0-5.0	6269638	N	METHOD	7471A	III
26-Apr-2011	SL-028-SA8N-SB-9.0-10.0	6269639	N	3050B	6010B	III
26-Apr-2011	SL-028-SA8N-SB-9.0-10.0	6269639	N	3050B	6020	III
26-Apr-2011	SL-028-SA8N-SB-9.0-10.0	6269639	N	3060A	7199	III
26-Apr-2011	SL-028-SA8N-SB-9.0-10.0	6269639	N	3550B	8015M	III
26-Apr-2011	SL-028-SA8N-SB-9.0-10.0	6269639	N	3550B	8082	III
26-Apr-2011	SL-028-SA8N-SB-9.0-10.0	6269639	N	3550B	8270C	III
26-Apr-2011	SL-028-SA8N-SB-9.0-10.0	6269639	N	3550B	8270C SIM	III
26-Apr-2011	SL-028-SA8N-SB-9.0-10.0	6269639	N	5035	8015M	III
26-Apr-2011	SL-028-SA8N-SB-9.0-10.0	6269639	N	METHOD	300.0	III
26-Apr-2011	SL-028-SA8N-SB-9.0-10.0	6269639	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
26-Apr-2011	SL-028-SA8N-SB-9.0-10.0	6269639	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: DE137 **Laboratory: LL**

EDD Filename: PrepDE137_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-027-SA8N-SB-4.0-5.0 *Collected:* 4/26/2011 10:54:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2500		20.9	MDL	57.9	PQL	mg/Kg	J	Q
TIN	3.25	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	2.01	J	0.973	MDL	5.79	PQL	mg/Kg	J	Z

Sample ID: SL-027-SA8N-SB-9.0-10 *Collected:* 4/26/2011 11:01:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3300		20.2	MDL	56.0	PQL	mg/Kg	J	Q
TIN	3.44	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	2.38	J	0.941	MDL	5.60	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA8N-SB-4.0-5.0 *Collected:* 4/26/2011 12:19:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2110		20.4	MDL	56.6	PQL	mg/Kg	J	Q
TIN	3.13	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	2.99	J	0.950	MDL	5.66	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA8N-SB-9.0-10.0 *Collected:* 4/26/2011 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	4.60	J	0.961	MDL	5.40	PQL	mg/Kg	J	Z
POTASSIUM	1760		19.4	MDL	54.0	PQL	mg/Kg	J	Q
TIN	3.07	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	1.50	J	0.907	MDL	5.40	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-027-SA8N-SB-4.0-5.0 *Collected:* 4/26/2011 10:54:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0733	J	0.0463	MDL	0.463	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: DE137 **Laboratory: LL**

EDD Filename: PrepDE137_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-027-SA8N-SB-4.0-5.0 ***Collected:*** 4/26/2011 10:54:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.237		0.0579	MDL	0.116	PQL	mg/Kg	J	E

Sample ID: SL-027-SA8N-SB-4.0-5.0 ***Collected:*** 4/26/2011 10:54:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	150		0.125	MDL	0.463	PQL	mg/Kg	J	E, A

Sample ID: SL-027-SA8N-SB-4.0-5.0 ***Collected:*** 4/26/2011 10:54:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0956	J	0.0695	MDL	0.232	PQL	mg/Kg	J	Z, Q, E
ARSENIC	8.51		0.0927	MDL	0.463	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	1.07		0.0185	MDL	0.116	PQL	mg/Kg	J	E
CADMIUM	0.228		0.0463	MDL	0.116	PQL	mg/Kg	J	Q, E
CHROMIUM	32.5		0.139	MDL	0.463	PQL	mg/Kg	J	Q, A
COBALT	17.7		0.0232	MDL	0.116	PQL	mg/Kg	J	Q, E, A
COPPER	18.9		0.0765	MDL	0.463	PQL	mg/Kg	J	Q, E, A
LEAD	12.5		0.0121	MDL	0.232	PQL	mg/Kg	J	Q, Q, E
NICKEL	24.0		0.116	MDL	0.463	PQL	mg/Kg	J	Q, E, A
SILVER	0.0436	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z, Q, E
VANADIUM	57.0		0.0255	MDL	0.116	PQL	mg/Kg	J	Q, Q, A
ZINC	73.4		0.649	MDL	3.48	PQL	mg/Kg	J	E, A

Sample ID: SL-027-SA8N-SB-9.0-10 ***Collected:*** 4/26/2011 11:01:00 ***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	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

Sample ID: SL-027-SA8N-SB-9.0-10 ***Collected:*** 4/26/2011 11:01:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.567		0.0566	MDL	0.113	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: DE137 **Laboratory: LL**

EDD Filename: PrepDE137_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-027-SA8N-SB-9.0-10 *Collected:* 4/26/2011 11:01:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	133		0.122	MDL	0.453	PQL	mg/Kg	J	E, A

Sample ID: SL-027-SA8N-SB-9.0-10 *Collected:* 4/26/2011 11:01:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.211	J	0.0679	MDL	0.226	PQL	mg/Kg	J	Z, Q, E
ARSENIC	8.50		0.0905	MDL	0.453	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	1.07		0.0181	MDL	0.113	PQL	mg/Kg	J	E
CADMIUM	0.362		0.0453	MDL	0.113	PQL	mg/Kg	J	Q, E
CHROMIUM	30.9		0.136	MDL	0.453	PQL	mg/Kg	J	Q, A
COBALT	10.1		0.0226	MDL	0.113	PQL	mg/Kg	J	Q, E, A
COPPER	17.7		0.0747	MDL	0.453	PQL	mg/Kg	J	Q, E, A
LEAD	9.61		0.0118	MDL	0.226	PQL	mg/Kg	J	Q, Q, E
NICKEL	25.5		0.113	MDL	0.453	PQL	mg/Kg	J	Q, E, A
SILVER	0.0634	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z, Q, E
VANADIUM	63.8		0.0249	MDL	0.113	PQL	mg/Kg	J	Q, Q, A
ZINC	77.5		0.634	MDL	3.39	PQL	mg/Kg	J	E, A

Sample ID: SL-028-SA8N-SB-4.0-5.0 *Collected:* 4/26/2011 12:19:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0581	J	0.0457	MDL	0.457	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA8N-SB-4.0-5.0 *Collected:* 4/26/2011 12:19:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.145		0.0571	MDL	0.114	PQL	mg/Kg	J	E

Sample ID: SL-028-SA8N-SB-4.0-5.0 *Collected:* 4/26/2011 12:19:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	113		0.123	MDL	0.457	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: DE137 **Laboratory:** LL

EDD Filename: PrepDE137_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-028-SA8N-SB-4.0-5.0 *Collected:* 4/26/2011 12:19:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0855	J	0.0685	MDL	0.228	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.53		0.0914	MDL	0.457	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	1.04		0.0183	MDL	0.114	PQL	mg/Kg	J	E
CADMIUM	0.210		0.0457	MDL	0.114	PQL	mg/Kg	J	Q, E
CHROMIUM	34.2		0.137	MDL	0.457	PQL	mg/Kg	J	Q, A
COBALT	8.46		0.0228	MDL	0.114	PQL	mg/Kg	J	Q, E, A
COPPER	16.2		0.0754	MDL	0.457	PQL	mg/Kg	J	Q, E, A
LEAD	8.21		0.0119	MDL	0.228	PQL	mg/Kg	J	Q, Q, E
NICKEL	23.5		0.114	MDL	0.457	PQL	mg/Kg	J	Q, E, A
SILVER	0.0375	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z, Q, E
VANADIUM	56.4		0.0251	MDL	0.114	PQL	mg/Kg	J	Q, Q, A
ZINC	58.8		0.640	MDL	3.43	PQL	mg/Kg	J	E, A

Sample ID: SL-028-SA8N-SB-9.0-10.0 *Collected:* 4/26/2011 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	0.0818	J	0.0428	MDL	0.428	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA8N-SB-9.0-10.0 *Collected:* 4/26/2011 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
MOLYBDENUM	0.145		0.0535	MDL	0.107	PQL	mg/Kg	J	E

Sample ID: SL-028-SA8N-SB-9.0-10.0 *Collected:* 4/26/2011 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	67.3		0.116	MDL	0.428	PQL	mg/Kg	J	E, A

Sample ID: SL-028-SA8N-SB-9.0-10.0 *Collected:* 4/26/2011 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	0.0642	U	0.0642	MDL	0.214	PQL	mg/Kg	UJ	Q, E
ARSENIC	4.06		0.0856	MDL	0.428	PQL	mg/Kg	J	Q, Q, E
BERYLLIUM	0.620		0.0171	MDL	0.107	PQL	mg/Kg	J	E
CADMIUM	0.155		0.0428	MDL	0.107	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: DE137 **Laboratory: LL**

EDD Filename: PrepDE137_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-028-SA8N-SB-9.0-10.0 *Collected:* 4/26/2011 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
CHROMIUM	14.4		0.128	MDL	0.428	PQL	mg/Kg	J	Q, A
COBALT	5.11		0.0214	MDL	0.107	PQL	mg/Kg	J	Q, E, A
COPPER	6.28		0.0706	MDL	0.428	PQL	mg/Kg	J	Q, E, A
LEAD	4.42		0.0111	MDL	0.214	PQL	mg/Kg	J	Q, Q, E
NICKEL	9.72		0.107	MDL	0.428	PQL	mg/Kg	J	Q, E, A
SILVER	0.0133	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z, Q, E
VANADIUM	32.6		0.0235	MDL	0.107	PQL	mg/Kg	J	Q, Q, A
ZINC	48.1		0.599	MDL	3.21	PQL	mg/Kg	J	E, A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-027-SA8N-SB-9.0-10 *Collected:* 4/26/2011 11:01:00 *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

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-027-SA8N-SB-9.0-10 *Collected:* 4/26/2011 11:01:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0107	J	0.0031	MDL	0.109	PQL	mg/Kg	U	B

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-027-SA8N-SB-9.0-10 *Collected:* 4/26/2011 11:01:00 *Analysis Type:* REA *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	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE137 **Laboratory: LL**

EDD Filename: PrepDE137_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **VOA**

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

Sample ID: **SL-027-SA8N-SB-4.0-5.0** ***Collected:*** **4/26/2011 10:54:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.87**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
4-METHYL-2-PENTANONE (MIBK)	0.88	J	0.39	MDL	8.0	PQL	ug/Kg	J	Z
ACETONE	19		6.7	MDL	8.0	PQL	ug/Kg	U	B
CHLOROFORM	0.17	J	0.12	MDL	4.0	PQL	ug/Kg	J	Z
TOLUENE	0.14	J	0.08	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: **SL-028-SA8N-SB-4.0-5.0** ***Collected:*** **4/26/2011 12:19:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.94**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
ACETONE	12		7.4	MDL	8.9	PQL	ug/Kg	U	B
CHLOROFORM	0.29	J	0.13	MDL	4.4	PQL	ug/Kg	J	Z
TOLUENE	0.13	J	0.09	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: DE137 **Laboratory: LL**

EDD Filename: PrepDE137_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: DE137 **Laboratory: LL**

EDD Filename: PrepDE137_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: DE137 **Laboratory: LL**

EDD Filename: PrepDE137_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

DE137

Method Blank Outlier Report

Lab Reporting Batch ID: DE137 **Laboratory: LL**

EDD Filename: DE137_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11908AB220116	5/5/2011 1:16:00 AM	ALUMINUM IRON PHOSPHORUS STRONTIUM TIN	5.87 mg/Kg 5.63 mg/Kg 1.51 mg/Kg 0.195 mg/Kg 1.76 mg/Kg	SL-027-SA8N-SB-4.0-5.0 SL-027-SA8N-SB-9.0-10 SL-028-SA8N-SB-4.0-5.0 SL-028-SA8N-SB-9.0-10.0
P11908AB220919	5/5/2011 9:19:00 AM	CALCIUM	132 mg/Kg	SL-027-SA8N-SB-4.0-5.0 SL-027-SA8N-SB-9.0-10 SL-028-SA8N-SB-4.0-5.0 SL-028-SA8N-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-027-SA8N-SB-4.0-5.0(RES)	TIN	3.25 mg/Kg	3.25U mg/Kg
SL-027-SA8N-SB-9.0-10(RES)	TIN	3.44 mg/Kg	3.44U mg/Kg
SL-028-SA8N-SB-4.0-5.0(RES)	TIN	3.13 mg/Kg	3.13U mg/Kg
SL-028-SA8N-SB-9.0-10.0(RES)	TIN	3.07 mg/Kg	3.07U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11926AB221028A	5/3/2011 10:28:00 AM	COPPER	0.0910 mg/Kg	SL-027-SA8N-SB-4.0-5.0 SL-027-SA8N-SB-9.0-10 SL-028-SA8N-SB-4.0-5.0 SL-028-SA8N-SB-9.0-10.0

Method: **7471A**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11911AB220440	5/3/2011 4:40:00 AM	MERCURY	0.0140 mg/Kg	SL-027-SA8N-SB-4.0-5.0 SL-027-SA8N-SB-9.0-10 SL-028-SA8N-SB-4.0-5.0 SL-028-SA8N-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-027-SA8N-SB-9.0-10(RES)	MERCURY	0.0107 mg/Kg	0.0107U mg/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB42B211316A	5/3/2011 1:16:00 PM	ACETONE METHYLENE CHLORIDE TOLUENE	9.9 ug/Kg 0.60 ug/Kg 0.15 ug/Kg	SL-027-SA8N-SB-4.0-5.0 SL-028-SA8N-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: DE137 **Laboratory: LL**

EDD Filename: DE137_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-027-SA8N-SB-4.0-5.0(RES)	ACETONE	19 ug/Kg	19U ug/Kg
SL-027-SA8N-SB-4.0-5.0(RES)	TOLUENE	0.14 ug/Kg	4.0U ug/Kg
SL-028-SA8N-SB-4.0-5.0(RES)	ACETONE	12 ug/Kg	12U ug/Kg
SL-028-SA8N-SB-4.0-5.0(RES)	TOLUENE	0.13 ug/Kg	4.4U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE137 **Laboratory: LL**

EDD Filename: PrepDE137_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-027-SA8N-SB-4.0-5.0MSD (SL-027-SA8N-SB-4.0-5.0)	EFH (C21-C30)	-	-	49.00-123.00	21 (20.00)	EFH (C21-C30)	J (all detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE137 Laboratory: LL

EDD Filename: DE137_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
LCS1Y39Q211405A LCS1Y39Y211426A LCSY39Q211323A LCSY39Y211344A (TB-042611)	2-Chloro-1,1,1-trifluoroethane DICHLORODIFLUOROMETHAN	131 122	123 121	77.00-120.00 47.00-120.00	- -	2-Chloro-1,1,1-trifluoroethane DICHLORODIFLUOROMETHA	J(all detects)

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11233AY240336A (SL-027-SA8N-SB-4.0-5.0 SL -027-SA8N-SB-9.0-10 SL -028-SA8N-SB-4.0-5.0 SL -028-SA8N-SB-9.0-10.0)	Aroclor 5442	-	115	36.00-106.00	-	Aroclor 5442 Aroclor 5432 Aroclor 5460	J (all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11926AQ221031A (SL-027-SA8N-SB-4.0-5.0 SL -027-SA8N-SB-9.0-10 SL -028-SA8N-SB-4.0-5.0 SL -028-SA8N-SB-9.0-10.0)	ANTIMONY	68	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within limits

Reporting Limit Outliers

Lab Reporting Batch ID: DE137 **Laboratory: LL**

EDD Filename: DE137_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-027-SA8N-SB-4.0-5.0	TIN	J	3.25	11.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.01	5.79	PQL	mg/Kg	
SL-027-SA8N-SB-9.0-10	TIN	J	3.44	11.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.38	5.60	PQL	mg/Kg	
SL-028-SA8N-SB-4.0-5.0	TIN	J	3.13	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.99	5.66	PQL	mg/Kg	
SL-028-SA8N-SB-9.0-10.0	BORON	J	4.60	5.40	PQL	mg/Kg	J (all detects)
	TIN	J	3.07	10.8	PQL	mg/Kg	
	Zirconium	J	1.50	5.40	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-027-SA8N-SB-4.0-5.0	ANTIMONY	J	0.0956	0.232	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0733	0.463	PQL	mg/Kg	
	SILVER	J	0.0436	0.116	PQL	mg/Kg	
SL-027-SA8N-SB-9.0-10	ANTIMONY	J	0.211	0.226	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0686	0.453	PQL	mg/Kg	
	SILVER	J	0.0634	0.113	PQL	mg/Kg	
SL-028-SA8N-SB-4.0-5.0	ANTIMONY	J	0.0855	0.228	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0581	0.457	PQL	mg/Kg	
	SILVER	J	0.0375	0.114	PQL	mg/Kg	
SL-028-SA8N-SB-9.0-10.0	SELENIUM	J	0.0818	0.428	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0133	0.107	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-027-SA8N-SB-9.0-10	HEXAVALENT CHROMIUM	J	0.37	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-027-SA8N-SB-9.0-10	MERCURY	J	0.0107	0.109	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-027-SA8N-SB-9.0-10	EFH (C30-C40)	J	1.3	1.4	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE137 **Laboratory: LL**

EDD Filename: DE137_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **8260B**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-027-SA8N-SB-4.0-5.0	4-METHYL-2-PENTANONE (MIBK)	J	0.88	8.0	PQL	ug/Kg	J (all detects)
	CHLOROFORM	J	0.17	4.0	PQL	ug/Kg	
	TOLUENE	J	0.14	4.0	PQL	ug/Kg	
SL-028-SA8N-SB-4.0-5.0	CHLOROFORM	J	0.29	4.4	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.13	4.4	PQL	ug/Kg	

LDC #: 26078G4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-29-11
SDG #: DE137 ADR Page: 1 of 1
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	No ICB/CCB qual'd
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS/D (SDG: DE135)
VII.	Duplicate Sample Analysis	N	D
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	(SDG: DE135)
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-027-SA8N-SB-4.0-5.0	11		21		31	
2	SL-027-SA8N-SB-9.0-10.0	12		22		32	
3	SL-028-SA8N-SB-4.0-5.0	13		23		33	
4	SL-028-SA8N-SB-9.0-10.0	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

DE138

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
27-Apr-2011	TB-042711	6270790	TB	5030B	8015M	III
27-Apr-2011	TB-042711	6270790	TB	5030B	8260B	III
27-Apr-2011	TB-042711	6270790	TB	5030B	8260B SIM	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	3005A	6010B	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	3020A	6020	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	3510C	8015B	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	3510C	8015M	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	3510C	8081A	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	3510C	8082	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	3510C	8270C	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	3510C	8270C SIM	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	3520C	1625C	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	5030B	8015M	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	5030B	8260B	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	5030B	8260B SIM	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	8330	8330A	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	Gen Prep	300.0	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	Gen Prep	314.0	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	Gen Prep	7199	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	Gen Prep	8015B	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	Gen Prep	8015M	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	METHOD	7470A	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	METHOD	8151A	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	METHOD	8315A	III
27-Apr-2011	FB07-SA8N-QC-042711	6270789	FB	METHOD	9012B	III
27-Apr-2011	FB07-SA8N-QC-042711MSD	P270789M322013A	MSD	Gen Prep	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
27-Apr-2011	FB07-SA8N-QC-042711MS	P270789R321958A	MS	Gen Prep	8015B	III
27-Apr-2011	SL-032-SA8N-SB-4.0-5.0	6270787	N	3050B	6010B	III
27-Apr-2011	SL-032-SA8N-SB-4.0-5.0	6270787	N	3050B	6020	III
27-Apr-2011	SL-032-SA8N-SB-4.0-5.0	6270787	N	3060A	7199	III
27-Apr-2011	SL-032-SA8N-SB-4.0-5.0	6270787	N	3550B	8015M	III
27-Apr-2011	SL-032-SA8N-SB-4.0-5.0	6270787	N	3550B	8082	III
27-Apr-2011	SL-032-SA8N-SB-4.0-5.0	6270787	N	3550B	8270C	III
27-Apr-2011	SL-032-SA8N-SB-4.0-5.0	6270787	N	3550B	8270C SIM	III
27-Apr-2011	SL-032-SA8N-SB-4.0-5.0	6270787	N	5035	8015M	III
27-Apr-2011	SL-032-SA8N-SB-4.0-5.0	6270787	N	5035	8260B	III
27-Apr-2011	SL-032-SA8N-SB-4.0-5.0	6270787	N	5035	8260B SIM	III
27-Apr-2011	SL-032-SA8N-SB-4.0-5.0	6270787	N	METHOD	300.0	III
27-Apr-2011	SL-032-SA8N-SB-4.0-5.0	6270787	N	METHOD	314.0	III
27-Apr-2011	SL-032-SA8N-SB-4.0-5.0	6270787	N	METHOD	6850	III
27-Apr-2011	SL-032-SA8N-SB-4.0-5.0	6270787	N	METHOD	7471A	III
27-Apr-2011	SL-032-SA8N-SB-9.0-10.0	6270788	N	3050B	6010B	III
27-Apr-2011	SL-032-SA8N-SB-9.0-10.0	6270788	N	3050B	6020	III
27-Apr-2011	SL-032-SA8N-SB-9.0-10.0	6270788	N	3060A	7199	III
27-Apr-2011	SL-032-SA8N-SB-9.0-10.0	6270788	N	3550B	8015M	III
27-Apr-2011	SL-032-SA8N-SB-9.0-10.0	6270788	N	3550B	8082	III
27-Apr-2011	SL-032-SA8N-SB-9.0-10.0	6270788	N	3550B	8270C	III
27-Apr-2011	SL-032-SA8N-SB-9.0-10.0	6270788	N	3550B	8270C SIM	III
27-Apr-2011	SL-032-SA8N-SB-9.0-10.0	6270788	N	5035	8015M	III
27-Apr-2011	SL-032-SA8N-SB-9.0-10.0	6270788	N	METHOD	300.0	III
27-Apr-2011	SL-032-SA8N-SB-9.0-10.0	6270788	N	METHOD	314.0	III
27-Apr-2011	SL-032-SA8N-SB-9.0-10.0	6270788	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: DE138 Laboratory: LL

EDD Filename: DE138_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6010B **Matrix:** SO

Sample ID: SL-032-SA8N-SB-4.0-5.0 *Collected:* 4/27/2011 3:19:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.49	J	1.18	MDL	11.8	PQL	mg/Kg	U	B
Zirconium	2.07	J	0.995	MDL	5.92	PQL	mg/Kg	J	Z

Sample ID: SL-032-SA8N-SB-9.0-10.0 *Collected:* 4/27/2011 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
TIN	2.27	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	2.25	J	0.978	MDL	5.82	PQL	mg/Kg	J	Z

Method Category: METALS **Method:** 6020 **Matrix:** SO

Sample ID: SL-032-SA8N-SB-4.0-5.0 *Collected:* 4/27/2011 3:19:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0637	J	0.0474	MDL	0.474	PQL	mg/Kg	J	Z

Sample ID: SL-032-SA8N-SB-4.0-5.0 *Collected:* 4/27/2011 3:19:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.170	J	0.0711	MDL	0.237	PQL	mg/Kg	J	Z
SILVER	0.0709	J	0.0142	MDL	0.118	PQL	mg/Kg	J	Z

Sample ID: SL-032-SA8N-SB-9.0-10.0 *Collected:* 4/27/2011 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	0.101	J	0.0470	MDL	0.470	PQL	mg/Kg	J	Z

Sample ID: SL-032-SA8N-SB-9.0-10.0 *Collected:* 4/27/2011 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	0.0901	J	0.0705	MDL	0.235	PQL	mg/Kg	J	Z
SILVER	0.0262	J	0.0141	MDL	0.118	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: DE138 **Laboratory: LL**

EDD Filename: DE138_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7470A **Matrix: AQ**

Sample ID: FB07-SA8N-QC-042711 *Collected:* 4/27/2011 1:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.000046	U	0.000046	MDL	0.00020	PQL	mg/L	UJ	L

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-032-SA8N-SB-4.0-5.0 *Collected:* 4/27/2011 3:19:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0182	J	0.0033	MDL	0.114	PQL	mg/Kg	U	B

Sample ID: SL-032-SA8N-SB-9.0-10.0 *Collected:* 4/27/2011 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
MERCURY	0.0251	J	0.0033	MDL	0.117	PQL	mg/Kg	U	B

Method Category: SVOA

Method: 1625C **Matrix: AQ**

Sample ID: FB07-SA8N-QC-042711 *Collected:* 4/27/2011 1:30:00 *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	1.39	J	1.00	MDL	2.00	PQL	ng/L	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-032-SA8N-SB-4.0-5.0 *Collected:* 4/27/2011 3:19:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	0.49	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: DE138 **Laboratory: LL**

EDD Filename: DE138_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-032-SA8N-SB-9.0-10.0 *Collected:* 4/27/2011 3:26:00 *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)	0.55	J	0.48	MDL	1.4	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: AQ**

Sample ID: FB07-SA8N-QC-042711 *Collected:* 4/27/2011 1:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.026	J	0.010	MDL	0.050	PQL	ug/L	J	Z
2-METHYLNAPHTHALENE	0.030	J	0.010	MDL	0.050	PQL	ug/L	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	0.12	J	0.050	MDL	1.0	PQL	ug/L	U	B
Diethylphthalate	0.064	J	0.050	MDL	1.0	PQL	ug/L	U	B
Di-n-butylphthalate	0.074	J	0.050	MDL	1.0	PQL	ug/L	U	B

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-032-SA8N-SB-4.0-5.0 *Collected:* 4/27/2011 3:19:00 *Analysis Type:* RES *Dilution:* 0.86

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.1		6.8	MDL	8.1	PQL	ug/Kg	U	B
TOLUENE	0.14	J	0.08	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: DE138 **Laboratory: LL**

EDD Filename: DE138_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	Laboratory Triplicate Precision
E	Matrix Spike 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: DE138 **Laboratory: LL**

EDD Filename: DE138_v1 **eQAPP Name: CDM_SSFL_110509**

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	Laboratory Duplicate Precision
Q	Laboratory Triplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE138 **Laboratory: LL**

EDD Filename: DE138_v1 **eQAPP Name: CDM_SSFL_110509**

Q	Matrix Spike Upper Rejection
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

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DE138

Method Blank Outlier Report

Lab Reporting Batch ID: DE138 **Laboratory: LL**

EDD Filename: DE138_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11908AB220116	5/5/2011 1:16:00 AM	ALUMINUM IRON PHOSPHORUS STRONTIUM TIN	5.67 mg/Kg 5.63 mg/Kg 1.51 mg/Kg 0.195 mg/Kg 1.76 mg/Kg	SL-032-SA8N-SB-4.0-5.0 SL-032-SA8N-SB-9.0-10.0
P11908AB220919	5/5/2011 9:19:00 AM	CALCIUM	132 mg/Kg	SL-032-SA8N-SB-4.0-5.0 SL-032-SA8N-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-032-SA8N-SB-4.0-5.0(RES)	TIN	3.49 mg/Kg	3.49U mg/Kg
SL-032-SA8N-SB-9.0-10.0(RES)	TIN	2.27 mg/Kg	2.27U mg/Kg

Method: **6020**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P12450BB221348A	5/6/2011 1:48:00 PM	CADMIUM LEAD	0.00038 mg/L 0.000054 mg/L	FB07-SA8N-QC-042711

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11926AB221028A	5/3/2011 10:28:00 AM	COPPER	0.0910 mg/Kg	SL-032-SA8N-SB-4.0-5.0 SL-032-SA8N-SB-9.0-10.0

Method: **7471A**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11911AB220440	5/3/2011 4:40:00 AM	MERCURY	0.0140 mg/Kg	SL-032-SA8N-SB-4.0-5.0 SL-032-SA8N-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-032-SA8N-SB-4.0-5.0(RES)	MERCURY	0.0182 mg/Kg	0.0182U mg/Kg
SL-032-SA8N-SB-9.0-10.0(RES)	MERCURY	0.0251 mg/Kg	0.0251U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE138 **Laboratory: LL**

EDD Filename: DE138_v1 **eQAPP Name: CDM_SSFL_110509**

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB42B211316A	5/3/2011 1:16:00 PM	ACETONE METHYLENE CHLORIDE TOLUENE	9.9 ug/Kg 0.60 ug/Kg 0.15 ug/Kg	SL-032-SA8N-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-032-SA8N-SB-4.0-5.0(RES)	ACETONE	8.1 ug/Kg	8.1U ug/Kg
SL-032-SA8N-SB-4.0-5.0(RES)	TOLUENE	0.14 ug/Kg	4.1U ug/Kg

Method: **8270C SIM**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWE12B260823	5/5/2011 8:23:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE Diethylphthalate Di-n-butylphthalate Di-n-octylphthalate	0.056 ug/L 0.11 ug/L 0.089 ug/L 0.24 ug/L	FB07-SA8N-QC-042711

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
FB07-SA8N-QC-042711(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.12 ug/L	1.0U ug/L
FB07-SA8N-QC-042711(RES)	Diethylphthalate	0.064 ug/L	1.0U ug/L
FB07-SA8N-QC-042711(RES)	Di-n-butylphthalate	0.074 ug/L	1.0U ug/L

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE138 **Laboratory:** LL

EDD Filename: DE138_v1 **eQAPP Name:** CDM_SSFL_110509

Method: 8330A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11197AQ242029A P11197AY242111A (FB07-SA8N-QC-042711)	2,4,6-TRINITROTOLUENE	110	110	76.00-109.00	-	2,4,6-TRINITROTOLUENE	J (all detects)

Method: 8082
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11233AY240032A (FB07-SA8N-QC-042711)	Aroclor 5442	-	86	35.00-84.00	-	Aroclor 5432, Aroclor 5442 Aroclor 5460	J(all detects)

Method: 7470A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11813EY220701 (FB07-SA8N-QC-042711)	MERCURY	-	87	90.00-115.00	-	MERCURY	J(all detects) UJ(all non-detects)

Method: 8260B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS1Y39Q211405A LCS1Y39Y211426A LCSY39Q211323A LCSY39Y211344A (FB07-SA8N-QC-042711 TB -042711)	2-Chloro-1,1,1-trifluoroethane DICHLORODIFLUOROMETHAN	131 122	123 121	77.00-120.00 47.00-120.00	- -	2-Chloro-1,1,1-trifluoroethane DICHLORODIFLUOROMETHA	J(all detects)

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11233AY240336A (SL-032-SA8N-SB-4.0-5.0 SL -032-SA8N-SB-9.0-10.0)	Aroclor 5442	-	115	36.00-106.00	-	Aroclor 5432 Aroclor 5442 Aroclor 5460	J(all detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE138 **Laboratory: LL**

EDD Filename: DE138_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*
P11926AQ221031A (SL-032-SA8N-SB-4.0-5.0 SL-032-SA8N-SB-9.0-10.0)	ANTIMONY	68	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC limits

Reporting Limit Outliers

Lab Reporting Batch ID: DE138 **Laboratory: LL**

EDD Filename: DE138_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FB07-SA8N-QC-042711	N-NITROSODIMETHYLAMINE	J	1.39	2.00	PQL	ng/L	J (all detects)

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FB07-SA8N-QC-042711	1-METHYLNAPHTHALENE	J	0.026	0.050	PQL	ug/L	J (all detects)
	2-METHYLNAPHTHALENE	J	0.030	0.050	PQL	ug/L	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.12	1.0	PQL	ug/L	
	Diethylphthalate	J	0.064	1.0	PQL	ug/L	
	Di-n-butylphthalate	J	0.074	1.0	PQL	ug/L	

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-032-SA8N-SB-4.0-5.0	TIN	J	3.49	11.8	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.07	5.92	PQL	mg/Kg	
SL-032-SA8N-SB-9.0-10.0	TIN	J	2.27	11.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.25	5.82	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-032-SA8N-SB-4.0-5.0	ANTIMONY	J	0.170	0.237	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0637	0.474	PQL	mg/Kg	
	SILVER	J	0.0709	0.118	PQL	mg/Kg	
SL-032-SA8N-SB-9.0-10.0	ANTIMONY	J	0.0901	0.235	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.101	0.470	PQL	mg/Kg	
	SILVER	J	0.0262	0.118	PQL	mg/Kg	

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-032-SA8N-SB-4.0-5.0	MERCURY	J	0.0182	0.114	PQL	mg/Kg	J (all detects)
SL-032-SA8N-SB-9.0-10.0	MERCURY	J	0.0251	0.117	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE138 **Laboratory: LL**

EDD Filename: DE138_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-032-SA8N-SB-4.0-5.0	EFH (C21-C30)	J	0.49	1.4	PQL	mg/Kg	J (all detects)
SL-032-SA8N-SB-9.0-10.0	EFH (C21-C30)	J	0.55	1.4	PQL	mg/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-032-SA8N-SB-4.0-5.0	TOLUENE	J	0.14	4.1	PQL	ug/Kg	J (all detects)

LDC #: 26275C4 **VALIDATION COMPLETENESS WORKSHEET** Date: 9/28/11
SDG #: DE138 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: W
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: 4/2-4/11
II.	ICP/MS Tune	N	
III.	Calibration	N	
IV.	Blanks	A	No qual
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	} client specified.
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	N A	
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	N	
XV	Field Blanks	ND	FB = 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-032-SA8N-SB-4.0-5.0	11		21		31	
2	SL-032-SA8N-SB-9.0-10.0	12		22		32	
3	FB07-SA8N-QC-042711	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: MS/MSD from SDG DE135. (Area AE), No qual

SAMPLE DELIVERY GROUP

DE139

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-Apr-2011	SL-041-SA8N-SB-4.0-5.0	6271850	N	3050B	6010B	III
28-Apr-2011	SL-041-SA8N-SB-4.0-5.0	6271850	N	3050B	6020	III
28-Apr-2011	SL-041-SA8N-SB-4.0-5.0	6271850	N	3060A	7199	III
28-Apr-2011	SL-041-SA8N-SB-4.0-5.0	6271850	N	3550B	8015M	III
28-Apr-2011	SL-041-SA8N-SB-4.0-5.0	6271850	N	3550B	8082	III
28-Apr-2011	SL-041-SA8N-SB-4.0-5.0	6271850	N	3550B	8270C	III
28-Apr-2011	SL-041-SA8N-SB-4.0-5.0	6271850	N	3550B	8270C SIM	III
28-Apr-2011	SL-041-SA8N-SB-4.0-5.0	6271850	N	5035	8015M	III
28-Apr-2011	SL-041-SA8N-SB-4.0-5.0	6271850	N	5035	8260B	III
28-Apr-2011	SL-041-SA8N-SB-4.0-5.0	6271850	N	5035	8260B SIM	III
28-Apr-2011	SL-041-SA8N-SB-4.0-5.0	6271850	N	METHOD	300.0	III
28-Apr-2011	SL-041-SA8N-SB-4.0-5.0	6271850	N	METHOD	314.0	III
28-Apr-2011	SL-041-SA8N-SB-4.0-5.0	6271850	N	METHOD	7471A	III
28-Apr-2011	SL-041-SA8N-SB-4.0-5.0DUP	P271850D271425A	DUP	METHOD	300.0	III
28-Apr-2011	SL-041-SA8N-SB-4.0-5.0MS	P271850R271509A	MS	METHOD	300.0	III
28-Apr-2011	SL-041-SA8N-SB-9.0-10.0	6271851	N	3050B	6010B	III
28-Apr-2011	SL-041-SA8N-SB-9.0-10.0	6271851	N	3050B	6020	III
28-Apr-2011	SL-041-SA8N-SB-9.0-10.0	6271851	N	3060A	7199	III
28-Apr-2011	SL-041-SA8N-SB-9.0-10.0	6271851	N	3550B	8015M	III
28-Apr-2011	SL-041-SA8N-SB-9.0-10.0	6271851	N	3550B	8082	III
28-Apr-2011	SL-041-SA8N-SB-9.0-10.0	6271851	N	3550B	8270C	III
28-Apr-2011	SL-041-SA8N-SB-9.0-10.0	6271851	N	3550B	8270C SIM	III
28-Apr-2011	SL-041-SA8N-SB-9.0-10.0	6271851	N	5035	8015M	III
28-Apr-2011	SL-041-SA8N-SB-9.0-10.0	6271851	N	METHOD	300.0	III
28-Apr-2011	SL-041-SA8N-SB-9.0-10.0	6271851	N	METHOD	314.0	III
28-Apr-2011	SL-041-SA8N-SB-9.0-10.0	6271851	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
28-Apr-2011	EB05-SA8N-SB-042811	6271852	EB	3005A	6010B	III
28-Apr-2011	EB05-SA8N-SB-042811	6271852	EB	3020A	6020	III
28-Apr-2011	EB05-SA8N-SB-042811	6271852	EB	3510C	8082	III
28-Apr-2011	EB05-SA8N-SB-042811	6271852	EB	3510C	8270C	III
28-Apr-2011	EB05-SA8N-SB-042811	6271852	EB	3510C	8270C SIM	III
28-Apr-2011	EB05-SA8N-SB-042811	6271852	EB	5030B	8260B	III
28-Apr-2011	EB05-SA8N-SB-042811	6271852	EB	5030B	8260B SIM	III
28-Apr-2011	EB05-SA8N-SB-042811	6271852	EB	Gen Prep	300.0	III
28-Apr-2011	EB05-SA8N-SB-042811	6271852	EB	Gen Prep	314.0	III
28-Apr-2011	EB05-SA8N-SB-042811	6271852	EB	Gen Prep	7199	III
28-Apr-2011	EB05-SA8N-SB-042811	6271852	EB	METHOD	7470A	III
28-Apr-2011	TB-042811	6271853	TB	5030B	8015M	III
28-Apr-2011	TB-042811	6271853	TB	5030B	8260B	III
28-Apr-2011	TB-042811	6271853	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: DE139 **Laboratory:** LL

EDD Filename: DE139_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-041-SA8N-SB-4.0-5.0 *Collected:* 4/28/2011 12:09:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-041-SA8N-SB-9.0-10.0 *Collected:* 4/28/2011 12:19:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	6.8		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-041-SA8N-SB-4.0-5.0 *Collected:* 4/28/2011 12:09:00 *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
Zirconium	2.36	J	0.961	MDL	5.72	PQL	mg/Kg	J	Z

Sample ID: SL-041-SA8N-SB-9.0-10.0 *Collected:* 4/28/2011 12:19:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.58	J	1.03	MDL	5.78	PQL	mg/Kg	J	Z
CALCIUM	50100		7.09	MDL	23.1	PQL	mg/Kg	J	E
TIN	2.91	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	5.40	J	0.972	MDL	5.78	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-041-SA8N-SB-4.0-5.0 *Collected:* 4/28/2011 12:09:00 *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	0.0457	MDL	0.457	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: DE139 **Laboratory: LL**

EDD Filename: DE139_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-041-SA8N-SB-4.0-5.0 *Collected:* 4/28/2011 12:09:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.147	J	0.0686	MDL	0.229	PQL	mg/Kg	J	Z
SILVER	0.0693	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-041-SA8N-SB-9.0-10.0 *Collected:* 4/28/2011 12:19:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.222	J	0.0694	MDL	0.231	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.872		0.0185	MDL	0.116	PQL	mg/Kg	J	Q
CHROMIUM	31.5		0.139	MDL	0.463	PQL	mg/Kg	J	A
COBALT	12.6		0.0231	MDL	0.116	PQL	mg/Kg	J	A
COPPER	14.4		0.0763	MDL	0.463	PQL	mg/Kg	J	A
LEAD	8.50		0.0120	MDL	0.231	PQL	mg/Kg	J	A
NICKEL	18.8		0.116	MDL	0.463	PQL	mg/Kg	J	A
SILVER	0.0427	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z
VANADIUM	56.3		0.0254	MDL	0.116	PQL	mg/Kg	J	A
ZINC	47.1		0.648	MDL	3.47	PQL	mg/Kg	J	A

Sample ID: SL-041-SA8N-SB-9.0-10.0 *Collected:* 4/28/2011 12:19:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0463	U	0.0463	MDL	0.463	PQL	mg/Kg	UJ	Q

Sample ID: SL-041-SA8N-SB-9.0-10.0 *Collected:* 4/28/2011 12:19:00 *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	123		0.125	MDL	0.463	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-041-SA8N-SB-4.0-5.0 *Collected:* 4/28/2011 12:09:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.32	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: DE139 **Laboratory:** LL

EDD Filename: DE139_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-041-SA8N-SB-9.0-10.0 *Collected:* 4/28/2011 12:19:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.30	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7470A **Matrix:** AQ

Sample ID: EB05-SA8N-SB-042811 *Collected:* 4/28/2011 2:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.000046	U	0.000046	MDL	0.00020	PQL	mg/L	UJ	L

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: SL-041-SA8N-SB-4.0-5.0 *Collected:* 4/28/2011 12:09:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0103	J	0.0033	MDL	0.114	PQL	mg/Kg	U	B

Method Category: SVOA

Method: 8015M **Matrix:** SO

Sample ID: SL-041-SA8N-SB-4.0-5.0 *Collected:* 4/28/2011 12:09:00 *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	0.47	MDL	1.4	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix:** AQ

Sample ID: EB05-SA8N-SB-042811 *Collected:* 4/28/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	0.13	J	0.049	MDL	0.98	PQL	ug/L	U	B
Diethylphthalate	0.17	J	0.049	MDL	0.98	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: DE139 Laboratory: LL

EDD Filename: DE139_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** AQ

Sample ID: EB05-SA8N-SB-042811 *Collected:* 4/28/2011 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
Di-n-butylphthalate	0.35	J	0.049	MDL	0.98	PQL	ug/L	U	B

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-041-SA8N-SB-4.0-5.0 *Collected:* 4/28/2011 12:09:00 *Analysis Type:* RES *Dilution:* 0.85

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	7.8	J	6.7	MDL	8.0	PQL	ug/Kg	U	B
TOLUENE	0.10	J	0.08	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: DE139 **Laboratory: LL**

EDD Filename: DE139_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	Laboratory Triplicate Precision
E	Matrix Spike Precision

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE139 **Laboratory: LL**

EDD Filename: DE139_v1 **eQAPP Name: CDM_SSFL_110509**

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	Laboratory Duplicate Precision
Q	Laboratory Triplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper 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: DE139 **Laboratory: LL**

EDD Filename: DE139_v1 **eQAPP Name: CDM_SSFL_110509**

Q	Matrix Spike Upper Rejection
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

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE139

Method Blank Outlier Report

Lab Reporting Batch ID: DE139 **Laboratory: LL**

EDD Filename: DE139_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11908AB220116	5/5/2011 1:16:00 AM	ALUMINUM IRON PHOSPHORUS STRONTIUM TIN	5.87 mg/Kg 5.63 mg/Kg 1.51 mg/Kg 0.195 mg/Kg 1.76 mg/Kg	SL-041-SA8N-SB-4.0-5.0
P11908AB220919	5/5/2011 9:19:00 AM	CALCIUM	132 mg/Kg	SL-041-SA8N-SB-4.0-5.0
P12308AB220919	5/7/2011 9:19:00 AM	CALCIUM LITHIUM MANGANESE PHOSPHORUS TIN	10.6 mg/Kg 0.43 mg/Kg 0.224 mg/Kg 1.05 mg/Kg 1.32 mg/Kg	SL-041-SA8N-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-041-SA8N-SB-4.0-5.0(RES)	TIN	3.17 mg/Kg	3.17U mg/Kg
SL-041-SA8N-SB-9.0-10.0(REA3)	TIN	2.91 mg/Kg	2.91U mg/Kg

Method: **6020**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P12450BB221348A	5/6/2011 1:48:00 PM	CADMIUM LEAD	0.00038 mg/L 0.000054 mg/L	EB05-SA8N-SB-042811

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11926AB221028A	5/3/2011 10:28:00 AM	COPPER	0.0910 mg/Kg	SL-041-SA8N-SB-4.0-5.0
P12326AB221311A	5/5/2011 1:11:00 PM	COPPER VANADIUM	0.142 mg/Kg 0.0876 mg/Kg	SL-041-SA8N-SB-9.0-10.0

Method: **7471A**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11911AB220440	5/3/2011 4:40:00 AM	MERCURY	0.0140 mg/Kg	SL-041-SA8N-SB-4.0-5.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE139 **Laboratory: LL**

EDD Filename: DE139_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **7471A**
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-041-SA8N-SB-4.0-5.0(RES)	MERCURY	0.0103 mg/Kg	0.0103U mg/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB42B211316A	5/3/2011 1:16:00 PM	ACETONE METHYLENE CHLORIDE TOLUENE	9.9 ug/Kg 0.60 ug/Kg 0.15 ug/Kg	SL-041-SA8N-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-041-SA8N-SB-4.0-5.0(RES)	ACETONE	7.8 ug/Kg	8.0U ug/Kg
SL-041-SA8N-SB-4.0-5.0(RES)	TOLUENE	0.10 ug/Kg	4.0U ug/Kg

Method: **8270C SIM**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWE12B260823	5/5/2011 8:23:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE Diethylphthalate Di-n-butylphthalate Di-n-octylphthalate	0.056 ug/L 0.11 ug/L 0.089 ug/L 0.24 ug/L	EB05-SA8N-SB-042811

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-SA8N-SB-042811(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.13 ug/L	0.98U ug/L
EB05-SA8N-SB-042811(RES)	Diethylphthalate	0.17 ug/L	0.98U ug/L
EB05-SA8N-SB-042811(RES)	Di-n-butylphthalate	0.35 ug/L	0.98U ug/L

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE139 **Laboratory: LL**

EDD Filename: DE139_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-041-SA8N-SB-4.0-5.0MS (SL-041-SA8N-SB-4.0-5.0 SL-041-SA8N-SB-9.0-10.0)	FLUORIDE	75	-	80.00-120.00	-	FLUORIDE	J (all detects) UJ (all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE139 **Laboratory: LL**

EDD Filename: DE139_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-041-SA8N-SB-4.0-5.0DUP (SL-041-SA8N-SB-4.0-5.0 SL-041-SA8N-SB-9.0-10.0)	FLUORIDE	73	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: DE139 **Laboratory: LL**

EDD Filename: DE139_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8082
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11233AY240032A (EB05-SA8N-SB-042811)	Aroclor 5442	-	86	35.00-84.00	-	Aroclor 5432, Aroclor 5442, Aroclor 5460	J (all detects)

Method: 7470A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P13013BQ220802 P13013BY220804 (EB05-SA8N-SB-042811)	MERCURY	86	88	90.00-115.00	-	MERCURY	J(all detects) UJ(all non-detects)

Method: 8260B
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCS1Y39Q211405A LCS1Y39Y211426A LCSY39Q211323A LCSY39Y211344A (EB05-SA8N-SB-042811 TB -042811)	2-Chloro-1,1,1-trifluoroethane DICHLORODIFLUOROMETHAN	131 122	123 121	77.00-120.00 47.00-120.00	- -	2-Chloro-1,1,1-trifluoroethane DICHLORODIFLUOROMETHA	J(all detects)

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11233AY240336A (SL-041-SA8N-SB-4.0-5.0 SL -041-SA8N-SB-9.0-10.0)	Aroclor 5442	-	115	36.00-106.00	-	Aroclor 5432 Aroclor 5442 Aroclor 5460	J(all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11926AQ221031A (SL-041-SA8N-SB-4.0-5.0)	ANTIMONY	68	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within limits

Reporting Limit Outliers

Lab Reporting Batch ID: DE139 **Laboratory: LL**

EDD Filename: DE139_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB05-SA8N-SB-042811	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.13	0.98	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.17	0.98	PQL	ug/L	
	Di-n-butylphthalate	J	0.35	0.98	PQL	ug/L	

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-041-SA8N-SB-4.0-5.0	TIN	J	3.17	11.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.36	5.72	PQL	mg/Kg	
SL-041-SA8N-SB-9.0-10.0	BORON	J	4.58	5.78	PQL	mg/Kg	J (all detects)
	TIN	J	2.91	11.6	PQL	mg/Kg	
	Zirconium	J	5.40	5.78	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-041-SA8N-SB-4.0-5.0	ANTIMONY	J	0.147	0.229	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.130	0.457	PQL	mg/Kg	
	SILVER	J	0.0693	0.114	PQL	mg/Kg	
SL-041-SA8N-SB-9.0-10.0	ANTIMONY	J	0.222	0.231	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0427	0.116	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-041-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.32	1.2	PQL	mg/Kg	J (all detects)
SL-041-SA8N-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.30	1.2	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-041-SA8N-SB-4.0-5.0	MERCURY	J	0.0103	0.114	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE139 **Laboratory: LL**

EDD Filename: DE139_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-041-SA8N-SB-4.0-5.0	EFH (C21-C30)	J	0.54	1.4	PQL	mg/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-041-SA8N-SB-4.0-5.0	ACETONE	J	7.8	8.0	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.10	4.0	PQL	ug/Kg	

LDC #: 26275D4 **VALIDATION COMPLETENESS WORKSHEET** Date: 9/28/11

SDG #: DE139 ADR Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: MM

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: 4/28/11
II.	ICP/MS Tune	N	
III.	Calibration	N	
IV.	Blanks	A	No qual
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	} See DE140 for #2
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	N A	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution		See DE140 for #2.
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	N	
XV	Field Blanks	ND	EB=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 1	SL-041-SA8N-SB-4.0-5.0	11		21		31	
2 2	SL-041-SA8N-SB-9.0-10.0	12		22		32	
3	EB05-SA8N-SB-042811	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: #1 MS/MSD from SDG DE135 (Area A5) No qual
#2 MS/MSD/Dup from SDG DE140. (LDC# 26275E)
SD

SAMPLE DELIVERY GROUP

DE140

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-Apr-2011	SL-040-SA8N-SB-4.0-5.0	6272812	N	3050B	6010B	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0	6272812	N	3050B	6020	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0	6272812	N	3060A	7199	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0	6272812	N	3550B	8015M	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0	6272812	N	3550B	8082	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0	6272812	N	3550B	8270C	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0	6272812	N	3550B	8270C SIM	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0	6272812	N	5035	8015M	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0	6272812	N	5035	8260B	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0	6272812	N	5035	8260B SIM	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0	6272812	N	METHOD	300.0	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0	6272812	N	METHOD	314.0	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0	6272812	N	METHOD	7471A	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MS	6272813	MS	3050B	6010B	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MS	6272813	MS	3050B	6020	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MS	6272813	MS	3060A	7199	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MS	6272813	MS	3550B	8015M	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MS	6272813	MS	3550B	8082	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MS	6272813	MS	3550B	8270C	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MS	6272813	MS	3550B	8270C SIM	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MS	6272813	MS	5035	8015M	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MS	6272813	MS	5035	8260B	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MS	6272813	MS	5035	8260B SIM	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MS	6272813	MS	METHOD	300.0	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MS	6272813	MS	METHOD	314.0	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MS	6272813	MS	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
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MSD	6272814	MSD	3050B	6010B	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MSD	6272814	MSD	3050B	6020	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MSD	6272814	MSD	3550B	8015M	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MSD	6272814	MSD	3550B	8082	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MSD	6272814	MSD	3550B	8270C	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MSD	6272814	MSD	3550B	8270C SIM	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MSD	6272814	MSD	5035	8015M	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MSD	6272814	MSD	5035	8260B	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MSD	6272814	MSD	5035	8260B SIM	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0MSD	6272814	MSD	METHOD	7471A	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0DUP	6272815	DUP	3050B	6010B	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0DUP	6272815	DUP	3050B	6020	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0DUP	6272815	DUP	3060A	7199	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0DUP	6272815	DUP	METHOD	300.0	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0DUP	6272815	DUP	METHOD	314.0	III
29-Apr-2011	SL-040-SA8N-SB-4.0-5.0DUP	6272815	DUP	METHOD	7471A	III
29-Apr-2011	SL-040-SA8N-SB-9.0-10.0	6272816	N	3050B	6010B	III
29-Apr-2011	SL-040-SA8N-SB-9.0-10.0	6272816	N	3050B	6020	III
29-Apr-2011	SL-040-SA8N-SB-9.0-10.0	6272816	N	3060A	7199	III
29-Apr-2011	SL-040-SA8N-SB-9.0-10.0	6272816	N	3550B	8015M	III
29-Apr-2011	SL-040-SA8N-SB-9.0-10.0	6272816	N	3550B	8082	III
29-Apr-2011	SL-040-SA8N-SB-9.0-10.0	6272816	N	3550B	8270C	III
29-Apr-2011	SL-040-SA8N-SB-9.0-10.0	6272816	N	3550B	8270C SIM	III
29-Apr-2011	SL-040-SA8N-SB-9.0-10.0	6272816	N	5035	8015M	III
29-Apr-2011	SL-040-SA8N-SB-9.0-10.0	6272816	N	METHOD	300.0	III
29-Apr-2011	SL-040-SA8N-SB-9.0-10.0	6272816	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
29-Apr-2011	SL-040-SA8N-SB-9.0-10.0	6272816	N	METHOD	7471A	III
29-Apr-2011	DUP06-SA8N-QC-042911	6272807	FD	3050B	6010B	III
29-Apr-2011	DUP06-SA8N-QC-042911	6272807	FD	3050B	6020	III
29-Apr-2011	DUP06-SA8N-QC-042911	6272807	FD	3060A	7199	III
29-Apr-2011	DUP06-SA8N-QC-042911	6272807	FD	3550B	8015M	III
29-Apr-2011	DUP06-SA8N-QC-042911	6272807	FD	3550B	8082	III
29-Apr-2011	DUP06-SA8N-QC-042911	6272807	FD	3550B	8270C	III
29-Apr-2011	DUP06-SA8N-QC-042911	6272807	FD	3550B	8270C SIM	III
29-Apr-2011	DUP06-SA8N-QC-042911	6272807	FD	5035	8015M	III
29-Apr-2011	DUP06-SA8N-QC-042911	6272807	FD	5035	8260B	III
29-Apr-2011	DUP06-SA8N-QC-042911	6272807	FD	5035	8260B SIM	III
29-Apr-2011	DUP06-SA8N-QC-042911	6272807	FD	METHOD	300.0	III
29-Apr-2011	DUP06-SA8N-QC-042911	6272807	FD	METHOD	314.0	III
29-Apr-2011	DUP06-SA8N-QC-042911	6272807	FD	METHOD	7471A	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	3050B	6010B	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	3050B	6020	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	3060A	7199	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	3546	1625C	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	3550B	8015B	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	3550B	8015M	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	3550B	8082	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	3550B	8270C	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	3550B	8270C SIM	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	5035	8015M	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	5035	8260B	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	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
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	8330	8330A	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	METHOD	300.0	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	METHOD	314.0	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	METHOD	7471A	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	METHOD	8015B	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	METHOD	8015M	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	METHOD	8315A	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0	6272817	N	METHOD	9012B	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0DUP	P272817D270913A	DUP	METHOD	9012B	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0MSD	P272817M241959A	MSD	METHOD	8315A	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0MS	P272817R241940A	MS	METHOD	8315A	III
29-Apr-2011	SL-049-SA8N-SB-4.0-5.0MS	P272817R270917A	MS	METHOD	9012B	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	3050B	6010B	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	3050B	6020	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	3060A	7199	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	3546	1625C	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	3550B	8015B	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	3550B	8015M	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	3550B	8082	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	3550B	8270C	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	3550B	8270C SIM	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	5035	8015M	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	5035	8260B	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	5035	8260B SIM	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	8330	8330A	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	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
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	METHOD	314.0	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	METHOD	7471A	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	METHOD	8015B	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	METHOD	8015M	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	METHOD	8315A	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0	6272818	N	METHOD	9012B	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0MSD	P272818M322341A	MSD	METHOD	8015B	III
29-Apr-2011	SL-049-SA8N-SB-8.0-9.0MS	P272818R322327A	MS	METHOD	8015B	III
29-Apr-2011	SL-013-SA8N-SB-2.0-3.0	6272808	N	3050B	6010B	III
29-Apr-2011	SL-013-SA8N-SB-2.0-3.0	6272808	N	3050B	6020	III
29-Apr-2011	SL-013-SA8N-SB-2.0-3.0	6272808	N	3060A	7199	III
29-Apr-2011	SL-013-SA8N-SB-2.0-3.0	6272808	N	3550B	8082	III
29-Apr-2011	SL-013-SA8N-SB-2.0-3.0	6272808	N	3550B	8270C	III
29-Apr-2011	SL-013-SA8N-SB-2.0-3.0	6272808	N	3550B	8270C SIM	III
29-Apr-2011	SL-013-SA8N-SB-2.0-3.0	6272808	N	5035	8260B	III
29-Apr-2011	SL-013-SA8N-SB-2.0-3.0	6272808	N	5035	8260B SIM	III
29-Apr-2011	SL-013-SA8N-SB-2.0-3.0	6272808	N	METHOD	300.0	III
29-Apr-2011	SL-013-SA8N-SB-2.0-3.0	6272808	N	METHOD	314.0	III
29-Apr-2011	SL-013-SA8N-SB-2.0-3.0	6272808	N	METHOD	7471A	III
29-Apr-2011	SL-013-SA8N-SB-2.0-3.0	6272808	N	METHOD	8015M	III
29-Apr-2011	SL-013-SA8N-SB-2.0-3.0MSD	P272808M322006A	MSD	METHOD	8015M	III
29-Apr-2011	SL-013-SA8N-SB-2.0-3.0MS	P272808R321949A	MS	METHOD	8015M	III
29-Apr-2011	SL-014-SA8N-SB-4.0-5.0	6272809	N	3050B	6010B	III
29-Apr-2011	SL-014-SA8N-SB-4.0-5.0	6272809	N	3050B	6020	III
29-Apr-2011	SL-014-SA8N-SB-4.0-5.0	6272809	N	3060A	7199	III
29-Apr-2011	SL-014-SA8N-SB-4.0-5.0	6272809	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
29-Apr-2011	SL-014-SA8N-SB-4.0-5.0	6272809	N	3550B	8270C	III
29-Apr-2011	SL-014-SA8N-SB-4.0-5.0	6272809	N	3550B	8270C SIM	III
29-Apr-2011	SL-014-SA8N-SB-4.0-5.0	6272809	N	5035	8260B SIM	III
29-Apr-2011	SL-014-SA8N-SB-4.0-5.0	6272809	N	Gen Prep	8260B	III
29-Apr-2011	SL-014-SA8N-SB-4.0-5.0	6272809	N	METHOD	300.0	III
29-Apr-2011	SL-014-SA8N-SB-4.0-5.0	6272809	N	METHOD	314.0	III
29-Apr-2011	SL-014-SA8N-SB-4.0-5.0	6272809	N	METHOD	7471A	III
29-Apr-2011	SL-014-SA8N-SB-4.0-5.0	6272809	N	METHOD	8015M	III
29-Apr-2011	TB-042911	6272819	TB	5030B	8015M	III
29-Apr-2011	TB-042911	6272819	TB	5030B	8260B	III
29-Apr-2011	TB-042911	6272819	TB	5030B	8260B SIM	III
29-Apr-2011	SL-017-SA8N-SB-4.0-5.0	6272810	N	3050B	6010B	III
29-Apr-2011	SL-017-SA8N-SB-4.0-5.0	6272810	N	3050B	6020	III
29-Apr-2011	SL-017-SA8N-SB-4.0-5.0	6272810	N	3060A	7199	III
29-Apr-2011	SL-017-SA8N-SB-4.0-5.0	6272810	N	3550B	8082	III
29-Apr-2011	SL-017-SA8N-SB-4.0-5.0	6272810	N	3550B	8270C	III
29-Apr-2011	SL-017-SA8N-SB-4.0-5.0	6272810	N	3550B	8270C SIM	III
29-Apr-2011	SL-017-SA8N-SB-4.0-5.0	6272810	N	5035	8260B	III
29-Apr-2011	SL-017-SA8N-SB-4.0-5.0	6272810	N	5035	8260B SIM	III
29-Apr-2011	SL-017-SA8N-SB-4.0-5.0	6272810	N	METHOD	300.0	III
29-Apr-2011	SL-017-SA8N-SB-4.0-5.0	6272810	N	METHOD	314.0	III
29-Apr-2011	SL-017-SA8N-SB-4.0-5.0	6272810	N	METHOD	7471A	III
29-Apr-2011	SL-017-SA8N-SB-4.0-5.0	6272810	N	METHOD	8015M	III
29-Apr-2011	SL-017-SA8N-SB-7.0-8.0	6272811	N	3050B	6010B	III
29-Apr-2011	SL-017-SA8N-SB-7.0-8.0	6272811	N	3050B	6020	III
29-Apr-2011	SL-017-SA8N-SB-7.0-8.0	6272811	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
29-Apr-2011	SL-017-SA8N-SB-7.0-8.0	6272811	N	3550B	8082	III
29-Apr-2011	SL-017-SA8N-SB-7.0-8.0	6272811	N	3550B	8270C	III
29-Apr-2011	SL-017-SA8N-SB-7.0-8.0	6272811	N	3550B	8270C SIM	III
29-Apr-2011	SL-017-SA8N-SB-7.0-8.0	6272811	N	METHOD	300.0	III
29-Apr-2011	SL-017-SA8N-SB-7.0-8.0	6272811	N	METHOD	314.0	III
29-Apr-2011	SL-017-SA8N-SB-7.0-8.0	6272811	N	METHOD	7471A	III
29-Apr-2011	SL-017-SA8N-SB-7.0-8.0	6272811	N	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: DE140 **Laboratory:** LL

EDD Filename: PrepDE140_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-049-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 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
Nitrate-NO3	1.5	J	0.90	MDL	1.7	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: DUP06-SA8N-QC-042911 *Collected:* 4/29/2011 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
CALCIUM	11700		7.35	MDL	24.0	PQL	mg/Kg	J	E
SODIUM	108	J	44.7	MDL	120	PQL	mg/Kg	J	Z
TIN	3.28	J	1.20	MDL	12.0	PQL	mg/Kg	U	B

Sample ID: SL-013-SA8N-SB-2.0-3.0 *Collected:* 4/29/2011 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	3.02	J	1.01	MDL	5.68	PQL	mg/Kg	J	Z
CALCIUM	13500		6.97	MDL	22.7	PQL	mg/Kg	J	E
TIN	2.80	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	4.32	J	0.955	MDL	5.68	PQL	mg/Kg	J	Z

Sample ID: SL-014-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 2:12:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.60	J	0.999	MDL	5.62	PQL	mg/Kg	J	Z
CALCIUM	6750		6.88	MDL	22.5	PQL	mg/Kg	J	E
TIN	3.05	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	4.05	J	0.943	MDL	5.62	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 3:22:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.04	J	0.986	MDL	5.54	PQL	mg/Kg	J	Z
CALCIUM	4210		6.79	MDL	22.2	PQL	mg/Kg	J	E
TIN	3.03	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	4.11	J	0.931	MDL	5.54	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: DE140 **Laboratory: LL**

EDD Filename: PrepDE140_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6010B** ***Matrix:*** **SO**

Sample ID: SL-017-SA8N-SB-7.0-8.0 ***Collected:*** 4/29/2011 3:25:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	4270		7.02	MDL	22.9	PQL	mg/Kg	J	E
TIN	3.04	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	4.16	J	0.962	MDL	5.73	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA8N-SB-4.0-5.0 ***Collected:*** 4/29/2011 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
CALCIUM	10400		7.27	MDL	23.7	PQL	mg/Kg	J	E
SODIUM	113	J	44.2	MDL	119	PQL	mg/Kg	J	Z
TIN	2.98	J	1.19	MDL	11.9	PQL	mg/Kg	U	B

Sample ID: SL-040-SA8N-SB-9.0-10.0 ***Collected:*** 4/29/2011 9:24:00 ***Analysis Type:*** REA ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	98600		36.8	MDL	120	PQL	mg/Kg	J	E

Sample ID: SL-040-SA8N-SB-9.0-10.0 ***Collected:*** 4/29/2011 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
TIN	2.80	J	1.20	MDL	12.0	PQL	mg/Kg	U	B
Zirconium	5.49	J	1.01	MDL	6.00	PQL	mg/Kg	J	Z

Sample ID: SL-049-SA8N-SB-4.0-5.0 ***Collected:*** 4/29/2011 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
BORON	1.05	J	0.990	MDL	5.56	PQL	mg/Kg	J	Z
CALCIUM	4550		6.82	MDL	22.2	PQL	mg/Kg	J	E
TIN	3.01	J	1.11	MDL	11.1	PQL	mg/Kg	U	B

Sample ID: SL-049-SA8N-SB-8.0-9.0 ***Collected:*** 4/29/2011 11:24:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	31200		7.21	MDL	23.5	PQL	mg/Kg	J	E
TIN	3.39	J	1.18	MDL	11.8	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: DE140 **Laboratory:** LL

EDD Filename: PrepDE140_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP06-SA8N-QC-042911 ***Collected:*** 4/29/2011 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
SELENIUM	0.222	J	0.0470	MDL	0.470	PQL	mg/Kg	J	Z, Q

Sample ID: DUP06-SA8N-QC-042911 ***Collected:*** 4/29/2011 9:30:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	138		0.127	MDL	0.470	PQL	mg/Kg	J	A

Sample ID: DUP06-SA8N-QC-042911 ***Collected:*** 4/29/2011 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	0.240		0.0705	MDL	0.235	PQL	mg/Kg	J	Q
BERYLLIUM	0.845		0.0188	MDL	0.118	PQL	mg/Kg	J	Q
CHROMIUM	34.0		0.141	MDL	0.470	PQL	mg/Kg	J	A
COBALT	12.0		0.0235	MDL	0.118	PQL	mg/Kg	J	A
COPPER	19.0		0.0776	MDL	0.470	PQL	mg/Kg	J	A
LEAD	10.4		0.0122	MDL	0.235	PQL	mg/Kg	J	A
NICKEL	22.6		0.118	MDL	0.470	PQL	mg/Kg	J	A
SILVER	0.0453	J	0.0141	MDL	0.118	PQL	mg/Kg	J	Z
VANADIUM	63.5		0.0259	MDL	0.118	PQL	mg/Kg	J	A
ZINC	75.8		0.658	MDL	3.53	PQL	mg/Kg	J	A

Sample ID: SL-013-SA8N-SB-2.0-3.0 ***Collected:*** 4/29/2011 12:06:00 ***Analysis Type:*** REA2 ***Dilution:*** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	198		1.58	MDL	8.44	PQL	mg/Kg	J	A

Sample ID: SL-013-SA8N-SB-2.0-3.0 ***Collected:*** 4/29/2011 12:06:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0867	J	0.0450	MDL	0.450	PQL	mg/Kg	J	Z, Q

Sample ID: SL-013-SA8N-SB-2.0-3.0 ***Collected:*** 4/29/2011 12:06:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	83.5		0.122	MDL	0.450	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: DE140 Laboratory: LL

EDD Filename: PrepDE140_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-013-SA8N-SB-2.0-3.0 *Collected:* 4/29/2011 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	0.195	J	0.0675	MDL	0.225	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.633		0.0180	MDL	0.113	PQL	mg/Kg	J	Q
CHROMIUM	23.2		0.135	MDL	0.450	PQL	mg/Kg	J	A
COBALT	8.54		0.0225	MDL	0.113	PQL	mg/Kg	J	A
COPPER	12.5		0.0743	MDL	0.450	PQL	mg/Kg	J	A
LEAD	7.62		0.0117	MDL	0.225	PQL	mg/Kg	J	A
NICKEL	16.4		0.113	MDL	0.450	PQL	mg/Kg	J	A
SILVER	0.0412	J	0.0135	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	43.5		0.0248	MDL	0.113	PQL	mg/Kg	J	A

Sample ID: SL-014-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 2:12:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0449	U	0.0449	MDL	0.449	PQL	mg/Kg	UJ	Q

Sample ID: SL-014-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 2:12:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	60.9		0.121	MDL	0.449	PQL	mg/Kg	J	A

Sample ID: SL-014-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 2:12:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.100	J	0.0674	MDL	0.225	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.517		0.0180	MDL	0.112	PQL	mg/Kg	J	Q
CADMIUM	0.0862	J	0.0449	MDL	0.112	PQL	mg/Kg	J	Z
CHROMIUM	20.7		0.135	MDL	0.449	PQL	mg/Kg	J	A
COBALT	5.78		0.0225	MDL	0.112	PQL	mg/Kg	J	A
COPPER	9.47		0.0741	MDL	0.449	PQL	mg/Kg	J	A
LEAD	5.08		0.0117	MDL	0.225	PQL	mg/Kg	J	A
NICKEL	15.3		0.112	MDL	0.449	PQL	mg/Kg	J	A
SILVER	0.0247	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z
VANADIUM	33.8		0.0247	MDL	0.112	PQL	mg/Kg	J	A
ZINC	47.4		0.629	MDL	3.37	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: DE140 **Laboratory: LL**

EDD Filename: PrepDE140_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-017-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 3:22:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0768	J	0.0439	MDL	0.439	PQL	mg/Kg	J	Z, Q

Sample ID: SL-017-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 3:22:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	78.5		0.118	MDL	0.439	PQL	mg/Kg	J	A

Sample ID: SL-017-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 3:22:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.160	J	0.0658	MDL	0.219	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.761		0.0176	MDL	0.110	PQL	mg/Kg	J	Q
CADMIUM	0.0449	J	0.0439	MDL	0.110	PQL	mg/Kg	J	Z
CHROMIUM	23.7		0.132	MDL	0.439	PQL	mg/Kg	J	A
COBALT	9.04		0.0219	MDL	0.110	PQL	mg/Kg	J	A
COPPER	11.8		0.0724	MDL	0.439	PQL	mg/Kg	J	A
LEAD	6.94		0.0114	MDL	0.219	PQL	mg/Kg	J	A
NICKEL	15.4		0.110	MDL	0.439	PQL	mg/Kg	J	A
SILVER	0.0255	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z
VANADIUM	45.5		0.0241	MDL	0.110	PQL	mg/Kg	J	A
ZINC	55.7		0.614	MDL	3.29	PQL	mg/Kg	J	A

Sample ID: SL-017-SA8N-SB-7.0-8.0 *Collected:* 4/29/2011 3:25:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0458	U	0.0458	MDL	0.458	PQL	mg/Kg	UJ	Q

Sample ID: SL-017-SA8N-SB-7.0-8.0 *Collected:* 4/29/2011 3:25:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	89.6		0.124	MDL	0.458	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: DE140 **Laboratory: LL**

EDD Filename: PrepDE140_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-017-SA8N-SB-7.0-8.0 *Collected:* 4/29/2011 3:25:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.146	J	0.0687	MDL	0.229	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.643		0.0183	MDL	0.115	PQL	mg/Kg	J	Q
CHROMIUM	22.5		0.137	MDL	0.458	PQL	mg/Kg	J	A
COBALT	10.1		0.0229	MDL	0.115	PQL	mg/Kg	J	A
COPPER	10.2		0.0756	MDL	0.458	PQL	mg/Kg	J	A
LEAD	6.46		0.0119	MDL	0.229	PQL	mg/Kg	J	A
NICKEL	16.6		0.115	MDL	0.458	PQL	mg/Kg	J	A
SILVER	0.0200	J	0.0137	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	47.8		0.0252	MDL	0.115	PQL	mg/Kg	J	A
ZINC	54.4		0.641	MDL	3.44	PQL	mg/Kg	J	A

Sample ID: SL-040-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 9:15:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.251	J	0.0470	MDL	0.470	PQL	mg/Kg	J	Z, Q

Sample ID: SL-040-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 9:15:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	130		0.127	MDL	0.470	PQL	mg/Kg	J	A

Sample ID: SL-040-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 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	0.303		0.0704	MDL	0.235	PQL	mg/Kg	J	Q
BERYLLIUM	0.800		0.0188	MDL	0.117	PQL	mg/Kg	J	Q
CHROMIUM	31.4		0.141	MDL	0.470	PQL	mg/Kg	J	A
COBALT	10.7		0.0235	MDL	0.117	PQL	mg/Kg	J	A
COPPER	16.5		0.0775	MDL	0.470	PQL	mg/Kg	J	A
LEAD	9.31		0.0122	MDL	0.235	PQL	mg/Kg	J	A
NICKEL	20.9		0.117	MDL	0.470	PQL	mg/Kg	J	A
SILVER	0.0278	J	0.0141	MDL	0.117	PQL	mg/Kg	J	Z
VANADIUM	55.6		0.0258	MDL	0.117	PQL	mg/Kg	J	A
ZINC	73.1		0.658	MDL	3.52	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: DE140 **Laboratory: LL**

EDD Filename: PrepDE140_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-040-SA8N-SB-9.0-10.0 **Collected:** 4/29/2011 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
SELENIUM	0.126	J	0.0485	MDL	0.485	PQL	mg/Kg	J	Z, Q

Sample ID: SL-040-SA8N-SB-9.0-10.0 **Collected:** 4/29/2011 9:24:00 **Analysis Type:** REA5 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	108		0.131	MDL	0.485	PQL	mg/Kg	J	A

Sample ID: SL-040-SA8N-SB-9.0-10.0 **Collected:** 4/29/2011 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	0.232	J	0.0727	MDL	0.242	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.765		0.0194	MDL	0.121	PQL	mg/Kg	J	Q
CHROMIUM	31.8		0.145	MDL	0.485	PQL	mg/Kg	J	A
COBALT	8.69		0.0242	MDL	0.121	PQL	mg/Kg	J	A
COPPER	15.4		0.0800	MDL	0.485	PQL	mg/Kg	J	A
LEAD	9.16		0.0126	MDL	0.242	PQL	mg/Kg	J	A
NICKEL	17.1		0.121	MDL	0.485	PQL	mg/Kg	J	A
SILVER	0.0388	J	0.0145	MDL	0.121	PQL	mg/Kg	J	Z
VANADIUM	62.3		0.0267	MDL	0.121	PQL	mg/Kg	J	A
ZINC	61.9		0.679	MDL	3.64	PQL	mg/Kg	J	A

Sample ID: SL-049-SA8N-SB-4.0-5.0 **Collected:** 4/29/2011 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	0.0501	J	0.0441	MDL	0.441	PQL	mg/Kg	J	Z, Q

Sample ID: SL-049-SA8N-SB-4.0-5.0 **Collected:** 4/29/2011 11:19:00 **Analysis Type:** REA5 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	76.6		0.119	MDL	0.441	PQL	mg/Kg	J	A

Sample ID: SL-049-SA8N-SB-4.0-5.0 **Collected:** 4/29/2011 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	0.246		0.0661	MDL	0.220	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: DE140 **Laboratory:** LL

EDD Filename: PrepDE140_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-049-SA8N-SB-4.0-5.0 **Collected:** 4/29/2011 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
BERYLLIUM	0.775		0.0176	MDL	0.110	PQL	mg/Kg	J	Q
CHROMIUM	26.4		0.132	MDL	0.441	PQL	mg/Kg	J	A
COBALT	9.88		0.0220	MDL	0.110	PQL	mg/Kg	J	A
COPPER	12.6		0.0727	MDL	0.441	PQL	mg/Kg	J	A
LEAD	6.59		0.0115	MDL	0.220	PQL	mg/Kg	J	A
NICKEL	18.1		0.110	MDL	0.441	PQL	mg/Kg	J	A
SILVER	0.0602	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z
VANADIUM	57.0		0.0242	MDL	0.110	PQL	mg/Kg	J	A
ZINC	56.0		0.617	MDL	3.30	PQL	mg/Kg	J	A

Sample ID: SL-049-SA8N-SB-8.0-9.0 **Collected:** 4/29/2011 11:24:00 **Analysis Type:** REA3 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0760	J	0.0457	MDL	0.457	PQL	mg/Kg	J	Z, Q

Sample ID: SL-049-SA8N-SB-8.0-9.0 **Collected:** 4/29/2011 11:24:00 **Analysis Type:** REA5 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	70.2		0.123	MDL	0.457	PQL	mg/Kg	J	A

Sample ID: SL-049-SA8N-SB-8.0-9.0 **Collected:** 4/29/2011 11:24:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.103	J	0.0685	MDL	0.228	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.914		0.0183	MDL	0.114	PQL	mg/Kg	J	Q
CADMIUM	0.0995	J	0.0457	MDL	0.114	PQL	mg/Kg	J	Z
CHROMIUM	25.2		0.137	MDL	0.457	PQL	mg/Kg	J	A
COBALT	6.92		0.0228	MDL	0.114	PQL	mg/Kg	J	A
COPPER	17.7		0.0754	MDL	0.457	PQL	mg/Kg	J	A
LEAD	7.21		0.0119	MDL	0.228	PQL	mg/Kg	J	A
NICKEL	18.1		0.114	MDL	0.457	PQL	mg/Kg	J	A
SILVER	0.101	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z
VANADIUM	44.2		0.0251	MDL	0.114	PQL	mg/Kg	J	A
ZINC	62.7		0.640	MDL	3.43	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: DE140 **Laboratory: LL**

EDD Filename: PrepDE140_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: DUP06-SA8N-QC-042911 *Collected:* 4/29/2011 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	0.47	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA8N-SB-2.0-3.0 *Collected:* 4/29/2011 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	0.32	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA8N-SB-7.0-8.0 *Collected:* 4/29/2011 3:25:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.38	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 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	0.56	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA8N-SB-9.0-10.0 *Collected:* 4/29/2011 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
HEXAVALENT CHROMIUM	0.37	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-049-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 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	0.34	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-049-SA8N-SB-8.0-9.0 *Collected:* 4/29/2011 11:24:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0196	J	0.0032	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: DE140 **Laboratory: LL**

EDD Filename: PrepDE140_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: DUP06-SA8N-QC-042911 *Collected:* 4/29/2011 9:30:00 *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)	0.48	U	0.48	MDL	1.4	PQL	mg/Kg	UJ	FD
EFH (C30-C40)	0.96	J	0.48	MDL	1.4	PQL	mg/Kg	J	Z, FD

Sample ID: SL-040-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 9:15:00 *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)	1.7		0.48	MDL	1.4	PQL	mg/Kg	J	Q, Q, FD
EFH (C30-C40)	4.0		0.48	MDL	1.4	PQL	mg/Kg	J	Q, Q, Q, FD

Sample ID: SL-040-SA8N-SB-9.0-10.0 *Collected:* 4/29/2011 9:24:00 *Analysis Type:* RES *Dilution:* 22.89

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

Sample ID: SL-049-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 11:19:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.52	J	0.45	MDL	1.3	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-013-SA8N-SB-2.0-3.0 *Collected:* 4/29/2011 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	0.62	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z, S

Sample ID: SL-017-SA8N-SB-7.0-8.0 *Collected:* 4/29/2011 3:25:00 *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	1.2	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z, S
AROCLOR 1260	0.72	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z, 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: DE140 **Laboratory: LL**

EDD Filename: PrepDE140_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-049-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	20	J	19	MDL	370	PQL	ug/Kg	J	Z

Method Category: SVOA

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

Sample ID: DUP06-SA8N-QC-042911 *Collected:* 4/29/2011 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
BENZO(B)FLUORANTHENE	0.97	J	0.80	MDL	2.0	PQL	ug/Kg	J	Z, FD
CHRYSENE	0.74	J	0.40	MDL	2.0	PQL	ug/Kg	J	Z, FD
Di-n-octylphthalate	9.5	J	7.2	MDL	22	PQL	ug/Kg	J	Z
NAPHTHALENE	0.83	J	0.80	MDL	2.0	PQL	ug/Kg	J	Z, FD

Sample ID: SL-013-SA8N-SB-2.0-3.0 *Collected:* 4/29/2011 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(B)FLUORANTHENE	0.89	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	0.64	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-octylphthalate	8.7	J	6.8	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-014-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 2:12:00 *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	8.8	J	6.9	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-017-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 3:22:00 *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	15	J	6.8	MDL	20	PQL	ug/Kg	U	B
Di-n-octylphthalate	11	J	6.8	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-017-SA8N-SB-7.0-8.0 *Collected:* 4/29/2011 3:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	9.2	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: DE140 **Laboratory:** LL

EDD Filename: PrepDE140_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

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

Sample ID: SL-040-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 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(B)FLUORANTHENE	0.79	U	0.79	MDL	2.0	PQL	ug/Kg	UJ	FD
CHRYSENE	0.39	U	0.39	MDL	2.0	PQL	ug/Kg	UJ	FD
Di-n-octylphthalate	9.1	J	7.1	MDL	21	PQL	ug/Kg	J	Z
NAPHTHALENE	0.79	U	0.79	MDL	2.0	PQL	ug/Kg	UJ	FD

Sample ID: SL-040-SA8N-SB-9.0-10.0 *Collected:* 4/29/2011 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(B)FLUORANTHENE	1.6	J	0.81	MDL	2.0	PQL	ug/Kg	J	Z
CHRYSENE	1.4	J	0.40	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.3	J	7.3	MDL	22	PQL	ug/Kg	J	Z

Sample ID: SL-049-SA8N-SB-4.0-5.0 *Collected:* 4/29/2011 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
Di-n-octylphthalate	8.6	J	6.7	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-049-SA8N-SB-8.0-9.0 *Collected:* 4/29/2011 11:24:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	9.2	J	7.1	MDL	21	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: DUP06-SA8N-QC-042911 *Collected:* 4/29/2011 9:30:00 *Analysis Type:* RES *Dilution:* 0.85

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	7.7	J	6.9	MDL	8.2	PQL	ug/Kg	UJ	B, FD
TOLUENE	0.12	J	0.08	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: SL-013-SA8N-SB-2.0-3.0 *Collected:* 4/29/2011 12:06:00 *Analysis Type:* RES *Dilution:* 0.84

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	7.3	J	6.4	MDL	7.6	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: DE140 **Laboratory:** LL

EDD Filename: PrepDE140_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-013-SA8N-SB-2.0-3.0 ***Collected:*** 4/29/2011 12:06:00 ***Analysis Type:*** RES ***Dilution:*** 0.84

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOLUENE	0.10	J	0.08	MDL	3.8	PQL	ug/Kg	U	B

Sample ID: SL-014-SA8N-SB-4.0-5.0 ***Collected:*** 4/29/2011 2:12:00 ***Analysis Type:*** RES ***Dilution:*** 0.81

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOLUENE	0.09	J	0.07	MDL	3.7	PQL	ug/Kg	U	B

Sample ID: SL-017-SA8N-SB-4.0-5.0 ***Collected:*** 4/29/2011 3:22:00 ***Analysis Type:*** RES ***Dilution:*** 0.82

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOLUENE	0.11	J	0.07	MDL	3.7	PQL	ug/Kg	U	B

Sample ID: SL-040-SA8N-SB-4.0-5.0 ***Collected:*** 4/29/2011 9:15:00 ***Analysis Type:*** RES ***Dilution:*** 1.04

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.3	U	8.3	MDL	10	PQL	ug/Kg	UJ	FD
METHYLENE CHLORIDE	14		0.30	MDL	5.0	PQL	ug/Kg	J	Q
TOLUENE	0.11	J	0.1	MDL	5.0	PQL	ug/Kg	U	B

Sample ID: SL-049-SA8N-SB-4.0-5.0 ***Collected:*** 4/29/2011 11:19:00 ***Analysis Type:*** RES ***Dilution:*** 0.84

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	7.2	J	6.3	MDL	7.6	PQL	ug/Kg	U	B
TOLUENE	0.09	J	0.08	MDL	3.8	PQL	ug/Kg	U	B

Sample ID: SL-049-SA8N-SB-8.0-9.0 ***Collected:*** 4/29/2011 11:24:00 ***Analysis Type:*** RES ***Dilution:*** 1.04

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.6	J	8.2	MDL	9.9	PQL	ug/Kg	U	B
TOLUENE	0.15	J	0.1	MDL	4.9	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: DE140 **Laboratory: LL**

EDD Filename: PrepDE140_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

Data Qualifier Summary

Lab Reporting Batch ID: DE140 **Laboratory: LL**

EDD Filename: PrepDE140_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	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE140 **Laboratory: LL**

EDD Filename: PrepDE140_v1 **eQAPP Name: CDM_SSFL_110509**

Q	Matrix Spike Upper Rejection
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

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

DE140

Method Blank Outlier Report

Lab Reporting Batch ID: DE140 **Laboratory: LL**

EDD Filename: DE140_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P12308AB220919	5/7/2011 9:19:00 AM	CALCIUM LITHIUM MANGANESE PHOSPHORUS TIN	10.6 mg/Kg 0.43 mg/Kg 0.224 mg/Kg 1.05 mg/Kg 1.32 mg/Kg	DUP06-SA8N-QC-042911 SL-013-SA8N-SB-2.0-3.0 SL-014-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-7.0-8.0 SL-040-SA8N-SB-4.0-5.0 SL-040-SA8N-SB-9.0-10.0 SL-049-SA8N-SB-4.0-5.0 SL-049-SA8N-SB-8.0-9.0

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
DUP06-SA8N-QC-042911(RES)	TIN	3.28 mg/Kg	3.28U mg/Kg
SL-013-SA8N-SB-2.0-3.0(RES)	TIN	2.80 mg/Kg	2.80U mg/Kg
SL-014-SA8N-SB-4.0-5.0(RES)	TIN	3.05 mg/Kg	3.05U mg/Kg
SL-017-SA8N-SB-4.0-5.0(RES)	TIN	3.03 mg/Kg	3.03U mg/Kg
SL-017-SA8N-SB-7.0-8.0(RES)	TIN	3.04 mg/Kg	3.04U mg/Kg
SL-040-SA8N-SB-4.0-5.0(RES)	TIN	2.98 mg/Kg	2.98U mg/Kg
SL-040-SA8N-SB-9.0-10.0(RES)	TIN	2.80 mg/Kg	2.80U mg/Kg
SL-049-SA8N-SB-4.0-5.0(RES)	TIN	3.01 mg/Kg	3.01U mg/Kg
SL-049-SA8N-SB-8.0-9.0(RES)	TIN	3.39 mg/Kg	3.39U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P12326AB221311A	5/5/2011 1:11:00 PM	COPPER VANADIUM	0.142 mg/Kg 0.0876 mg/Kg	DUP06-SA8N-QC-042911 SL-013-SA8N-SB-2.0-3.0 SL-014-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-7.0-8.0 SL-040-SA8N-SB-4.0-5.0 SL-040-SA8N-SB-9.0-10.0 SL-049-SA8N-SB-4.0-5.0 SL-049-SA8N-SB-8.0-9.0

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB42B211316A	5/3/2011 1:16:00 PM	ACETONE METHYLENE CHLORIDE TOLUENE	9.9 ug/Kg 0.60 ug/Kg 0.15 ug/Kg	DUP06-SA8N-QC-042911 SL-013-SA8N-SB-2.0-3.0 SL-014-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-4.0-5.0 SL-040-SA8N-SB-4.0-5.0 SL-049-SA8N-SB-4.0-5.0 SL-049-SA8N-SB-8.0-9.0

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DE140 **Laboratory: LL**

EDD Filename: DE140_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
DUP06-SA8N-QC-042911(RES)	ACETONE	7.7 ug/Kg	8.2U ug/Kg
DUP06-SA8N-QC-042911(RES)	TOLUENE	0.12 ug/Kg	4.1U ug/Kg
SL-013-SA8N-SB-2.0-3.0(RES)	ACETONE	7.3 ug/Kg	7.6U ug/Kg
SL-013-SA8N-SB-2.0-3.0(RES)	TOLUENE	0.10 ug/Kg	3.8U ug/Kg
SL-014-SA8N-SB-4.0-5.0(RES)	TOLUENE	0.09 ug/Kg	3.7U ug/Kg
SL-017-SA8N-SB-4.0-5.0(RES)	TOLUENE	0.11 ug/Kg	3.7U ug/Kg
SL-040-SA8N-SB-4.0-5.0(RES)	TOLUENE	0.11 ug/Kg	5.0U ug/Kg
SL-049-SA8N-SB-4.0-5.0(RES)	ACETONE	7.2 ug/Kg	7.6U ug/Kg
SL-049-SA8N-SB-4.0-5.0(RES)	TOLUENE	0.09 ug/Kg	3.8U ug/Kg
SL-049-SA8N-SB-8.0-9.0(RES)	ACETONE	8.6 ug/Kg	9.9U ug/Kg
SL-049-SA8N-SB-8.0-9.0(RES)	TOLUENE	0.15 ug/Kg	4.9U ug/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLB12B260646	5/18/2011 6:46:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE	8.8 ug/Kg	DUP06-SA8N-QC-042911 SL-013-SA8N-SB-2.0-3.0 SL-014-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-7.0-8.0 SL-040-SA8N-SB-4.0-5.0 SL-040-SA8N-SB-9.0-10.0 SL-049-SA8N-SB-4.0-5.0 SL-049-SA8N-SB-8.0-9.0

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-017-SA8N-SB-4.0-5.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	15 ug/Kg	20U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE140 **Laboratory: LL**

EDD Filename: DE140_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-013-SA8N-SB-2.0-3.0MSD (SL-013-SA8N-SB-2.0-3.0)	DIETHYLENE GLYCOL	-	-	59.00-109.00	32 (20.00)	DIETHYLENE GLYCOL	J (all detects)
SL-040-SA8N-SB-4.0-5.0MS SL-040-SA8N-SB-4.0-5.0MSD (SL-040-SA8N-SB-4.0-5.0)	EFH (C21-C30)	299	-	49.00-123.00	102 (20.00)	EFH (C21-C30)	J(all detects)
SL-040-SA8N-SB-4.0-5.0MS SL-040-SA8N-SB-4.0-5.0MSD (SL-040-SA8N-SB-4.0-5.0)	EFH (C30-C40)	393	-9	49.00-123.00	124 (20.00)	EFH (C30-C40)	J(all detects) R(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-040-SA8N-SB-4.0-5.0MSD (DUP06-SA8N-QC-042911 SL-013-SA8N-SB-2.0-3.0 SL-014-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-7.0-8.0 SL-040-SA8N-SB-4.0-5.0 SL-040-SA8N-SB-9.0-10.0 SL-049-SA8N-SB-4.0-5.0 SL-049-SA8N-SB-8.0-9.0)	VANADIUM	-	126	75.00-125.00	-	VANADIUM	No Qual >4x
SL-040-SA8N-SB-4.0-5.0MS SL-040-SA8N-SB-4.0-5.0MSD (DUP06-SA8N-QC-042911 SL-013-SA8N-SB-2.0-3.0 SL-014-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-7.0-8.0 SL-040-SA8N-SB-4.0-5.0 SL-040-SA8N-SB-9.0-10.0 SL-049-SA8N-SB-4.0-5.0 SL-049-SA8N-SB-8.0-9.0)	ANTIMONY BERYLLIUM ZINC	43 73 35	43 - -	75.00-125.00 75.00-125.00 75.00-125.00	- - -	ANTIMONY BERYLLIUM ZINC	J(all detects) UJ(all non-detects) Zn No Qual >4x
SL-040-SA8N-SB-4.0-5.0MS (DUP06-SA8N-QC-042911 SL-013-SA8N-SB-2.0-3.0 SL-014-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-7.0-8.0 SL-040-SA8N-SB-4.0-5.0 SL-040-SA8N-SB-9.0-10.0 SL-049-SA8N-SB-4.0-5.0 SL-049-SA8N-SB-8.0-9.0)	SELENIUM	74	-	75.00-125.00	-	SELENIUM	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: DE140 **Laboratory: LL**

EDD Filename: DE140_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-040-SA8N-SB-4.0-5.0MS SL-040-SA8N-SB-4.0-5.0MSD (DUP06-SA8N-QC-042911 SL-013-SA8N-SB-2.0-3.0 SL-014-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-7.0-8.0 SL-040-SA8N-SB-4.0-5.0 SL-040-SA8N-SB-9.0-10.0 SL-049-SA8N-SB-4.0-5.0 SL-049-SA8N-SB-8.0-9.0)	ALUMINUM CALCIUM IRON MAGNESIUM POTASSIUM TITANIUM	3417 998 1649 390 144 554	2582 577 704 243 137 434	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 POTASSIUM TITANIUM	No Qual >4x
SL-040-SA8N-SB-4.0-5.0MS (DUP06-SA8N-QC-042911 SL-013-SA8N-SB-2.0-3.0 SL-014-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-7.0-8.0 SL-040-SA8N-SB-4.0-5.0 SL-040-SA8N-SB-9.0-10.0 SL-049-SA8N-SB-4.0-5.0 SL-049-SA8N-SB-8.0-9.0)	MANGANESE	49	-	75.00-125.00	-	MANGANESE	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-040-SA8N-SB-4.0-5.0MSD (SL-040-SA8N-SB-4.0-5.0)	BENZIDINE	-	-	35.00-141.00	40 (30.00)	BENZIDINE	J(all detects)

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

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-040-SA8N-SB-4.0-5.0MS SL-040-SA8N-SB-4.0-5.0MSD (SL-040-SA8N-SB-4.0-5.0)	METHYLENE CHLORIDE	254	258	61.00-141.00	-	METHYLENE CHLORIDE	J(all detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE140 **Laboratory: LL**

EDD Filename: DE140_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-040-SA8N-SB-4.0-5.0DUP (DUP06-SA8N-QC-042911 SL-013-SA8N-SB-2.0-3.0 SL-014-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-7.0-8.0 SL-040-SA8N-SB-4.0-5.0 SL-040-SA8N-SB-9.0-10.0 SL-049-SA8N-SB-4.0-5.0 SL-049-SA8N-SB-8.0-9.0)	CALCIUM	27	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-040-SA8N-SB-4.0-5.0DUP (DUP06-SA8N-QC-042911 SL-013-SA8N-SB-2.0-3.0 SL-014-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-7.0-8.0 SL-040-SA8N-SB-4.0-5.0 SL-040-SA8N-SB-9.0-10.0 SL-049-SA8N-SB-4.0-5.0 SL-049-SA8N-SB-8.0-9.0)	ANTIMONY	30	20.00	No Qual, OK by difference
	SELENIUM	36	20.00	
	SILVER	69	20.00	
	THALLIUM	25	20.00	

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-040-SA8N-SB-4.0-5.0DUP (DUP06-SA8N-QC-042911 SL-013-SA8N-SB-2.0-3.0 SL-014-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-7.0-8.0 SL-040-SA8N-SB-4.0-5.0 SL-040-SA8N-SB-9.0-10.0 SL-049-SA8N-SB-4.0-5.0 SL-049-SA8N-SB-8.0-9.0)	HEXAVALENT CHROMIUM	29	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: DE140 **Laboratory: LL**

EDD Filename: DE140_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
P11233AY240336A (DUP06-SA8N-QC-042911 SL-013-SA8N-SB-2.0-3.0 SL-014-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-7.0-8.0 SL-040-SA8N-SB-4.0-5.0 SL-040-SA8N-SB-9.0-10.0 SL-049-SA8N-SB-4.0-5.0 SL-049-SA8N-SB-8.0-9.0)	Aroclor 5442	-	115	36.00-106.00	-	Aroclor 5432 Aroclor 5442 Aroclor 5460	J (all detects)

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P4LALCSQ261312 (DUP06-SA8N-QC-042911 SL-013-SA8N-SB-2.0-3.0 SL-014-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-4.0-5.0 SL-017-SA8N-SB-7.0-8.0 SL-040-SA8N-SB-4.0-5.0 SL-040-SA8N-SB-9.0-10.0 SL-049-SA8N-SB-4.0-5.0)	Butylbenzylphthalate	117	-	75.00-115.00	-	Butylbenzylphthalate	J(all detects)
P4LZLCSQ262246 (SL-049-SA8N-SB-8.0-9.0)	BIS(2-CHLOROETHYL) ETHER	105	-	70.00-104.00	-	BIS(2-CHLOROETHYL) ETHER	J(all detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE140 **Laboratory: LL**

EDD Filename: DE140_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8082**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-013-SA8N-SB-2.0-3.0	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	135 149	45.00-120.00 53.00-139.00	All Target Analytes	J (all detects)
SL-014-SA8N-SB-4.0-5.0	DECACHLOROBIPHENYL	128	45.00-120.00	All Target Analytes	J(all detects)
SL-017-SA8N-SB-7.0-8.0	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	176 169	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)
SL-040-SA8N-SB-9.0-10.0	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	171 177	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE140 **Laboratory: LL**

EDD Filename: DE140_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-040-SA8N-SB-4.0-5.0	DUP06-SA8N-QC-042911			
MOISTURE	16.5	16.6	1		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-040-SA8N-SB-4.0-5.0	DUP06-SA8N-QC-042911			
FLUORIDE	1.6	1.7	6	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-040-SA8N-SB-4.0-5.0	DUP06-SA8N-QC-042911			
ALUMINUM	31900	33000	3	50.00	No Qualifiers Applied
BORON	7.56	8.74	14	50.00	
CALCIUM	10400	11700	12	50.00	
IRON	37900	37700	1	50.00	
LITHIUM	28.8	29.1	1	50.00	
MAGNESIUM	7890	8010	2	50.00	
MANGANESE	493	494	0	50.00	
PHOSPHORUS	356	357	0	50.00	
POTASSIUM	5260	5270	0	50.00	
SODIUM	113	108	5	50.00	
STRONTIUM	45.6	47.0	3	50.00	
TIN	2.98	3.28	10	50.00	
TITANIUM	1290	1560	19	50.00	
Zirconium	6.47	7.08	9	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-040-SA8N-SB-4.0-5.0	DUP06-SA8N-QC-042911			
ANTIMONY	0.303	0.240	23	50.00	No Qualifiers Applied
ARSENIC	5.99	6.52	8	50.00	
BARIUM	130	138	6	50.00	
BERYLLIUM	0.800	0.845	5	50.00	
CADMIUM	0.279	0.281	1	50.00	
CHROMIUM	31.4	34.0	8	50.00	
COBALT	10.7	12.0	11	50.00	
COPPER	16.5	19.0	14	50.00	
LEAD	9.31	10.4	11	50.00	
MOLYBDENUM	0.359	0.505	34	50.00	
NICKEL	20.9	22.6	8	50.00	
SELENIUM	0.251	0.222	12	50.00	
SILVER	0.0278	0.0453	48	50.00	
THALLIUM	0.306	0.402	27	50.00	
VANADIUM	55.6	63.5	13	50.00	
ZINC	73.1	75.8	4	50.00	

Field Duplicate RPD Report

Lab Reporting Batch ID: DE140 **Laboratory: LL**

EDD Filename: DE140_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-040-SA8N-SB-4.0-5.0	DUP06-SA8N-QC-042911			
HEXAVALENT CHROMIUM	0.56	0.47	17	50.00	No Qualifiers Applied

Method: 8015M
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-040-SA8N-SB-4.0-5.0	DUP06-SA8N-QC-042911			
EFH (C21-C30)	1.7	1.4 U	200	50.00	J(all detects)
EFH (C30-C40)	4.0	0.96	123	50.00	UJ(all non-detects)

Method: 8260B
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-040-SA8N-SB-4.0-5.0	DUP06-SA8N-QC-042911			
METHYLENE CHLORIDE	14	22	44	50.00	No Qualifiers Applied
TOLUENE	0.11	0.12	9	50.00	
ACETONE	10 U	7.7	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-040-SA8N-SB-4.0-5.0	DUP06-SA8N-QC-042911			
Di-n-octylphthalate	9.1	9.5	4	50.00	No Qualifiers Applied
BENZO(B)FLUORANTHENE	2.0 U	0.97	200	50.00	J(all detects) UJ(all non-detects)
CHRYSENE	2.0 U	0.74	200	50.00	
NAPHTHALENE	2.0 U	0.83	200	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-040-SA8N-SB-4.0-5.0	DUP06-SA8N-QC-042911			
PH	7.89	7.73	2	50.00	No Qualifiers Applied

Method: ASTM D1498
Matrix: SO

Analyte	Concentration (mV)		Sample RPD	eQAPP RPD	Flag
	SL-040-SA8N-SB-4.0-5.0	DUP06-SA8N-QC-042911			
Oxidation Reduction Potential	412	396	4		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE140 **Laboratory: LL**

EDD Filename: DE140_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-049-SA8N-SB-4.0-5.0	Nitrate-NO3	J	1.5	1.7	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP06-SA8N-QC-042911	SODIUM	J	108	120	PQL	mg/Kg	J (all detects)
	TIN	J	3.28	12.0	PQL	mg/Kg	
SL-013-SA8N-SB-2.0-3.0	BORON	J	3.02	5.68	PQL	mg/Kg	J (all detects)
	TIN	J	2.80	11.4	PQL	mg/Kg	
	Zirconium	J	4.32	5.68	PQL	mg/Kg	
SL-014-SA8N-SB-4.0-5.0	BORON	J	1.60	5.62	PQL	mg/Kg	J (all detects)
	TIN	J	3.05	11.2	PQL	mg/Kg	
	Zirconium	J	4.05	5.62	PQL	mg/Kg	
SL-017-SA8N-SB-4.0-5.0	BORON	J	1.04	5.54	PQL	mg/Kg	J (all detects)
	TIN	J	3.03	11.1	PQL	mg/Kg	
	Zirconium	J	4.11	5.54	PQL	mg/Kg	
SL-017-SA8N-SB-7.0-8.0	TIN	J	3.04	11.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.16	5.73	PQL	mg/Kg	
SL-040-SA8N-SB-4.0-5.0	SODIUM	J	113	119	PQL	mg/Kg	J (all detects)
	TIN	J	2.98	11.9	PQL	mg/Kg	
SL-040-SA8N-SB-9.0-10.0	TIN	J	2.80	12.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	5.49	6.00	PQL	mg/Kg	
SL-049-SA8N-SB-4.0-5.0	BORON	J	1.05	5.56	PQL	mg/Kg	J (all detects)
	TIN	J	3.01	11.1	PQL	mg/Kg	
SL-049-SA8N-SB-8.0-9.0	TIN	J	3.39	11.8	PQL	mg/Kg	J (all detects)

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP06-SA8N-QC-042911	SELENIUM	J	0.222	0.470	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0453	0.118	PQL	mg/Kg	
SL-013-SA8N-SB-2.0-3.0	ANTIMONY	J	0.195	0.225	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0867	0.450	PQL	mg/Kg	
	SILVER	J	0.0412	0.113	PQL	mg/Kg	
SL-014-SA8N-SB-4.0-5.0	ANTIMONY	J	0.100	0.225	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0862	0.112	PQL	mg/Kg	
	SILVER	J	0.0247	0.112	PQL	mg/Kg	
SL-017-SA8N-SB-4.0-5.0	ANTIMONY	J	0.160	0.219	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0449	0.110	PQL	mg/Kg	
	SELENIUM	J	0.0768	0.439	PQL	mg/Kg	
	SILVER	J	0.0255	0.110	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE140 **Laboratory: LL**

EDD Filename: DE140_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-017-SA8N-SB-7.0-8.0	ANTIMONY	J	0.146	0.229	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0200	0.115	PQL	mg/Kg	
SL-040-SA8N-SB-4.0-5.0	SELENIUM	J	0.251	0.470	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0278	0.117	PQL	mg/Kg	
SL-040-SA8N-SB-9.0-10.0	ANTIMONY	J	0.232	0.242	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.126	0.485	PQL	mg/Kg	
	SILVER	J	0.0388	0.121	PQL	mg/Kg	
SL-049-SA8N-SB-4.0-5.0	SELENIUM	J	0.0501	0.441	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0602	0.110	PQL	mg/Kg	
SL-049-SA8N-SB-8.0-9.0	ANTIMONY	J	0.103	0.228	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0995	0.114	PQL	mg/Kg	
	SELENIUM	J	0.0760	0.457	PQL	mg/Kg	
	SILVER	J	0.101	0.114	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP06-SA8N-QC-042911	HEXAVALENT CHROMIUM	J	0.47	1.2	PQL	mg/Kg	J (all detects)
SL-013-SA8N-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.32	1.1	PQL	mg/Kg	J (all detects)
SL-017-SA8N-SB-7.0-8.0	HEXAVALENT CHROMIUM	J	0.38	1.2	PQL	mg/Kg	J (all detects)
SL-040-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.56	1.2	PQL	mg/Kg	J (all detects)
SL-040-SA8N-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.37	1.2	PQL	mg/Kg	J (all detects)
SL-049-SA8N-SB-4.0-5.0	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
SL-049-SA8N-SB-8.0-9.0	MERCURY	J	0.0196	0.112	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP06-SA8N-QC-042911	EFH (C30-C40)	J	0.96	1.4	PQL	mg/Kg	J (all detects)
SL-040-SA8N-SB-9.0-10.0	GASOLINE RANGE ORGANICS (C5-C12)	J	0.2	1.1	PQL	mg/Kg	J (all detects)
SL-049-SA8N-SB-4.0-5.0	EFH (C30-C40)	J	0.52	1.3	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE140 **Laboratory: LL**

EDD Filename: DE140_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-013-SA8N-SB-2.0-3.0	AROCLOR 1260	J	0.62	1.9	PQL	ug/Kg	J (all detects)
SL-017-SA8N-SB-7.0-8.0	AROCLOR 1254 AROCLOR 1260	J J	1.2 0.72	2.0 2.0	PQL PQL	ug/Kg ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP06-SA8N-QC-042911	ACETONE TOLUENE	J J	7.7 0.12	8.2 4.1	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-013-SA8N-SB-2.0-3.0	ACETONE TOLUENE	J J	7.3 0.10	7.6 3.8	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-014-SA8N-SB-4.0-5.0	TOLUENE	J	0.09	3.7	PQL	ug/Kg	J (all detects)
SL-017-SA8N-SB-4.0-5.0	TOLUENE	J	0.11	3.7	PQL	ug/Kg	J (all detects)
SL-040-SA8N-SB-4.0-5.0	TOLUENE	J	0.11	5.0	PQL	ug/Kg	J (all detects)
SL-049-SA8N-SB-4.0-5.0	ACETONE TOLUENE	J J	7.2 0.09	7.6 3.8	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-049-SA8N-SB-8.0-9.0	ACETONE TOLUENE	J J	8.6 0.15	9.9 4.9	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-049-SA8N-SB-4.0-5.0	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
DUP06-SA8N-QC-042911	BENZO(B)FLUORANTHENE CHRYSENE Di-n-octylphthalate NAPHTHALENE	J J J J	0.97 0.74 9.5 0.83	2.0 2.0 22 2.0	PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)
SL-013-SA8N-SB-2.0-3.0	BENZO(B)FLUORANTHENE CHRYSENE Di-n-octylphthalate	J J J	0.89 0.64 8.7	1.9 1.9 20	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-014-SA8N-SB-4.0-5.0	Di-n-octylphthalate	J	8.8	21	PQL	ug/Kg	J (all detects)
SL-017-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE Di-n-octylphthalate	J J	15 11	20 20	PQL PQL	ug/Kg ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE140 **Laboratory: LL**

EDD Filename: DE140_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-017-SA8N-SB-7.0-8.0	Di-n-octylphthalate	J	9.2	21	PQL	ug/Kg	J (all detects)
SL-040-SA8N-SB-4.0-5.0	Di-n-octylphthalate	J	9.1	21	PQL	ug/Kg	J (all detects)
SL-040-SA8N-SB-9.0-10.0	BENZO(B)FLUORANTHENE CHRYSENE Di-n-octylphthalate	J J J	1.6 1.4 9.3	2.0 2.0 22	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-049-SA8N-SB-4.0-5.0	Di-n-octylphthalate	J	8.6	20	PQL	ug/Kg	J (all detects)
SL-049-SA8N-SB-8.0-9.0	Di-n-octylphthalate	J	9.2	21	PQL	ug/Kg	J (all detects)

LDC #: 26275E4 **VALIDATION COMPLETENESS WORKSHEET** Date: 9/28/11
SDG #: DE140 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: W
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: 4/29/11
II.	ICP/MS Tune	N	
III.	Calibration	N	
IV.	Blanks	A	No Sample qual by reB/ccB
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ca, Fe, Mg, Mn, K, Ti, V, Zn 75%
VII.	Duplicate Sample Analysis	SW	Sb, Se, Ag, Tl <5%,
VIII.	Laboratory Control Samples (LCS)	N A	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Ba, Cr, Co, Cu, Pb, Ni, V, Zn, J/UJ
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
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	DUP06-SA8N-QC-042911	11	SL-040-SA8N-SB-4.0-5.0MSD	21		31	
2	SL-013-SA8N-SB-2.0-3.0	12	SL-040-SA8N-SB-4.0-5.0DUP	22		32	
3	SL-014-SA8N-SB-4.0-5.0	13		23		33	
4	SL-017-SA8N-SB-4.0-5.0	14		24		34	
5	SL-017-SA8N-SB-7.0-5.0	15		25		35	
6	SL-040-SA8N-SB-4.0-5.0	16		26		36	
7	SL-040-SA8N-SB-9.0-10.0	17		27		37	
8	SL-049-SA8N-SB-4.0-5.0	18		28		38	
9	SL-049-SA8N-SB-8.0-9.0	19		29		39	
10	SL-040-SA8N-SB-4.0-5.0MS	20		30		40	

Notes:

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE140
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6272812BKG Matrix Spike Lab Sample ID: 6272813MS Matrix Spike Duplicate Lab Sample ID: 6272814MSD
% Solids for Sample: 83.5
Batch Id(s): P12308A, P12326A, P12311A

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		31926.3935		40030.4286		38049.0816		237.1495	237.1495	MG/KG	3417		2582		5			20	P
Antimony	121	0.3032		0.9121		0.9210		1.4229	1.4371	MG/KG	43	N	43	N	1		75 - 125	20	MS
Arsenic	75	5.9904		7.8283		8.2515		2.3715	2.3952	MG/KG	77		94		5		75 - 125	20	MS
Barium	137	129.6701		140.3451		144.0000		11.8575	11.9760	MG/KG	90		120		3			20	MS
Beryllium	9	0.7998		1.4943		1.6067		0.9486	0.9581	MG/KG	73	N	84		7		75 - 125	20	MS
Boron		7.5556		251.1863		245.9572		237.1495	237.1495	MG/KG	103		101		2		84 - 115	20	P
Cadmium	111	0.2787		1.2258		1.2956		1.1857	1.1976	MG/KG	80		85		6		75 - 125	20	MS
Calcium		10357.5147		15089.4219		13096.5364		474.2989	474.2989	MG/KG	998		577		14			20	P
Chromium	52	31.3725		41.7146		41.8443		11.8575	11.9760	MG/KG	87		87		0		75 - 125	20	MS
Cobalt	59	10.7244		62.2280		68.8144		59.2874	59.8802	MG/KG	87		97		10		75 - 125	20	MS
Copper	63	16.5293		26.4422		29.4132		11.8575	11.9760	MG/KG	84		108		11		75 - 125	20	MS
Iron		37910.1204		39865.5244		38744.3292		118.5747	118.5747	MG/KG	1649		704		3			20	P
Lead	208	9.3108		12.5025		12.9413		3.5572	3.5928	MG/KG	90		101		3		75 - 125	20	MS
Lithium		28.7686		150.7820		147.7062		118.5747	118.5747	MG/KG	103		100		2		82 - 114	20	P
Magnesium		7891.2468		8816.1582		8468.4200		237.1495	237.1495	MG/KG	390		243		4			20	P
Manganese		493.3100		522.2577		543.3794		59.2874	59.2874	MG/KG	49		84		4			20	P
Mercury		0.0035	U	0.1877		0.1770		0.1910	0.1885	MG/KG	98		94		6		80 - 120	20	CV
Molybdenum	98	0.3593		10.4156		11.8156		11.8575	11.9760	MG/KG	85		96		13		75 - 125	20	MS
Nickel	60	20.9205		30.3077		35.0659		11.8575	11.9760	MG/KG	79		118		15		75 - 125	20	MS
Phosphorus		356.0882		458.0909		470.4476		118.5747	118.5747	MG/KG	86		96		3		75 - 125	20	P
Potassium		5256.4534		6966.7457		6877.6819		1185.7473	1185.7473	MG/KG	144		137		1			20	P
Selenium	78	0.2513	B	2.0044		2.3840		2.3715	2.3952	MG/KG	74	N	89		17		75 - 125	20	MS
Silver	107	0.0278	B	10.1334		11.5329		11.8575	11.9760	MG/KG	85		96		13		75 - 125	20	MS
Sodium		112.8867	B	1233.5649		1216.2744		1185.7473	1185.7473	MG/KG	95		93		1		75 - 125	20	P
Strontium		45.5540		170.0978		164.7110		118.5747	118.5747	MG/KG	105		100		3		75 - 115	20	P
Thallium	203	0.3057		0.7055		0.8204		0.4743	0.4790	MG/KG	84		107		15		75 - 125	20	MS
Tin		2.9845	B	429.6899		428.2801		474.2989	474.2989	MG/KG	90		90		0		80 - 110	20	P
Titanium		1287.2912		1944.2343		1801.8047		118.5747	118.5747	MG/KG	554		434		8			20	P
Vanadium	51	55.5595		69.9591		70.6108		11.8575	11.9760	MG/KG	121		126		1			20	MS
Zinc	66	73.0774		77.2396		87.5928		11.8575	11.9760	MG/KG	35		121		13			20	MS
Zirconium	90	6.4730		119.5684		116.9870		118.5747	118.5747	MG/KG	95		93		2		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

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 6
DUPLICATES
SDG No.: DE140
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6272812BKG
% Solids for Duplicate: 83.6
Batch ID(s): P12308A, P12326A, P12311A
Concentration Units: MG/KG

Duplicate Lab Sample ID: 6272815DUP
% Solids for Sample: 83.5

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			31926.3935		32758.6979		3		P
Antimony	121	0.2	0.3032		0.2231	B	30		MS
Arsenic	75		5.9904		6.8171		13		MS
Barium	137		129.6701		131.2298		1		MS
Beryllium	9		0.7998		0.8321		4		MS
Boron		5.9	7.5556		8.6521		14		P
Cadmium	111	0.1	0.2787		0.3047		9		MS
Calcium			10357.5147		13568.4642		27	*	P
Chromium	52		31.3725		32.8190		5		MS
Cobalt	59		10.7244		11.3795		6		MS
Copper	63		16.5293		17.6923		7		MS
Iron			37910.1204		36348.7026		4		P
Lead	208		9.3108		9.7190		4		MS
Lithium			28.7686		29.3296		2		P
Magnesium			7891.2468		7890.7655		0		P
Manganese			493.3100		479.3660		3		P
Mercury			0.0035	U	0.0034	U			CV
Molybdenum	98	0.1	0.3593		0.4058		12		MS
Nickel	60		20.9205		23.5606		12		MS
Phosphorus			356.0882		336.7125		6		P
Potassium			5256.4534		5153.8476		2		P
Selenium	78		0.2513	B	0.1746	B	36		MS
Silver	107		0.0278	B	0.0569	B	69		MS
Sodium			112.8867	B	110.8794	B	2		P
Strontium			45.5540		47.7797		5		P
Thallium	203	0.1	0.3057		0.3938		25		MS
Tin			2.9845	B	3.1009	B	4		P
Titanium			1287.2912		1433.8946		11		P
Vanadium	51		55.5595		59.4427		7		MS
Zinc	66		73.0774		70.9811		3		MS
Zirconium		5.9	6.4730		7.3465		13		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.: DE140
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6272812BKG Serial Dilution Lab Sample ID: 6272812L
Batch ID(s): P12308A, P12326A
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		269251.2400		278909.7000		4		P
Antimony	121	1.2910		1.5000	U	100		MS
Arsenic	75	25.5100		37.8200		48		MS
Barium	137	552.2000		698.5000		26	E	MS
Beryllium	9	3.4060		5.1850		52		MS
Boron		63.7200		60.7000	B	5		P
Cadmium	111	1.1870		1.0000	U	100		MS
Calcium		87350.1000		93049.1500		7		P
Chromium	52	133.6000		188.4500		41	E	MS
Cobalt	59	45.6700		59.8000		31	E	MS
Copper	63	70.3900		98.7000		40	E	MS
Iron		63943.0000		65229.5500		2		P
Lead	208	39.6500		52.0000		31	E	MS
Lithium		242.6200		259.8000		7		P
Magnesium		66550.8300		69785.7000		5		P
Manganese		4160.3300		4401.3000		6		P
Molybdenum	98	1.5300		2.7575		80		MS
Nickel	60	89.0900		104.6500		17	E	MS
Phosphorus		3003.0700		3068.8500		2		P
Potassium		44330.3000		46714.0000		5		P
Selenium	78	1.0700	B	1.0000	U	100		MS
Silver	107	0.1185	B	0.3000	U	100		MS
Sodium		952.0300	B	1865.0000	U	100		P
Strontium		384.1800		394.8000		3		P
Thallium	203	1.3020		1.8195	B	40		MS
Tin		25.1700	B	50.0000	U	100		P
Titanium		10856.3700		10301.7500		5		P
Vanadium	51	236.6000		343.6500		45	E	MS
Zinc	66	311.2000		406.0000		30	E	MS
Zirconium		54.5900		45.2500	B	17		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.

DE140 5823

METHODS:	CONCENTRATION QUALIFIERS:
P = ICP Atomic Emission Spectrometer	U= Below MDL
MS = ICP Mass Spectrometry	B= Below LOQ
	FLAGS:
	E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

SAMPLE DELIVERY GROUP

DE141

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-May-2011	TB-050211	6273948	TB	5030B	8015M	III
02-May-2011	TB-050211	6273948	TB	5030B	8260B	III
02-May-2011	TB-050211	6273948	TB	5030B	8260B SIM	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	3050B	6010B	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	3050B	6020	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	3060A	7199	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	3546	1625C	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	3550B	8015B	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	3550B	8015M	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	3550B	8082	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	3550B	8270C	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	3550B	8270C SIM	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	5035	8015M	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	5035	8260B	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	5035	8260B SIM	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	8330	8330A	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	METHOD	300.0	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	METHOD	314.0	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	METHOD	7471A	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	METHOD	8015B	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	METHOD	8015M	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	METHOD	8315A	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0	6273941	N	METHOD	9012B	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0DUP	P273941D271511B	DUP	METHOD	314.0	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0MSD	P273941M240218A	MSD	8330	8330A	III
02-May-2011	SL-012-SA8N-SB-4.0-5.0MS	P273941R240136A	MS	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
02-May-2011	SL-012-SA8N-SB-4.0-5.0MS	P273941R271533B	MS	METHOD	314.0	III
02-May-2011	SL-050-SA8N-SB-4.0-5.0	6273944	N	3050B	6010B	III
02-May-2011	SL-050-SA8N-SB-4.0-5.0	6273944	N	3050B	6020	III
02-May-2011	SL-050-SA8N-SB-4.0-5.0	6273944	N	3060A	7199	III
02-May-2011	SL-050-SA8N-SB-4.0-5.0	6273944	N	3550B	8082	III
02-May-2011	SL-050-SA8N-SB-4.0-5.0	6273944	N	3550B	8270C	III
02-May-2011	SL-050-SA8N-SB-4.0-5.0	6273944	N	3550B	8270C SIM	III
02-May-2011	SL-050-SA8N-SB-4.0-5.0	6273944	N	5035	8260B	III
02-May-2011	SL-050-SA8N-SB-4.0-5.0	6273944	N	5035	8260B SIM	III
02-May-2011	SL-050-SA8N-SB-4.0-5.0	6273944	N	METHOD	300.0	III
02-May-2011	SL-050-SA8N-SB-4.0-5.0	6273944	N	METHOD	314.0	III
02-May-2011	SL-050-SA8N-SB-4.0-5.0	6273944	N	METHOD	7471A	III
02-May-2011	SL-050-SA8N-SB-4.0-5.0	6273944	N	METHOD	8015M	III
02-May-2011	SL-050-SA8N-SB-9.0-10	6273945	N	3050B	6010B	III
02-May-2011	SL-050-SA8N-SB-9.0-10	6273945	N	3050B	6020	III
02-May-2011	SL-050-SA8N-SB-9.0-10	6273945	N	3060A	7199	III
02-May-2011	SL-050-SA8N-SB-9.0-10	6273945	N	3550B	8082	III
02-May-2011	SL-050-SA8N-SB-9.0-10	6273945	N	3550B	8270C	III
02-May-2011	SL-050-SA8N-SB-9.0-10	6273945	N	3550B	8270C SIM	III
02-May-2011	SL-050-SA8N-SB-9.0-10	6273945	N	METHOD	300.0	III
02-May-2011	SL-050-SA8N-SB-9.0-10	6273945	N	METHOD	314.0	III
02-May-2011	SL-050-SA8N-SB-9.0-10	6273945	N	METHOD	7471A	III
02-May-2011	SL-050-SA8N-SB-9.0-10	6273945	N	METHOD	8015M	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	3050B	6010B	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	3050B	6020	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	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
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	3546	1625C	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	3550B	8015B	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	3550B	8015M	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	3550B	8082	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	3550B	8270C	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	3550B	8270C SIM	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	5035	8015M	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	5035	8260B	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	5035	8260B SIM	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	8330	8330A	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	METHOD	300.0	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	METHOD	314.0	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	METHOD	6850	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	METHOD	7471A	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	METHOD	8015B	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	METHOD	8015M	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	METHOD	8315A	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0	6273942	N	METHOD	9012B	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0MSD	P273942M241225A	MSD	METHOD	6850	III
02-May-2011	SL-022-SA8N-SB-4.0-5.0MS	P273942R241218A	MS	METHOD	6850	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	3050B	6010B	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	3050B	6020	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	3060A	7199	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	3546	1625C	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	3550B	8015B	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	3550B	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
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	3550B	8082	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	3550B	8270C	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	3550B	8270C SIM	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	5035	8015M	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	5035	8260B	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	5035	8260B SIM	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	8330	8330A	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	METHOD	300.0	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	METHOD	314.0	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	METHOD	7471A	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	METHOD	8015B	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	METHOD	8015M	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	METHOD	8315A	III
02-May-2011	SL-022-SA8N-SB-9.0-10.0	6273943	N	METHOD	9012B	III
02-May-2011	SL-023-SA8N-SB-4.0-5.0	6273946	N	3050B	6010B	III
02-May-2011	SL-023-SA8N-SB-4.0-5.0	6273946	N	3050B	6020	III
02-May-2011	SL-023-SA8N-SB-4.0-5.0	6273946	N	3060A	7199	III
02-May-2011	SL-023-SA8N-SB-4.0-5.0	6273946	N	3550B	8082	III
02-May-2011	SL-023-SA8N-SB-4.0-5.0	6273946	N	3550B	8270C	III
02-May-2011	SL-023-SA8N-SB-4.0-5.0	6273946	N	3550B	8270C SIM	III
02-May-2011	SL-023-SA8N-SB-4.0-5.0	6273946	N	5035	8260B	III
02-May-2011	SL-023-SA8N-SB-4.0-5.0	6273946	N	5035	8260B SIM	III
02-May-2011	SL-023-SA8N-SB-4.0-5.0	6273946	N	METHOD	300.0	III
02-May-2011	SL-023-SA8N-SB-4.0-5.0	6273946	N	METHOD	314.0	III
02-May-2011	SL-023-SA8N-SB-4.0-5.0	6273946	N	METHOD	7471A	III
02-May-2011	SL-023-SA8N-SB-9.0-10.0	6273947	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
02-May-2011	SL-023-SA8N-SB-9.0-10.0	6273947	N	3050B	6020	III
02-May-2011	SL-023-SA8N-SB-9.0-10.0	6273947	N	3060A	7199	III
02-May-2011	SL-023-SA8N-SB-9.0-10.0	6273947	N	3550B	8082	III
02-May-2011	SL-023-SA8N-SB-9.0-10.0	6273947	N	3550B	8270C	III
02-May-2011	SL-023-SA8N-SB-9.0-10.0	6273947	N	3550B	8270C SIM	III
02-May-2011	SL-023-SA8N-SB-9.0-10.0	6273947	N	METHOD	300.0	III
02-May-2011	SL-023-SA8N-SB-9.0-10.0	6273947	N	METHOD	314.0	III
02-May-2011	SL-023-SA8N-SB-9.0-10.0	6273947	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: DE141 Laboratory: LL

EDD Filename: PrepDE141_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-022-SA8N-SB-9.0-10.0 *Collected:* 5/2/2011 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
Nitrate-NO3	1.6	J	0.95	MDL	1.8	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-012-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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	2.89	J	1.03	MDL	5.81	PQL	mg/Kg	J	Z
CALCIUM	4650		7.12	MDL	23.2	PQL	mg/Kg	J	A
MANGANESE	490		0.0906	MDL	0.581	PQL	mg/Kg	J	E
TIN	3.07	J	1.16	MDL	11.6	PQL	mg/Kg	U	B

Sample ID: SL-022-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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
BORON	4.04	J	1.03	MDL	5.78	PQL	mg/Kg	J	Z
CALCIUM	6930		7.08	MDL	23.1	PQL	mg/Kg	J	A
MANGANESE	485		0.0901	MDL	0.578	PQL	mg/Kg	J	E
TIN	3.02	J	1.16	MDL	11.6	PQL	mg/Kg	U	B

Sample ID: SL-022-SA8N-SB-9.0-10.0 *Collected:* 5/2/2011 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
BORON	5.08	J	1.05	MDL	5.90	PQL	mg/Kg	J	Z
CALCIUM	8910		7.23	MDL	23.6	PQL	mg/Kg	J	A
MANGANESE	561		0.0920	MDL	0.590	PQL	mg/Kg	J	E
TIN	2.96	J	1.18	MDL	11.8	PQL	mg/Kg	U	B

Sample ID: SL-023-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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	5.08	J	1.01	MDL	5.69	PQL	mg/Kg	J	Z
CALCIUM	11200		6.98	MDL	22.8	PQL	mg/Kg	J	A
MANGANESE	458		0.0888	MDL	0.569	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: DE141 **Laboratory: LL**

EDD Filename: PrepDE141_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-023-SA8N-SB-4.0-5.0 **Collected:** 5/2/2011 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
SODIUM	112	J	42.4	MDL	114	PQL	mg/Kg	J	Z
TIN	2.93	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	5.48	J	0.956	MDL	5.69	PQL	mg/Kg	J	Z

Sample ID: SL-023-SA8N-SB-9.0-10.0 **Collected:** 5/2/2011 3:50:00 PM **Analysis Type:** REA **Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	141000		36.3	MDL	119	PQL	mg/Kg	J	A

Sample ID: SL-023-SA8N-SB-9.0-10.0 **Collected:** 5/2/2011 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
MANGANESE	305		0.0925	MDL	0.593	PQL	mg/Kg	J	E
TIN	2.65	J	1.19	MDL	11.9	PQL	mg/Kg	U	B
Zirconium	5.66	J	0.996	MDL	5.93	PQL	mg/Kg	J	Z

Sample ID: SL-050-SA8N-SB-4.0-5.0 **Collected:** 5/2/2011 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
CALCIUM	4800		7.01	MDL	22.9	PQL	mg/Kg	J	A
MANGANESE	338		0.0892	MDL	0.572	PQL	mg/Kg	J	E
TIN	3.03	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	4.72	J	0.960	MDL	5.72	PQL	mg/Kg	J	Z

Sample ID: SL-050-SA8N-SB-9.0-10 **Collected:** 5/2/2011 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
CALCIUM	5470		7.21	MDL	23.5	PQL	mg/Kg	J	A
MANGANESE	366		0.0917	MDL	0.588	PQL	mg/Kg	J	E
TIN	3.08	J	1.18	MDL	11.8	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: DE141 **Laboratory:** LL

EDD Filename: PrepDE141_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-012-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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
CADMIUM	0.117	J	0.0474	MDL	0.118	PQL	mg/Kg	J	Z, E

Sample ID: SL-012-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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
SELENIUM	0.196	J	0.0474	MDL	0.474	PQL	mg/Kg	U	B

Sample ID: SL-012-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 9:20:00 AM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.544		0.0592	MDL	0.118	PQL	mg/Kg	J	E

Sample ID: SL-012-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 9:20:00 AM *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	149		0.128	MDL	0.474	PQL	mg/Kg	J	E, A

Sample ID: SL-012-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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	0.236	J	0.0711	MDL	0.237	PQL	mg/Kg	J	Z, Q
ARSENIC	7.00		0.0948	MDL	0.474	PQL	mg/Kg	J	Q, Q
BERYLLIUM	0.997		0.0190	MDL	0.118	PQL	mg/Kg	J	Q, E
CHROMIUM	31.7		0.142	MDL	0.474	PQL	mg/Kg	J	Q, A
COBALT	9.63		0.0237	MDL	0.118	PQL	mg/Kg	J	E, A
COPPER	16.3		0.0782	MDL	0.474	PQL	mg/Kg	J	Q, A
LEAD	10.0		0.0123	MDL	0.237	PQL	mg/Kg	J	Q, A
NICKEL	21.7		0.118	MDL	0.474	PQL	mg/Kg	J	Q, A
SILVER	0.0809	J	0.0142	MDL	0.118	PQL	mg/Kg	J	Z
VANADIUM	54.5		0.0261	MDL	0.118	PQL	mg/Kg	J	E, A
ZINC	64.4		0.664	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: DE141 **Laboratory:** LL

EDD Filename: PrepDE141_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-022-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 12:10:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.263		0.0453	MDL	0.113	PQL	mg/Kg	J	E

Sample ID: SL-022-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 12:10:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.112	J	0.0453	MDL	0.453	PQL	mg/Kg	U	B

Sample ID: SL-022-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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
MOLYBDENUM	0.486		0.0566	MDL	0.113	PQL	mg/Kg	J	E

Sample ID: SL-022-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 12:10:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	146		0.122	MDL	0.453	PQL	mg/Kg	J	E, A

Sample ID: SL-022-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 12:10:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.242		0.0680	MDL	0.227	PQL	mg/Kg	J	Q
ARSENIC	6.78		0.0906	MDL	0.453	PQL	mg/Kg	J	Q, Q
BERYLLIUM	0.875		0.0181	MDL	0.113	PQL	mg/Kg	J	Q, E
CHROMIUM	33.8		0.136	MDL	0.453	PQL	mg/Kg	J	Q, A
COBALT	11.9		0.0227	MDL	0.113	PQL	mg/Kg	J	E, A
COPPER	16.8		0.0748	MDL	0.453	PQL	mg/Kg	J	Q, A
LEAD	10.3		0.0118	MDL	0.227	PQL	mg/Kg	J	Q, A
NICKEL	22.4		0.113	MDL	0.453	PQL	mg/Kg	J	Q, A
SILVER	0.0550	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	58.4		0.0249	MDL	0.113	PQL	mg/Kg	J	E, A
ZINC	69.8		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: DE141 **Laboratory:** LL

EDD Filename: PrepDE141_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-022-SA8N-SB-9.0-10.0 *Collected:* 5/2/2011 12:15:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.344		0.0477	MDL	0.119	PQL	mg/Kg	J	E

Sample ID: SL-022-SA8N-SB-9.0-10.0 *Collected:* 5/2/2011 12:15:00 *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0701	J	0.0477	MDL	0.477	PQL	mg/Kg	U	B

Sample ID: SL-022-SA8N-SB-9.0-10.0 *Collected:* 5/2/2011 12:15:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.421		0.0596	MDL	0.119	PQL	mg/Kg	J	E

Sample ID: SL-022-SA8N-SB-9.0-10.0 *Collected:* 5/2/2011 12:15:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	120		0.129	MDL	0.477	PQL	mg/Kg	J	E, A

Sample ID: SL-022-SA8N-SB-9.0-10.0 *Collected:* 5/2/2011 12:15:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.257		0.0715	MDL	0.238	PQL	mg/Kg	J	Q
ARSENIC	7.28		0.0954	MDL	0.477	PQL	mg/Kg	J	Q, Q
BERYLLIUM	0.905		0.0191	MDL	0.119	PQL	mg/Kg	J	Q, E
CHROMIUM	32.3		0.143	MDL	0.477	PQL	mg/Kg	J	Q, A
COBALT	12.0		0.0238	MDL	0.119	PQL	mg/Kg	J	E, A
COPPER	17.9		0.0787	MDL	0.477	PQL	mg/Kg	J	Q, A
LEAD	9.22		0.0124	MDL	0.238	PQL	mg/Kg	J	Q, A
NICKEL	27.5		0.119	MDL	0.477	PQL	mg/Kg	J	Q, A
SILVER	0.0596	J	0.0143	MDL	0.119	PQL	mg/Kg	J	Z
VANADIUM	59.1		0.0262	MDL	0.119	PQL	mg/Kg	J	E, A
ZINC	72.9		0.667	MDL	3.58	PQL	mg/Kg	J	E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE141 **Laboratory:** LL

EDD Filename: PrepDE141_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-023-SA8N-SB-4.0-5.0 ***Collected:*** 5/2/2011 3:45:00 PM ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.260		0.0473	MDL	0.118	PQL	mg/Kg	J	E

Sample ID: SL-023-SA8N-SB-4.0-5.0 ***Collected:*** 5/2/2011 3:45:00 PM ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.143	J	0.0473	MDL	0.473	PQL	mg/Kg	U	B

Sample ID: SL-023-SA8N-SB-4.0-5.0 ***Collected:*** 5/2/2011 3:45:00 PM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.631		0.0592	MDL	0.118	PQL	mg/Kg	J	E

Sample ID: SL-023-SA8N-SB-4.0-5.0 ***Collected:*** 5/2/2011 3:45:00 PM ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	177		0.128	MDL	0.473	PQL	mg/Kg	J	E, A

Sample ID: SL-023-SA8N-SB-4.0-5.0 ***Collected:*** 5/2/2011 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	0.329		0.0710	MDL	0.237	PQL	mg/Kg	J	Q
ARSENIC	7.90		0.0947	MDL	0.473	PQL	mg/Kg	J	Q, Q
BERYLLIUM	1.02		0.0189	MDL	0.118	PQL	mg/Kg	J	Q, E
CHROMIUM	36.4		0.142	MDL	0.473	PQL	mg/Kg	J	Q, A
COBALT	13.2		0.0237	MDL	0.118	PQL	mg/Kg	J	E, A
COPPER	17.7		0.0781	MDL	0.473	PQL	mg/Kg	J	Q, A
LEAD	11.8		0.0123	MDL	0.237	PQL	mg/Kg	J	Q, A
NICKEL	27.0		0.118	MDL	0.473	PQL	mg/Kg	J	Q, A
SILVER	0.0676	J	0.0142	MDL	0.118	PQL	mg/Kg	J	Z
VANADIUM	63.9		0.0260	MDL	0.118	PQL	mg/Kg	J	E, A
ZINC	74.0		0.663	MDL	3.55	PQL	mg/Kg	J	E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE141 **Laboratory: LL**

EDD Filename: PrepDE141_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-023-SA8N-SB-9.0-10.0 ***Collected:*** 5/2/2011 3:50:00 PM ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.270		0.0470	MDL	0.117	PQL	mg/Kg	J	E

Sample ID: SL-023-SA8N-SB-9.0-10.0 ***Collected:*** 5/2/2011 3:50:00 PM ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.145	J	0.0470	MDL	0.470	PQL	mg/Kg	U	B

Sample ID: SL-023-SA8N-SB-9.0-10.0 ***Collected:*** 5/2/2011 3:50:00 PM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.358		0.0587	MDL	0.117	PQL	mg/Kg	J	E

Sample ID: SL-023-SA8N-SB-9.0-10.0 ***Collected:*** 5/2/2011 3:50:00 PM ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	108		0.127	MDL	0.470	PQL	mg/Kg	J	E, A

Sample ID: SL-023-SA8N-SB-9.0-10.0 ***Collected:*** 5/2/2011 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	0.272		0.0704	MDL	0.235	PQL	mg/Kg	J	Q
ARSENIC	7.30		0.0939	MDL	0.470	PQL	mg/Kg	J	Q, Q
BERYLLIUM	0.923		0.0188	MDL	0.117	PQL	mg/Kg	J	Q, E
CHROMIUM	34.2		0.141	MDL	0.470	PQL	mg/Kg	J	Q, A
COBALT	11.1		0.0235	MDL	0.117	PQL	mg/Kg	J	E, A
COPPER	19.1		0.0775	MDL	0.470	PQL	mg/Kg	J	Q, A
LEAD	10.7		0.0122	MDL	0.235	PQL	mg/Kg	J	Q, A
NICKEL	23.8		0.117	MDL	0.470	PQL	mg/Kg	J	Q, A
SILVER	0.0606	J	0.0141	MDL	0.117	PQL	mg/Kg	J	Z
VANADIUM	61.9		0.0258	MDL	0.117	PQL	mg/Kg	J	E, A
ZINC	67.9		0.657	MDL	3.52	PQL	mg/Kg	J	E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE141 **Laboratory: LL**

EDD Filename: PrepDE141_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-050-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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	0.194		0.0466	MDL	0.117	PQL	mg/Kg	J	E

Sample ID: SL-050-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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
SELENIUM	0.243	J	0.0466	MDL	0.466	PQL	mg/Kg	U	B

Sample ID: SL-050-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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
MOLYBDENUM	0.854		0.0583	MDL	0.117	PQL	mg/Kg	J	E

Sample ID: SL-050-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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
BARIUM	145		0.126	MDL	0.466	PQL	mg/Kg	J	E, A

Sample ID: SL-050-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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	0.304		0.0699	MDL	0.233	PQL	mg/Kg	J	Q
ARSENIC	9.98		0.0933	MDL	0.466	PQL	mg/Kg	J	Q, Q
BERYLLIUM	1.21		0.0187	MDL	0.117	PQL	mg/Kg	J	Q, E
CHROMIUM	38.8		0.140	MDL	0.466	PQL	mg/Kg	J	Q, A
COBALT	14.4		0.0233	MDL	0.117	PQL	mg/Kg	J	E, A
COPPER	19.3		0.0769	MDL	0.466	PQL	mg/Kg	J	Q, A
LEAD	13.5		0.0121	MDL	0.233	PQL	mg/Kg	J	Q, A
NICKEL	29.1		0.117	MDL	0.466	PQL	mg/Kg	J	Q, A
SILVER	0.0910	J	0.0140	MDL	0.117	PQL	mg/Kg	J	Z
VANADIUM	66.8		0.0256	MDL	0.117	PQL	mg/Kg	J	E, A
ZINC	79.1		0.653	MDL	3.50	PQL	mg/Kg	J	E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE141 **Laboratory:** LL

EDD Filename: PrepDE141_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-050-SA8N-SB-9.0-10 ***Collected:*** 5/2/2011 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
CADMIUM	0.123		0.0475	MDL	0.119	PQL	mg/Kg	J	E

Sample ID: SL-050-SA8N-SB-9.0-10 ***Collected:*** 5/2/2011 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
SELENIUM	0.0695	J	0.0475	MDL	0.475	PQL	mg/Kg	U	B

Sample ID: SL-050-SA8N-SB-9.0-10 ***Collected:*** 5/2/2011 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
MOLYBDENUM	0.424		0.0594	MDL	0.119	PQL	mg/Kg	J	E

Sample ID: SL-050-SA8N-SB-9.0-10 ***Collected:*** 5/2/2011 10:50:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	101		0.128	MDL	0.475	PQL	mg/Kg	J	E, A

Sample ID: SL-050-SA8N-SB-9.0-10 ***Collected:*** 5/2/2011 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	0.113	J	0.0713	MDL	0.238	PQL	mg/Kg	J	Z, Q
ARSENIC	7.85		0.0950	MDL	0.475	PQL	mg/Kg	J	Q, Q
BERYLLIUM	0.746		0.0190	MDL	0.119	PQL	mg/Kg	J	Q, E
CHROMIUM	24.9		0.143	MDL	0.475	PQL	mg/Kg	J	Q, A
COBALT	9.39		0.0238	MDL	0.119	PQL	mg/Kg	J	E, A
COPPER	12.9		0.0784	MDL	0.475	PQL	mg/Kg	J	Q, A
LEAD	6.47		0.0124	MDL	0.238	PQL	mg/Kg	J	Q, A
NICKEL	22.3		0.119	MDL	0.475	PQL	mg/Kg	J	Q, A
SILVER	0.0389	J	0.0143	MDL	0.119	PQL	mg/Kg	J	Z
VANADIUM	49.0		0.0261	MDL	0.119	PQL	mg/Kg	J	E, A
ZINC	63.3		0.665	MDL	3.56	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: DE141 **Laboratory:** LL

EDD Filename: PrepDE141_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-022-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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	0.53	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA8N-SB-9.0-10.0 *Collected:* 5/2/2011 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	0.60	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-023-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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
HEXAVALENT CHROMIUM	0.63	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-023-SA8N-SB-9.0-10.0 *Collected:* 5/2/2011 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	0.39	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-050-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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	0.48	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-050-SA8N-SB-9.0-10 *Collected:* 5/2/2011 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
HEXAVALENT CHROMIUM	0.62	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix:** SO

Sample ID: SL-012-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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 (C30-C40)	0.65	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE141 **Laboratory:** LL

EDD Filename: PrepDE141_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8015M **Matrix:** SO

Sample ID: SL-022-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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)	0.74	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA8N-SB-9.0-10.0 *Collected:* 5/2/2011 12:15:00 *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)	0.75	J	0.48	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C30-C40)	1.3	J	0.48	MDL	1.4	PQL	mg/Kg	J	Z

Method Category: SVOA

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

Sample ID: SL-012-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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	7.0	MDL	21	PQL	ug/Kg	U	B
Di-n-octylphthalate	8.9	J	7.0	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-022-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 12:10:00 *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-octylphthalate	9.0	J	7.0	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-022-SA8N-SB-9.0-10.0 *Collected:* 5/2/2011 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
Di-n-octylphthalate	8.9	J	7.1	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-023-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	7.1	MDL	21	PQL	ug/Kg	U	B
Di-n-octylphthalate	8.9	J	7.1	MDL	21	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE141 **Laboratory:** LL

EDD Filename: PrepDE141_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

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

Sample ID: SL-023-SA8N-SB-9.0-10.0 *Collected:* 5/2/2011 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	17	J	7.2	MDL	22	PQL	ug/Kg	U	B
Di-n-octylphthalate	9.3	J	7.2	MDL	22	PQL	ug/Kg	J	Z

Sample ID: SL-050-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 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
Di-n-octylphthalate	9.0	J	7.0	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-050-SA8N-SB-9.0-10 *Collected:* 5/2/2011 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
Di-n-octylphthalate	9.0	J	7.0	MDL	21	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-022-SA8N-SB-4.0-5.0 *Collected:* 5/2/2011 12:10:00 *Analysis Type:* RES *Dilution:* 0.85

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	7.2	J	6.7	MDL	8.0	PQL	ug/Kg	J	Z
TOLUENE	0.08	J	0.08	MDL	4.0	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE141 **Laboratory: LL**

EDD Filename: PrepDE141_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

Data Qualifier Summary

Lab Reporting Batch ID: DE141 **Laboratory: LL**

EDD Filename: PrepDE141_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	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper 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: DE141 **Laboratory: LL**

EDD Filename: PrepDE141_v1 **eQAPP Name: CDM_SSFL_110509**

Q	Matrix Spike Upper Rejection
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

DE141

Method Blank Outlier Report

Lab Reporting Batch ID: DE141 **Laboratory: LL**

EDD Filename: DE141_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P12508AB220902	5/8/2011 9:02:00 AM	PHOSPHORUS TIN	1.25 mg/Kg 1.48 mg/Kg	SL-012-SA8N-SB-4.0-5.0 SL-022-SA8N-SB-4.0-5.0 SL-022-SA8N-SB-9.0-10.0 SL-023-SA8N-SB-4.0-5.0 SL-023-SA8N-SB-9.0-10.0 SL-050-SA8N-SB-4.0-5.0 SL-050-SA8N-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-012-SA8N-SB-4.0-5.0(RES)	TIN	3.07 mg/Kg	3.07U mg/Kg
SL-022-SA8N-SB-4.0-5.0(RES)	TIN	3.02 mg/Kg	3.02U mg/Kg
SL-022-SA8N-SB-9.0-10.0(RES)	TIN	2.96 mg/Kg	2.96U mg/Kg
SL-023-SA8N-SB-4.0-5.0(RES)	TIN	2.93 mg/Kg	2.93U mg/Kg
SL-023-SA8N-SB-9.0-10.0(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-050-SA8N-SB-4.0-5.0(RES)	TIN	3.03 mg/Kg	3.03U mg/Kg
SL-050-SA8N-SB-9.0-10(RES)	TIN	3.08 mg/Kg	3.08U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P12526AB221251A	5/9/2011 12:51:00 PM	VANADIUM	0.0265 mg/Kg	SL-012-SA8N-SB-4.0-5.0 SL-022-SA8N-SB-4.0-5.0 SL-022-SA8N-SB-9.0-10.0 SL-023-SA8N-SB-4.0-5.0 SL-023-SA8N-SB-9.0-10.0 SL-050-SA8N-SB-4.0-5.0 SL-050-SA8N-SB-9.0-10

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB48B211237A	5/6/2011 12:37:00 PM	TOLUENE	0.09 ug/Kg	SL-012-SA8N-SB-4.0-5.0 SL-022-SA8N-SB-4.0-5.0 SL-022-SA8N-SB-9.0-10.0 SL-023-SA8N-SB-4.0-5.0 SL-050-SA8N-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-022-SA8N-SB-4.0-5.0(RES)	TOLUENE	0.08 ug/Kg	4.0U ug/Kg

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DE141 **Laboratory: LL**

EDD Filename: DE141_v1 **eQAPP Name: CDM_SSFL_110509**

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLB12B260646	5/18/2011 6:46:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE	8.8 ug/Kg	SL-012-SA8N-SB-4.0-5.0 SL-022-SA8N-SB-4.0-5.0 SL-022-SA8N-SB-9.0-10.0 SL-023-SA8N-SB-4.0-5.0 SL-023-SA8N-SB-9.0-10.0 SL-050-SA8N-SB-4.0-5.0 SL-050-SA8N-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-012-SA8N-SB-4.0-5.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	7.2 ug/Kg	21U ug/Kg
SL-023-SA8N-SB-4.0-5.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	13 ug/Kg	21U ug/Kg
SL-023-SA8N-SB-9.0-10.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	17 ug/Kg	22U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE141 **Laboratory: LL**

EDD Filename: DE141_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-012-SA8N-SB-4.0-5.0MSD (SL-012-SA8N-SB-4.0-5.0)	PETN	-	122	80.00-121.00	-	PETN	J (all detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE141 **Laboratory: LL**

EDD Filename: DE141_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
P4LZLCSQ262246 (SL-012-SA8N-SB-4.0-5.0 SL-022-SA8N-SB-4.0-5.0 SL-022-SA8N-SB-9.0-10.0 SL-023-SA8N-SB-4.0-5.0 SL-023-SA8N-SB-9.0-10.0 SL-050-SA8N-SB-4.0-5.0 SL-050-SA8N-SB-9.0-10)	BIS(2-CHLOROETHYL) ETHER	105	-	70.00-104.00	-	BIS(2-CHLOROETHYL) ETHER	J (all detects)

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSB48Q211301A (SL-012-SA8N-SB-4.0-5.0 SL-022-SA8N-SB-4.0-5.0 SL-022-SA8N-SB-9.0-10.0 SL-023-SA8N-SB-4.0-5.0 SL-050-SA8N-SB-4.0-5.0)	N-PROPYLBENZENE	122	-	77.00-120.00	-	N-PROPYLBENZENE	J(all detects)
	SEC-BUTYLBENZENE	121	-	75.00-120.00	-	SEC-BUTYLBENZENE	

Reporting Limit Outliers

Lab Reporting Batch ID: DE141 **Laboratory: LL**

EDD Filename: DE141_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-022-SA8N-SB-9.0-10.0	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-012-SA8N-SB-4.0-5.0	BORON	J	2.89	5.81	PQL	mg/Kg	J (all detects)
	TIN	J	3.07	11.6	PQL	mg/Kg	
SL-022-SA8N-SB-4.0-5.0	BORON	J	4.04	5.78	PQL	mg/Kg	J (all detects)
	TIN	J	3.02	11.6	PQL	mg/Kg	
SL-022-SA8N-SB-9.0-10.0	BORON	J	5.08	5.90	PQL	mg/Kg	J (all detects)
	TIN	J	2.96	11.8	PQL	mg/Kg	
SL-023-SA8N-SB-4.0-5.0	BORON	J	5.08	5.69	PQL	mg/Kg	J (all detects)
	SODIUM	J	112	114	PQL	mg/Kg	
	TIN	J	2.93	11.4	PQL	mg/Kg	
	Zirconium	J	5.48	5.69	PQL	mg/Kg	
SL-023-SA8N-SB-9.0-10.0	TIN	J	2.65	11.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	5.66	5.93	PQL	mg/Kg	
SL-050-SA8N-SB-4.0-5.0	TIN	J	3.03	11.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.72	5.72	PQL	mg/Kg	
SL-050-SA8N-SB-9.0-10	TIN	J	3.08	11.8	PQL	mg/Kg	J (all detects)

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA8N-SB-4.0-5.0	ANTIMONY	J	0.236	0.237	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.117	0.118	PQL	mg/Kg	
	SELENIUM	J	0.196	0.474	PQL	mg/Kg	
	SILVER	J	0.0809	0.118	PQL	mg/Kg	
SL-022-SA8N-SB-4.0-5.0	SELENIUM	J	0.112	0.453	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0550	0.113	PQL	mg/Kg	
SL-022-SA8N-SB-9.0-10.0	SELENIUM	J	0.0701	0.477	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0596	0.119	PQL	mg/Kg	
SL-023-SA8N-SB-4.0-5.0	SELENIUM	J	0.143	0.473	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0676	0.118	PQL	mg/Kg	
SL-023-SA8N-SB-9.0-10.0	SELENIUM	J	0.145	0.470	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0606	0.117	PQL	mg/Kg	
SL-050-SA8N-SB-4.0-5.0	SELENIUM	J	0.243	0.466	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0910	0.117	PQL	mg/Kg	
SL-050-SA8N-SB-9.0-10	ANTIMONY	J	0.113	0.238	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0695	0.475	PQL	mg/Kg	
	SILVER	J	0.0389	0.119	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE141 **Laboratory: LL**

EDD Filename: DE141_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-022-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.53	1.2	PQL	mg/Kg	J (all detects)
SL-022-SA8N-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.60	1.2	PQL	mg/Kg	J (all detects)
SL-023-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.63	1.2	PQL	mg/Kg	J (all detects)
SL-023-SA8N-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.39	1.2	PQL	mg/Kg	J (all detects)
SL-050-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.48	1.2	PQL	mg/Kg	J (all detects)
SL-050-SA8N-SB-9.0-10	HEXAVALENT CHROMIUM	J	0.62	1.2	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA8N-SB-4.0-5.0	EFH (C30-C40)	J	0.65	1.4	PQL	mg/Kg	J (all detects)
SL-022-SA8N-SB-4.0-5.0	EFH (C21-C30)	J	0.74	1.4	PQL	mg/Kg	J (all detects)
SL-022-SA8N-SB-9.0-10.0	EFH (C21-C30) EFH (C30-C40)	J J	0.75 1.3	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-022-SA8N-SB-4.0-5.0	ACETONE TOLUENE	J J	7.2 0.08	8.0 4.0	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-012-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE Di-n-octylphthalate	J J	7.2 8.9	21 21	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-022-SA8N-SB-4.0-5.0	Di-n-octylphthalate	J	9.0	21	PQL	ug/Kg	J (all detects)
SL-022-SA8N-SB-9.0-10.0	Di-n-octylphthalate	J	8.9	21	PQL	ug/Kg	J (all detects)
SL-023-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE Di-n-octylphthalate	J J	13 8.9	21 21	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-023-SA8N-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE Di-n-octylphthalate	J J	17 9.3	22 22	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-050-SA8N-SB-4.0-5.0	Di-n-octylphthalate	J	9.0	21	PQL	ug/Kg	J (all detects)
SL-050-SA8N-SB-9.0-10	Di-n-octylphthalate	J	9.0	21	PQL	ug/Kg	J (all detects)

LDC #: 26275F4 **VALIDATION COMPLETENESS WORKSHEET** Date: 9/28/11
SDG #: DE141 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: ~
2nd Reviewer: CR

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: 5/2/11
II.	ICP/MS Tune	N	
III.	Calibration	N	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	3 see DE142
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	N A	SRM.
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	See DE142 (Ba, Ca, Cr, Co, Cu, Pb, Ni, 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: all

1	SL-012-SA8N-SB-4.0-5.0	11		21		31	
2	SL-022-SA8N-SB-4.0-5.0	12		22		32	
3	SL-022-SA8N-SB-9.0-10.0	13		23		33	
4	SL-050-SA8N-SB-4.0-5.0	14		24		34	
5	SL-050-SA8N-SB-9.0-10.0	15		25		35	
6	SL-023-SA8N-SB-4.0-5.0	16		26		36	
7	SL-023-SA8N-SB-9.0-10.0	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 26275F4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Reviewer: LW
2nd Reviewer: CRE

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)
Soil preparation factor applied: 200X
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	7			
Se			0.33	0.33	0.20	0.11	0.070	0.24	0.070	0.14	0.15			

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.

SAMPLE DELIVERY GROUP

DE142

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-May-2011	TB-050311	6275772	TB	5030B	8015M	III
03-May-2011	TB-050311	6275772	TB	5030B	8260B	III
03-May-2011	TB-050311	6275772	TB	5030B	8260B SIM	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	3050B	6010B	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	3050B	6020	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	3060A	7199	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	3546	1625C	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	3550B	8015B	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	3550B	8015M	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	3550B	8082	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	3550B	8270C	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	3550B	8270C SIM	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	5035	8015M	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	5035	8260B	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	5035	8260B SIM	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	8330	8330A	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	METHOD	300.0	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	METHOD	314.0	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	METHOD	7471A	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	METHOD	8015B	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	METHOD	8015M	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	METHOD	8315A	III
03-May-2011	SL-020-SA8N-SB-4.0-5.0	6275768	N	METHOD	9012B	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	3050B	6010B	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	3050B	6020	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	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-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	3546	1625C	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	3550B	8015B	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	3550B	8015M	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	3550B	8082	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	3550B	8270C	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	3550B	8270C SIM	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	5035	8015M	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	5035	8260B	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	5035	8260B SIM	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	8330	8330A	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	METHOD	300.0	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	METHOD	314.0	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	METHOD	7471A	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	METHOD	8015B	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	METHOD	8015M	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	METHOD	8315A	III
03-May-2011	SL-020-SA8N-SB-9.0-10.0	6275769	N	METHOD	9012B	III
03-May-2011	DUP07-SA8N-QC-050311	6275771	FD	3050B	6010B	III
03-May-2011	DUP07-SA8N-QC-050311	6275771	FD	3050B	6020	III
03-May-2011	DUP07-SA8N-QC-050311	6275771	FD	3060A	7199	III
03-May-2011	DUP07-SA8N-QC-050311	6275771	FD	3550B	8082	III
03-May-2011	DUP07-SA8N-QC-050311	6275771	FD	3550B	8270C	III
03-May-2011	DUP07-SA8N-QC-050311	6275771	FD	3550B	8270C SIM	III
03-May-2011	DUP07-SA8N-QC-050311	6275771	FD	5035	8260B	III
03-May-2011	DUP07-SA8N-QC-050311	6275771	FD	5035	8260B SIM	III
03-May-2011	DUP07-SA8N-QC-050311	6275771	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
03-May-2011	DUP07-SA8N-QC-050311	6275771	FD	METHOD	314.0	III
03-May-2011	DUP07-SA8N-QC-050311	6275771	FD	METHOD	7471A	III
03-May-2011	DUP07-SA8N-QC-050311	6275771	FD	METHOD	8015M	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0	6275761	N	3050B	6010B	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0	6275761	N	3050B	6020	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0	6275761	N	3060A	7199	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0	6275761	N	3550B	8082	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0	6275761	N	3550B	8270C	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0	6275761	N	3550B	8270C SIM	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0	6275761	N	5035	8260B	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0	6275761	N	5035	8260B SIM	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0	6275761	N	METHOD	300.0	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0	6275761	N	METHOD	314.0	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0	6275761	N	METHOD	7471A	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0	6275761	N	METHOD	8015M	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MS	6275762	MS	3050B	6010B	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MS	6275762	MS	3050B	6020	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MS	6275762	MS	3060A	7199	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MS	6275762	MS	3550B	8082	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MS	6275762	MS	3550B	8270C	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MS	6275762	MS	3550B	8270C SIM	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MS	6275762	MS	5035	8260B	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MS	6275762	MS	5035	8260B SIM	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MS	6275762	MS	METHOD	300.0	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MS	6275762	MS	METHOD	314.0	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MS	6275762	MS	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
03-May-2011	SL-015-SA8N-SB-4.0-5.0MS	6275762	MS	METHOD	8015M	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MSD	6275763	MSD	3050B	6010B	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MSD	6275763	MSD	3050B	6020	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MSD	6275763	MSD	3550B	8082	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MSD	6275763	MSD	3550B	8270C	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MSD	6275763	MSD	3550B	8270C SIM	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MSD	6275763	MSD	5035	8260B	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MSD	6275763	MSD	5035	8260B SIM	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MSD	6275763	MSD	METHOD	7471A	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0MSD	6275763	MSD	METHOD	8015M	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0DUP	6275764	DUP	3050B	6010B	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0DUP	6275764	DUP	3050B	6020	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0DUP	6275764	DUP	3060A	7199	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0DUP	6275764	DUP	METHOD	300.0	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0DUP	6275764	DUP	METHOD	314.0	III
03-May-2011	SL-015-SA8N-SB-4.0-5.0DUP	6275764	DUP	METHOD	7471A	III
03-May-2011	SL-016-SA8N-SB-3.0-4.0	6275765	N	3050B	6010B	III
03-May-2011	SL-016-SA8N-SB-3.0-4.0	6275765	N	3050B	6020	III
03-May-2011	SL-016-SA8N-SB-3.0-4.0	6275765	N	3060A	7199	III
03-May-2011	SL-016-SA8N-SB-3.0-4.0	6275765	N	3550B	8082	III
03-May-2011	SL-016-SA8N-SB-3.0-4.0	6275765	N	3550B	8270C	III
03-May-2011	SL-016-SA8N-SB-3.0-4.0	6275765	N	3550B	8270C SIM	III
03-May-2011	SL-016-SA8N-SB-3.0-4.0	6275765	N	5035	8260B	III
03-May-2011	SL-016-SA8N-SB-3.0-4.0	6275765	N	5035	8260B SIM	III
03-May-2011	SL-016-SA8N-SB-3.0-4.0	6275765	N	METHOD	300.0	III
03-May-2011	SL-016-SA8N-SB-3.0-4.0	6275765	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
03-May-2011	SL-016-SA8N-SB-3.0-4.0	6275765	N	METHOD	7471A	III
03-May-2011	SL-016-SA8N-SB-3.0-4.0	6275765	N	METHOD	8015M	III
03-May-2011	EB08-SA8N-SB-050311	6275770	EB	3005A	6010B	III
03-May-2011	EB08-SA8N-SB-050311	6275770	EB	3020A	6020	III
03-May-2011	EB08-SA8N-SB-050311	6275770	EB	3510C	8082	III
03-May-2011	EB08-SA8N-SB-050311	6275770	EB	3510C	8270C	III
03-May-2011	EB08-SA8N-SB-050311	6275770	EB	5030B	8260B	III
03-May-2011	EB08-SA8N-SB-050311	6275770	EB	5030B	8260B SIM	III
03-May-2011	EB08-SA8N-SB-050311	6275770	EB	Gen Prep	300.0	III
03-May-2011	EB08-SA8N-SB-050311	6275770	EB	Gen Prep	314.0	III
03-May-2011	EB08-SA8N-SB-050311	6275770	EB	Gen Prep	7199	III
03-May-2011	EB08-SA8N-SB-050311	6275770	EB	Gen Prep	8015M	III
03-May-2011	EB08-SA8N-SB-050311	6275770	EB	METHOD	7470A	III
03-May-2011	EB08-SA8N-SB-050311MSD	P275770M321826A	MSD	Gen Prep	8015M	III
03-May-2011	EB08-SA8N-SB-050311MS	P275770R321808A	MS	Gen Prep	8015M	III
03-May-2011	SL-018-SA8N-SB-4.0-5.0	6275766	N	3050B	6010B	III
03-May-2011	SL-018-SA8N-SB-4.0-5.0	6275766	N	3050B	6020	III
03-May-2011	SL-018-SA8N-SB-4.0-5.0	6275766	N	3060A	7199	III
03-May-2011	SL-018-SA8N-SB-4.0-5.0	6275766	N	3550B	8082	III
03-May-2011	SL-018-SA8N-SB-4.0-5.0	6275766	N	3550B	8270C	III
03-May-2011	SL-018-SA8N-SB-4.0-5.0	6275766	N	3550B	8270C SIM	III
03-May-2011	SL-018-SA8N-SB-4.0-5.0	6275766	N	5035	8260B	III
03-May-2011	SL-018-SA8N-SB-4.0-5.0	6275766	N	5035	8260B SIM	III
03-May-2011	SL-018-SA8N-SB-4.0-5.0	6275766	N	METHOD	300.0	III
03-May-2011	SL-018-SA8N-SB-4.0-5.0	6275766	N	METHOD	314.0	III
03-May-2011	SL-018-SA8N-SB-4.0-5.0	6275766	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
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	3050B	6010B	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	3050B	6020	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	3060A	7199	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	3546	1625C	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	3550B	8015B	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	3550B	8015M	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	3550B	8082	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	3550B	8270C	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	3550B	8270C SIM	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	5035	8015M	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	5035	8260B	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	5035	8260B SIM	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	8330	8330A	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	METHOD	300.0	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	METHOD	314.0	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	METHOD	7471A	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	METHOD	8015B	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	METHOD	8015M	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	METHOD	8315A	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0	6275767	N	METHOD	9012B	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0MSD	P275767M261549	MSD	3546	1625C	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0MSD	P275767M320403A	MSD	3550B	8015B	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0MS	P275767R261532	MS	3546	1625C	III
03-May-2011	SL-019-SA8N-SB-4.0-5.0MS	P275767R320318A	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*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE142 Laboratory: LL

EDD Filename: PrepDE142_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: DUP07-SA8N-QC-050311 **Collected:** 5/3/2011 9:50:00 AM **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	8.1		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-015-SA8N-SB-4.0-5.0 **Collected:** 5/3/2011 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	5.7		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-016-SA8N-SB-3.0-4.0 **Collected:** 5/3/2011 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	6.4		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-018-SA8N-SB-4.0-5.0 **Collected:** 5/3/2011 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
FLUORIDE	8.0		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-019-SA8N-SB-4.0-5.0 **Collected:** 5/3/2011 3:44:00 PM **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.8		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-020-SA8N-SB-4.0-5.0 **Collected:** 5/3/2011 9:35:00 AM **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.8		0.94	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.1	J	0.94	MDL	1.8	PQL	mg/Kg	J	Z

Sample ID: SL-020-SA8N-SB-9.0-10.0 **Collected:** 5/3/2011 9:39:00 AM **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.9		0.98	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: DE142 **Laboratory:** LL

EDD Filename: PrepDE142_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: DUP07-SA8N-QC-050311 ***Collected:*** 5/3/2011 9:50:00 AM ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.992	U	0.992	MDL	5.57	PQL	mg/Kg	UJ	FD
CALCIUM	5490		6.83	MDL	22.3	PQL	mg/Kg	J	A
MANGANESE	291		0.0869	MDL	0.557	PQL	mg/Kg	J	E
PHOSPHORUS	237		0.624	MDL	11.1	PQL	mg/Kg	J	FD
TIN	3.21	J	1.11	MDL	11.1	PQL	mg/Kg	U	B

Sample ID: SL-015-SA8N-SB-4.0-5.0 ***Collected:*** 5/3/2011 10:40:00 ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	4830		7.05	MDL	23.0	PQL	mg/Kg	J	A
MANGANESE	489		0.0896	MDL	0.575	PQL	mg/Kg	J	E
TIN	3.22	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

Sample ID: SL-016-SA8N-SB-3.0-4.0 ***Collected:*** 5/3/2011 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
CALCIUM	3410		6.89	MDL	22.5	PQL	mg/Kg	J	A
MANGANESE	199		0.0877	MDL	0.562	PQL	mg/Kg	J	E
TIN	3.00	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	4.90	J	0.944	MDL	5.62	PQL	mg/Kg	J	Z

Sample ID: SL-018-SA8N-SB-4.0-5.0 ***Collected:*** 5/3/2011 2:03:00 PM ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.14	J	1.00	MDL	5.62	PQL	mg/Kg	J	Z, FD
CALCIUM	3410		6.89	MDL	22.5	PQL	mg/Kg	J	A
PHOSPHORUS	108		0.629	MDL	11.2	PQL	mg/Kg	J	FD
TIN	3.23	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	5.27	J	0.944	MDL	5.62	PQL	mg/Kg	J	Z

Sample ID: SL-018-SA8N-SB-4.0-5.0 ***Collected:*** 5/3/2011 2:03:00 PM ***Analysis Type:*** REA3 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	458		0.0877	MDL	0.562	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: DE142 **Laboratory:** LL

EDD Filename: PrepDE142_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-019-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 3:44:00 PM *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	4060		6.94	MDL	22.6	PQL	mg/Kg	J	A
MANGANESE	355		0.0883	MDL	0.566	PQL	mg/Kg	J	E
TIN	2.85	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	5.39	J	0.951	MDL	5.66	PQL	mg/Kg	J	Z

Sample ID: SL-020-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 9:35:00 AM *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.53	J	1.02	MDL	5.74	PQL	mg/Kg	J	Z
CALCIUM	5640		7.04	MDL	23.0	PQL	mg/Kg	J	A
MANGANESE	510		0.0895	MDL	0.574	PQL	mg/Kg	J	E
TIN	2.86	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

Sample ID: SL-020-SA8N-SB-9.0-10.0 *Collected:* 5/3/2011 9:39:00 AM *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.28	J	1.06	MDL	5.96	PQL	mg/Kg	J	Z
CALCIUM	6820		7.30	MDL	23.8	PQL	mg/Kg	J	A
MANGANESE	265		0.0929	MDL	0.596	PQL	mg/Kg	J	E
TIN	2.98	J	1.19	MDL	11.9	PQL	mg/Kg	U	B

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP07-SA8N-QC-050311 *Collected:* 5/3/2011 9:50:00 AM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.384		0.0675	MDL	0.225	PQL	mg/Kg	J	Q
ARSENIC	7.24		0.0900	MDL	0.450	PQL	mg/Kg	J	Q, Q
BERYLLIUM	0.944		0.0180	MDL	0.112	PQL	mg/Kg	J	Q, E
CHROMIUM	30.8		0.135	MDL	0.450	PQL	mg/Kg	J	Q, A
COBALT	11.7		0.0225	MDL	0.112	PQL	mg/Kg	J	E, A
COPPER	15.5		0.0742	MDL	0.450	PQL	mg/Kg	J	Q, A
LEAD	9.20		0.0117	MDL	0.225	PQL	mg/Kg	J	Q, A
NICKEL	25.6		0.112	MDL	0.450	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: DE142 **Laboratory:** LL

EDD Filename: PrepDE142_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP07-SA8N-QC-050311 *Collected:* 5/3/2011 9:50:00 AM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0754	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z
VANADIUM	53.5		0.0247	MDL	0.112	PQL	mg/Kg	J	E, A
ZINC	68.1		0.630	MDL	3.37	PQL	mg/Kg	J	E

Sample ID: DUP07-SA8N-QC-050311 *Collected:* 5/3/2011 9:50:00 AM *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.136		0.0450	MDL	0.112	PQL	mg/Kg	UJ	E, B

Sample ID: DUP07-SA8N-QC-050311 *Collected:* 5/3/2011 9:50:00 AM *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0914	J	0.0450	MDL	0.450	PQL	mg/Kg	UJ	FD, B

Sample ID: DUP07-SA8N-QC-050311 *Collected:* 5/3/2011 9:50:00 AM *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.431		0.0562	MDL	0.112	PQL	mg/Kg	J	E

Sample ID: DUP07-SA8N-QC-050311 *Collected:* 5/3/2011 9:50:00 AM *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	142		0.121	MDL	0.450	PQL	mg/Kg	J	E, A

Sample ID: SL-015-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 10:40:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.200	J	0.0690	MDL	0.230	PQL	mg/Kg	J	Z, Q
ARSENIC	6.85		0.0919	MDL	0.460	PQL	mg/Kg	J	Q, Q
BERYLLIUM	0.830		0.0184	MDL	0.115	PQL	mg/Kg	J	Q, E
CHROMIUM	28.2		0.138	MDL	0.460	PQL	mg/Kg	J	Q, A
COBALT	8.97		0.0230	MDL	0.115	PQL	mg/Kg	J	E, A
COPPER	11.7		0.0759	MDL	0.460	PQL	mg/Kg	J	Q, A
LEAD	8.10		0.0120	MDL	0.230	PQL	mg/Kg	J	Q, A
NICKEL	21.2		0.115	MDL	0.460	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: DE142 **Laboratory:** LL

EDD Filename: PrepDE142_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-015-SA8N-SB-4.0-5.0 ***Collected:*** 5/3/2011 10:40:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0576	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	49.7		0.0253	MDL	0.115	PQL	mg/Kg	J	E, A
ZINC	59.4		0.644	MDL	3.45	PQL	mg/Kg	J	E

Sample ID: SL-015-SA8N-SB-4.0-5.0 ***Collected:*** 5/3/2011 10:40:00 ***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	0.0460	MDL	0.115	PQL	mg/Kg	J	Z, E

Sample ID: SL-015-SA8N-SB-4.0-5.0 ***Collected:*** 5/3/2011 10:40:00 ***Analysis Type:*** REA6 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.116	J	0.0460	MDL	0.460	PQL	mg/Kg	U	B

Sample ID: SL-015-SA8N-SB-4.0-5.0 ***Collected:*** 5/3/2011 10:40:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.293		0.0575	MDL	0.115	PQL	mg/Kg	J	E

Sample ID: SL-015-SA8N-SB-4.0-5.0 ***Collected:*** 5/3/2011 10:40:00 ***Analysis Type:*** REA8 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	133		0.124	MDL	0.460	PQL	mg/Kg	J	E, A

Sample ID: SL-016-SA8N-SB-3.0-4.0 ***Collected:*** 5/3/2011 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
ANTIMONY	0.256		0.0688	MDL	0.229	PQL	mg/Kg	J	Q
ARSENIC	5.38		0.0917	MDL	0.459	PQL	mg/Kg	J	Q, Q
BERYLLIUM	0.654		0.0183	MDL	0.115	PQL	mg/Kg	J	Q, E
CADMIUM	0.0459	U	0.0459	MDL	0.115	PQL	mg/Kg	UJ	E
CHROMIUM	24.8		0.138	MDL	0.459	PQL	mg/Kg	J	Q, A
COBALT	5.99		0.0229	MDL	0.115	PQL	mg/Kg	J	E, A
COPPER	8.58		0.0757	MDL	0.459	PQL	mg/Kg	J	Q, A
LEAD	4.97		0.0119	MDL	0.229	PQL	mg/Kg	J	Q, A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE142 Laboratory: LL

EDD Filename: PrepDE142_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-016-SA8N-SB-3.0-4.0 *Collected:* 5/3/2011 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
NICKEL	13.8		0.115	MDL	0.459	PQL	mg/Kg	J	Q, A
SILVER	0.0368	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	42.0		0.0252	MDL	0.115	PQL	mg/Kg	J	E, A
ZINC	49.8		0.642	MDL	3.44	PQL	mg/Kg	J	E

Sample ID: SL-016-SA8N-SB-3.0-4.0 *Collected:* 5/3/2011 11:44:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.133	J	0.0459	MDL	0.459	PQL	mg/Kg	U	B

Sample ID: SL-016-SA8N-SB-3.0-4.0 *Collected:* 5/3/2011 11:44:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.347		0.0573	MDL	0.115	PQL	mg/Kg	J	E

Sample ID: SL-016-SA8N-SB-3.0-4.0 *Collected:* 5/3/2011 11:44:00 *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	87.8		0.124	MDL	0.459	PQL	mg/Kg	J	E, A

Sample ID: SL-018-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 2:03:00 PM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.278		0.0668	MDL	0.223	PQL	mg/Kg	J	Q
ARSENIC	7.52		0.0890	MDL	0.445	PQL	mg/Kg	J	Q, Q
BERYLLIUM	0.970		0.0178	MDL	0.111	PQL	mg/Kg	J	Q, E
CHROMIUM	30.2		0.134	MDL	0.445	PQL	mg/Kg	J	Q, A
COBALT	10.5		0.0223	MDL	0.111	PQL	mg/Kg	J	E, A
COPPER	12.5		0.0734	MDL	0.445	PQL	mg/Kg	J	Q, A
LEAD	9.29		0.0116	MDL	0.223	PQL	mg/Kg	J	Q, A
NICKEL	19.3		0.111	MDL	0.445	PQL	mg/Kg	J	Q, A
SILVER	0.0574	J	0.0134	MDL	0.111	PQL	mg/Kg	J	Z
VANADIUM	53.9		0.0245	MDL	0.111	PQL	mg/Kg	J	E, A
ZINC	59.3		0.623	MDL	3.34	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: DE142 **Laboratory: LL**

EDD Filename: PrepDE142_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-018-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 2:03:00 PM *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.116		0.0445	MDL	0.111	PQL	mg/Kg	J	E

Sample ID: SL-018-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 2:03:00 PM *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.190	J	0.0445	MDL	0.445	PQL	mg/Kg	UJ	FD, B

Sample ID: SL-018-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 2:03:00 PM *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.627		0.0556	MDL	0.111	PQL	mg/Kg	J	E

Sample ID: SL-018-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 2:03:00 PM *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	136		0.120	MDL	0.445	PQL	mg/Kg	J	E, A

Sample ID: SL-019-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 3:44:00 PM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.217	J	0.0679	MDL	0.226	PQL	mg/Kg	J	Z, Q
ARSENIC	5.99		0.0906	MDL	0.453	PQL	mg/Kg	J	Q, Q
BERYLLIUM	0.820		0.0181	MDL	0.113	PQL	mg/Kg	J	Q, E
CHROMIUM	26.2		0.136	MDL	0.453	PQL	mg/Kg	J	Q, A
COBALT	10.1		0.0226	MDL	0.113	PQL	mg/Kg	J	E, A
COPPER	10.6		0.0747	MDL	0.453	PQL	mg/Kg	J	Q, A
LEAD	7.71		0.0118	MDL	0.226	PQL	mg/Kg	J	Q, A
NICKEL	24.7		0.113	MDL	0.453	PQL	mg/Kg	J	Q, A
SILVER	0.0559	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	44.9		0.0249	MDL	0.113	PQL	mg/Kg	J	E, A
ZINC	52.7		0.634	MDL	3.40	PQL	mg/Kg	J	E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE142 **Laboratory: LL**

EDD Filename: PrepDE142_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: **SL-019-SA8N-SB-4.0-5.0** ***Collected:*** **5/3/2011 3:44:00 PM** ***Analysis Type:*** **REA5** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.218		0.0453	MDL	0.113	PQL	mg/Kg	J	E

Sample ID: **SL-019-SA8N-SB-4.0-5.0** ***Collected:*** **5/3/2011 3:44:00 PM** ***Analysis Type:*** **REA6** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0961	J	0.0453	MDL	0.453	PQL	mg/Kg	U	B

Sample ID: **SL-019-SA8N-SB-4.0-5.0** ***Collected:*** **5/3/2011 3:44:00 PM** ***Analysis Type:*** **REA7** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.457		0.0566	MDL	0.113	PQL	mg/Kg	J	E

Sample ID: **SL-019-SA8N-SB-4.0-5.0** ***Collected:*** **5/3/2011 3:44:00 PM** ***Analysis Type:*** **REA8** ***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: **SL-020-SA8N-SB-4.0-5.0** ***Collected:*** **5/3/2011 9:35:00 AM** ***Analysis Type:*** **REA4** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.296		0.0703	MDL	0.234	PQL	mg/Kg	J	Q
ARSENIC	6.96		0.0937	MDL	0.468	PQL	mg/Kg	J	Q, Q
BERYLLIUM	0.966		0.0187	MDL	0.117	PQL	mg/Kg	J	Q, E
CHROMIUM	34.1		0.141	MDL	0.468	PQL	mg/Kg	J	Q, A
COBALT	10.1		0.0234	MDL	0.117	PQL	mg/Kg	J	E, A
COPPER	17.4		0.0773	MDL	0.468	PQL	mg/Kg	J	Q, A
LEAD	10.6		0.0122	MDL	0.234	PQL	mg/Kg	J	Q, A
NICKEL	21.9		0.117	MDL	0.468	PQL	mg/Kg	J	Q, A
SILVER	0.0554	J	0.0141	MDL	0.117	PQL	mg/Kg	J	Z
VANADIUM	55.4		0.0258	MDL	0.117	PQL	mg/Kg	J	E, A
ZINC	71.4		0.656	MDL	3.51	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: DE142 **Laboratory:** LL

EDD Filename: PrepDE142_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-020-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 9:35:00 AM *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.264		0.0468	MDL	0.117	PQL	mg/Kg	J	E

Sample ID: SL-020-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 9:35:00 AM *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.161	J	0.0468	MDL	0.468	PQL	mg/Kg	U	B

Sample ID: SL-020-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 9:35:00 AM *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.518		0.0585	MDL	0.117	PQL	mg/Kg	J	E

Sample ID: SL-020-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 9:35:00 AM *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	153		0.126	MDL	0.468	PQL	mg/Kg	J	E, A

Sample ID: SL-020-SA8N-SB-9.0-10.0 *Collected:* 5/3/2011 9:39:00 AM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.252		0.0708	MDL	0.236	PQL	mg/Kg	J	Q
ARSENIC	7.35		0.0944	MDL	0.472	PQL	mg/Kg	J	Q, Q
BERYLLIUM	0.915		0.0189	MDL	0.118	PQL	mg/Kg	J	Q, E
CHROMIUM	34.6		0.142	MDL	0.472	PQL	mg/Kg	J	Q, A
COBALT	9.80		0.0236	MDL	0.118	PQL	mg/Kg	J	E, A
COPPER	16.7		0.0779	MDL	0.472	PQL	mg/Kg	J	Q, A
LEAD	9.71		0.0123	MDL	0.236	PQL	mg/Kg	J	Q, A
NICKEL	21.3		0.118	MDL	0.472	PQL	mg/Kg	J	Q, A
SILVER	0.0414	J	0.0142	MDL	0.118	PQL	mg/Kg	J	Z
VANADIUM	61.1		0.0260	MDL	0.118	PQL	mg/Kg	J	E, A
ZINC	73.0		0.661	MDL	3.54	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: DE142 Laboratory: LL

EDD Filename: PrepDE142_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 Matrix: SO

Sample ID: SL-020-SA8N-SB-9.0-10.0 *Collected:* 5/3/2011 9:39:00 AM *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.238		0.0472	MDL	0.118	PQL	mg/Kg	J	E

Sample ID: SL-020-SA8N-SB-9.0-10.0 *Collected:* 5/3/2011 9:39:00 AM *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0968	J	0.0472	MDL	0.472	PQL	mg/Kg	U	B

Sample ID: SL-020-SA8N-SB-9.0-10.0 *Collected:* 5/3/2011 9:39:00 AM *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.277		0.0590	MDL	0.118	PQL	mg/Kg	J	E

Sample ID: SL-020-SA8N-SB-9.0-10.0 *Collected:* 5/3/2011 9:39:00 AM *Analysis Type:* REA8 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	126		0.127	MDL	0.472	PQL	mg/Kg	J	E, A

Method Category: METALS

Method: 7199 Matrix: SO

Sample ID: SL-015-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 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	0.83	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7470A Matrix: AQ

Sample ID: EB08-SA8N-SB-050311 *Collected:* 5/3/2011 12:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.000046	U	0.000046	MDL	0.00020	PQL	mg/L	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: DE142 **Laboratory:** LL

EDD Filename: PrepDE142_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS **Method:** 7471A **Matrix:** SO

Sample ID: DUP07-SA8N-QC-050311 *Collected:* 5/3/2011 9:50:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0056	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z, FD

Sample ID: SL-018-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 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
MERCURY	0.0031	U	0.0031	MDL	0.110	PQL	mg/Kg	UJ	FD

Method Category: SVOA **Method:** 1625C **Matrix:** SO

Sample ID: SL-019-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 3:44:00 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	23.0	J	19.0	MDL	38.0	PQL	ng/Kg	J	Z

Sample ID: SL-020-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 9:35:00 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	28.5	J	19.4	MDL	38.8	PQL	ng/Kg	J	Z

Method Category: SVOA **Method:** 8015M **Matrix:** AQ

Sample ID: EB08-SA8N-SB-050311 *Collected:* 5/3/2011 12:50:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Propylene glycol	10	U	10	MDL	100	PQL	mg/L	UJ	Q

Method Category: SVOA **Method:** 8015M **Matrix:** SO

Sample ID: SL-015-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 10:40:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.9	U	5.9	MDL	12	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: DE142 **Laboratory: LL**

EDD Filename: PrepDE142_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-015-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 10:40:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLENE GLYCOL	5.9	U	5.9	MDL	12	PQL	mg/Kg	UJ	Q
Propylene glycol	5.9	U	5.9	MDL	12	PQL	mg/Kg	UJ	Q

Sample ID: SL-019-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 3:44:00 PM *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)	0.51	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-020-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 9:35:00 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)	0.47	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C30-C40)	0.61	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-020-SA8N-SB-9.0-10.0 *Collected:* 5/3/2011 9:39:00 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)	0.67	J	0.49	MDL	1.5	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix: AQ**

Sample ID: EB08-SA8N-SB-050311 *Collected:* 5/3/2011 12:50:00 *Analysis Type:* RES-ACID *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-NITROPHENOL	10	U	10	MDL	31	PQL	ug/L	UJ	E
BENZOIC ACID	6	U	6	MDL	16	PQL	ug/L	UJ	E
PHENOL	1	U	1	MDL	5	PQL	ug/L	UJ	E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE142 **Laboratory:** LL

EDD Filename: PrepDE142_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA **Method:** 8270C **Matrix:** SO

Sample ID: SL-015-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 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
BENZIDINE	1300	U	1300	MDL	3900	PQL	ug/Kg	UJ	Q

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

Sample ID: DUP07-SA8N-QC-050311 *Collected:* 5/3/2011 9:50:00 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	8.9	J	6.9	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-015-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 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	8.2	J	7.0	MDL	21	PQL	ug/Kg	J	Z
Di-n-butylphthalate	8.1	J	7.0	MDL	21	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.7	J	7.0	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-016-SA8N-SB-3.0-4.0 *Collected:* 5/3/2011 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	16	J	6.9	MDL	21	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.2	J	6.9	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-018-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 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
Di-n-octylphthalate	9.0	J	6.8	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-019-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 3:44:00 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	10	J	6.8	MDL	20	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.1	J	6.8	MDL	20	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE142 **Laboratory: LL**

EDD Filename: PrepDE142_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-020-SA8N-SB-9.0-10.0 *Collected:* 5/3/2011 9:39:00 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	9.1	J	7.3	MDL	22	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.8	J	7.3	MDL	22	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8315A **Matrix: SO**

Sample ID: SL-019-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 3:44:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	690	U	690	MDL	1700	PQL	ug/Kg	UJ	L, S, H

Sample ID: SL-020-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 9:35:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	700	U	700	MDL	1800	PQL	ug/Kg	UJ	L, S, H

Sample ID: SL-020-SA8N-SB-9.0-10.0 *Collected:* 5/3/2011 9:39:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	740	U	740	MDL	1800	PQL	ug/Kg	UJ	L, S, H

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: DUP07-SA8N-QC-050311 *Collected:* 5/3/2011 9:50:00 AM *Analysis Type:* RES *Dilution:* 0.85

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOLUENE	0.08	J	0.08	MDL	3.9	PQL	ug/Kg	UJ	B, FD

Sample ID: SL-016-SA8N-SB-3.0-4.0 *Collected:* 5/3/2011 11:44:00 *Analysis Type:* RES *Dilution:* 0.85

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	7.2	J	6.6	MDL	7.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE142 **Laboratory: LL**

EDD Filename: PrepDE142_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-018-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 2:03:00 PM *Analysis Type:* RES *Dilution:* 0.92

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOLUENE	0.08	U	0.08	MDL	4.2	PQL	ug/Kg	UJ	FD

Sample ID: SL-019-SA8N-SB-4.0-5.0 *Collected:* 5/3/2011 3:44:00 PM *Analysis Type:* RES *Dilution:* 0.96

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.3	J	7.4	MDL	8.9	PQL	ug/Kg	J	Z
CHLOROFORM	0.15	J	0.13	MDL	4.4	PQL	ug/Kg	J	Z

Sample ID: SL-020-SA8N-SB-9.0-10.0 *Collected:* 5/3/2011 9:39:00 AM *Analysis Type:* RES *Dilution:* 0.95

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOLUENE	.0.09	J	0.09	MDL	4.6	PQL	ug/Kg	U	B
VINYL CHLORIDE	0.27	J	0.23	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: DE142 **Laboratory: LL**

EDD Filename: PrepDE142_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

Data Qualifier Summary

Lab Reporting Batch ID: DE142 **Laboratory: LL**

EDD Filename: PrepDE142_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	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE142 **Laboratory: LL**

EDD Filename: PrepDE142_v1 **eQAPP Name: CDM_SSFL_110509**

Q	Matrix Spike Upper Rejection
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

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE142

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE142 **Laboratory: LL**
EDD Filename: PrepDE142_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8315A **Preparation Method: METHOD**
Matrix: SO

Sample ID	*Type*	*Actual*	*Criteria*	*Units*	*Flag*
SL-019-SA8N-SB-4.0-5.0 (RES)	Sampling To Extraction	21.00	14.00	DAYS	J (all detects)
SL-020-SA8N-SB-4.0-5.0 (RES)		21.00	14.00	DAYS	UJ (all non-detects)
SL-020-SA8N-SB-9.0-10.0 (RES)		21.00	14.00	DAYS	

Method Blank Outlier Report

Lab Reporting Batch ID: DE142 **Laboratory: LL**

EDD Filename: DE142_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P12508AB220902	5/8/2011 9:02:00 AM	PHOSPHORUS TIN	1.25 mg/Kg 1.48 mg/Kg	DUP07-SA8N-QC-050311 SL-015-SA8N-SB-4.0-5.0 SL-016-SA8N-SB-3.0-4.0 SL-018-SA8N-SB-4.0-5.0 SL-019-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-4.0-5.0 SL-020-SA8N-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
DUP07-SA8N-QC-050311(REA2)	TIN	3.21 mg/Kg	3.21U mg/Kg
SL-015-SA8N-SB-4.0-5.0(REA2)	TIN	3.22 mg/Kg	3.22U mg/Kg
SL-016-SA8N-SB-3.0-4.0(REA2)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-018-SA8N-SB-4.0-5.0(REA2)	TIN	3.23 mg/Kg	3.23U mg/Kg
SL-019-SA8N-SB-4.0-5.0(REA2)	TIN	2.85 mg/Kg	2.85U mg/Kg
SL-020-SA8N-SB-4.0-5.0(REA2)	TIN	2.86 mg/Kg	2.86U mg/Kg
SL-020-SA8N-SB-9.0-10.0(REA2)	TIN	2.98 mg/Kg	2.98U mg/Kg

Method: **6020**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P12450BB221348A	5/6/2011 1:48:00 PM	CADMIUM LEAD	0.00038 mg/L 0.000054 mg/L	EB08-SA8N-SB-050311

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P12526AB221251A	5/9/2011 12:51:00 PM	VANADIUM	0.0265 mg/Kg	DUP07-SA8N-QC-050311 SL-015-SA8N-SB-4.0-5.0 SL-016-SA8N-SB-3.0-4.0 SL-018-SA8N-SB-4.0-5.0 SL-019-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-9.0-10.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE142 **Laboratory: LL**

EDD Filename: DE142_v1 **eQAPP Name: CDM_SSFL_110509**

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB48B211237A	5/6/2011 12:37:00 PM	TOLUENE	0.09 ug/Kg	DUP07-SA8N-QC-050311 SL-015-SA8N-SB-4.0-5.0 SL-016-SA8N-SB-3.0-4.0 SL-018-SA8N-SB-4.0-5.0 SL-019-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-4.0-5.0 SL-020-SA8N-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
DUP07-SA8N-QC-050311(RES)	TOLUENE	0.08 ug/Kg	3.9U ug/Kg
SL-020-SA8N-SB-9.0-10.0(RES)	TOLUENE	0.09 ug/Kg	4.6U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE142 Laboratory: LL

EDD Filename: DE142_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
EB08-SA8N-SB-050311MS EB08-SA8N-SB-050311MSD (EB08-SA8N-SB-050311)	Propylene glycol	90	90	91.00-128.00	-	Propylene glycol	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-015-SA8N-SB-4.0-5.0MS	DIETHYLENE GLYCOL	29	27	59.00-109.00	-	DIETHYLENE GLYCOL	J(all detects) UJ(all non-detects)
SL-015-SA8N-SB-4.0-5.0MSD	ETHYLENE GLYCOL	47	44	63.00-107.00	-	ETHYLENE GLYCOL	
(SL-015-SA8N-SB-4.0-5.0)	Propylene glycol	55	50	63.00-107.00	-	Propylene glycol	

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-015-SA8N-SB-4.0-5.0MS (DUP07-SA8N-QC-050311 SL-015-SA8N-SB-4.0-5.0 SL-016-SA8N-SB-3.0-4.0 SL-018-SA8N-SB-4.0-5.0 SL-019-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-9.0-10.0)	COPPER NICKEL	129 134	- -	75.00-125.00 75.00-125.00	- -	COPPER NICKEL	J(all detects)
SL-015-SA8N-SB-4.0-5.0MS SL-015-SA8N-SB-4.0-5.0MSD (DUP07-SA8N-QC-050311 SL-015-SA8N-SB-4.0-5.0 SL-016-SA8N-SB-3.0-4.0 SL-018-SA8N-SB-4.0-5.0 SL-019-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-9.0-10.0)	ZINC	154	29	75.00-125.00	21 (20.00)	ZINC	J(all detects) UJ(all non-detects) No Qual based on %R, >4x
SL-015-SA8N-SB-4.0-5.0MS SL-015-SA8N-SB-4.0-5.0MSD (DUP07-SA8N-QC-050311 SL-015-SA8N-SB-4.0-5.0 SL-016-SA8N-SB-3.0-4.0 SL-018-SA8N-SB-4.0-5.0 SL-019-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-9.0-10.0)	ANTIMONY ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT LEAD VANADIUM	69 136 - - - - - 142	60 70 74 - 56 - 59 32	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	- - 23 (20.00) 22 (20.00) - 22 (20.00) - 22 (20.00)	ANTIMONY ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT LEAD VANADIUM	J(all detects) UJ(all non-detects) V No Qual based on %R, >4x
SL-015-SA8N-SB-4.0-5.0MSD (DUP07-SA8N-QC-050311 SL-015-SA8N-SB-4.0-5.0 SL-016-SA8N-SB-3.0-4.0 SL-018-SA8N-SB-4.0-5.0 SL-019-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-9.0-10.0)	MOLYBDENUM	-	-	75.00-125.00	21 (20.00)	MOLYBDENUM	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE142 **Laboratory: LL**

EDD Filename: DE142_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-015-SA8N-SB-4.0-5.0MS SL-015-SA8N-SB-4.0-5.0MSD (DUP07-SA8N-QC-050311 SL-015-SA8N-SB-4.0-5.0 SL-016-SA8N-SB-3.0-4.0 SL-018-SA8N-SB-4.0-5.0 SL-019-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-9.0-10.0)	BARIUM	149	-103	75.00-125.00	21 (20.00)	BARIUM	J(all detects) UJ(all non-detects) No Qual based on %R, >4x

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-015-SA8N-SB-4.0-5.0MS SL-015-SA8N-SB-4.0-5.0MSD (DUP07-SA8N-QC-050311 SL-015-SA8N-SB-4.0-5.0 SL-016-SA8N-SB-3.0-4.0 SL-018-SA8N-SB-4.0-5.0 SL-019-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-9.0-10.0)	ALUMINUM CALCIUM MAGNESIUM TITANIUM	2004 147 294 328	1508 - - 284	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINUM CALCIUM MAGNESIUM TITANIUM	No Qual, >4x
SL-015-SA8N-SB-4.0-5.0MS SL-015-SA8N-SB-4.0-5.0MSD (DUP07-SA8N-QC-050311 SL-015-SA8N-SB-4.0-5.0 SL-016-SA8N-SB-3.0-4.0 SL-018-SA8N-SB-4.0-5.0 SL-019-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-9.0-10.0)	IRON MANGANESE	1899 -22	-251 47	75.00-125.00 75.00-125.00	- -	IRON MANGANESE	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-015-SA8N-SB-4.0-5.0MS SL-015-SA8N-SB-4.0-5.0MSD (SL-015-SA8N-SB-4.0-5.0)	BENZIDINE	34	-	35.00-141.00	44 (30.00)	BENZIDINE	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE142 **Laboratory: LL**

EDD Filename: DE142_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-015-SA8N-SB-4.0-5.0MS (DUP07-SA8N-QC-050311 SL-015-SA8N-SB-4.0-5.0 SL-016-SA8N-SB-3.0-4.0 SL-018-SA8N-SB-4.0-5.0 SL-019-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-9.0-10.0)	FLUORIDE	60	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE142 **Laboratory: LL**

EDD Filename: DE142_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-015-SA8N-SB-4.0-5.0DUP (DUP07 -SA8N-QC-050311 SL -015-SA8N-SB-4.0-5.0 SL -016-SA8N-SB-3.0-4.0 SL -018-SA8N-SB-4.0-5.0 SL -019-SA8N-SB-4.0-5.0 SL -020-SA8N-SB-4.0-5.0 SL -020-SA8N-SB-9.0-10.0)	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-015-SA8N-SB-4.0-5.0DUP (DUP07 -SA8N-QC-050311 SL -015-SA8N-SB-4.0-5.0 SL -016-SA8N-SB-3.0-4.0 SL -018-SA8N-SB-4.0-5.0 SL -019-SA8N-SB-4.0-5.0 SL -020-SA8N-SB-4.0-5.0 SL -020-SA8N-SB-9.0-10.0)	ANTIMONY	21	20.00	No Qual, OK by difference
	CADMIUM	23	20.00	
	SELENIUM	41	20.00	
	SILVER	47	20.00	
	THALLIUM	23	20.00	

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-015-SA8N-SB-4.0-5.0DUP (DUP07 -SA8N-QC-050311 SL -015-SA8N-SB-4.0-5.0 SL -016-SA8N-SB-3.0-4.0 SL -018-SA8N-SB-4.0-5.0 SL -019-SA8N-SB-4.0-5.0 SL -020-SA8N-SB-4.0-5.0 SL -020-SA8N-SB-9.0-10.0)	HEXAVALENT CHROMIUM	51	20.00	No Qual, OK by difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE142 **Laboratory: LL**

EDD Filename: DE142_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
P9WBLCSY261529 (EB08-SA8N-SB-050311)	4-NITROPHENOL BENZOIC ACID PHENOL	- - -	- - -	16.00-78.00 10.00-69.00 29.00-67.00	36 (30.00) 34 (30.00) 34 (30.00)	4-NITROPHENOL BENZOIC ACID PHENOL	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
P13013BQ220802 P13013BY220804 (EB08-SA8N-SB-050311)	MERCURY	86	88	90.00-115.00	-	MERCURY	J(all detects) UJ(all non-detects)

Method: 8315A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11446AQ240028A (SL-019-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-9.0-10.0)	FORMALDEHYDE	66	-	80.00-126.00	-	FORMALDEHYDE	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
LCSB48Q211301A (DUP07-SA8N-QC-050311 SL-015-SA8N-SB-4.0-5.0 SL-016-SA8N-SB-3.0-4.0 SL-018-SA8N-SB-4.0-5.0 SL-019-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-4.0-5.0 SL-020-SA8N-SB-9.0-10.0)	N-PROPYLBENZENE SEC-BUTYLBENZENE	122 121	- -	77.00-120.00 75.00-120.00	- -	N-PROPYLBENZENE SEC-BUTYLBENZENE	J(all detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE142 **Laboratory: LL**

EDD Filename: DE142_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8315A**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-019-SA8N-SB-4.0-5.0	Butyraldehyde	58	64.00-126.00	All Target Analytes	J (all detects) UJ (all non-detects)
SL-020-SA8N-SB-4.0-5.0	Butyraldehyde	57	64.00-126.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-020-SA8N-SB-9.0-10.0	Butyraldehyde	51	64.00-126.00	All Target Analytes	J(all detects) UJ(all non-detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE142 **Laboratory: LL**

EDD Filename: DE142_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-018-SA8N-SB-4.0-5.0	DUP07-SA8N-QC-050311			
MOISTURE	11.9	13.7	14		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-018-SA8N-SB-4.0-5.0	DUP07-SA8N-QC-050311			
FLUORIDE	8.0	8.1	1	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-018-SA8N-SB-4.0-5.0	DUP07-SA8N-QC-050311			
ALUMINUM	24600	25900	5	50.00	
CALCIUM	3410	5490	47	50.00	
IRON	29700	32700	10	50.00	
LITHIUM	24.3	25.7	6	50.00	
MAGNESIUM	5330	7020	27	50.00	
MANGANESE	458	291	45	50.00	
POTASSIUM	2470	1870	28	50.00	No Qualifiers Applied
SODIUM	425	536	23	50.00	
STRONTIUM	22.7	29.2	25	50.00	
TIN	3.23	3.21	1	50.00	
TITANIUM	1170	1050	11	50.00	
Zirconium	5.27	5.79	9	50.00	
BORON	3.14	5.57 U	200	50.00	J(all detects)
PHOSPHORUS	108	237	75	50.00	UJ(all non-detects)

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-018-SA8N-SB-4.0-5.0	DUP07-SA8N-QC-050311			
ANTIMONY	0.278	0.384	32	50.00	
ARSENIC	7.52	7.24	4	50.00	
BARIUM	136	142	4	50.00	
BERYLLIUM	0.970	0.944	3	50.00	
CADMIUM	0.116	0.136	16	50.00	
CHROMIUM	30.2	30.8	2	50.00	
COBALT	10.5	11.7	11	50.00	
COPPER	12.5	15.5	21	50.00	No Qualifiers Applied
LEAD	9.29	9.20	1	50.00	
MOLYBDENUM	0.627	0.431	37	50.00	
NICKEL	19.3	25.6	28	50.00	
SILVER	0.0574	0.0754	27	50.00	
THALLIUM	0.347	0.353	2	50.00	
VANADIUM	53.9	53.5	1	50.00	
ZINC	59.3	68.1	14	50.00	
SELENIUM	0.190	0.0914	70	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: DE142 **Laboratory: LL**

EDD Filename: DE142_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-018-SA8N-SB-4.0-5.0	DUP07-SA8N-QC-050311			
MERCURY	0.110 U	0.0056	200	50.00	J(all detects) UJ(all non-detects)

Method: 8260B
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-018-SA8N-SB-4.0-5.0	DUP07-SA8N-QC-050311			
METHYLENE CHLORIDE	12	10	18	50.00	No Qualifiers Applied
TOLUENE	4.2 U	0.08	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-018-SA8N-SB-4.0-5.0	DUP07-SA8N-QC-050311			
Di-n-octylphthalate	9.0	8.9	1	50.00	No Qualifiers Applied

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-018-SA8N-SB-4.0-5.0	DUP07-SA8N-QC-050311			
PH	7.84	7.84	0	50.00	No Qualifiers Applied

Method: ASTM D1498
Matrix: SO

Analyte	Concentration (mV)		Sample RPD	eQAPP RPD	Flag
	SL-018-SA8N-SB-4.0-5.0	DUP07-SA8N-QC-050311			
Oxidation Reduction Potential	366	390	6		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE142 **Laboratory: LL**

EDD Filename: DE142_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-019-SA8N-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	23.0	38.0	PQL	ng/Kg	J (all detects)
SL-020-SA8N-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	28.5	38.8	PQL	ng/Kg	J (all detects)

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA8N-SB-4.0-5.0	Nitrate-NO3	J	1.1	1.8	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP07-SA8N-QC-050311	TIN	J	3.21	11.1	PQL	mg/Kg	J (all detects)
SL-015-SA8N-SB-4.0-5.0	TIN	J	3.22	11.5	PQL	mg/Kg	J (all detects)
SL-016-SA8N-SB-3.0-4.0	TIN Zirconium	J J	3.00 4.90	11.2 5.62	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-018-SA8N-SB-4.0-5.0	BORON TIN Zirconium	J J J	3.14 3.23 5.27	5.62 11.2 5.62	PQL PQL PQL	mg/Kg mg/Kg mg/Kg	J (all detects)
SL-019-SA8N-SB-4.0-5.0	TIN Zirconium	J J	2.85 5.39	11.3 5.66	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-020-SA8N-SB-4.0-5.0	BORON TIN	J J	1.53 2.86	5.74 11.5	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-020-SA8N-SB-9.0-10.0	BORON TIN	J J	4.28 2.98	5.96 11.9	PQL PQL	mg/Kg mg/Kg	J (all detects)

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP07-SA8N-QC-050311	SELENIUM SILVER	J J	0.0914 0.0754	0.450 0.112	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-015-SA8N-SB-4.0-5.0	ANTIMONY CADMIUM SELENIUM SILVER	J J J J	0.200 0.107 0.116 0.0576	0.230 0.115 0.460 0.115	PQL PQL PQL PQL	mg/Kg mg/Kg mg/Kg mg/Kg	J (all detects)
SL-016-SA8N-SB-3.0-4.0	SELENIUM SILVER	J J	0.133 0.0368	0.459 0.115	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-018-SA8N-SB-4.0-5.0	SELENIUM SILVER	J J	0.190 0.0574	0.445 0.111	PQL PQL	mg/Kg 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: DE142 **Laboratory: LL**

EDD Filename: DE142_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-019-SA8N-SB-4.0-5.0	ANTIMONY	J	0.217	0.226	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0961	0.453	PQL	mg/Kg	
	SILVER	J	0.0559	0.113	PQL	mg/Kg	
SL-020-SA8N-SB-4.0-5.0	SELENIUM	J	0.161	0.468	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0554	0.117	PQL	mg/Kg	
SL-020-SA8N-SB-9.0-10.0	SELENIUM	J	0.0968	0.472	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0414	0.118	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-015-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.83	1.2	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP07-SA8N-QC-050311	MERCURY	J	0.0056	0.109	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-019-SA8N-SB-4.0-5.0	EFH (C30-C40)	J	0.51	1.4	PQL	mg/Kg	J (all detects)
SL-020-SA8N-SB-4.0-5.0	EFH (C21-C30)	J	0.47	1.4	PQL	mg/Kg	J (all detects)
	EFH (C30-C40)	J	0.61	1.4	PQL	mg/Kg	
SL-020-SA8N-SB-9.0-10.0	EFH (C30-C40)	J	0.67	1.5	PQL	mg/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP07-SA8N-QC-050311	TOLUENE	J	0.08	3.9	PQL	ug/Kg	J (all detects)
SL-016-SA8N-SB-3.0-4.0	ACETONE	J	7.2	7.8	PQL	ug/Kg	J (all detects)
SL-019-SA8N-SB-4.0-5.0	ACETONE	J	8.3	8.9	PQL	ug/Kg	J (all detects)
	CHLOROFORM	J	0.15	4.4	PQL	ug/Kg	
SL-020-SA8N-SB-9.0-10.0	TOLUENE	J	0.09	4.6	PQL	ug/Kg	J (all detects)
	VINYL CHLORIDE	J	0.27	4.6	PQL	ug/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE142 **Laboratory: LL**

EDD Filename: DE142_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
DUP07-SA8N-QC-050311	Di-n-octylphthalate	J	8.9	21	PQL	ug/Kg	J (all detects)
SL-015-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.2	21	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	8.1	21	PQL	ug/Kg	
	Di-n-octylphthalate	J	9.7	21	PQL	ug/Kg	
SL-016-SA8N-SB-3.0-4.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	16	21	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	9.2	21	PQL	ug/Kg	
SL-018-SA8N-SB-4.0-5.0	Di-n-octylphthalate	J	9.0	20	PQL	ug/Kg	J (all detects)
SL-019-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	10	20	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	9.1	20	PQL	ug/Kg	
SL-020-SA8N-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.1	22	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	9.8	22	PQL	ug/Kg	

LDC #: 26275G4 **VALIDATION COMPLETENESS WORKSHEET** Date: 9/29/11
SDG #: DE142 ADR Page: 1 of 1
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: 5/3/11
II.	ICP/MS Tune	N	
III.	Calibration	N	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	gR9out. RP9out.
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Fe, Mg, Mn, Ti, V, Zn >4X
VII.	Duplicate Sample Analysis	SW	Sb, Cd, Se, Ag, Tl, <5X
VIII.	Laboratory Control Samples (LCS)	N A	SW
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Ba, Ca, Cr, Co, Cu, Pb, Ni, V. J/UJ
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	ND	EB=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:

1	SL-015-SA8N-SB-4.0-5.0	11	SL-015-SA8N-SB-4.0-5.0DUP	21		31	
2	SL-016-SA8N-SB-3.0-4.0	12		22		32	
3	SL-018-SA8N-SB-4.0-5.0	13		23		33	
4	SL-019-SA8N-SB-4.0-5.0	14		24		34	
5	SL-020-SA8N-SB-4.0-5.0	15		25		35	
6	SL-020-SA8N-SB-9.0-10.0	16		26		36	
7	EB08-SA8N-SB-050311	17		27		37	
8	DUP07-SA8N-QC-050311	18		28		38	
9	SL-015-SA8N-SB-4.0-5.0MS	19		29		39	
10	SL-015-SA8N-SB-4.0-5.0MSD	20		30		40	

Notes: _____

LDC #: 26275G4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 200X
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	8			
Se			0.33	0.33	0.12	0.13	0.19	0.096	0.16	0.097	0.091			

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 5,6,8

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Limit	8									
Be			0.058	0.058										
Cd			0.21	0.21	0.14									
V			0.23	0.23										

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 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE142
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6275761BKG Matrix Spike Lab Sample ID: 6275762MS Matrix Spike Duplicate Lab Sample ID: 6275763MSD
% Solids for Sample: 85.3
Batch Id(s): P12508A, P12526A, P12511B

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	RPD	M
Aluminum		25357.2478		29963.1876		28790.4665		229.8692	227.6375	MG/KG	2004		1508		4			20	P
Antimony	121	0.1999	B	1.1577		1.0144		1.3929	1.3658	MG/KG	69	N	60	N	13		75 - 125	20	MS
Arsenic	75	6.8501		10.0147		8.4385		2.3215	2.2764	MG/KG	136	N	70	N	17		75 - 125	20	MS
Barium	137	132.5426		149.8497		120.8300		11.6073	11.3819	MG/KG	149		-103		21	*		20	MS
Beryllium	9	0.8298		1.9041		1.5063		0.9286	0.9105	MG/KG	116		74	N	23	*	75 - 125	20	MS
Boron		1.0229	U	219.9159		216.0997		229.8692	227.6375	MG/KG	96		95		2		84 - 115	20	P
Cadmium	111	0.1072	B	1.4367		1.1491		1.1607	1.1382	MG/KG	115		92		22	*	75 - 125	20	MS
Calcium		4827.4809		5505.0548		5302.4653		459.7384	455.2749	MG/KG	147		104		4			20	P
Chromium	52	28.2279		42.1343		34.5554		11.6073	11.3819	MG/KG	120		56	N	20		75 - 125	20	MS
Cobalt	59	8.9672		79.3936		63.5564		58.0363	56.9094	MG/KG	121		96		22	*	75 - 125	20	MS
Copper	63	11.7049		26.6503		21.7098		11.6073	11.3819	MG/KG	129	N	88		20		75 - 125	20	MS
Iron		31697.2278		33879.7324		31411.8360		114.9346	113.8187	MG/KG	1899		-251		8			20	P
Lead	208	8.0960		11.8046		10.1276		3.4822	3.4146	MG/KG	107		59	N	15		75 - 125	20	MS
Lithium		23.9420		136.3113		134.3004		114.9346	113.8187	MG/KG	98		97		1		82 - 114	20	P
Magnesium		6897.6737		7572.3766		7121.9340		229.8692	227.6375	MG/KG	294		99		6			20	P
Manganese		489.4835		477.0223		516.2180		57.4673	56.9094	MG/KG	-22		47		8			20	P
Mercury		0.0035	U	0.1951		0.1926		0.1858	0.1834	MG/KG	105		105		1		65 - 135	20	CV
Molybdenum	98	0.2929		13.6223		11.0381		11.6073	11.3819	MG/KG	115		94		21	*	75 - 125	20	MS
Nickel	60	21.1641		36.7254		30.1392		11.6073	11.3819	MG/KG	134	N	79		20		75 - 125	20	MS
Phosphorus		149.7219		276.5269		267.9077		114.9346	113.8187	MG/KG	110		104		3		75 - 125	20	P
Potassium		1789.6214		3150.4816		3058.9205		1149.3460	1138.1873	MG/KG	118		112		3		75 - 125	20	P
Selenium	78	0.1159	B	2.3284		2.1687		2.3215	2.2764	MG/KG	95		90		7		75 - 125	20	MS
Silver	107	0.0576	B	13.9775		11.5321		11.6073	11.3819	MG/KG	120		101		19		75 - 125	20	MS
Sodium		465.9920		1556.6467		1508.8278		1149.3460	1138.1873	MG/KG	95		92		3		75 - 125	20	P
Strontium		26.6936		139.3318		133.7336		114.9346	113.8187	MG/KG	98		94		4		75 - 115	20	P
Thallium	203	0.2694		0.8476		0.7123		0.4643	0.4553	MG/KG	125		97		17		75 - 125	20	MS
Tin		3.2182	B	431.7323		426.2181		459.7384	455.2749	MG/KG	93		93		1		80 - 110	20	P
Titanium		1270.4101		1647.4875		1593.6967		114.9346	113.8187	MG/KG	328		284		3			20	P
Vanadium	51	49.6517		66.1614		53.2444		11.6073	11.3819	MG/KG	142		32		22	*		20	MS
Zinc	66	59.4212		77.3275		62.7369		11.6073	11.3819	MG/KG	154		29		21	*		20	MS
Zirconium		6.2501		116.6138		115.1163		114.9346	113.8187	MG/KG	96		96		1		75 - 125	20	P

METHODS:
P = ICP (Atomic Emission Spectrometer
MS = ICP/MS (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.: DE142
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6275761BKG Serial Dilution Lab Sample ID: 6275761L
Batch ID(s): P12508A, P12526A
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		220623.2700		228673.6000		4		P
Antimony	121	0.8696	B	2.1010	B	142		MS
Arsenic	75	29.8000		41.3950		39		MS
Barium	137	576.6000		729.0000		26	E	MS
Beryllium	9	3.6100		4.9570		37		MS
Boron		8.9000	U	44.5000	U			P
Cadmium	111	0.4665	B	1.0000	U	100		MS
Calcium		42001.9800		46467.7500		11	E	P
Chromium	52	122.8000		186.5000		52	E	MS
Cobalt	59	39.0100		67.9500		74	E	MS
Copper	63	50.9200		71.8000		41	E	MS
Iron		55156.9800		56236.5000		2		P
Lead	208	35.2200		48.8200		39	E	MS
Lithium		208.3100		228.0500		9		P
Magnesium		60013.9000		62313.2500		4		P
Manganese		4258.8000		4522.2500		6		P
Molybdenum	98	1.2740		4.5550		258		MS
Nickel	60	92.0700		126.7000		38	E	MS
Phosphorus		1302.6700		1411.0000		8		P
Potassium		15570.7800		15927.2000		2		P
Selenium	78	0.5040	B	1.2625	B	150		MS
Silver	107	0.2507	B	2.8385		1032		MS
Sodium		4054.4100		4067.4000	B	0		P
Strontium		232.2500		236.5500		2		P
Thallium	203	1.1720		1.4630	B	25		MS
Tin		28.0000	B	50.0000	U	100		P
Titanium		11053.3300		11481.8000		4		P
Vanadium	51	216.0000		318.6000		48	E	MS
Zinc	66	258.5000		546.0000		111		MS
Zirconium		54.3800		47.8500	B	12		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: DE142 3617
U= Below MDL
B= Below LOQ
FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

SAMPLE DELIVERY GROUP

DE143

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-May-2011	TB-050411	6277631	TB	5030B	8015M	III
04-May-2011	TB-050411	6277631	TB	5030B	8260B	III
04-May-2011	TB-050411	6277631	TB	5030B	8260B SIM	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	3050B	6010B	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	3050B	6020	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	3060A	7199	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	3546	1625C	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	3550B	8015B	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	3550B	8015M	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	3550B	8082	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	3550B	8270C	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	3550B	8270C SIM	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	5035	8015M	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	5035	8260B	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	5035	8260B SIM	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	8330	8330A	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	METHOD	300.0	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	METHOD	314.0	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	METHOD	6850	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	METHOD	7471A	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	METHOD	8015B	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	METHOD	8015M	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	METHOD	8315A	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0	6277627	N	METHOD	9012B	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0DUP	P277627D221012	DUP	3050B	6010B	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0DUP	P277627D272126A	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
04-May-2011	SL-021-SA8N-SB-4.0-5.0DUP	P277627D272150A	DUP	METHOD	300.0	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0MSD	P277627M221020	MSD	3050B	6010B	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0MSD	P277627M241725A	MSD	3550B	8082	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0MSD	P277627M242033A	MSD	METHOD	8315A	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0MSD	P277627M321146A	MSD	3550B	8015M	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0MSD	P277627M321714A	MSD	METHOD	8015B	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0MS	P277627R221016	MS	3050B	6010B	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0MS	P277627R241707A	MS	3550B	8082	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0MS	P277627R242023A	MS	METHOD	8315A	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0MS	P277627R272148A	MS	METHOD	314.0	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0MS	P277627R272205A	MS	METHOD	300.0	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0MS	P277627R321121A	MS	3550B	8015M	III
04-May-2011	SL-021-SA8N-SB-4.0-5.0MS	P277627R321659A	MS	METHOD	8015B	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	3050B	6010B	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	3050B	6020	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	3060A	7199	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	3546	1625C	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	3550B	8015B	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	3550B	8015M	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	3550B	8082	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	3550B	8270C	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	3550B	8270C SIM	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	5035	8015M	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	5035	8260B	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	5035	8260B SIM	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	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
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	METHOD	300.0	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	METHOD	314.0	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	METHOD	7471A	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	METHOD	8015B	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	METHOD	8015M	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	METHOD	8315A	III
04-May-2011	SL-021-SA8N-SB-9.0-10.0	6277628	N	METHOD	9012B	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	3050B	6010B	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	3050B	6020	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	3060A	7199	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	3546	1625C	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	3550B	8015B	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	3550B	8015M	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	3550B	8082	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	3550B	8270C	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	3550B	8270C SIM	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	5035	8015M	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	5035	8260B	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	5035	8260B SIM	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	8330	8330A	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	METHOD	300.0	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	METHOD	314.0	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	METHOD	7471A	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	METHOD	8015B	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	METHOD	8015M	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	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
04-May-2011	SL-080-SA8N-SB-4.0-5.0	6277629	N	METHOD	9012B	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0DUP	P277629D270932B	DUP	METHOD	9012B	III
04-May-2011	SL-080-SA8N-SB-4.0-5.0MS	P277629R270933B	MS	METHOD	9012B	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	3050B	6010B	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	3050B	6020	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	3060A	7199	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	3546	1625C	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	3550B	8015B	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	3550B	8015M	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	3550B	8082	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	3550B	8270C	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	3550B	8270C SIM	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	5035	8015M	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	5035	8260B	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	5035	8260B SIM	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	8330	8330A	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	METHOD	300.0	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	METHOD	314.0	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	METHOD	6850	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	METHOD	7471A	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	METHOD	8015B	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	METHOD	8015M	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	METHOD	8315A	III
04-May-2011	SL-067-SA8N-SB-4.0-5.0	6277630	N	METHOD	9012B	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: DE143 **Laboratory:** LL

EDD Filename: PrepDE143_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-021-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 9:15:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.9		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-021-SA8N-SB-9.0-10.0 *Collected:* 5/4/2011 9:25:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.8		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-067-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 2:35:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.2		0.97	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-080-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 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	2.1		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-021-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 9:15:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3860		21.1	MDL	58.5	PQL	mg/Kg	J	Q
TIN	2.60	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	2.05	J	0.982	MDL	5.85	PQL	mg/Kg	J	Z

Sample ID: SL-021-SA8N-SB-9.0-10.0 *Collected:* 5/4/2011 9:25:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2590		21.2	MDL	58.8	PQL	mg/Kg	J	Q
TIN	2.67	J	1.18	MDL	11.8	PQL	mg/Kg	U	B
Zirconium	3.39	J	0.987	MDL	5.88	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: DE143 **Laboratory: LL**

EDD Filename: PrepDE143_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-067-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 2:35:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	4720		21.7	MDL	60.4	PQL	mg/Kg	J	Q
TIN	2.79	J	1.21	MDL	12.1	PQL	mg/Kg	U	B
Zirconium	3.21	J	1.01	MDL	6.04	PQL	mg/Kg	J	Z

Sample ID: SL-080-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 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	4060		20.1	MDL	55.7	PQL	mg/Kg	J	Q
TIN	2.41	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	2.28	J	0.936	MDL	5.57	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-021-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 9:15:00 AM *Analysis Type:* REA *Dilution:* 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	94.0		0.378	MDL	2.29	PQL	mg/Kg	J	Q, E

Sample ID: SL-021-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 9:15:00 AM *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.159	J	0.0459	MDL	0.459	PQL	mg/Kg	J	Z

Sample ID: SL-021-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 9:15:00 AM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.291		0.0573	MDL	0.115	PQL	mg/Kg	J	E

Sample ID: SL-021-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 9:15:00 AM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	142		0.124	MDL	0.459	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: DE143 **Laboratory:** LL

EDD Filename: PrepDE143_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-021-SA8N-SB-4.0-5.0 **Collected:** 5/4/2011 9:15:00 AM **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0765	J	0.0688	MDL	0.229	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.25		0.0917	MDL	0.459	PQL	mg/Kg	J	E
BERYLLIUM	0.831		0.0183	MDL	0.115	PQL	mg/Kg	J	E
CADMIUM	0.290		0.0459	MDL	0.115	PQL	mg/Kg	J	Q, E
CHROMIUM	29.0		0.138	MDL	0.459	PQL	mg/Kg	J	Q, E
COBALT	10.5		0.0229	MDL	0.115	PQL	mg/Kg	J	Q, E
LEAD	9.49		0.0119	MDL	0.229	PQL	mg/Kg	J	E
NICKEL	20.7		0.115	MDL	0.459	PQL	mg/Kg	J	Q, E
SILVER	0.0358	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z, Q
VANADIUM	51.6		0.0252	MDL	0.115	PQL	mg/Kg	J	E
ZINC	65.7		0.642	MDL	3.44	PQL	mg/Kg	J	E

Sample ID: SL-021-SA8N-SB-9.0-10.0 **Collected:** 5/4/2011 9:25:00 AM **Analysis Type:** REA2 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.117	J	0.0470	MDL	0.470	PQL	mg/Kg	J	Z

Sample ID: SL-021-SA8N-SB-9.0-10.0 **Collected:** 5/4/2011 9:25:00 AM **Analysis Type:** REA3 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.263		0.0588	MDL	0.118	PQL	mg/Kg	J	E

Sample ID: SL-021-SA8N-SB-9.0-10.0 **Collected:** 5/4/2011 9:25:00 AM **Analysis Type:** REA4 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	152		0.127	MDL	0.470	PQL	mg/Kg	J	E

Sample ID: SL-021-SA8N-SB-9.0-10.0 **Collected:** 5/4/2011 9:25:00 AM **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.149	J	0.0705	MDL	0.235	PQL	mg/Kg	J	Z, Q, E
ARSENIC	8.04		0.0940	MDL	0.470	PQL	mg/Kg	J	E
BERYLLIUM	1.03		0.0188	MDL	0.118	PQL	mg/Kg	J	E
CADMIUM	0.474		0.0470	MDL	0.118	PQL	mg/Kg	J	Q, E
CHROMIUM	39.5		0.141	MDL	0.470	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: DE143 **Laboratory: LL**

EDD Filename: PrepDE143_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-021-SA8N-SB-9.0-10.0 ***Collected:*** 5/4/2011 9:25:00 AM ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	13.3		0.0235	MDL	0.118	PQL	mg/Kg	J	Q, E
COPPER	16.6		0.0776	MDL	0.470	PQL	mg/Kg	J	Q, E
LEAD	10.9		0.0122	MDL	0.235	PQL	mg/Kg	J	E
NICKEL	25.9		0.118	MDL	0.470	PQL	mg/Kg	J	Q, E
SILVER	0.0810	J	0.0141	MDL	0.118	PQL	mg/Kg	J	Z, Q
VANADIUM	84.4		0.0259	MDL	0.118	PQL	mg/Kg	J	E
ZINC	81.1		0.658	MDL	3.53	PQL	mg/Kg	J	E

Sample ID: SL-067-SA8N-SB-4.0-5.0 ***Collected:*** 5/4/2011 2:35:00 PM ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.183	J	0.0460	MDL	0.460	PQL	mg/Kg	J	Z

Sample ID: SL-067-SA8N-SB-4.0-5.0 ***Collected:*** 5/4/2011 2:35:00 PM ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.360		0.0575	MDL	0.115	PQL	mg/Kg	J	E

Sample ID: SL-067-SA8N-SB-4.0-5.0 ***Collected:*** 5/4/2011 2:35:00 PM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	166		0.124	MDL	0.460	PQL	mg/Kg	J	E

Sample ID: SL-067-SA8N-SB-4.0-5.0 ***Collected:*** 5/4/2011 2:35:00 PM ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.145	J	0.0690	MDL	0.230	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.59		0.0920	MDL	0.460	PQL	mg/Kg	J	E
BERYLLIUM	0.977		0.0184	MDL	0.115	PQL	mg/Kg	J	E
CADMIUM	0.294		0.0460	MDL	0.115	PQL	mg/Kg	J	Q, E
CHROMIUM	35.5		0.138	MDL	0.460	PQL	mg/Kg	J	Q, E
COBALT	14.3		0.0230	MDL	0.115	PQL	mg/Kg	J	Q, E
COPPER	20.2		0.0759	MDL	0.460	PQL	mg/Kg	J	Q, E
LEAD	11.0		0.0120	MDL	0.230	PQL	mg/Kg	J	E
NICKEL	26.4		0.115	MDL	0.460	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: DE143 **Laboratory: LL**

EDD Filename: PrepDE143_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-067-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 2:35:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0517	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z, Q
VANADIUM	79.3		0.0253	MDL	0.115	PQL	mg/Kg	J	E
ZINC	90.9		0.644	MDL	3.45	PQL	mg/Kg	J	E

Sample ID: SL-080-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 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
SELENIUM	0.167	J	0.0455	MDL	0.455	PQL	mg/Kg	J	Z

Sample ID: SL-080-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 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
MOLYBDENUM	0.665		0.0568	MDL	0.114	PQL	mg/Kg	J	E

Sample ID: SL-080-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 10:40:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	149		0.123	MDL	0.455	PQL	mg/Kg	J	E

Sample ID: SL-080-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 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	0.170	J	0.0682	MDL	0.227	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.59		0.0909	MDL	0.455	PQL	mg/Kg	J	E
BERYLLIUM	1.01		0.0182	MDL	0.114	PQL	mg/Kg	J	E
CADMIUM	0.404		0.0455	MDL	0.114	PQL	mg/Kg	J	Q, E
CHROMIUM	32.0		0.136	MDL	0.455	PQL	mg/Kg	J	Q, E
COBALT	12.9		0.0227	MDL	0.114	PQL	mg/Kg	J	Q, E
COPPER	19.6		0.0750	MDL	0.455	PQL	mg/Kg	J	Q, E
LEAD	10.6		0.0118	MDL	0.227	PQL	mg/Kg	J	E
NICKEL	23.6		0.114	MDL	0.455	PQL	mg/Kg	J	Q, E
SILVER	0.0473	J	0.0136	MDL	0.114	PQL	mg/Kg	J	Z, Q
VANADIUM	61.8		0.0250	MDL	0.114	PQL	mg/Kg	J	E
ZINC	74.0		0.637	MDL	3.41	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: DE143 **Laboratory: LL**

EDD Filename: PrepDE143_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-067-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 2:35:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.41	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-080-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 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	0.40	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-021-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 9:15:00 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	34.1	J	19.2	MDL	38.5	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-021-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 9:15:00 AM *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	12	PQL	mg/Kg	UJ	Q
ETHYLENE GLYCOL	5.8	U	5.8	MDL	12	PQL	mg/Kg	UJ	Q
Propylene glycol	5.8	U	5.8	MDL	12	PQL	mg/Kg	UJ	Q

Sample ID: SL-021-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 9:15:00 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)	0.58	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C21-C30)	1.4	J	0.47	MDL	1.4	PQL	mg/Kg	J	L

Sample ID: SL-021-SA8N-SB-9.0-10.0 *Collected:* 5/4/2011 9:25:00 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)	0.49	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: DE143 **Laboratory: LL**

EDD Filename: PrepDE143_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-021-SA8N-SB-9.0-10.0 *Collected:* 5/4/2011 9:25:00 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)	1.8		0.47	MDL	1.4	PQL	mg/Kg	J	L

Sample ID: SL-067-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 2:35:00 PM *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)	1.3	J	0.48	MDL	1.4	PQL	mg/Kg	J	Z, L

Sample ID: SL-080-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 10:40:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.65	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C21-C30)	8.2		0.46	MDL	1.4	PQL	mg/Kg	J	L

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-067-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 2:35:00 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
BIS(2-ETHYLHEXYL)PHTHALATE	25	J	20	MDL	400	PQL	ug/Kg	J	Z

Method Category: SVOA

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

Sample ID: SL-021-SA8N-SB-4.0-5.0 *Collected:* 5/4/2011 9:15:00 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	9.6	J	6.9	MDL	21	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.2	J	6.9	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-021-SA8N-SB-9.0-10.0 *Collected:* 5/4/2011 9:25:00 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	7.1	J	7.0	MDL	21	PQL	ug/Kg	J	Z
Butylbenzylphthalate	19	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: DE143 **Laboratory: LL**

EDD Filename: PrepDE143_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: **SL-021-SA8N-SB-9.0-10.0** ***Collected:*** **5/4/2011 9:25:00 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	9.0	J	7.0	MDL	21	PQL	ug/Kg	J	Z

Sample ID: **SL-067-SA8N-SB-4.0-5.0** ***Collected:*** **5/4/2011 2:35:00 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
BENZO(B)FLUORANTHENE	1.0	J	0.80	MDL	2.0	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.3	J	7.2	MDL	22	PQL	ug/Kg	J	Z

Sample ID: **SL-080-SA8N-SB-4.0-5.0** ***Collected:*** **5/4/2011 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
BENZO(B)FLUORANTHENE	1.3	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	6.8	J	6.8	MDL	20	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.2	J	6.8	MDL	20	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: DE143 **Laboratory: LL**

EDD Filename: PrepDE143_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

Data Qualifier Summary

Lab Reporting Batch ID: DE143 **Laboratory: LL**

EDD Filename: PrepDE143_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	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE143 **Laboratory: LL**

EDD Filename: PrepDE143_v1 **eQAPP Name: CDM_SSFL_110509**

Q	Matrix Spike Upper Rejection
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

DE143

Method Blank Outlier Report

Lab Reporting Batch ID: DE143 **Laboratory: LL**

EDD Filename: DE143_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P12908AB220953	5/10/2011 9:53:00 AM	ALUMINUM CALCIUM MAGNESIUM PHOSPHORUS TIN	12.4 mg/Kg 17.6 mg/Kg 3.88 mg/Kg 2.28 mg/Kg 1.46 mg/Kg	SL-021-SA8N-SB-4.0-5.0 SL-021-SA8N-SB-9.0-10.0 SL-067-SA8N-SB-4.0-5.0 SL-080-SA8N-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-021-SA8N-SB-4.0-5.0(RES)	TIN	2.60 mg/Kg	2.60U mg/Kg
SL-021-SA8N-SB-9.0-10.0(RES)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-067-SA8N-SB-4.0-5.0(RES)	TIN	2.79 mg/Kg	2.79U mg/Kg
SL-080-SA8N-SB-4.0-5.0(RES)	TIN	2.41 mg/Kg	2.41U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P12926AB220810A	5/13/2011 8:10:00 AM	COPPER	0.503 mg/Kg	SL-021-SA8N-SB-4.0-5.0 SL-021-SA8N-SB-9.0-10.0 SL-067-SA8N-SB-4.0-5.0 SL-080-SA8N-SB-4.0-5.0
P12926AB221123A	5/11/2011 11:23:00 AM	VANADIUM ZINC	0.0744 mg/Kg 0.738 mg/Kg	SL-021-SA8N-SB-4.0-5.0 SL-021-SA8N-SB-9.0-10.0 SL-067-SA8N-SB-4.0-5.0 SL-080-SA8N-SB-4.0-5.0

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB48B211237A	5/6/2011 12:37:00 PM	TOLUENE	0.09 ug/Kg	SL-021-SA8N-SB-4.0-5.0 SL-021-SA8N-SB-9.0-10.0 SL-067-SA8N-SB-4.0-5.0 SL-080-SA8N-SB-4.0-5.0

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE143 **Laboratory: LL**

EDD Filename: DE143_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-021-SA8N-SB-4.0-5.0MS SL-021-SA8N-SB-4.0-5.0MSD (SL-021-SA8N-SB-4.0-5.0)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	36 54 60	40 58 -	59.00-109.00 63.00-107.00 63.00-107.00	- - -	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	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-021-SA8N-SB-4.0-5.0MS SL-021-SA8N-SB-4.0-5.0MSD (SL-021-SA8N-SB-4.0-5.0 SL-021-SA8N-SB-9.0-10.0 SL-067-SA8N-SB-4.0-5.0 SL-080-SA8N-SB-4.0-5.0)	ALUMINUM IRON MAGNESIUM POTASSIUM	2053 4092 266 -	2307 320 250 135	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINUM IRON MAGNESIUM POTASSIUM	J(all detects) Al, Fe, Mg No Qual, >4x
SL-021-SA8N-SB-4.0-5.0MSD (SL-021-SA8N-SB-4.0-5.0 SL-021-SA8N-SB-9.0-10.0 SL-067-SA8N-SB-4.0-5.0 SL-080-SA8N-SB-4.0-5.0)	CALCIUM MANGANESE	- -	70 61	75.00-125.00 75.00-125.00	- -	CALCIUM 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-021-SA8N-SB-4.0-5.0MS (SL-021-SA8N-SB-4.0-5.0 SL-021-SA8N-SB-9.0-10.0 SL-067-SA8N-SB-4.0-5.0 SL-080-SA8N-SB-4.0-5.0)	FLUORIDE	54	-	80.00-120.00	-	FLUORIDE	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: DE143 **Laboratory: LL**

EDD Filename: DE143_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-SA8N-SB-4.0-5.0DUP (SL-021-SA8N-SB-4.0-5.0 SL -021-SA8N-SB-9.0-10.0 SL -067-SA8N-SB-4.0-5.0 SL -080-SA8N-SB-4.0-5.0)	FLUORIDE	44	20.00	No Qual, OK by difference

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-021-SA8N-SB-4.0-5.0DUP (SL-021-SA8N-SB-4.0-5.0 SL -021-SA8N-SB-9.0-10.0 SL -067-SA8N-SB-4.0-5.0 SL -080-SA8N-SB-4.0-5.0)	Zirconium	33	20.00	No Qual, OK by difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE143 Laboratory: LL

EDD Filename: DE143_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
P11290AQ320851A (SL-021-SA8N-SB-4.0-5.0 SL -021-SA8N-SB-9.0-10.0 SL -067-SA8N-SB-4.0-5.0 SL -080-SA8N-SB-4.0-5.0)	EFH (C21-C30)	114	-	66.00-113.00	-	EFH (C21-C30)	J (all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12926AQ221126A (SL-021-SA8N-SB-4.0-5.0 SL -021-SA8N-SB-9.0-10.0 SL -067-SA8N-SB-4.0-5.0 SL -080-SA8N-SB-4.0-5.0)	ANTIMONY	64	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within limits

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSB48Q211301A (SL-021-SA8N-SB-4.0-5.0 SL -021-SA8N-SB-9.0-10.0 SL -067-SA8N-SB-4.0-5.0 SL -080-SA8N-SB-4.0-5.0)	N-PROPYLBENZENE SEC-BUTYLBENZENE	122 121	- -	77.00-120.00 75.00-120.00	- -	N-PROPYLBENZENE SEC-BUTYLBENZENE	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE143 **Laboratory: LL**

EDD Filename: DE143_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA8N-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	34.1	38.5	PQL	ng/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA8N-SB-4.0-5.0	TIN	J	2.60	11.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.05	5.85	PQL	mg/Kg	
SL-021-SA8N-SB-9.0-10.0	TIN	J	2.67	11.8	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.39	5.88	PQL	mg/Kg	
SL-067-SA8N-SB-4.0-5.0	TIN	J	2.79	12.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.21	6.04	PQL	mg/Kg	
SL-080-SA8N-SB-4.0-5.0	TIN	J	2.41	11.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.28	5.57	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA8N-SB-4.0-5.0	ANTIMONY	J	0.0765	0.229	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.159	0.459	PQL	mg/Kg	
	SILVER	J	0.0358	0.115	PQL	mg/Kg	
SL-021-SA8N-SB-9.0-10.0	ANTIMONY	J	0.149	0.235	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.117	0.470	PQL	mg/Kg	
	SILVER	J	0.0810	0.118	PQL	mg/Kg	
SL-067-SA8N-SB-4.0-5.0	ANTIMONY	J	0.145	0.230	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.183	0.460	PQL	mg/Kg	
	SILVER	J	0.0517	0.115	PQL	mg/Kg	
SL-080-SA8N-SB-4.0-5.0	ANTIMONY	J	0.170	0.227	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.167	0.455	PQL	mg/Kg	
	SILVER	J	0.0473	0.114	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-067-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.41	1.2	PQL	mg/Kg	J (all detects)
SL-080-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.40	1.1	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE143 **Laboratory: LL**

EDD Filename: DE143_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA8N-SB-4.0-5.0	EFH (C15-C20)	J	0.58	1.4	PQL	mg/Kg	J (all detects)
SL-021-SA8N-SB-9.0-10.0	EFH (C15-C20)	J	0.49	1.4	PQL	mg/Kg	J (all detects)
SL-067-SA8N-SB-4.0-5.0	EFH (C21-C30)	J	1.3	1.4	PQL	mg/Kg	J (all detects)
SL-080-SA8N-SB-4.0-5.0	EFH (C15-C20)	J	0.65	1.4	PQL	mg/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-067-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	400	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-021-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE Di-n-octylphthalate	J J	9.6 9.2	21 21	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-021-SA8N-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE Butylbenzylphthalate Di-n-octylphthalate	J J J	7.1 19 9.0	21 21 21	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-067-SA8N-SB-4.0-5.0	BENZO(B)FLUORANTHENE Di-n-octylphthalate	J J	1.0 9.3	2.0 22	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-080-SA8N-SB-4.0-5.0	BENZO(B)FLUORANTHENE BIS(2-ETHYLHEXYL)PHTHALATE Di-n-octylphthalate	J J J	1.3 6.8 9.2	1.9 20 20	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)

LDC #: 26275H4 **VALIDATION COMPLETENESS WORKSHEET** Date: 9/29/11
SDG #: DE143 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: W
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: 5/4/11
II.	ICP/MS Tune	N	
III.	Calibration	N	
IV.	Blanks	A	Not found by 2nd/ICB;
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	ICP/MSD from SDG DE144, see attachment.
VII.	Duplicate Sample Analysis	N	
VIII.	Laboratory Control Samples (LCS)	N A	SRM
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	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-021-SA8N-SB-4.0-5.0	11		21		31	
2	SL-021-SA8N-SB-9.0-10.0	12		22		32	
3	SL-080-SA8N-SB-4.0-5.0	13		23		33	
4	SL-037-SA8N-SB-4.0-5.0	14		24		34	
5	#1 MS (ICP)	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 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE143
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6277627BKG Matrix Spike Lab Sample ID: 6277627MS Matrix Spike Duplicate Lab Sample ID: 6277627MSD
% Solids for Sample: 85.5
Batch Id(s): P12908A

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		27836.4199		32591.4261		32975.9142		231.6021	222.7792	MG/KG	2053		2307		1		75	20	P
Boron		8.9743		217.7917		208.0123		231.6021	222.7792	MG/KG	90		89		5		84 - 115	20	P
Calcium		6714.9053		7224.1851		7027.1378		463.2042	445.5583	MG/KG	110		70		3		75	20	P
Iron		31537.5497		36275.8265		31894.3860		115.8011	111.3896	MG/KG	4092		320		13		↓	20	P
Lithium		24.2047		136.8398		132.1604		115.8011	111.3896	MG/KG	97		97		3		82 - 114	20	P
Magnesium		6983.7918		7600.7573		7541.1016		231.6021	222.7792	MG/KG	266		250		1		75	20	P
Manganese		409.8140		478.4193		443.5233		57.9005	55.6948	MG/KG	118		61		8		↓	20	P
Phosphorus		276.2947		378.7297		369.0693		115.8011	111.3896	MG/KG	88		83		3		75 - 125	20	P
Potassium		3855.1216		5189.3695		5359.7371		1158.0105	1113.8958	MG/KG	115		135	N	3		75 - 125	20	P
Sodium		268.5696		1370.1002		1313.8791		1158.0105	1113.8958	MG/KG	95		94		4		75 - 125	20	P
Strontium		30.6269		141.1430		136.1181		115.8011	111.3896	MG/KG	95		95		4		75 - 115	20	P
Tin		2.5977	B	385.9279		368.0991		463.2042	445.5583	MG/KG	83		82		5		80 - 110	20	P
Zirconium		2.0550	B	107.3221		103.0610		115.8011	111.3896	MG/KG	91		91		4		75 - 125	20	P

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 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE144
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6278711BKG Matrix Spike Lab Sample ID: 6278711MS Matrix Spike Duplicate Lab Sample ID: 6278711MSD
% Solids for Sample: 87.3
Batch Id(s): P12926A

SL-056-SA84-SB-40-50

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
Antimony	121	0.4386		0.7436		0.4683		1.3345	1.3217	MG/KG	23	N	2	N	45	*	75 - 125	20	MS
Arsenic	75	10.5868		9.1416		9.8489		2.2242	2.2028	MG/KG	-65		-33		7		No fail 7	20	MS
Barium	137	141.6204		169.6193		176.6896		11.1211	11.0142	MG/KG	252		318		4		↓	20	MS
Beryllium	9	1.0682		2.0703		2.0605		0.8897	0.8811	MG/KG	113		113		0		75 - 125	20	MS
Cadmium	111	0.4923		1.8837		1.9440		1.1121	1.1014	MG/KG	125		132	N	3		75 - 125	20	MS
Chromium	52	26.2578		43.4613		44.9379		11.1211	11.0142	MG/KG	155	N	170	N	3		75 - 125	20	MS
Cobalt	59	12.7434		86.9004		92.2328		55.6056	55.0709	MG/KG	133	N	144	N	6		75 - 125	20	MS
Copper	63	17.5104		32.7628		34.9150		11.1211	11.0142	MG/KG	137	N	158	N	6		75 - 125	20	MS
Lead	208	18.4686		14.5353		15.2569		3.3363	3.3043	MG/KG	-118		-97		5		No fail 7	20	MS
Molybdenum	98	1.3924		13.7168		14.3096		11.1211	11.0142	MG/KG	111		117		4		75 - 125	20	MS
Nickel	60	23.6585		35.6098		38.3514		11.1211	11.0142	MG/KG	107		133	N	7		75 - 125	20	MS
Selenium	78	0.2879	B	2.8359		2.7866		2.2242	2.2028	MG/KG	115		113		2		75 - 125	20	MS
Silver	107	0.0402	B	14.3863		14.5343		11.1211	11.0142	MG/KG	129	N	132	N	1		75 - 125	20	MS
Thallium	203	0.2965		1.0647		0.9970		0.4448	0.4406	MG/KG	173	N	159	N	7		75 - 125	20	MS
Vanadium	51	70.6450		71.1084		76.7028		11.1211	11.0142	MG/KG	4		55		8		No fail 7	20	MS
Zinc	66	67.9135		72.5987		81.9235		11.1211	11.0142	MG/KG	42		127		12		↓	20	MS

Sb: post spk 119%

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 6
DUPLICATES
SDG No.: DE143
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6277627BKG
% Solids for Duplicate: 85.5
Batch ID(s): P12908A
Concentration Units: MG/KG

Duplicate Lab Sample ID: 6277627DUP
% Solids for Sample: 85.5

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			27836.4199		26717.1076		4		P
Boron		5.8	8.9743		8.3006		8		P
Calcium			6714.9053		6504.2175		3		P
Iron			31537.5497		32314.6842		2		P
Lithium			24.2047		23.4538		3		P
Magnesium			6983.7918		6840.9450		2		P
Manganese			409.8140		416.1918		2		P
Phosphorus			276.2947		258.1626		7		P
Potassium			3855.1216		3659.3673		5		P
Sodium		117.0	268.5696		272.9392		2		P
Strontium			30.6269		29.5544		4		P
Tin			2.5977	B	2.7123	B	4		P
Zirconium			2.0550	B	2.8608	B	33		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.

DE143 3694

METHODS:	CONCENTRATION QUALIFIERS:
P = ICP Atomic Emission Spectrometer	U= Below MDL
MS = ICP Mass Spectrometry	B= Below LOQ
CV = Cold Vapor	FLAGS:
AF = Cold Vapor Atomic Fluorescence	* = Duplicate Out of Spec

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 6
DUPLICATES
SDG No.: DE144
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6278711BKG
% Solids for Duplicate: 87.3
Batch ID(s): P12926A
Concentration Units: MG/KG

Duplicate Lab Sample ID: 6278711DUP
% Solids for Sample: 87.3

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Antimony	121	0.2	0.4386		0.1121	B	119	*	MS
Arsenic	75		10.5868		4.4907		81	*	MS
Barium	137		141.6204		110.6329		25	*	MS
Beryllium	9		1.0682		0.6646		47	*	MS
Cadmium	111	0.1	0.4923		0.2674		59	*	MS
Chromium	52		26.2578		20.6831		24	*	MS
Cobalt	59		12.7434		8.8035		37	*	MS
Copper	63		17.5104		12.8783		30	*	MS
Lead	208		18.4686		6.8929		91	*	MS
Molybdenum	98	0.1	1.3924		0.5432		88	*	MS
Nickel	60		23.6585		14.9690		45	*	MS
Selenium	78		0.2879	B	0.2278	B	23		MS
Silver	107		0.0402	B	0.0284	B	34		MS
Thallium	203	0.1	0.2965		0.2747		8		MS
Vanadium	51		70.6450		38.5013		59	*	MS
Zinc	66		67.9135		46.8422		37	*	MS

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.

DE144 3144

METHODS:	CONCENTRATION QUALIFIERS:
P = ICP Atomic Emission Spectrometer	U= Below MDL
MS = ICP Mass Spectrometry	B= Below LOQ
CV = Cold Vapor	FLAGS:
AF = Cold Vapor Atomic Fluorescence	* = Duplicate Out of Spec

SAMPLE DELIVERY GROUP

DE144

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-May-2011	TB-050511	6278716	TB	5030B	8015M	III
05-May-2011	TB-050511	6278716	TB	5030B	8260B	III
05-May-2011	TB-050511	6278716	TB	5030B	8260B SIM	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	3050B	6010B	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	3050B	6020	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	3060A	7199	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	3546	1625C	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	3550B	8015B	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	3550B	8015M	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	3550B	8082	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	3550B	8270C	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	3550B	8270C SIM	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	5035	8015M	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	5035	8260B	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	5035	8260B SIM	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	8330	8330A	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	METHOD	300.0	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	METHOD	314.0	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	METHOD	7471A	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	METHOD	8015B	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	METHOD	8015M	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	METHOD	8315A	III
05-May-2011	SL-057-SA8N-SB-4.0-5.0	6278713	N	METHOD	9012B	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	3050B	6010B	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	3050B	6020	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	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
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	3546	1625C	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	3550B	8015B	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	3550B	8015M	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	3550B	8082	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	3550B	8270C	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	3550B	8270C SIM	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	5035	8015M	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	5035	8260B	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	5035	8260B SIM	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	8330	8330A	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	METHOD	300.0	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	METHOD	314.0	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	METHOD	6850	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	METHOD	7471A	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	METHOD	8015B	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	METHOD	8015M	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	METHOD	8315A	III
05-May-2011	SL-057-SA8N-SB-7.0-8.0	6278714	N	METHOD	9012B	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	3050B	6010B	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	3050B	6020	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	3060A	7199	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	3546	1625C	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	3550B	8015B	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	3550B	8015M	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	3550B	8082	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	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
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	3550B	8270C SIM	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	5035	8015M	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	5035	8260B	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	5035	8260B SIM	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	8330	8330A	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	METHOD	300.0	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	METHOD	314.0	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	METHOD	6850	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	METHOD	7471A	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	METHOD	8015B	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	METHOD	8015M	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	METHOD	8315A	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0	6278711	N	METHOD	9012B	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0DUP	P278711D220818A	DUP	3050B	6020	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0DUP	P278711D221135B	DUP	3050B	6020	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0DUP	P278711D221135C	DUP	3050B	6020	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0DUP	P278711D221135D	DUP	3050B	6020	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0DUP	P278711D272245A	DUP	METHOD	300.0	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0MSD	P278711M220839A	MSD	3050B	6020	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0MSD	P278711M221142B	MSD	3050B	6020	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0MSD	P278711M221142C	MSD	3050B	6020	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0MSD	P278711M221142D	MSD	3050B	6020	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0MSD	P278711M260051	MSD	3550B	8270C	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0MSD	P278711M261129	MSD	3550B	8270C SIM	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0MSD	P278711M261837	MSD	3546	1625C	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0MS	P278711R221139A	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
05-May-2011	SL-056-SA8N-SB-4.0-5.0MS	P278711R221139B	MS	3050B	6020	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0MS	P278711R221139C	MS	3050B	6020	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0MS	P278711R221139D	MS	3050B	6020	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0MS	P278711R260026	MS	3550B	8270C	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0MS	P278711R261056	MS	3550B	8270C SIM	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0MS	P278711R261820	MS	3546	1625C	III
05-May-2011	SL-056-SA8N-SB-4.0-5.0MS	P278711R272301A	MS	METHOD	300.0	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	3050B	6010B	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	3050B	6020	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	3060A	7199	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	3546	1625C	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	3550B	8015B	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	3550B	8015M	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	3550B	8082	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	3550B	8270C	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	3550B	8270C SIM	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	5035	8015M	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	5035	8260B	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	5035	8260B SIM	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	8330	8330A	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	METHOD	300.0	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	METHOD	314.0	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	METHOD	7471A	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	METHOD	8015B	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	METHOD	8015M	III
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	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
05-May-2011	SL-056-SA8N-SB-7.0-8.0	6278712	N	METHOD	9012B	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	3050B	6010B	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	3050B	6020	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	3060A	7199	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	3546	1625C	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	3550B	8015B	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	3550B	8015M	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	3550B	8082	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	3550B	8270C	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	3550B	8270C SIM	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	5035	8015M	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	5035	8260B	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	5035	8260B SIM	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	8330	8330A	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	METHOD	300.0	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	METHOD	314.0	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	METHOD	7471A	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	METHOD	8015B	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	METHOD	8015M	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	N	METHOD	8315A	III
05-May-2011	SL-062-SA8N-SB-4.0-5.0	6278715	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: DE144 **Laboratory:** LL

EDD Filename: DE144_v1. **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-056-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 9:35:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.5		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-056-SA8N-SB-7.0-8.0 *Collected:* 5/5/2011 9:45:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-057-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 8:50:00 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		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-057-SA8N-SB-7.0-8.0 *Collected:* 5/5/2011 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	1.7		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-062-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 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
FLUORIDE	1.7		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-056-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 9:35:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	401		0.0893	MDL	0.573	PQL	mg/Kg	J	E
POTASSIUM	3510		20.6	MDL	57.3	PQL	mg/Kg	J	E
TIN	2.31	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	2.00	J	0.962	MDL	5.73	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: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6010B** ***Matrix:*** **SO**

Sample ID: SL-056-SA8N-SB-7.0-8.0 ***Collected:*** 5/5/2011 9:45:00 AM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.34	J	0.938	MDL	5.27	PQL	mg/Kg	J	Z
MANGANESE	267		0.0822	MDL	0.527	PQL	mg/Kg	J	E
POTASSIUM	1600		19.0	MDL	52.7	PQL	mg/Kg	J	E
TIN	2.64	J	1.05	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	1.82	J	0.886	MDL	5.27	PQL	mg/Kg	J	Z

Sample ID: SL-057-SA8N-SB-4.0-5.0 ***Collected:*** 5/5/2011 8:50:00 AM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	320		0.0868	MDL	0.556	PQL	mg/Kg	J	E
POTASSIUM	5480		20.0	MDL	55.6	PQL	mg/Kg	J	E
TIN	2.20	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.35	J	0.935	MDL	5.56	PQL	mg/Kg	J	Z

Sample ID: SL-057-SA8N-SB-7.0-8.0 ***Collected:*** 5/5/2011 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
MANGANESE	311		0.0858	MDL	0.550	PQL	mg/Kg	J	E
POTASSIUM	4090		19.8	MDL	55.0	PQL	mg/Kg	J	E
TIN	2.01	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.77	J	0.924	MDL	5.50	PQL	mg/Kg	J	Z

Sample ID: SL-062-SA8N-SB-4.0-5.0 ***Collected:*** 5/5/2011 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
MANGANESE	319		0.0860	MDL	0.551	PQL	mg/Kg	J	E
POTASSIUM	4200		19.8	MDL	55.1	PQL	mg/Kg	J	E
TIN	2.06	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.75	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: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-056-SA8N-SB-4.0-5.0 ***Collected:*** 5/5/2011 9:35:00 AM ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.439		0.0661	MDL	0.220	PQL	mg/Kg	J	E, Q
THALLIUM	0.297		0.0330	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: SL-056-SA8N-SB-4.0-5.0 ***Collected:*** 5/5/2011 9:35:00 AM ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.288	J	0.0441	MDL	0.441	PQL	mg/Kg	J	Z

Sample ID: SL-056-SA8N-SB-4.0-5.0 ***Collected:*** 5/5/2011 9:35:00 AM ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.39		0.0551	MDL	0.110	PQL	mg/Kg	J	E

Sample ID: SL-056-SA8N-SB-4.0-5.0 ***Collected:*** 5/5/2011 9:35:00 AM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	142		0.119	MDL	0.441	PQL	mg/Kg	J	E

Sample ID: SL-056-SA8N-SB-4.0-5.0 ***Collected:*** 5/5/2011 9:35:00 AM ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	10.6		0.0881	MDL	0.441	PQL	mg/Kg	J	E
BERYLLIUM	1.07		0.0176	MDL	0.110	PQL	mg/Kg	J	E
CADMIUM	0.492		0.0441	MDL	0.110	PQL	mg/Kg	J	Q
CHROMIUM	26.3		0.132	MDL	0.441	PQL	mg/Kg	J	Q, E
COBALT	12.7		0.0220	MDL	0.110	PQL	mg/Kg	J	Q, E
COPPER	17.5		0.0727	MDL	0.441	PQL	mg/Kg	J	Q, E
LEAD	18.5		0.0115	MDL	0.220	PQL	mg/Kg	J	E
NICKEL	23.7		0.110	MDL	0.441	PQL	mg/Kg	J	Q, E
SILVER	0.0402	J	0.0132	MDL	0.110	PQL	mg/Kg	J	Z, Q
VANADIUM	70.6		0.0242	MDL	0.110	PQL	mg/Kg	J	E
ZINC	67.9		0.617	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: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-056-SA8N-SB-7.0-8.0 ***Collected:*** 5/5/2011 9:45:00 AM ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0679	J	0.0422	MDL	0.422	PQL	mg/Kg	J	Z

Sample ID: SL-056-SA8N-SB-7.0-8.0 ***Collected:*** 5/5/2011 9:45:00 AM ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.294		0.0527	MDL	0.105	PQL	mg/Kg	J	E

Sample ID: SL-056-SA8N-SB-7.0-8.0 ***Collected:*** 5/5/2011 9:45:00 AM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	95.7		0.114	MDL	0.422	PQL	mg/Kg	J	E

Sample ID: SL-056-SA8N-SB-7.0-8.0 ***Collected:*** 5/5/2011 9:45:00 AM ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0633	U	0.0633	MDL	0.211	PQL	mg/Kg	UJ	E, Q
ARSENIC	5.39		0.0843	MDL	0.422	PQL	mg/Kg	J	E
BERYLLIUM	0.511		0.0169	MDL	0.105	PQL	mg/Kg	J	E
CADMIUM	0.0512	J	0.0422	MDL	0.105	PQL	mg/Kg	J	Z, Q
CHROMIUM	18.7		0.127	MDL	0.422	PQL	mg/Kg	J	Q, E
COBALT	6.42		0.0211	MDL	0.105	PQL	mg/Kg	J	Q, E
LEAD	3.95		0.0110	MDL	0.211	PQL	mg/Kg	J	E
NICKEL	16.4		0.105	MDL	0.422	PQL	mg/Kg	J	Q, E
SILVER	0.0137	J	0.0127	MDL	0.105	PQL	mg/Kg	J	Z, Q
THALLIUM	0.370		0.0316	MDL	0.105	PQL	mg/Kg	J	Q
VANADIUM	40.3		0.0232	MDL	0.105	PQL	mg/Kg	J	E
ZINC	64.2		0.590	MDL	3.16	PQL	mg/Kg	J	E

Sample ID: SL-057-SA8N-SB-4.0-5.0 ***Collected:*** 5/5/2011 8:50:00 AM ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.284		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: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-057-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 8:50:00 AM *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.292	J	0.0449	MDL	0.449	PQL	mg/Kg	J	Z

Sample ID: SL-057-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 8:50:00 AM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.399		0.0562	MDL	0.112	PQL	mg/Kg	J	E

Sample ID: SL-057-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 8:50:00 AM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	128		0.121	MDL	0.449	PQL	mg/Kg	J	E

Sample ID: SL-057-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 8:50:00 AM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0992	J	0.0674	MDL	0.225	PQL	mg/Kg	J	Z, E, Q
ARSENIC	6.43		0.0899	MDL	0.449	PQL	mg/Kg	J	E
BERYLLIUM	0.806		0.0180	MDL	0.112	PQL	mg/Kg	J	E
CHROMIUM	34.1		0.135	MDL	0.449	PQL	mg/Kg	J	Q, E
COBALT	12.0		0.0225	MDL	0.112	PQL	mg/Kg	J	Q, E
COPPER	18.8		0.0742	MDL	0.449	PQL	mg/Kg	J	Q, E
LEAD	10.4		0.0117	MDL	0.225	PQL	mg/Kg	J	E
NICKEL	23.4		0.112	MDL	0.449	PQL	mg/Kg	J	Q, E
SILVER	0.0267	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z, Q
THALLIUM	0.397		0.0337	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	68.8		0.0247	MDL	0.112	PQL	mg/Kg	J	E
ZINC	74.2		0.629	MDL	3.37	PQL	mg/Kg	J	E

Sample ID: SL-057-SA8N-SB-7.0-8.0 *Collected:* 5/5/2011 9:00:00 AM *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.277	J	0.0431	MDL	0.431	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6020** ***Matrix:*** **SO**

Sample ID: SL-057-SA8N-SB-7.0-8.0 ***Collected:*** 5/5/2011 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
MOLYBDENUM	0.258		0.0539	MDL	0.108	PQL	mg/Kg	J	E

Sample ID: SL-057-SA8N-SB-7.0-8.0 ***Collected:*** 5/5/2011 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
BARIUM	112		0.116	MDL	0.431	PQL	mg/Kg	J	E

Sample ID: SL-057-SA8N-SB-7.0-8.0 ***Collected:*** 5/5/2011 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	0.116	J	0.0647	MDL	0.216	PQL	mg/Kg	J	Z, E, Q
ARSENIC	6.17		0.0863	MDL	0.431	PQL	mg/Kg	J	E
BERYLLIUM	0.748		0.0173	MDL	0.108	PQL	mg/Kg	J	E
CADMIUM	0.487		0.0431	MDL	0.108	PQL	mg/Kg	J	Q
CHROMIUM	28.6		0.129	MDL	0.431	PQL	mg/Kg	J	Q, E
COBALT	11.1		0.0216	MDL	0.108	PQL	mg/Kg	J	Q, E
COPPER	18.1		0.0712	MDL	0.431	PQL	mg/Kg	J	Q, E
LEAD	9.47		0.0112	MDL	0.216	PQL	mg/Kg	J	E
NICKEL	22.4		0.108	MDL	0.431	PQL	mg/Kg	J	Q, E
SILVER	0.0247	J	0.0129	MDL	0.108	PQL	mg/Kg	J	Z, Q
THALLIUM	0.338		0.0324	MDL	0.108	PQL	mg/Kg	J	Q
VANADIUM	61.3		0.0237	MDL	0.108	PQL	mg/Kg	J	E
ZINC	68.2		0.604	MDL	3.24	PQL	mg/Kg	J	E

Sample ID: SL-062-SA8N-SB-4.0-5.0 ***Collected:*** 5/5/2011 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
SELENIUM	0.325	J	0.0441	MDL	0.441	PQL	mg/Kg	J	Z

Sample ID: SL-062-SA8N-SB-4.0-5.0 ***Collected:*** 5/5/2011 11:55:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.244		0.0551	MDL	0.110	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: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-062-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 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
BARIUM	131		0.119	MDL	0.441	PQL	mg/Kg	J	E

Sample ID: SL-062-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 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	0.0661	U	0.0661	MDL	0.220	PQL	mg/Kg	UJ	E, Q
ARSENIC	7.39		0.0882	MDL	0.441	PQL	mg/Kg	J	E
BERYLLIUM	0.872		0.0176	MDL	0.110	PQL	mg/Kg	J	E
CADMIUM	0.460		0.0441	MDL	0.110	PQL	mg/Kg	J	Q
CHROMIUM	36.8		0.132	MDL	0.441	PQL	mg/Kg	J	Q, E
COBALT	13.6		0.0220	MDL	0.110	PQL	mg/Kg	J	Q, E
COPPER	22.1		0.0728	MDL	0.441	PQL	mg/Kg	J	Q, E
LEAD	11.5		0.0115	MDL	0.220	PQL	mg/Kg	J	E
NICKEL	26.6		0.110	MDL	0.441	PQL	mg/Kg	J	Q, E
THALLIUM	0.370		0.0331	MDL	0.110	PQL	mg/Kg	J	Q
VANADIUM	75.8		0.0243	MDL	0.110	PQL	mg/Kg	J	E
ZINC	85.4		0.617	MDL	3.31	PQL	mg/Kg	J	E

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-057-SA8N-SB-7.0-8.0 *Collected:* 5/5/2011 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	0.35	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-057-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 8:50:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0310	J	0.0032	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: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-056-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 9:35:00 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	18.8	U	18.8	MDL	37.7	PQL	ng/Kg	UJ	Q

Sample ID: SL-057-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 8:50:00 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	25.2	J	19.2	MDL	38.5	PQL	ng/Kg	J	Z, S

Sample ID: SL-057-SA8N-SB-7.0-8.0 *Collected:* 5/5/2011 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
N-NITROSODIMETHYLAMINE	24.5	J	18.2	MDL	36.4	PQL	ng/Kg	J	Z

Sample ID: SL-062-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 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
N-NITROSODIMETHYLAMINE	19.7	J	19.3	MDL	38.6	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-056-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 9:35:00 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)	0.79	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-056-SA8N-SB-7.0-8.0 *Collected:* 5/5/2011 9:45:00 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)	0.82	J	0.43	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-057-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 8:50:00 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)	1.0	J	0.46	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: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-062-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 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)	1.0	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-057-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 8:50:00 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	0.93	J	0.38	MDL	2.0	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-056-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 9:35:00 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	1300	U	1300	MDL	3800	PQL	ug/Kg	UJ	Q
BIS(2-ETHYLHEXYL)PHTHALATE	32	J	19	MDL	380	PQL	ug/Kg	U	B

Sample ID: SL-056-SA8N-SB-7.0-8.0 *Collected:* 5/5/2011 9:45:00 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	31	J	18	MDL	360	PQL	ug/Kg	U	B

Sample ID: SL-057-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 8:50:00 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	25	J	19	MDL	380	PQL	ug/Kg	U	B

Sample ID: SL-057-SA8N-SB-7.0-8.0 *Collected:* 5/5/2011 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	23	J	18	MDL	360	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: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-056-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 9:35:00 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	0.95	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-057-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 8:50:00 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	0.90	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	0.90	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-057-SA8N-SB-7.0-8.0 *Collected:* 5/5/2011 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
1-METHYLNAPHTHALENE	1.0	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.96	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-062-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 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
BENZO(B)FLUORANTHENE	0.88	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-056-SA8N-SB-7.0-8.0 *Collected:* 5/5/2011 9:45:00 AM *Analysis Type:* RES *Dilution:* 0.98

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOLUENE	0.1	J	0.08	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: SL-057-SA8N-SB-4.0-5.0 *Collected:* 5/5/2011 8:50:00 AM *Analysis Type:* RES *Dilution:* 0.87

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	7.5	J	6.8	MDL	8.1	PQL	ug/Kg	J	Z
TOLUENE	0.1	J	0.08	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: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: **VOA**

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

Sample ID: **SL-057-SA8N-SB-7.0-8.0** ***Collected:*** **5/5/2011 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*
ACETONE	8.0	J	7.3	MDL	8.8	PQL	ug/Kg	J	Z
TOLUENE	0.17	J	0.09	MDL	4.4	PQL	ug/Kg	U	B

Sample ID: **SL-062-SA8N-SB-4.0-5.0** ***Collected:*** **5/5/2011 11:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **0.91**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
TOLUENE	0.08	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: DE144 **Laboratory: LL**

EDD Filename: DE144_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
	Sampling to Leaching Estimation
	Sampling to Leaching Rejection
*#	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	Continuing Calibration Verification Percent Recovery Lower Estimation
C	Continuing Calibration Verification Percent Recovery Lower Rejection
C	Continuing Calibration Verification Percent Recovery Upper Estimation
C	Continuing Calibration Verification Percent Recovery Upper Rejection
C	Continuing Calibration Verification Relative Response Factor
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Relative Response Factor
C	Initial Calibration Verification Correlation Coefficient

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

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 Lower Estimation
C	Initial Calibration Verification Percent Recovery Lower Rejection
C	Initial Calibration Verification Percent Recovery Upper Estimation
C	Initial Calibration Verification Percent Recovery Upper Rejection
C	Initial Calibration Verification Relative Response Factor
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Laboratory Triplicate Precision
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

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

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	Laboratory Triplicate 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
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

DE144

Method Blank Outlier Report

Lab Reporting Batch ID: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P12908AB220953	5/10/2011 9:53:00 AM	ALUMINUM	12.4 mg/Kg	SL-056-SA8N-SB-4.0-5.0
		CALCIUM	17.6 mg/Kg	SL-056-SA8N-SB-7.0-8.0
		MAGNESIUM	3.88 mg/Kg	SL-057-SA8N-SB-4.0-5.0
		PHOSPHORUS	2.28 mg/Kg	SL-057-SA8N-SB-7.0-8.0
		TIN	1.46 mg/Kg	SL-062-SA8N-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-056-SA8N-SB-4.0-5.0(RES)	TIN	2.31 mg/Kg	2.31U mg/Kg
SL-056-SA8N-SB-7.0-8.0(RES)	TIN	2.64 mg/Kg	2.64U mg/Kg
SL-057-SA8N-SB-4.0-5.0(RES)	TIN	2.20 mg/Kg	2.20U mg/Kg
SL-057-SA8N-SB-7.0-8.0(RES)	TIN	2.01 mg/Kg	2.01U mg/Kg
SL-062-SA8N-SB-4.0-5.0(RES)	TIN	2.06 mg/Kg	2.06U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P12926AB220810A	5/13/2011 8:10:00 AM	COPPER	0.503 mg/Kg	SL-056-SA8N-SB-4.0-5.0 SL-056-SA8N-SB-7.0-8.0 SL-057-SA8N-SB-4.0-5.0 SL-057-SA8N-SB-7.0-8.0 SL-062-SA8N-SB-4.0-5.0
P12926AB221123A	5/11/2011 11:23:00 AM	VANADIUM	0.0744 mg/Kg	SL-056-SA8N-SB-4.0-5.0
		ZINC	0.738 mg/Kg	SL-056-SA8N-SB-7.0-8.0 SL-057-SA8N-SB-4.0-5.0 SL-057-SA8N-SB-7.0-8.0 SL-062-SA8N-SB-4.0-5.0
P13726AB220859A	5/18/2011 8:59:00 AM	COPPER	0.0827 mg/Kg	SL-056-SA8N-SB-7.0-8.0

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB51B210326A	5/11/2011 3:26:00 AM	METHYLENE CHLORIDE	0.92 ug/Kg	SL-056-SA8N-SB-4.0-5.0
		TOLUENE	0.09 ug/Kg	SL-056-SA8N-SB-7.0-8.0 SL-057-SA8N-SB-4.0-5.0 SL-057-SA8N-SB-7.0-8.0 SL-062-SA8N-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-056-SA8N-SB-7.0-8.0(RES)	TOLUENE	0.1 ug/Kg	4.2U ug/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE144 **Laboratory: LL**

EDD Filename: DE144_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-057-SA8N-SB-4.0-5.0(RES)	TOLUENE	0.1 ug/Kg	4.0U ug/Kg
SL-057-SA8N-SB-7.0-8.0(RES)	TOLUENE	0.17 ug/Kg	4.4U ug/Kg
SL-062-SA8N-SB-4.0-5.0(RES)	TOLUENE	0.08 ug/Kg	4.2U ug/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLA12B262311	5/10/2011 11:11:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	17 ug/Kg	SL-056-SA8N-SB-4.0-5.0 SL-056-SA8N-SB-7.0-8.0 SL-057-SA8N-SB-4.0-5.0 SL-057-SA8N-SB-7.0-8.0 SL-062-SA8N-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-056-SA8N-SB-4.0-5.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	32 ug/Kg	380U ug/Kg
SL-056-SA8N-SB-7.0-8.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	31 ug/Kg	360U ug/Kg
SL-057-SA8N-SB-4.0-5.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	25 ug/Kg	380U ug/Kg
SL-057-SA8N-SB-7.0-8.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	23 ug/Kg	360U ug/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLB12B260748	5/18/2011 7:48:00 AM	ANTHRACENE CHRYSENE Di-n-octylphthalate PHENANTHRENE	0.72 ug/Kg 0.37 ug/Kg 34 ug/Kg 0.83 ug/Kg	SL-056-SA8N-SB-4.0-5.0 SL-056-SA8N-SB-7.0-8.0 SL-057-SA8N-SB-4.0-5.0 SL-057-SA8N-SB-7.0-8.0 SL-062-SA8N-SB-4.0-5.0

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE144 **Laboratory: LL**

EDD Filename: DE144_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-056-SA8N-SB-4.0-5.0MS SL-056-SA8N-SB-4.0-5.0MSD (SL-056-SA8N-SB-4.0-5.0)	BENZIDINE	29	34	35.00-141.00	-	BENZIDINE	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-056-SA8N-SB-4.0-5.0MS SL-056-SA8N-SB-4.0-5.0MSD (SL-056-SA8N-SB-4.0-5.0)	N-NITROSODIMETHYLAMINE	45	55	70.00-130.00	-	N-NITROSODIMETHYLAMINE	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-056-SA8N-SB-4.0-5.0MS SL-056-SA8N-SB-4.0-5.0MSD (SL-056-SA8N-SB-4.0-5.0 SL-056-SA8N-SB-7.0-8.0 SL-057-SA8N-SB-4.0-5.0 SL-057-SA8N-SB-7.0-8.0 SL-062-SA8N-SB-4.0-5.0)	CADMIUM CHROMIUM COBALT COPPER NICKEL SILVER THALLIUM	- 155 133 137 - 129 173	132 170 144 158 133 132 159	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	- - - - - - -	CADMIUM CHROMIUM COBALT COPPER NICKEL SILVER THALLIUM	J(all detects)
SL-056-SA8N-SB-4.0-5.0MS SL-056-SA8N-SB-4.0-5.0MSD (SL-056-SA8N-SB-4.0-5.0 SL-056-SA8N-SB-7.0-8.0 SL-057-SA8N-SB-4.0-5.0 SL-057-SA8N-SB-7.0-8.0 SL-062-SA8N-SB-4.0-5.0)	ANTIMONY ARSENIC LEAD VANADIUM	23 -65 -118 4	2 -34 -97 55	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	45 (20.00) - - -	ANTIMONY ARSENIC LEAD VANADIUM	J(all detects) UJ(all non-detects) Sb Post Spike=119% As, Pb, V No Qual, >4x
SL-056-SA8N-SB-4.0-5.0MS SL-056-SA8N-SB-4.0-5.0MSD (SL-056-SA8N-SB-4.0-5.0 SL-056-SA8N-SB-7.0-8.0 SL-057-SA8N-SB-4.0-5.0 SL-057-SA8N-SB-7.0-8.0 SL-062-SA8N-SB-4.0-5.0)	ZINC	42	127	75.00-125.00	-	ZINC	No Qual, >4x
SL-056-SA8N-SB-4.0-5.0MS SL-056-SA8N-SB-4.0-5.0MSD (SL-056-SA8N-SB-4.0-5.0 SL-056-SA8N-SB-7.0-8.0 SL-057-SA8N-SB-4.0-5.0 SL-057-SA8N-SB-7.0-8.0 SL-062-SA8N-SB-4.0-5.0)	BARIUM	252	318	75.00-125.00	-	BARIUM	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE144 **Laboratory: LL**

EDD Filename: DE144_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-056-SA8N-SB-4.0-5.0MS (SL-056-SA8N-SB-4.0-5.0 SL -056-SA8N-SB-7.0-8.0 SL -057-SA8N-SB-4.0-5.0 SL -057-SA8N-SB-7.0-8.0 SL -062-SA8N-SB-4.0-5.0)	FLUORIDE	44	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-056-SA8N-SB-4.0-5.0DUP (SL-056-SA8N-SB-4.0-5.0 SL -056-SA8N-SB-7.0-8.0 SL -057-SA8N-SB-4.0-5.0 SL -057-SA8N-SB-7.0-8.0 SL -062-SA8N-SB-4.0-5.0)	FLUORIDE	45	20.00	
	Nitrate-NO3	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-056-SA8N-SB-4.0-5.0DUP (SL-056-SA8N-SB-4.0-5.0 SL -056-SA8N-SB-7.0-8.0 SL -057-SA8N-SB-4.0-5.0 SL -057-SA8N-SB-7.0-8.0 SL -062-SA8N-SB-4.0-5.0)	ANTIMONY	119	20.00	
	ARSENIC	81	20.00	
	BARIUM	25	20.00	
	BERYLLIUM	47	20.00	
	CADMIUM	59	20.00	
	CHROMIUM	24	20.00	
	COBALT	37	20.00	J(all detects) UJ(all non-detects)
	COPPER	30	20.00	
	LEAD	91	20.00	
	MOLYBDENUM	0.8492	0.22 mg/Kg	Sb, Cd, Se, Ag, Tl No Qual, OK by difference
	NICKEL	45	20.00	
	SELENIUM	23	20.00	
	SILVER	34	20.00	
	VANADIUM	59	20.00	
	ZINC	37	20.00	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE144 **Laboratory: LL**

EDD Filename: DE144_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
P12926AQ221126A (SL-056-SA8N-SB-4.0-5.0 SL -056-SA8N-SB-7.0-8.0 SL -057-SA8N-SB-4.0-5.0 SL -057-SA8N-SB-7.0-8.0 SL -062-SA8N-SB-4.0-5.0)	ANTIMONY	64	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC limits

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSB51Q210349A LCSB51Y210413A (SL-056-SA8N-SB-4.0-5.0 SL -056-SA8N-SB-7.0-8.0 SL -057-SA8N-SB-4.0-5.0 SL -057-SA8N-SB-7.0-8.0 SL -062-SA8N-SB-4.0-5.0)	BROMOCHLOROMETHANE	128	128	79.00-124.00	-	BROMOCHLOROMETHANE	J(all detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **1625C**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-057-SA8N-SB-4.0-5.0	N-Nitrosodimethylamine-d6	151	50.00-150.00	All Target Analytes	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-057-SA8N-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	25.2	38.5	PQL	ng/Kg	J (all detects)
SL-057-SA8N-SB-7.0-8.0	N-NITROSODIMETHYLAMINE	J	24.5	36.4	PQL	ng/Kg	J (all detects)
SL-062-SA8N-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	19.7	38.6	PQL	ng/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-056-SA8N-SB-4.0-5.0	TIN	J	2.31	11.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.00	5.73	PQL	mg/Kg	
SL-056-SA8N-SB-7.0-8.0	BORON	J	3.34	5.27	PQL	mg/Kg	J (all detects)
	TIN	J	2.64	10.5	PQL	mg/Kg	
	Zirconium	J	1.82	5.27	PQL	mg/Kg	
SL-057-SA8N-SB-4.0-5.0	TIN	J	2.20	11.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.35	5.56	PQL	mg/Kg	
SL-057-SA8N-SB-7.0-8.0	TIN	J	2.01	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.77	5.50	PQL	mg/Kg	
SL-062-SA8N-SB-4.0-5.0	TIN	J	2.06	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.75	5.51	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-056-SA8N-SB-4.0-5.0	SELENIUM	J	0.288	0.441	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0402	0.110	PQL	mg/Kg	
SL-056-SA8N-SB-7.0-8.0	CADMIUM	J	0.0512	0.105	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0679	0.422	PQL	mg/Kg	
	SILVER	J	0.0137	0.105	PQL	mg/Kg	
SL-057-SA8N-SB-4.0-5.0	ANTIMONY	J	0.0992	0.225	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.292	0.449	PQL	mg/Kg	
	SILVER	J	0.0267	0.112	PQL	mg/Kg	
SL-057-SA8N-SB-7.0-8.0	ANTIMONY	J	0.116	0.216	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.277	0.431	PQL	mg/Kg	
	SILVER	J	0.0247	0.108	PQL	mg/Kg	
SL-062-SA8N-SB-4.0-5.0	SELENIUM	J	0.325	0.441	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-057-SA8N-SB-7.0-8.0	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-057-SA8N-SB-4.0-5.0	MERCURY	J	0.0310	0.112	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-056-SA8N-SB-4.0-5.0	EFH (C15-C20)	J	0.79	1.4	PQL	mg/Kg	J (all detects)
SL-056-SA8N-SB-7.0-8.0	EFH (C30-C40)	J	0.82	1.3	PQL	mg/Kg	J (all detects)
SL-057-SA8N-SB-4.0-5.0	EFH (C21-C30)	J	1.0	1.4	PQL	mg/Kg	J (all detects)
SL-062-SA8N-SB-4.0-5.0	EFH (C21-C30)	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-057-SA8N-SB-4.0-5.0	AROCLOR 1254	J	0.93	2.0	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-056-SA8N-SB-7.0-8.0	TOLUENE	J	0.1	4.2	PQL	ug/Kg	J (all detects)
SL-057-SA8N-SB-4.0-5.0	ACETONE TOLUENE	J J	7.5 0.1	8.1 4.0	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-057-SA8N-SB-7.0-8.0	ACETONE TOLUENE	J J	8.0 0.17	8.8 4.4	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-062-SA8N-SB-4.0-5.0	TOLUENE	J	0.08	4.2	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE144 **Laboratory: LL**

EDD Filename: DE144_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-056-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	32	380	PQL	ug/Kg	J (all detects)
SL-056-SA8N-SB-7.0-8.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	31	360	PQL	ug/Kg	J (all detects)
SL-057-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	380	PQL	ug/Kg	J (all detects)
SL-057-SA8N-SB-7.0-8.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	23	360	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-056-SA8N-SB-4.0-5.0	BENZO(B)FLUORANTHENE	J	0.95	1.9	PQL	ug/Kg	J (all detects)
SL-057-SA8N-SB-4.0-5.0	BENZO(B)FLUORANTHENE NAPHTHALENE	J J	0.90 0.90	1.9 1.9	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-057-SA8N-SB-7.0-8.0	1-METHYLNAPHTHALENE 2-METHYLNAPHTHALENE	J J	1.0 0.96	1.8 1.8	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-062-SA8N-SB-4.0-5.0	BENZO(B)FLUORANTHENE	J	0.88	1.9	PQL	ug/Kg	J (all detects)

LDC #: 26078H4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8-29-14
SDG #: DE144 ADR Page: 1 of 2
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	No quals by ICB/CCB
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	MS/D (ICP from SDG: DE151)
VII.	Duplicate Sample Analysis	SW	DUP (↓)
VIII.	Laboratory Control Samples (LCS)	NA	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	(ICP from DE151)
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-056-SA8N-SB-4.0-5.0	11		21		31	
2	SL-056-SA8N-SB-7.0-8.0	12		22		32	
3	SL-057-SA8N-SB-4.0-5.0	13		23		33	
4	SL-057-SA8N-SB-7.0-8.0	14		24		34	
5	SL-062-SA8N-SB-4.0-5.0	15		25		35	
6	(MS) 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 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE144
Matrix: SOIL Level (low/med): LOW

74X

Background Lab Sample ID: 6278711BKG Matrix Spike Lab Sample ID: 6278711MS Matrix Spike Duplicate Lab Sample ID: 6278711MSD
% Solids for Sample: 87.3
Batch Id(s): P12926A

PS 8R 119

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
Antimony	121	0.4386		0.7436		0.4683		1.3345	1.3217	MG/KG	23	N	2	N	45	*	75 - 125	20	MS
Arsenic	75	10.5868		9.1416		9.8489		2.2242	2.2028	MG/KG	-65		-33		7			20	MS
Barium	137	141.6204		169.6193		176.6896		11.1211	11.0142	MG/KG	252		318		4			20	MS
Beryllium	9	1.0682		2.0703		2.0605		0.8897	0.8811	MG/KG	113		113		0		75 - 125	20	MS
Cadmium	111	0.4923		1.8837		1.9440		1.1121	1.1014	MG/KG	125		132	N	3		75 - 125	20	MS
Chromium	52	26.2578		43.4613		44.9379		11.1211	11.0142	MG/KG	155	N	170	N	3		75 - 125	20	MS
Cobalt	59	12.7434		86.9004		92.2328		55.6056	55.0709	MG/KG	133	N	144	N	6		75 - 125	20	MS
Copper	63	17.5104		32.7628		34.9150		11.1211	11.0142	MG/KG	137	N	158	N	6		75 - 125	20	MS
Lead	208	18.4686		14.5353		15.2569		3.3363	3.3043	MG/KG	-118		-97		5			20	MS
Molybdenum	98	1.3924		13.7168		14.3096		11.1211	11.0142	MG/KG	111		117		4		75 - 125	20	MS
Nickel	60	23.6585		35.6098		38.3514		11.1211	11.0142	MG/KG	107		133	N	7		75 - 125	20	MS
Selenium	78	0.2879	B	2.8359		2.7866		2.2242	2.2028	MG/KG	115		113		2		75 - 125	20	MS
Silver	107	0.0402	B	14.3863		14.5343		11.1211	11.0142	MG/KG	129	N	132	N	1		75 - 125	20	MS
Thallium	203	0.2965		1.0647		0.9970		0.4448	0.4406	MG/KG	173	N	159	N	7		75 - 125	20	MS
Vanadium	51	70.6450		71.1084		76.7028		11.1211	11.0142	MG/KG	4		55		8			20	MS
Zinc	66	67.9135		72.5987		81.9235		11.1211	11.0142	MG/KG	42		127		12			20	MS

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 6
DUPLICATES
SDG No.: DE144
Matrix: SOIL Level (low/med): LOW

<5xRL

Background Lab Sample ID: 6278711BKG
% Solids for Duplicate: 87.3
Batch ID(s): P12926A
Concentration Units: MG/KG

Duplicate Lab Sample ID: 6278711DUP
% Solids for Sample: 87.3

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Antimony	121	0.2	0.4386		0.1121	B	119	*	MS
Arsenic	75		10.5868		4.4907		81	*	MS
Barium	137		141.6204		110.6329		25	*	MS
Beryllium	9		1.0682		0.6646		47	*	MS
Cadmium	111	0.1	0.4923		0.2674		59	*	MS
Chromium	52		26.2578		20.6831		24	*	MS
Cobalt	59		12.7434		8.8035		37	*	MS
Copper	63		17.5104		12.8783		30	*	MS
Lead	208		18.4686		6.8929		91	*	MS
Molybdenum	98	0.1	1.3924		0.5432		88	*	MS
Nickel	60		23.6585		14.9690		45	*	MS
Selenium	78		0.2879	B	0.2278	B	23		MS
Silver	107		0.0402	B	0.0284	B	34		MS
Thallium	203	0.1	0.2965		0.2747		8		MS
Vanadium	51		70.6450		38.5013		59	*	MS
Zinc	66		67.9135		46.8422		37	*	MS

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.

out by difference D= 0.8492 (≤0.22)

DE144 3144

METHODS:	CONCENTRATION QUALIFIERS:
P = ICP Atomic Emission Spectrometer	U= Below MDL
MS = ICP Mass Spectrometry	B= Below LOQ
CV = Cold Vapor	FLAGS:
AF = Cold Vapor Atomic Fluorescence	* = Duplicate Out of Spec

SAMPLE DELIVERY GROUP

DE145

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-May-2011	TB-050611	6279802	TB	5030B	8260B	III
06-May-2011	TB-050611	6279802	TB	5030B	8260B SIM	III
06-May-2011	SL-086-SA8N-SB-6.5-7.5	6279801	N	3050B	6010B	III
06-May-2011	SL-086-SA8N-SB-6.5-7.5	6279801	N	3050B	6020	III
06-May-2011	SL-086-SA8N-SB-6.5-7.5	6279801	N	3060A	7199	III
06-May-2011	SL-086-SA8N-SB-6.5-7.5	6279801	N	3550B	8082	III
06-May-2011	SL-086-SA8N-SB-6.5-7.5	6279801	N	3550B	8270C	III
06-May-2011	SL-086-SA8N-SB-6.5-7.5	6279801	N	3550B	8270C SIM	III
06-May-2011	SL-086-SA8N-SB-6.5-7.5	6279801	N	5035	8260B	III
06-May-2011	SL-086-SA8N-SB-6.5-7.5	6279801	N	5035	8260B SIM	III
06-May-2011	SL-086-SA8N-SB-6.5-7.5	6279801	N	METHOD	300.0	III
06-May-2011	SL-086-SA8N-SB-6.5-7.5	6279801	N	METHOD	314.0	III
06-May-2011	SL-086-SA8N-SB-6.5-7.5	6279801	N	METHOD	7471A	III
06-May-2011	SL-086-SA8N-SB-6.5-7.5DUP	P279801D220519	DUP	METHOD	7471A	III
06-May-2011	SL-086-SA8N-SB-6.5-7.5MSD	P279801M220521	MSD	METHOD	7471A	III
06-May-2011	SL-086-SA8N-SB-6.5-7.5MS	P279801R220520	MS	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: DE145 **Laboratory:** LL

EDD Filename: DE145_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-086-SA8N-SB-6.5-7.5 *Collected:* 5/6/2011 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
MANGANESE	343		0.0856	MDL	0.549	PQL	mg/Kg	J	E
POTASSIUM	5020		19.8	MDL	54.9	PQL	mg/Kg	J	E
TIN	2.20	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	2.00	J	0.922	MDL	5.49	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-086-SA8N-SB-6.5-7.5 *Collected:* 5/6/2011 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	0.333	J	0.0426	MDL	0.426	PQL	mg/Kg	J	Z

Sample ID: SL-086-SA8N-SB-6.5-7.5 *Collected:* 5/6/2011 9:00:00 AM *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.249		0.0533	MDL	0.107	PQL	mg/Kg	J	E

Sample ID: SL-086-SA8N-SB-6.5-7.5 *Collected:* 5/6/2011 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	157		0.115	MDL	0.426	PQL	mg/Kg	J	E

Sample ID: SL-086-SA8N-SB-6.5-7.5 *Collected:* 5/6/2011 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	0.0924	J	0.0639	MDL	0.213	PQL	mg/Kg	J	Z, Q, E
ARSENIC	8.18		0.0853	MDL	0.426	PQL	mg/Kg	J	E
BERYLLIUM	1.01		0.0171	MDL	0.107	PQL	mg/Kg	J	E
CADMIUM	0.387		0.0426	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	38.6		0.128	MDL	0.426	PQL	mg/Kg	J	E, Q
COBALT	14.5		0.0213	MDL	0.107	PQL	mg/Kg	J	Q, E
COPPER	23.5		0.0703	MDL	0.426	PQL	mg/Kg	J	Q, E
LEAD	12.4		0.0111	MDL	0.213	PQL	mg/Kg	J	E
NICKEL	27.7		0.107	MDL	0.426	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: DE145 **Laboratory: LL**

EDD Filename: DE145_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-086-SA8N-SB-6.5-7.5 *Collected:* 5/6/2011 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
SILVER	0.0452	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.449		0.0320	MDL	0.107	PQL	mg/Kg	J	Q
VANADIUM	85.1		0.0234	MDL	0.107	PQL	mg/Kg	J	E
ZINC	95.1		0.597	MDL	3.20	PQL	mg/Kg	J	E

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-086-SA8N-SB-6.5-7.5 *Collected:* 5/6/2011 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	24	J	18	MDL	360	PQL	ug/Kg	U	B

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-086-SA8N-SB-6.5-7.5 *Collected:* 5/6/2011 9:00:00 AM *Analysis Type:* RES *Dilution:* 0.98

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRIMETHYLBENZENE	0.57	J	0.43	MDL	4.3	PQL	ug/Kg	J	Z
1,3,5-TRIMETHYLBENZENE	0.36	J	0.11	MDL	4.3	PQL	ug/Kg	J	Z
BENZENE	0.11	J	0.11	MDL	4.3	PQL	ug/Kg	J	Z
ETHYLBENZENE	0.46	J	0.06	MDL	4.3	PQL	ug/Kg	J	Z
m,p-Xylene	1.6	J	0.18	MDL	4.3	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	6.9		0.26	MDL	4.3	PQL	ug/Kg	U	B
O-XYLENE	0.49	J	0.18	MDL	4.3	PQL	ug/Kg	J	Z
TOLUENE	1.5	J	0.09	MDL	4.3	PQL	ug/Kg	J	Z
TRICHLOROETHENE	0.26	J	0.16	MDL	4.3	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE145 **Laboratory: LL**

EDD Filename: PrepDE145_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
	Sampling to Leaching Estimation
	Sampling to Leaching Rejection
*#	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	Continuing Calibration Verification Percent Recovery Lower Estimation
C	Continuing Calibration Verification Percent Recovery Lower Rejection
C	Continuing Calibration Verification Percent Recovery Upper Estimation
C	Continuing Calibration Verification Percent Recovery Upper Rejection
C	Continuing Calibration Verification Relative Response Factor
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Relative Response Factor
C	Initial Calibration Verification Correlation Coefficient

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE145 **Laboratory: LL**

EDD Filename: PrepDE145_v1 **eQAPP Name: CDM_SSFL_110509**

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 Lower Estimation
C	Initial Calibration Verification Percent Recovery Lower Rejection
C	Initial Calibration Verification Percent Recovery Upper Estimation
C	Initial Calibration Verification Percent Recovery Upper Rejection
C	Initial Calibration Verification Relative Response Factor
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Laboratory Triplicate Precision
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

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE145 **Laboratory: LL**

EDD Filename: PrepDE145_v1 **eQAPP Name: CDM_SSFL_110509**

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	Laboratory Triplicate 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
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

DE145

Method Blank Outlier Report

Lab Reporting Batch ID: DE145 **Laboratory: LL**

EDD Filename: DE145_v1. **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P12908AB220953	5/10/2011 9:53:00 AM	ALUMINUM CALCIUM MAGNESIUM PHOSPHORUS TIN	12.4 mg/Kg 17.6 mg/Kg 3.88 mg/Kg 2.28 mg/Kg 1.46 mg/Kg	SL-086-SA8N-SB-6.5-7.5

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-086-SA8N-SB-6.5-7.5(RES)	TIN	2.20 mg/Kg	2.20U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P12926AB220810A	5/13/2011 8:10:00 AM	COPPER	0.503 mg/Kg	SL-086-SA8N-SB-6.5-7.5
P12926AB221123A	5/11/2011 11:23:00 AM	VANADIUM ZINC	0.0744 mg/Kg 0.738 mg/Kg	SL-086-SA8N-SB-6.5-7.5

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB51B210326A	5/11/2011 3:26:00 AM	METHYLENE CHLORIDE TOLUENE	0.92 ug/Kg 0.09 ug/Kg	SL-086-SA8N-SB-6.5-7.5

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-086-SA8N-SB-6.5-7.5(RES)	METHYLENE CHLORIDE	6.9 ug/Kg	6.9U ug/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLA12B262311	5/10/2011 11:11:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	17 ug/Kg	SL-086-SA8N-SB-6.5-7.5

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-086-SA8N-SB-6.5-7.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	24 ug/Kg	360U ug/Kg

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DE145 **Laboratory: LL**

EDD Filename: DE145_v1. **eQAPP Name: CDM_SSFL_110509**

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLB12B260748	5/18/2011 7:48:00 AM	ANTHRACENE CHRYSENE Di-n-octylphthalate PHENANTHRENE	0.72 ug/Kg 0.37 ug/Kg 34 ug/Kg 0.83 ug/Kg	SL-086-SA8N-SB-6.5-7.5

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE145 **Laboratory: LL**

EDD Filename: DE145_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
P12926AQ221126A (SL-086-SA8N -SB-6.5-7.5)	ANTIMONY	64	-	80.00-120.00	-	ANTIMONY	No Qual SRM within QC limits

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSB51Q210349A LCSB51Y210413A (SL-086-SA8N -SB-6.5-7.5)	BROMOCHLOROMETHANE	128	128	79.00-124.00	-	BROMOCHLOROMETHANE	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE145 **Laboratory: LL**

EDD Filename: DE145_v1. **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-086-SA8N-SB-6.5-7.5	TIN	J	2.20	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.00	5.49	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-086-SA8N-SB-6.5-7.5	ANTIMONY	J	0.0924	0.213	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.333	0.426	PQL	mg/Kg	
	SILVER	J	0.0452	0.107	PQL	mg/Kg	

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-086-SA8N-SB-6.5-7.5	1,2,4-TRIMETHYLBENZENE	J	0.57	4.3	PQL	ug/Kg	J (all detects)
	1,3,5-TRIMETHYLBENZENE	J	0.36	4.3	PQL	ug/Kg	
	BENZENE	J	0.11	4.3	PQL	ug/Kg	
	ETHYLBENZENE	J	0.46	4.3	PQL	ug/Kg	
	m,p-Xylene	J	1.6	4.3	PQL	ug/Kg	
	O-XYLENE	J	0.49	4.3	PQL	ug/Kg	
	TOLUENE	J	1.5	4.3	PQL	ug/Kg	
	TRICHLOROETHENE	J	0.26	4.3	PQL	ug/Kg	

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-086-SA8N-SB-6.5-7.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	360	PQL	ug/Kg	J (all detects)

LDC #: 26078I4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/29/11
SDG #: DE145 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: AC
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 for ICB/CCB
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	MS MSD (~~A~~ from DE144, ICP from DE151)
VII.	Duplicate Sample Analysis	N	DUP
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	MS from DE144, ICP from DE151
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-086-SA8N-SB-6.5-7.5	11		21		31	
2	MS (~~A~~SW)	12		22		32	
3	MSD	13		23		33	
4	DUP	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

DE146

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-May-2011	TB-050911	6281105	TB	5030B	8015M	III
09-May-2011	TB-050911	6281105	TB	5030B	8260B	III
09-May-2011	TB-050911	6281105	TB	5030B	8260B SIM	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	3050B	6010B	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	3050B	6020	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	3060A	7199	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	3546	1625C	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	3550B	8015B	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	3550B	8015M	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	3550B	8082	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	3550B	8270C	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	3550B	8270C SIM	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	5035	8015M	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	5035	8260B	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	5035	8260B SIM	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	8330	8330A	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	METHOD	300.0	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	METHOD	314.0	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	METHOD	6850	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	METHOD	7471A	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	METHOD	8015B	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	METHOD	8015M	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	METHOD	8315A	III
09-May-2011	SL-078-SA8N-SB-4.0-5.0	6281095	N	METHOD	9012B	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	3050B	6010B	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	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
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	3060A	7199	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	3546	1625C	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	3550B	8015B	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	3550B	8015M	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	3550B	8082	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	3550B	8270C	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	3550B	8270C SIM	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	5035	8015M	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	5035	8260B	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	5035	8260B SIM	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	8330	8330A	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	METHOD	300.0	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	METHOD	314.0	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	METHOD	7471A	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	METHOD	8015B	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	METHOD	8015M	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	METHOD	8315A	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0	6281100	N	METHOD	9012B	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	3050B	6010B	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	3050B	6020	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	3060A	7199	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	3546	1625C	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	3550B	8015B	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	3550B	8015M	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	3550B	8082	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	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
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	3550B	8270C SIM	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	5035	8015M	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	5035	8260B	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	5035	8260B SIM	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	8330	8330A	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	METHOD	300.0	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	METHOD	314.0	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	METHOD	7471A	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	METHOD	8015B	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	METHOD	8015M	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	METHOD	8315A	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MS	6281101	MS	METHOD	9012B	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MSD	6281102	MSD	3050B	6010B	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MSD	6281102	MSD	3050B	6020	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MSD	6281102	MSD	3546	1625C	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MSD	6281102	MSD	3550B	8015B	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MSD	6281102	MSD	3550B	8015M	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MSD	6281102	MSD	3550B	8082	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MSD	6281102	MSD	3550B	8270C	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MSD	6281102	MSD	3550B	8270C SIM	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MSD	6281102	MSD	5035	8015M	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MSD	6281102	MSD	5035	8260B	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MSD	6281102	MSD	5035	8260B SIM	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MSD	6281102	MSD	8330	8330A	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MSD	6281102	MSD	METHOD	7471A	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MSD	6281102	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
09-May-2011	SL-141-SA8N-SB-4.0-5.0MSD	6281102	MSD	METHOD	8015M	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0MSD	6281102	MSD	METHOD	8315A	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0DUP	6281103	DUP	3050B	6010B	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0DUP	6281103	DUP	3050B	6020	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0DUP	6281103	DUP	3060A	7199	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0DUP	6281103	DUP	METHOD	300.0	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0DUP	6281103	DUP	METHOD	314.0	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0DUP	6281103	DUP	METHOD	7471A	III
09-May-2011	SL-141-SA8N-SB-4.0-5.0DUP	6281103	DUP	METHOD	9012B	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	3050B	6010B	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	3050B	6020	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	3060A	7199	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	3546	1625C	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	3550B	8015B	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	3550B	8015M	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	3550B	8082	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	3550B	8270C	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	3550B	8270C SIM	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	5035	8015M	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	5035	8260B	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	5035	8260B SIM	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	8330	8330A	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	METHOD	300.0	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	METHOD	314.0	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	METHOD	7471A	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	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
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	METHOD	8015M	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	METHOD	8315A	III
09-May-2011	DUP08-SA8N-QC-050911	6281104	FD	METHOD	9012B	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	3050B	6010B	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	3050B	6020	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	3060A	7199	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	3546	1625C	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	3550B	8015B	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	3550B	8015M	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	3550B	8082	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	3550B	8270C	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	3550B	8270C SIM	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	5035	8015M	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	5035	8260B	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	5035	8260B SIM	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	8330	8330A	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	METHOD	300.0	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	METHOD	314.0	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	METHOD	7471A	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	METHOD	8015B	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	METHOD	8015M	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	METHOD	8315A	III
09-May-2011	SL-135-SA8N-SB-2.0-3.0	6281099	N	METHOD	9012B	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	3050B	6010B	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	3050B	6020	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	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
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	3546	1625C	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	3550B	8015B	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	3550B	8015M	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	3550B	8082	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	3550B	8270C	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	3550B	8270C SIM	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	5035	8015M	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	5035	8260B	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	5035	8260B SIM	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	8330	8330A	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	METHOD	300.0	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	METHOD	314.0	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	METHOD	7471A	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	METHOD	8015B	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	METHOD	8015M	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	METHOD	8315A	III
09-May-2011	SL-088-SA8N-SB-3.0-4.0	6281098	N	METHOD	9012B	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	3050B	6010B	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	3050B	6020	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	3060A	7199	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	3546	1625C	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	3550B	8015B	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	3550B	8015M	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	3550B	8082	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	3550B	8270C	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	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
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	5035	8015M	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	5035	8260B	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	5035	8260B SIM	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	8330	8330A	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	METHOD	300.0	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	METHOD	314.0	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	METHOD	7471A	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	METHOD	8015B	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	METHOD	8015M	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	METHOD	8315A	III
09-May-2011	SL-087-SA8N-SB-9.0-10.0	6281097	N	METHOD	9012B	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	3050B	6010B	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	3050B	6020	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	3060A	7199	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	3546	1625C	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	3550B	8015B	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	3550B	8015M	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	3550B	8082	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	3550B	8270C	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	3550B	8270C SIM	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	5035	8015M	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	5035	8260B	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	5035	8260B SIM	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	8330	8330A	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	METHOD	300.0	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	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
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	METHOD	7471A	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	METHOD	8015B	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	METHOD	8015M	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	METHOD	8315A	III
09-May-2011	SL-087-SA8N-SB-4.0-5.0	6281096	N	METHOD	9012B	III

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE146 **Laboratory:** LL

EDD Filename: PrepDE146_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: DUP08-SA8N-QC-050911 *Collected:* 5/9/2011 9:45:00 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		0.94	MDL	1.2	PQL	mg/Kg	J	Q, FD
Nitrate-NO3	9.8		0.94	MDL	1.8	PQL	mg/Kg	J	FD

Sample ID: SL-078-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 8:45:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.7		0.91	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.3	J	0.91	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-087-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 3:14:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.8		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-087-SA8N-SB-9.0-10.0 *Collected:* 5/9/2011 3:12:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.5		0.94	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.5	J	0.94	MDL	1.8	PQL	mg/Kg	J	Z

Sample ID: SL-088-SA8N-SB-3.0-4.0 *Collected:* 5/9/2011 2:20:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		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-135-SA8N-SB-2.0-3.0 *Collected:* 5/9/2011 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	1.5		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-141-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 9:40:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.5		0.96	MDL	1.2	PQL	mg/Kg	J	Q, FD
Nitrate-NO3	2.0		0.96	MDL	1.8	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: DE146 **Laboratory: LL**

EDD Filename: PrepDE146_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Method Category: GENCHEM

Method: 314.0 **Matrix: SO**

Sample ID: SL-078-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 8:45:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	17.3	J	10.2	MDL	34.0	PQL	ug/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: DUP08-SA8N-QC-050911 *Collected:* 5/9/2011 9:45:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	26500		6.95	MDL	22.7	PQL	mg/Kg	J	E
TIN	2.95	J	1.13	MDL	11.3	PQL	mg/Kg	U	B

Sample ID: SL-078-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 8:45:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.02	J	0.999	MDL	5.61	PQL	mg/Kg	J	Z
CALCIUM	6880		6.88	MDL	22.5	PQL	mg/Kg	J	E
TIN	3.16	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	5.16	J	0.943	MDL	5.61	PQL	mg/Kg	J	Z

Sample ID: SL-087-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 3:14:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.27	J	0.998	MDL	5.61	PQL	mg/Kg	J	Z
CALCIUM	3200		6.87	MDL	22.4	PQL	mg/Kg	J	E
TIN	3.12	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	5.14	J	0.942	MDL	5.61	PQL	mg/Kg	J	Z

Sample ID: SL-087-SA8N-SB-9.0-10.0 *Collected:* 5/9/2011 3:12:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.49	J	1.05	MDL	5.90	PQL	mg/Kg	J	Z
CALCIUM	3520		7.23	MDL	23.6	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: DE146 **Laboratory:** LL

EDD Filename: PrepDE146_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-087-SA8N-SB-9.0-10.0 *Collected:* 5/9/2011 3:12:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.06	J	1.18	MDL	11.8	PQL	mg/Kg	U	B

Sample ID: SL-088-SA8N-SB-3.0-4.0 *Collected:* 5/9/2011 2:20:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.78	J	0.999	MDL	5.62	PQL	mg/Kg	J	Z
CALCIUM	2270		6.88	MDL	22.5	PQL	mg/Kg	J	E
SODIUM	91.0	J	41.9	MDL	112	PQL	mg/Kg	J	Z
TIN	3.00	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	2.14	J	0.943	MDL	5.62	PQL	mg/Kg	J	Z

Sample ID: SL-135-SA8N-SB-2.0-3.0 *Collected:* 5/9/2011 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
CALCIUM	2580		6.71	MDL	21.9	PQL	mg/Kg	J	E
SODIUM	78.7	J	40.9	MDL	110	PQL	mg/Kg	J	Z
TIN	3.09	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.29	J	0.920	MDL	5.48	PQL	mg/Kg	J	Z

Sample ID: SL-141-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 9:40:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	30800		7.29	MDL	23.8	PQL	mg/Kg	J	E
TIN	3.14	J	1.19	MDL	11.9	PQL	mg/Kg	U	B
Zirconium	5.89	J	1.00	MDL	5.95	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP08-SA8N-QC-050911 *Collected:* 5/9/2011 9:45:00 AM *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.282	J	0.0462	MDL	0.462	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: DE146 Laboratory: LL

EDD Filename: PrepDE146_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP08-SA8N-QC-050911 **Collected:** 5/9/2011 9:45:00 AM **Analysis Type:** REA3 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	113		0.125	MDL	0.462	PQL	mg/Kg	J	E, A

Sample ID: DUP08-SA8N-QC-050911 **Collected:** 5/9/2011 9:45:00 AM **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.323		0.0694	MDL	0.231	PQL	mg/Kg	J	Q
ARSENIC	6.87		0.0925	MDL	0.462	PQL	mg/Kg	J	E
BERYLLIUM	0.716		0.0185	MDL	0.116	PQL	mg/Kg	J	E
CHROMIUM	33.1		0.139	MDL	0.462	PQL	mg/Kg	J	Q, E, A
COBALT	11.2		0.0231	MDL	0.116	PQL	mg/Kg	J	E, A
COPPER	17.4		0.0763	MDL	0.462	PQL	mg/Kg	J	E, A
LEAD	9.52		0.0120	MDL	0.231	PQL	mg/Kg	J	E, A
NICKEL	19.5		0.116	MDL	0.462	PQL	mg/Kg	J	E, A
SILVER	0.0342	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z
VANADIUM	75.2		0.0254	MDL	0.116	PQL	mg/Kg	J	E, A
ZINC	78.9		0.647	MDL	3.47	PQL	mg/Kg	J	E, A

Sample ID: SL-078-SA8N-SB-4.0-5.0 **Collected:** 5/9/2011 8:45:00 AM **Analysis Type:** REA **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.132	J	0.0445	MDL	0.445	PQL	mg/Kg	J	Z

Sample ID: SL-078-SA8N-SB-4.0-5.0 **Collected:** 5/9/2011 8:45:00 AM **Analysis Type:** REA3 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	104		0.120	MDL	0.445	PQL	mg/Kg	J	E, A

Sample ID: SL-078-SA8N-SB-4.0-5.0 **Collected:** 5/9/2011 8:45:00 AM **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.206	J	0.0667	MDL	0.222	PQL	mg/Kg	J	Z, Q
ARSENIC	6.01		0.0889	MDL	0.445	PQL	mg/Kg	J	E
BERYLLIUM	0.555		0.0178	MDL	0.111	PQL	mg/Kg	J	E
CADMIUM	0.0500	J	0.0445	MDL	0.111	PQL	mg/Kg	J	Z
CHROMIUM	20.3		0.133	MDL	0.445	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: DE146 **Laboratory: LL**

EDD Filename: PrepDE146_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-078-SA8N-SB-4.0-5.0 **Collected:** 5/9/2011 8:45:00 AM **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	7.45		0.0222	MDL	0.111	PQL	mg/Kg	J	E, A
COPPER	10.3		0.0734	MDL	0.445	PQL	mg/Kg	J	E, A
LEAD	5.42		0.0116	MDL	0.222	PQL	mg/Kg	J	E, A
NICKEL	13.0		0.111	MDL	0.445	PQL	mg/Kg	J	E, A
SILVER	0.0734	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z
VANADIUM	55.2		0.0245	MDL	0.111	PQL	mg/Kg	J	E, A
ZINC	46.1		0.622	MDL	3.33	PQL	mg/Kg	J	E, A

Sample ID: SL-087-SA8N-SB-4.0-5.0 **Collected:** 5/9/2011 3:14:00 PM **Analysis Type:** REA **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.141	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

Sample ID: SL-087-SA8N-SB-4.0-5.0 **Collected:** 5/9/2011 3:14:00 PM **Analysis Type:** REA3 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	102		0.122	MDL	0.453	PQL	mg/Kg	J	E, A

Sample ID: SL-087-SA8N-SB-4.0-5.0 **Collected:** 5/9/2011 3:14:00 PM **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.184	J	0.0679	MDL	0.226	PQL	mg/Kg	J	Z, Q
ARSENIC	4.46		0.0906	MDL	0.453	PQL	mg/Kg	J	E
BERYLLIUM	0.578		0.0181	MDL	0.113	PQL	mg/Kg	J	E
CHROMIUM	20.1		0.136	MDL	0.453	PQL	mg/Kg	J	Q, E, A
COBALT	6.96		0.0226	MDL	0.113	PQL	mg/Kg	J	E, A
COPPER	9.40		0.0747	MDL	0.453	PQL	mg/Kg	J	E, A
LEAD	5.51		0.0118	MDL	0.226	PQL	mg/Kg	J	E, A
NICKEL	12.4		0.113	MDL	0.453	PQL	mg/Kg	J	E, A
SILVER	0.0363	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	45.1		0.0249	MDL	0.113	PQL	mg/Kg	J	E, A
ZINC	43.2		0.634	MDL	3.40	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: DE146 Laboratory: LL

EDD Filename: PrepDE146_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-087-SA8N-SB-9.0-10.0 *Collected:* 5/9/2011 3:12:00 PM *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.107	J	0.0458	MDL	0.458	PQL	mg/Kg	J	Z

Sample ID: SL-087-SA8N-SB-9.0-10.0 *Collected:* 5/9/2011 3:12:00 PM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	134		0.124	MDL	0.458	PQL	mg/Kg	J	E, A

Sample ID: SL-087-SA8N-SB-9.0-10.0 *Collected:* 5/9/2011 3:12:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.212	J	0.0687	MDL	0.229	PQL	mg/Kg	J	Z, Q
ARSENIC	6.23		0.0916	MDL	0.458	PQL	mg/Kg	J	E
BERYLLIUM	0.754		0.0183	MDL	0.114	PQL	mg/Kg	J	E
CADMIUM	0.0908	J	0.0458	MDL	0.114	PQL	mg/Kg	J	Z
CHROMIUM	27.6		0.137	MDL	0.458	PQL	mg/Kg	J	Q, E, A
COBALT	9.77		0.0229	MDL	0.114	PQL	mg/Kg	J	E, A
COPPER	11.9		0.0756	MDL	0.458	PQL	mg/Kg	J	E, A
LEAD	6.87		0.0119	MDL	0.229	PQL	mg/Kg	J	E, A
NICKEL	17.6		0.114	MDL	0.458	PQL	mg/Kg	J	E, A
SILVER	0.0538	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z
VANADIUM	59.6		0.0252	MDL	0.114	PQL	mg/Kg	J	E, A
ZINC	57.2		0.641	MDL	3.43	PQL	mg/Kg	J	E, A

Sample ID: SL-088-SA8N-SB-3.0-4.0 *Collected:* 5/9/2011 2:20:00 PM *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.342	J	0.0449	MDL	0.449	PQL	mg/Kg	J	Z

Sample ID: SL-088-SA8N-SB-3.0-4.0 *Collected:* 5/9/2011 2:20:00 PM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	106		0.121	MDL	0.449	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: DE146 Laboratory: LL

EDD Filename: PrepDE146_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-088-SA8N-SB-3.0-4.0 *Collected:* 5/9/2011 2:20:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.347		0.0674	MDL	0.225	PQL	mg/Kg	J	Q
ARSENIC	5.76		0.0898	MDL	0.449	PQL	mg/Kg	J	E
BERYLLIUM	0.688		0.0180	MDL	0.112	PQL	mg/Kg	J	E
CHROMIUM	22.6		0.135	MDL	0.449	PQL	mg/Kg	J	Q, E, A
COBALT	6.93		0.0225	MDL	0.112	PQL	mg/Kg	J	E, A
COPPER	11.6		0.0741	MDL	0.449	PQL	mg/Kg	J	E, A
LEAD	6.30		0.0117	MDL	0.225	PQL	mg/Kg	J	E, A
NICKEL	14.3		0.112	MDL	0.449	PQL	mg/Kg	J	E, A
SILVER	0.0304	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z
VANADIUM	51.7		0.0247	MDL	0.112	PQL	mg/Kg	J	E, A
ZINC	65.6		0.629	MDL	3.37	PQL	mg/Kg	J	E, A

Sample ID: SL-135-SA8N-SB-2.0-3.0 *Collected:* 5/9/2011 1:25:00 PM *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.135	J	0.0438	MDL	0.438	PQL	mg/Kg	J	Z

Sample ID: SL-135-SA8N-SB-2.0-3.0 *Collected:* 5/9/2011 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
BARIUM	106		0.118	MDL	0.438	PQL	mg/Kg	J	E, A

Sample ID: SL-135-SA8N-SB-2.0-3.0 *Collected:* 5/9/2011 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	0.100	J	0.0657	MDL	0.219	PQL	mg/Kg	J	Z, Q
ARSENIC	5.36		0.0876	MDL	0.438	PQL	mg/Kg	J	E
BERYLLIUM	0.698		0.0175	MDL	0.110	PQL	mg/Kg	J	E
CHROMIUM	19.3		0.131	MDL	0.438	PQL	mg/Kg	J	Q, E, A
COBALT	8.68		0.0219	MDL	0.110	PQL	mg/Kg	J	E, A
COPPER	8.60		0.0723	MDL	0.438	PQL	mg/Kg	J	E, A
LEAD	8.31		0.0114	MDL	0.219	PQL	mg/Kg	J	E, A
NICKEL	10.7		0.110	MDL	0.438	PQL	mg/Kg	J	E, A
VANADIUM	45.1		0.0241	MDL	0.110	PQL	mg/Kg	J	E, A
ZINC	65.3		0.613	MDL	3.29	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: DE146 **Laboratory:** LL

EDD Filename: PrepDE146_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-141-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 9:40:00 AM *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.289	J	0.0471	MDL	0.471	PQL	mg/Kg	J	Z

Sample ID: SL-141-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 9:40:00 AM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	92.9		0.127	MDL	0.471	PQL	mg/Kg	J	E, A

Sample ID: SL-141-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 9:40:00 AM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.236		0.0707	MDL	0.236	PQL	mg/Kg	J	Q
ARSENIC	6.00		0.0943	MDL	0.471	PQL	mg/Kg	J	E
BERYLLIUM	0.594		0.0189	MDL	0.118	PQL	mg/Kg	J	E
CHROMIUM	27.7		0.141	MDL	0.471	PQL	mg/Kg	J	Q, E, A
COBALT	9.29		0.0236	MDL	0.118	PQL	mg/Kg	J	E, A
COPPER	14.7		0.0778	MDL	0.471	PQL	mg/Kg	J	E, A
LEAD	7.39		0.0123	MDL	0.236	PQL	mg/Kg	J	E, A
NICKEL	16.9		0.118	MDL	0.471	PQL	mg/Kg	J	E, A
SILVER	0.0290	J	0.0141	MDL	0.118	PQL	mg/Kg	J	Z
VANADIUM	62.3		0.0259	MDL	0.118	PQL	mg/Kg	J	E, A
ZINC	69.4		0.660	MDL	3.54	PQL	mg/Kg	J	E, A

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-087-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 3:14:00 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	0.36	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-087-SA8N-SB-9.0-10.0 *Collected:* 5/9/2011 3:12:00 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	0.34	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: DE146 **Laboratory:** LL

EDD Filename: PrepDE146_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: SL-087-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 3:14:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0042	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: SL-088-SA8N-SB-3.0-4.0 *Collected:* 5/9/2011 2:20:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0056	J	0.0032	MDL	0.113	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix:** SO

Sample ID: DUP08-SA8N-QC-050911 *Collected:* 5/9/2011 9:45:00 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	23.5	J	19.7	MDL	39.3	PQL	ng/Kg	J	Z, S, FD

Sample ID: SL-087-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 3:14:00 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	22.2	J	19.3	MDL	38.5	PQL	ng/Kg	J	Z

Sample ID: SL-141-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 9:40:00 AM *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	200	U	200	MDL	401	PQL	ng/Kg	UJ	FD

Method Category: SVOA

Method: 8015M **Matrix:** SO

Sample ID: DUP08-SA8N-QC-050911 *Collected:* 5/9/2011 9:45:00 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)	0.77	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: DE146 **Laboratory: LL**

EDD Filename: PrepDE146_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-087-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 3:14:00 PM *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)	0.83	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-088-SA8N-SB-3.0-4.0 *Collected:* 5/9/2011 2:20:00 PM *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)	0.60	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z

Sample ID: SL-141-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 9:40:00 AM *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	6.0	U	6.0	MDL	12	PQL	mg/Kg	UJ	Q
ETHYLENE GLYCOL	6.0	U	6.0	MDL	12	PQL	mg/Kg	UJ	Q
Propylene glycol	6.0	U	6.0	MDL	12	PQL	mg/Kg	UJ	Q

Sample ID: SL-141-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 9:40:00 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)	0.85	J	0.48	MDL	1.4	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-135-SA8N-SB-2.0-3.0 *Collected:* 5/9/2011 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
Aroclor 5460	1.5	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-141-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 9:40:00 AM *Analysis Type:* RES-ACID *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	400	U	400	MDL	1200	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: DE146 **Laboratory: LL**

EDD Filename: PrepDE146_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: DUP08-SA8N-QC-050911 *Collected:* 5/9/2011 9:45:00 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	0.91	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z, FD

Sample ID: SL-088-SA8N-SB-3.0-4.0 *Collected:* 5/9/2011 2:20:00 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
2-METHYLNAPHTHALENE	0.83	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

Sample ID: SL-135-SA8N-SB-2.0-3.0 *Collected:* 5/9/2011 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
BENZO(B)FLUORANTHENE	1.2	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	6.7	J	6.5	MDL	20	PQL	ug/Kg	J	Z
NAPHTHALENE	1.2	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-141-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 9:40:00 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	0.79	U	0.79	MDL	2.0	PQL	ug/Kg	UJ	Q
2-METHYLNAPHTHALENE	0.79	U	0.79	MDL	2.0	PQL	ug/Kg	UJ	Q
NAPHTHALENE	0.79	U	0.79	MDL	2.0	PQL	ug/Kg	UJ	FD

Method Category: SVOA

Method: 8330A **Matrix: SO**

Sample ID: SL-141-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 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
1,3,5-TRINITROBENZENE	46	U	46	MDL	140	PQL	ug/Kg	UJ	Q
2,4,6-TRINITROTOLUENE	46	U	46	MDL	140	PQL	ug/Kg	UJ	Q
2,4-DINITROTOLUENE	46	U	46	MDL	140	PQL	ug/Kg	UJ	Q
2,6-DINITROTOLUENE	46	U	46	MDL	140	PQL	ug/Kg	UJ	Q
2-AMINO-4,6-DINITROTOLUENE	46	U	46	MDL	140	PQL	ug/Kg	UJ	Q
2-NITROTOLUENE	92	U	92	MDL	140	PQL	ug/Kg	UJ	Q
4-AMINO-2,6-DINITROTOLUENE	69	U	69	MDL	140	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: DE146 **Laboratory: LL**

EDD Filename: PrepDE146_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8330A **Matrix: SO**

Sample ID: SL-141-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 9:40:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-NITROTOLUENE	92	U	92	MDL	140	PQL	ug/Kg	UJ	Q
HMX	120	U	120	MDL	350	PQL	ug/Kg	UJ	Q
Nitroglycerin	920	U	920	MDL	2800	PQL	ug/Kg	UJ	Q
RDX	58	U	58	MDL	140	PQL	ug/Kg	UJ	Q

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: DUP08-SA8N-QC-050911 *Collected:* 5/9/2011 9:45:00 AM *Analysis Type:* RES *Dilution:* 0.88

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.5		7.0	MDL	8.3	PQL	ug/Kg	J	FD
CHLOROFORM	0.13	U	0.13	MDL	4.2	PQL	ug/Kg	UJ	FD
TOLUENE	0.08	J	0.08	MDL	4.2	PQL	ug/Kg	U	B
TRICHLOROETHENE	6.3		0.16	MDL	4.2	PQL	ug/Kg	J	FD

Sample ID: SL-087-SA8N-SB-9.0-10.0 *Collected:* 5/9/2011 3:12:00 PM *Analysis Type:* RES *Dilution:* 0.8

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOLUENE	0.1	J	0.08	MDL	3.8	PQL	ug/Kg	U	B

Sample ID: SL-135-SA8N-SB-2.0-3.0 *Collected:* 5/9/2011 1:25:00 PM *Analysis Type:* RES *Dilution:* 0.98

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHLOROFORM	0.14	J	0.13	MDL	4.4	PQL	ug/Kg	J	Z
TOLUENE	0.09	J	0.09	MDL	4.4	PQL	ug/Kg	U	B

Sample ID: SL-141-SA8N-SB-4.0-5.0 *Collected:* 5/9/2011 9:40:00 AM *Analysis Type:* RES *Dilution:* 0.94

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	7.6	U	7.6	MDL	9.1	PQL	ug/Kg	UJ	FD
CHLOROFORM	0.16	J	0.14	MDL	4.5	PQL	ug/Kg	J	Z, FD
METHYLENE CHLORIDE	30		0.27	MDL	4.5	PQL	ug/Kg	J	Q, Q, Q
TOLUENE	0.09	J	0.09	MDL	4.5	PQL	ug/Kg	U	B
TRICHLOROETHENE	17		0.17	MDL	4.5	PQL	ug/Kg	J	Q, 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: DE146 **Laboratory: LL**

EDD Filename: PrepDE146_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category:	**VOA**		
Method:	**8260B**	***Matrix:***	**SO**

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE146 **Laboratory: LL**

EDD Filename: PrepDE146_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

Data Qualifier Summary

Lab Reporting Batch ID: DE146 **Laboratory: LL**

EDD Filename: PrepDE146_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	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper 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: DE146 **Laboratory: LL**

EDD Filename: PrepDE146_v1 **eQAPP Name: CDM_SSFL_110509**

Q	Matrix Spike Upper Rejection
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

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE146

Method Blank Outlier Report

Lab Reporting Batch ID: DE146 **Laboratory: LL**

EDD Filename: DE146_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P13008BB220541	5/11/2011 5:41:00 AM	ALUMINUM PHOSPHORUS TIN	6.76 mg/Kg 1.62 mg/Kg 1.61 mg/Kg	DUP08-SA8N-QC-050911 SL-078-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-9.0-10.0 SL-088-SA8N-SB-3.0-4.0 SL-135-SA8N-SB-2.0-3.0 SL-141-SA8N-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
DUP08-SA8N-QC-050911(RES)	TIN	2.95 mg/Kg	2.95U mg/Kg
SL-078-SA8N-SB-4.0-5.0(RES)	TIN	3.16 mg/Kg	3.16U mg/Kg
SL-087-SA8N-SB-4.0-5.0(RES)	TIN	3.12 mg/Kg	3.12U mg/Kg
SL-087-SA8N-SB-9.0-10.0(RES)	TIN	3.06 mg/Kg	3.06U mg/Kg
SL-088-SA8N-SB-3.0-4.0(RES)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-135-SA8N-SB-2.0-3.0(RES)	TIN	3.09 mg/Kg	3.09U mg/Kg
SL-141-SA8N-SB-4.0-5.0(RES)	TIN	3.14 mg/Kg	3.14U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P13026AB221410A	5/11/2011 2:10:00 PM	COPPER VANADIUM	0.0687 mg/Kg 0.0726 mg/Kg	DUP08-SA8N-QC-050911 SL-078-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-9.0-10.0 SL-088-SA8N-SB-3.0-4.0 SL-135-SA8N-SB-2.0-3.0 SL-141-SA8N-SB-4.0-5.0

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB51B210326A	5/11/2011 3:26:00 AM	METHYLENE CHLORIDE TOLUENE	0.92 ug/Kg 0.09 ug/Kg	DUP08-SA8N-QC-050911 SL-078-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-9.0-10.0 SL-088-SA8N-SB-3.0-4.0 SL-135-SA8N-SB-2.0-3.0 SL-141-SA8N-SB-4.0-5.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE146 **Laboratory: LL**

EDD Filename: DE146_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-SA8N-QC-050911(RES)	TOLUENE	0.08 ug/Kg	4.2U ug/Kg
SL-087-SA8N-SB-9.0-10.0(RES)	TOLUENE	0.1 ug/Kg	3.8U ug/Kg
SL-135-SA8N-SB-2.0-3.0(RES)	TOLUENE	0.09 ug/Kg	4.4U ug/Kg
SL-141-SA8N-SB-4.0-5.0(RES)	TOLUENE	0.09 ug/Kg	4.5U ug/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLA13B261600	5/18/2011 4:00:00 PM	Di-n-octylphthalate	6.4 ug/Kg	DUP08-SA8N-QC-050911 SL-078-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-9.0-10.0 SL-088-SA8N-SB-3.0-4.0 SL-135-SA8N-SB-2.0-3.0 SL-141-SA8N-SB-4.0-5.0

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE146 **Laboratory: LL**

EDD Filename: DE146_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-141-SA8N-SB-4.0-5.0MS SL-141-SA8N-SB-4.0-5.0MSD (SL-141-SA8N-SB-4.0-5.0)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	40 55 62	50 - -	59.00-109.00 63.00-107.00 63.00-107.00	23 (20.00) - -	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	J (all detects) UJ (all non-detects)
SL-141-SA8N-SB-4.0-5.0MS (SL-141-SA8N-SB-4.0-5.0)	GASOLINE RANGE ORGANICS (	123	-	39.00-118.00	-	GASOLINE RANGE ORGANICS	J(all detects)

Method: 8330A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-141-SA8N-SB-4.0-5.0MSD (SL-141-SA8N-SB-4.0-5.0)	1,3,5-TRINITROBENZENE 2,4,6-TRINITROTOLUENE 2,4-DINITROTOLUENE 2,6-DINITROTOLUENE 2-AMINO-4,6-DINITROTOLUENE 2-NITROTOLUENE 4-AMINO-2,6-DINITROTOLUENE 4-NITROTOLUENE HMX Nitroglycerin RDX	- - - - - - - - - - -	68 78 76 77 76 79 77 78 59 71 62	82.00-126.00 82.00-130.00 80.00-131.00 80.00-127.00 80.00-137.00 80.00-122.00 80.00-127.00 80.00-125.00 63.00-128.00 80.00-120.00 75.00-129.00	- - - - - - - - - - -	1,3,5-TRINITROBENZENE 2,4,6-TRINITROTOLUENE 2,4-DINITROTOLUENE 2,6-DINITROTOLUENE 2-AMINO-4,6-DINITROTOLUEN 2-NITROTOLUENE 4-AMINO-2,6-DINITROTOLUEN 4-NITROTOLUENE HMX Nitroglycerin RDX	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-141-SA8N-SB-4.0-5.0MS (DUP08-SA8N-QC-050911 SL-078-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-9.0-10.0 SL-088-SA8N-SB-3.0-4.0 SL-135-SA8N-SB-2.0-3.0 SL-141-SA8N-SB-4.0-5.0)	VANADIUM	132	-	75.00-125.00	-	VANADIUM	No Qual, >4x
SL-141-SA8N-SB-4.0-5.0MS SL-141-SA8N-SB-4.0-5.0MSD (DUP08-SA8N-QC-050911 SL-078-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-9.0-10.0 SL-088-SA8N-SB-3.0-4.0 SL-135-SA8N-SB-2.0-3.0 SL-141-SA8N-SB-4.0-5.0)	ANTIMONY CHROMIUM	40 72	37 60	75.00-125.00 75.00-125.00	- -	ANTIMONY CHROMIUM	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE146 **Laboratory: LL**

EDD Filename: DE146_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-141-SA8N-SB-4.0-5.0MS SL-141-SA8N-SB-4.0-5.0MSD (DUP08-SA8N-QC-050911 SL-078-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-9.0-10.0 SL-088-SA8N-SB-3.0-4.0 SL-135-SA8N-SB-2.0-3.0 SL-141-SA8N-SB-4.0-5.0)	ALUMINUM IRON MAGNESIUM MANGANESE POTASSIUM TITANIUM	3500 2532 446 - 198 471	3175 1106 393 147 177 431	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 IRON MAGNESIUM MANGANESE POTASSIUM TITANIUM	No Qual, >4x
SL-141-SA8N-SB-4.0-5.0MS SL-141-SA8N-SB-4.0-5.0MSD (DUP08-SA8N-QC-050911 SL-078-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-9.0-10.0 SL-088-SA8N-SB-3.0-4.0 SL-135-SA8N-SB-2.0-3.0 SL-141-SA8N-SB-4.0-5.0)	CALCIUM	-421	2935	75.00-125.00	43 (20.00)	CALCIUM	J(all detects) UJ(all non-detects) No Qual based on %R, >4x
SL-141-SA8N-SB-4.0-5.0MSD (DUP08-SA8N-QC-050911 SL-078-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-9.0-10.0 SL-088-SA8N-SB-3.0-4.0 SL-135-SA8N-SB-2.0-3.0 SL-141-SA8N-SB-4.0-5.0)	PHOSPHORUS	-	73	75.00-125.00	-	PHOSPHORUS	No Qual, >4x

Method: 1625C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-141-SA8N-SB-4.0-5.0MSD (SL-141-SA8N-SB-4.0-5.0)	N-NITROSODIMETHYLAMINE	-	69	70.00-130.00	-	N-NITROSODIMETHYLAMINE	No Qual Diluted Out

Method: 8270C SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-141-SA8N-SB-4.0-5.0MSD (SL-141-SA8N-SB-4.0-5.0)	1-METHYLNAPHTHALENE 2-METHYLNAPHTHALENE	- -	67 48	72.00-123.00 64.00-103.00	35 (30.00) 58 (30.00)	1-METHYLNAPHTHALENE 2-METHYLNAPHTHALENE	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-141-SA8N-SB-4.0-5.0MSD (SL-141-SA8N-SB-4.0-5.0)	2-METHYLPHENOL	-	113	75.00-111.00	-	2-METHYLPHENOL	J(all detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE146 **Laboratory: LL**

EDD Filename: DE146_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-141-SA8N-SB-4.0-5.0MS SL-141-SA8N-SB-4.0-5.0MSD (SL-141-SA8N-SB-4.0-5.0)	2,4-DINITROPHENOL	16	17	20.00-143.00	-	2,4-DINITROPHENOL	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-141-SA8N-SB-4.0-5.0MS (DUP08-SA8N-QC-050911 SL-078-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-9.0-10.0 SL-088-SA8N-SB-3.0-4.0 SL-135-SA8N-SB-2.0-3.0 SL-141-SA8N-SB-4.0-5.0)	FLUORIDE	61	-	80.00-120.00	-	FLUORIDE	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-141-SA8N-SB-4.0-5.0MSD (SL-141-SA8N-SB-4.0-5.0)	TRICHLOROETHENE	-	-	53.00-144.00	50 (30.00)	TRICHLOROETHENE	J(all detects)
SL-141-SA8N-SB-4.0-5.0MS SL-141-SA8N-SB-4.0-5.0MSD (SL-141-SA8N-SB-4.0-5.0)	METHYLENE CHLORIDE	156	37	61.00-141.00	44 (30.00)	METHYLENE CHLORIDE	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE146 **Laboratory: LL**

EDD Filename: DE146_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-141-SA8N-SB-4.0-5.0DUP (DUP08-SA8N-QC-050911 SL-078-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-9.0-10.0 SL-088-SA8N-SB-3.0-4.0 SL-135-SA8N-SB-2.0-3.0 SL-141-SA8N-SB-4.0-5.0)	FLUORIDE	23	20.00	No Qual, OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-141-SA8N-SB-4.0-5.0DUP (DUP08-SA8N-QC-050911 SL-078-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-9.0-10.0 SL-088-SA8N-SB-3.0-4.0 SL-135-SA8N-SB-2.0-3.0 SL-141-SA8N-SB-4.0-5.0)	ANTIMONY	47	20.00	J(all detects) UJ(all non-detects) Sb, Cd, Ag, Tl No Qual, OK by difference
	ARSENIC	36	20.00	
	BARIUM	33	20.00	
	BERYLLIUM	34	20.00	
	CADMIUM	73	20.00	
	CHROMIUM	28	20.00	
	COBALT	28	20.00	
	COPPER	31	20.00	
	LEAD	28	20.00	
	NICKEL	34	20.00	
	SILVER	43	20.00	
	THALLIUM	28	20.00	
	VANADIUM	35	20.00	
	ZINC	24	20.00	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE146 **Laboratory: LL**

EDD Filename: DE146_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
P11372AQ240134A (DUP08-SA8N-QC-050911 SL-078-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-9.0-10.0 SL-088-SA8N-SB-3.0-4.0 SL-135-SA8N-SB-2.0-3.0 SL-141-SA8N-SB-4.0-5.0)	PETN	121	-	80.00-120.00	-	PETN	J (all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P13026AQ221413A (DUP08-SA8N-QC-050911 SL-078-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-9.0-10.0 SL-088-SA8N-SB-3.0-4.0 SL-135-SA8N-SB-2.0-3.0 SL-141-SA8N-SB-4.0-5.0)	ANTIMONY	156	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC limits

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSB51Q210349A LCSB51Y210413A (DUP08-SA8N-QC-050911 SL-078-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-4.0-5.0 SL-087-SA8N-SB-9.0-10.0 SL-088-SA8N-SB-3.0-4.0 SL-135-SA8N-SB-2.0-3.0 SL-141-SA8N-SB-4.0-5.0)	BROMOCHLOROMETHANE	128	128	79.00-124.00	-	BROMOCHLOROMETHANE	J(all detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE146 **Laboratory: LL**

EDD Filename: DE146_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1625C**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
DUP08-SA8N-QC-050911	N-Nitrosodimethylamine-d6	217	50.00-150.00	All Target Analytes	J (all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE146 **Laboratory: LL**

EDD Filename: DE146_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-141-SA8N-SB-4.0-5.0	DUP08-SA8N-QC-050911			
MOISTURE	16.8	15.2	10		No Qualifiers Applied

Method: 1625C
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-141-SA8N-SB-4.0-5.0	DUP08-SA8N-QC-050911			
N-NITROSODIMETHYLAMINE	401 U	23.5	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-141-SA8N-SB-4.0-5.0	DUP08-SA8N-QC-050911			
FLUORIDE	3.5	1.9	59	50.00	J(all detects)
Nitrate-NO3	2.0	9.8	132	50.00	

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-141-SA8N-SB-4.0-5.0	DUP08-SA8N-QC-050911			
ALUMINUM	22300	23200	4	50.00	
BORON	7.50	8.47	12	50.00	
CALCIUM	30800	26500	15	50.00	
IRON	30800	31500	2	50.00	
LITHIUM	32.1	33.3	4	50.00	
MAGNESIUM	7970	7900	1	50.00	
MANGANESE	362	379	5	50.00	
PHOSPHORUS	647	639	1	50.00	No Qualifiers Applied
POTASSIUM	5720	6140	7	50.00	
SODIUM	303	265	13	50.00	
STRONTIUM	58.4	59.8	2	50.00	
TIN	3.14	2.95	6	50.00	
TITANIUM	1350	1440	6	50.00	
Zirconium	5.89	6.58	11	50.00	

Field Duplicate RPD Report

Lab Reporting Batch ID: DE146 **Laboratory: LL**

EDD Filename: DE146_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg) SL-141-SA8N-SB-4.0-5.0	Concentration (mg/Kg) DUP08-SA8N-QC-050911	Sample RPD	eQAPP RPD	Flag
ANTIMONY	0.236	0.323	31	50.00	No Qualifiers Applied
ARSENIC	6.00	6.87	14	50.00	
BARIUM	92.9	113	20	50.00	
BERYLLIUM	0.594	0.716	19	50.00	
CADMIUM	0.162	0.147	10	50.00	
CHROMIUM	27.7	33.1	18	50.00	
COBALT	9.29	11.2	19	50.00	
COPPER	14.7	17.4	17	50.00	
LEAD	7.39	9.52	25	50.00	
MOLYBDENUM	0.398	0.424	6	50.00	
NICKEL	16.9	19.5	14	50.00	
SELENIUM	0.289	0.282	2	50.00	
SILVER	0.0290	0.0342	16	50.00	
THALLIUM	0.281	0.364	26	50.00	
VANADIUM	62.3	75.2	19	50.00	
ZINC	69.4	78.9	13	50.00	

Method: 8015M
Matrix: SO

Analyte	Concentration (mg/Kg) SL-141-SA8N-SB-4.0-5.0	Concentration (mg/Kg) DUP08-SA8N-QC-050911	Sample RPD	eQAPP RPD	Flag
EFH (C30-C40)	0.85	0.77	10	50.00	No Qualifiers Applied

Method: 8260B
Matrix: SO

Analyte	Concentration (ug/Kg) SL-141-SA8N-SB-4.0-5.0	Concentration (ug/Kg) DUP08-SA8N-QC-050911	Sample RPD	eQAPP RPD	Flag
METHYLENE CHLORIDE	30	20	40	50.00	No Qualifiers Applied
TOLUENE	0.09	0.08	12	50.00	
ACETONE	9.1 U	9.5	200	50.00	J(all detects) UJ(all non-detects)
CHLOROFORM	0.16	4.2 U	200	50.00	
TRICHLOROETHENE	17	6.3	92	50.00	

Method: 8270C SIM
Matrix: SO

Analyte	Concentration (ug/Kg) SL-141-SA8N-SB-4.0-5.0	Concentration (ug/Kg) DUP08-SA8N-QC-050911	Sample RPD	eQAPP RPD	Flag
NAPHTHALENE	2.0 U	0.91	200	50.00	J(all detects) UJ(all non-detects)

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit) SL-141-SA8N-SB-4.0-5.0	Concentration (pH unit) DUP08-SA8N-QC-050911	Sample RPD	eQAPP RPD	Flag
PH	8.05	7.91	2	50.00	No Qualifiers Applied

Field Duplicate RPD Report

Lab Reporting Batch ID: DE146 **Laboratory: LL**

EDD Filename: DE146_v1 **eQAPP Name: CDM_SSFL_110509**

Method: ASTM D1498
Matrix: SO

Analyte	*Concentration (mV)*		*Sample RPD*	*eQAPP RPD*	*Flag*
	SL-141-SA8N-SB-4.0-5.0	DUP08-SA8N-QC-050911			
Oxidation Reduction Potential	511	497	3		No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE146 **Laboratory: LL**

EDD Filename: DE146_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP08-SA8N-QC-050911	N-NITROSODIMETHYLAMINE	J	23.5	39.3	PQL	ng/Kg	J (all detects)
SL-087-SA8N-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	22.2	38.5	PQL	ng/Kg	J (all detects)

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-078-SA8N-SB-4.0-5.0	Nitrate-NO3	J	1.3	1.7	PQL	mg/Kg	J (all detects)
SL-087-SA8N-SB-9.0-10.0	Nitrate-NO3	J	1.5	1.8	PQL	mg/Kg	J (all detects)
SL-088-SA8N-SB-3.0-4.0	Nitrate-NO3	J	1.2	1.7	PQL	mg/Kg	J (all detects)

Method: 314.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-078-SA8N-SB-4.0-5.0	PERCHLORATE	J	17.3	34.0	PQL	ug/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP08-SA8N-QC-050911	TIN	J	2.95	11.3	PQL	mg/Kg	J (all detects)
SL-078-SA8N-SB-4.0-5.0	BORON	J	4.02	5.61	PQL	mg/Kg	J (all detects)
	TIN	J	3.16	11.2	PQL	mg/Kg	
	Zirconium	J	5.16	5.61	PQL	mg/Kg	
SL-087-SA8N-SB-4.0-5.0	BORON	J	2.27	5.61	PQL	mg/Kg	J (all detects)
	TIN	J	3.12	11.2	PQL	mg/Kg	
	Zirconium	J	5.14	5.61	PQL	mg/Kg	
SL-087-SA8N-SB-9.0-10.0	BORON	J	1.49	5.90	PQL	mg/Kg	J (all detects)
	TIN	J	3.06	11.8	PQL	mg/Kg	
SL-088-SA8N-SB-3.0-4.0	BORON	J	1.78	5.62	PQL	mg/Kg	J (all detects)
	SODIUM	J	91.0	112	PQL	mg/Kg	
	TIN	J	3.00	11.2	PQL	mg/Kg	
	Zirconium	J	2.14	5.62	PQL	mg/Kg	
SL-135-SA8N-SB-2.0-3.0	SODIUM	J	78.7	110	PQL	mg/Kg	J (all detects)
	TIN	J	3.09	11.0	PQL	mg/Kg	
	Zirconium	J	3.29	5.48	PQL	mg/Kg	
SL-141-SA8N-SB-4.0-5.0	TIN	J	3.14	11.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	5.89	5.95	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE146 **Laboratory: LL**

EDD Filename: DE146_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP08-SA8N-QC-050911	SELENIUM	J	0.282	0.462	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0342	0.116	PQL	mg/Kg	
SL-078-SA8N-SB-4.0-5.0	ANTIMONY	J	0.206	0.222	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0500	0.111	PQL	mg/Kg	
	SELENIUM	J	0.132	0.445	PQL	mg/Kg	
	SILVER	J	0.0734	0.111	PQL	mg/Kg	
SL-087-SA8N-SB-4.0-5.0	ANTIMONY	J	0.184	0.226	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.141	0.453	PQL	mg/Kg	
	SILVER	J	0.0363	0.113	PQL	mg/Kg	
SL-087-SA8N-SB-9.0-10.0	ANTIMONY	J	0.212	0.229	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0908	0.114	PQL	mg/Kg	
	SELENIUM	J	0.107	0.458	PQL	mg/Kg	
	SILVER	J	0.0538	0.114	PQL	mg/Kg	
SL-088-SA8N-SB-3.0-4.0	SELENIUM	J	0.342	0.449	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0304	0.112	PQL	mg/Kg	
SL-135-SA8N-SB-2.0-3.0	ANTIMONY	J	0.100	0.219	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.135	0.438	PQL	mg/Kg	
SL-141-SA8N-SB-4.0-5.0	SELENIUM	J	0.289	0.471	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0290	0.118	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-087-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.36	1.2	PQL	mg/Kg	J (all detects)
SL-087-SA8N-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.34	1.2	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-087-SA8N-SB-4.0-5.0	MERCURY	J	0.0042	0.109	PQL	mg/Kg	J (all detects)
SL-088-SA8N-SB-3.0-4.0	MERCURY	J	0.0056	0.113	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP08-SA8N-QC-050911	EFH (C30-C40)	J	0.77	1.4	PQL	mg/Kg	J (all detects)
SL-087-SA8N-SB-4.0-5.0	EFH (C30-C40)	J	0.83	1.4	PQL	mg/Kg	J (all detects)
SL-088-SA8N-SB-3.0-4.0	EFH (C30-C40)	J	0.60	1.4	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE146 **Laboratory: LL**

EDD Filename: DE146_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-141-SA8N-SB-4.0-5.0	EFH (C30-C40)	J	0.85	1.4	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-135-SA8N-SB-2.0-3.0	Aroclor 5460	J	1.5	3.6	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP08-SA8N-QC-050911	TOLUENE	J	0.08	4.2	PQL	ug/Kg	J (all detects)
SL-087-SA8N-SB-9.0-10.0	TOLUENE	J	0.1	3.8	PQL	ug/Kg	J (all detects)
SL-135-SA8N-SB-2.0-3.0	CHLOROFORM TOLUENE	J J	0.14 0.09	4.4 4.4	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-141-SA8N-SB-4.0-5.0	CHLOROFORM TOLUENE	J J	0.16 0.09	4.5 4.5	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
DUP08-SA8N-QC-050911	NAPHTHALENE	J	0.91	1.9	PQL	ug/Kg	J (all detects)
SL-088-SA8N-SB-3.0-4.0	2-METHYLNAPHTHALENE NAPHTHALENE	J J	0.83 1.1	1.9 1.9	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-135-SA8N-SB-2.0-3.0	BENZO(B)FLUORANTHENE BIS(2-ETHYLHEXYL)PHTHALATE NAPHTHALENE	J J J	1.2 6.7 1.2	1.8 20 1.8	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)

LDC #: 26275I4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/29/11
SDG #: DE146 ADR Page: 1 of 1
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: 5/9/11
II.	ICP/MS Tune	N	
III.	Calibration	N	
IV.	Blanks	A	Not found in MB/ICB/CCB
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Be, Ca, Fe, Mg, Mn, P, K, Ti, V, >4X, Ni not for RPD out.
VII.	Duplicate Sample Analysis	SW	Sb, Cd, Ag, Tl <5X
VIII.	Laboratory Control Samples (LCS)	N A	Sb
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Ba, Cr, Co, Cu, Pb, Ni, V, Zn
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
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-078-SA8N-SB-4.0-5.0	11		21		31	
2	SL-087-SA8N-SB-4.0-5.0	12		22		32	
3	SL-087-SA8N-SB-9.0-10.0	13		23		33	
4	SL-088-SA8N-SB-3.0-4.0	14		24		34	
5	SL-135-SA8N-SB-2.0-3.0	15		25		35	
6	SL-141-SA8N-SB-4.0-5.0	16		26		36	
7	DUP08-SA8N-QC-050911	17		27		37	
8	SL-141-SA8N-SB-4.0-5.0MS	18		28		38	
9	SL-141-SA8N-SB-4.0-5.0MSD	19		29		39	
10	SL-141-SA8N-SB-4.0-5.0DUP	20		30		40	

Notes:

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE146
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6281100BKG Matrix Spike Lab Sample ID: 6281101MS Matrix Spike Duplicate Lab Sample ID: 6281102MSD
% Solids for Sample: 83.2
Batch Id(s): P13008B, P13026A, P13011A

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	RPD	M
Aluminum		22272.1642		30519.7622		29753.8579		235.6712	235.6712	MG/KG	3500		3175		3			20	P
Antimony	121	0.2361		0.7954		0.7548		1.4140	1.4003	MG/KG	40	N	37	N	5		75 - 125	20	MS
Arsenic	75	5.9978		8.0717		8.6772		2.3567	2.3338	MG/KG	88		115		7		75 - 125	20	MS
Barium	137	92.9252		103.6246		105.7459		11.7836	11.6692	MG/KG	91		110		2			20	MS
Beryllium	9	0.5941		1.4086		1.3487		0.9427	0.9335	MG/KG	86		81		4		75 - 125	20	MS
Boron		7.5007		247.8342		247.1566		235.6712	235.6712	MG/KG	102		102		0		84 - 115	20	P
Cadmium	111	0.1618		1.2161		1.2547		1.1784	1.1669	MG/KG	89		94		3		75 - 125	20	MS
Calcium		30820.6505		28835.7336		44655.2508		471.3424	471.3424	MG/KG	-421		2935		43	*		20	P
Chromium	52	27.6914		36.1991		34.6574		11.7836	11.6692	MG/KG	72	N	60	N	4		75 - 125	20	MS
Cobalt	59	9.2949		68.6039		66.1875		58.9178	58.3458	MG/KG	101		98		4		75 - 125	20	MS
Copper	63	14.6776		25.4525		25.5788		11.7836	11.6692	MG/KG	91		93		0		75 - 125	20	MS
Iron		30753.8604		33737.0558		32057.6275		117.8356	117.8356	MG/KG	2532		1106		5			20	P
Lead	208	7.3859		11.4324		11.4684		3.5351	3.5007	MG/KG	114		117		0		75 - 125	20	MS
Lithium		32.0509		157.9680		157.2563		117.8356	117.8356	MG/KG	107		106		0		82 - 114	20	P
Magnesium		7974.7906		9026.0546		8901.9231		235.6712	235.6712	MG/KG	446		393		1			20	P
Manganese		362.2965		431.2559		449.1174		58.9178	58.9178	MG/KG	117		147		4			20	P
Mercury		0.0035	U	0.1862		0.1872		0.1991	0.1956	MG/KG	94		96		1		65 - 135	20	CV
Molybdenum	98	0.3980		11.1520		10.6913		11.7836	11.6692	MG/KG	91		88		4		75 - 125	20	MS
Nickel	60	16.8858		28.3984		28.1460		11.7836	11.6692	MG/KG	98		96		1		75 - 125	20	MS
Phosphorus		646.8250		748.3656		732.3070		117.8356	117.8356	MG/KG	86		73		2			20	P
Potassium		5715.0847		8048.1299		7799.1516		1178.3560	1178.3560	MG/KG	198		177		3			20	P
Selenium	78	0.2889	B	2.3803		2.3712		2.3567	2.3338	MG/KG	89		89		0		75 - 125	20	MS
Silver	107	0.0290	B	11.1567		10.9247		11.7836	11.6692	MG/KG	94		93		2		75 - 125	20	MS
Sodium		303.2809		1546.6004		1552.5900		1178.3560	1178.3560	MG/KG	106		106		0		75 - 125	20	P
Strontium		58.3968		178.8756		200.2274		117.8356	117.8356	MG/KG	102		120	N	11		75 - 115	20	P
Thallium	203	0.2809		0.7457		0.7053		0.4713	0.4668	MG/KG	99		91		6		75 - 125	20	MS
Tin		3.1417	B	415.2998		418.6369		471.3424	471.3424	MG/KG	87		88		1		80 - 110	20	P
Titanium		1353.2131		1907.6522		1861.1661		117.8356	117.8356	MG/KG	471		431		2			20	P
Vanadium	51	62.3350		77.9129		74.7760		11.7836	11.6692	MG/KG	132		107		4			20	MS
Zinc	66	69.4052		79.4448		78.1833		11.7836	11.6692	MG/KG	85		75		2			20	MS
Zirconium		5.8930	B	105.5230		105.8623		117.8356	117.8356	MG/KG	85		85		0		75 - 125	20	P

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 6
DUPLICATES
SDG No.: DE146
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6281100BKG
% Solids for Duplicate: 84.2
Batch ID(s): P13008B, P13026A, P13011A
Concentration Units: MG/KG

Duplicate Lab Sample ID: 6281103DUP
% Solids for Sample: 83.2

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			22272.1642		23121.9497		4		P
Antimony	121	0.2	0.2361		0.3801		47		MS
Arsenic	75		5.9978		8.6181		36	*	MS
Barium	137		92.9252		129.0223		33	*	MS
Beryllium	9		0.5941		0.8352		34	*	MS
Boron		6.0	7.5007		9.1626		20		P
Cadmium	111	0.1	0.1618		0.3463		73	*	MS
Calcium			30820.6505		31585.3214		2		P
Chromium	52		27.6914		36.8907		28	*	MS
Cobalt	59		9.2949		12.3096		28	*	MS
Copper	63		14.6776		19.9614		31	*	MS
Iron			30753.8604		31350.4341		2		P
Lead	208		7.3859		9.7915		28	*	MS
Lithium			32.0509		32.5756		2		P
Magnesium			7974.7906		8085.5151		1		P
Manganese			362.2965		395.9800		9		P
Mercury			0.0035	U	0.0035	U			CV
Molybdenum	98	0.1	0.3980		0.4296		8		MS
Nickel	60		16.8858		23.6934		34	*	MS
Phosphorus			646.8250		638.4090		1		P
Potassium			5715.0847		5910.1393		3		P
Selenium	78		0.2889	B	0.3380	B	16		MS
Silver	107		0.0290	B	0.0187	B	43		MS
Sodium		119.0	303.2809		316.1945		4		P
Strontium			58.3968		64.0275		9		P
Thallium	203	0.1	0.2809		0.3734		28		MS
Tin			3.1417	B	3.2405	B	3		P
Titanium			1353.2131		1405.2756		4		P
Vanadium	51		62.3350		88.8947		35	*	MS
Zinc	66		69.4052		87.8951		24	*	MS
Zirconium		6.0	5.8930	B	6.7028		13		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:	CONCENTRATION QUALIFIERS:
P = ICP Atomic Emission Spectrometer	U= Below MDL
MS = ICP Mass Spectrometry	B= Below LOQ
CV = Cold Vapor	FLAGS:
AF = Cold Vapor Atomic Fluorescence	* = Duplicate Out of Spec

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE146
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6281100BKG Serial Dilution Lab Sample ID: 6281100L
Batch ID(s): P13008B, P13026A
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		187157.4500		190601.4500		2		P
Antimony	121	1.0020		1.5000	U	100		MS
Arsenic	75	25.4500		29.2800		15		MS
Barium	137	394.3000		481.6000		22	E	MS
Beryllium	9	2.5210		3.6570		45		MS
Boron		63.0300		57.4500	B	9		P
Cadmium	111	0.6864		1.0000	U	100		MS
Calcium		258992.0900		263014.0500		2		P
Chromium	52	117.5000		151.7000		29	E	MS
Cobalt	59	39.4400		53.4000		35	E	MS
Copper	63	62.2800		78.4500		26	E	MS
Iron		258430.8400		256026.1500		1		P
Lead	208	31.3400		40.2500		28	E	MS
Lithium		269.3300		276.9000		3		P
Magnesium		67013.7600		70145.5500		5		P
Manganese		3044.4500		3245.8500		7		P
Molybdenum	98	1.6890		2.3535	B	39		MS
Nickel	60	71.6500		89.2000		24	E	MS
Phosphorus		5435.4000		5432.9500		0		P
Potassium		48025.0000		48867.8500		2		P
Selenium	78	1.2260	B	2.3495	B	92		MS
Silver	107	0.1230	B	0.3000	U	100		MS
Sodium		2548.5300		2395.9000	B	6		P
Strontium		490.7200		503.1500		3		P
Thallium	203	1.1920		1.7165	B	44		MS
Tin		26.4000	B	50.0000	U	100		P
Titanium		11371.3200		11709.0000		3		P
Vanadium	51	264.5000		333.8000		26	E	MS
Zinc	66	294.5000		417.1000		42	E	MS
Zirconium		49.5200	B	57.5500	B	16		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: ~~DE146 3268~~
U= Below MDL
B= Below LOQ

FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

SAMPLE DELIVERY GROUP

DE147

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-Sep-2011	SL-007-SA8S-SS-0.0-0.5	6423878	N	METHOD	1613B	IV
29-Sep-2011	SL-005-SA8S-SS-0.0-0.5	6423877	N	METHOD	1613B	IV
29-Sep-2011	SL-177-SA7-SB-3.0-4.0	6423886	N	METHOD	1613B	IV
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5	6423874	N	METHOD	1613B	IV
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MS	6423875	MS	METHOD	1613B	IV
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MSD	6423876	MSD	METHOD	1613B	IV
29-Sep-2011	SL-127-SA7-SB-4.0-5.0	6423885	N	METHOD	1613B	IV
29-Sep-2011	DUP01-SA8S-QC-092911	6423883	FD	METHOD	1613B	IV
29-Sep-2011	SL-001-SA8S-SS-0.0-0.5	6423873	N	METHOD	1613B	IV
29-Sep-2011	SL-126-SA7-SB-4.0-5.0	6423884	N	METHOD	1613B	IV
29-Sep-2011	SL-024-SA8S-SS-0.0-0.5	6423882	N	METHOD	1613B	IV
29-Sep-2011	SL-013-SA8S-SS-0.0-0.5	6423879	N	METHOD	1613B	IV
29-Sep-2011	SL-014-SA8S-SS-0.0-0.5	6423880	N	METHOD	1613B	IV
29-Sep-2011	SL-015-SA8S-SS-0.0-0.5	6423881	N	METHOD	1613B	IV
06-Oct-2011	SL-229-SA6-SS-0.0-0.5	6431147	N	METHOD	1613B	IV
06-Oct-2011	SL-229-SA6-SB-2.0-3.0	6431152	N	METHOD	1613B	IV
06-Oct-2011	SL-230-SA6-SS-0.0-0.5	6431148	N	METHOD	1613B	IV
06-Oct-2011	SL-230-SA6-SB-4.0-5.0	6431153	N	METHOD	1613B	IV
06-Oct-2011	SL-254-SA6-SB-2.5-3.5	6431154	N	METHOD	1613B	IV
06-Oct-2011	SL-234-SA6-SS-0.0-0.5	6431149	N	METHOD	1613B	IV
06-Oct-2011	SL-232-SA6-SS-0.0-0.5	6431150	N	METHOD	1613B	IV
06-Oct-2011	SL-232-SA6-SB-2.5-3.5	6431151	N	METHOD	1613B	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: DX147 **Laboratory:** LL

EDD Filename: DX147_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: DUP01-SA8S-QC-092911 *Collected:* 9/29/2011 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
1,2,3,4,6,7,8-HPCDD	3.04	JB	0.0303	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.615	JBQ	0.0183	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0624	JBQ	0.0245	MDL	5.15	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0704	JQ	0.0271	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.361	J	0.0281	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.193	JB	0.0260	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.148	JB	0.0233	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.138	JB	0.0256	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0609	JB	0.0205	MDL	5.15	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDD	0.0846	JQ	0.0258	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0763	JB	0.0215	MDL	5.15	PQL	ng/Kg	UJ	B, FD
2,3,4,6,7,8-HXCDF	0.149	JB	0.0186	MDL	5.15	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.233	JB	0.0220	MDL	5.15	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.265	JB	0.0349	MDL	1.03	PQL	ng/Kg	J	Z
OCDF	1.00	JB	0.0284	MDL	10.3	PQL	ng/Kg	J	Z

Sample ID: SL-001-SA8S-SS-0.0-0.5 *Collected:* 9/29/2011 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
1,2,3,4,6,7,8-HPCDD	2.77	JB	0.0590	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.592	JB	0.0323	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.118	JBQ	0.0499	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0733	J	0.0329	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.288	JQ	0.0388	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.152	JB	0.0326	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.133	JBQ	0.0311	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.125	JB	0.0347	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0547	JBQ	0.0320	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0599	J	0.0362	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0941	JBQ	0.0250	MDL	5.28	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.203	JB	0.0242	MDL	5.28	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.381	JB	0.0263	MDL	5.28	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.179	JB	0.0436	MDL	1.06	PQL	ng/Kg	U	B
OCDF	1.15	JB	0.0920	MDL	10.6	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX147 **Laboratory: LL**

EDD Filename: DX147_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **SVOA**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: SL-003-SA8S-SS-0.0-0.5 ***Collected:*** 9/29/2011 9:55:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2.71	JB	0.0405	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.574	JB	0.0211	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0457	JB	0.0282	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0692	JQ	0.0320	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.220	J	0.0352	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.165	JB	0.0345	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.113	JBQ	0.0268	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.163	JBQ	0.0290	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0252	U	0.0252	MDL	5.09	PQL	ng/Kg	UJ	FD
1,2,3,7,8-PECDD	0.0765	J	0.0313	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0217	U	0.0217	MDL	5.09	PQL	ng/Kg	UJ	FD
2,3,4,6,7,8-HXCDF	0.150	JB	0.0209	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.317	JB	0.0220	MDL	5.09	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.196	JB	0.0375	MDL	1.02	PQL	ng/Kg	J	Z
OCDF	0.882	JB	0.0464	MDL	10.2	PQL	ng/Kg	U	B

Sample ID: SL-005-SA8S-SS-0.0-0.5 ***Collected:*** 9/29/2011 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
1,2,3,4,6,7,8-HPCDD	0.781	JB	0.0297	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.151	JB	0.0191	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0559	JB	0.0189	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0315	J	0.0252	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0398	JQ	0.0348	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.0811	JBQ	0.0273	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0340	JB	0.0326	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0560	JB	0.0238	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0374	JBQ	0.0192	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0587	JQ	0.0286	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0389	JB	0.0198	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0512	JB	0.0162	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0720	JBQ	0.0189	MDL	5.09	PQL	ng/Kg	U	B
OCDD	5.28	JB	0.0248	MDL	10.2	PQL	ng/Kg	J	Z
OCDF	0.353	JB	0.0407	MDL	10.2	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX147 **Laboratory: LL**

EDD Filename: DX147_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-007-SA8S-SS-0.0-0.5 *Collected:* 9/29/2011 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
1,2,3,4,6,7,8-HPCDD	2.29	JB	0.0341	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.474	JB	0.0190	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0508	JB	0.0211	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0397	JQ	0.0280	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.0598	JQ	0.0255	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.119	JB	0.0270	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0674	JB	0.0227	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.118	JBQ	0.0273	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0505	JBQ	0.0178	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0474	JQ	0.0270	MDL	5.14	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0823	JBQ	0.0153	MDL	5.14	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0428	JBQ	0.0171	MDL	5.14	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0545	JB	0.0312	MDL	1.03	PQL	ng/Kg	U	B
OCDF	0.884	JB	0.0379	MDL	10.3	PQL	ng/Kg	U	B

Sample ID: SL-013-SA8S-SS-0.0-0.5 *Collected:* 9/29/2011 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
1,2,3,4,6,7,8-HPCDD	2.17	JB	0.0342	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.756	JB	0.0242	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.211	JBQ	0.0263	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.224	J	0.0317	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.438	J	0.0445	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.253	JB	0.0310	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.372	JBQ	0.0382	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.289	JB	0.0323	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.222	JBQ	0.0314	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.188	J	0.0333	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.268	JBQ	0.0288	MDL	5.14	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.311	JB	0.0265	MDL	5.14	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.601	JB	0.0291	MDL	5.14	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.183	JB	0.0618	MDL	1.03	PQL	ng/Kg	U	B
OCDF	1.27	JB	0.0324	MDL	10.3	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX147 Laboratory: LL

EDD Filename: DX147_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-014-SA8S-SS-0.0-0.5 *Collected:* 9/29/2011 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
1,2,3,4,6,7,8-HPCDF	0.690	JB	0.0225	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0761	JBQ	0.0259	MDL	5.20	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.194	J	0.0411	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.220	J	0.0344	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.247	JB	0.0443	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.172	JB	0.0266	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.210	JBQ	0.0377	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.164	J	0.0295	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.220	JB	0.0239	MDL	5.20	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.184	JB	0.0193	MDL	5.20	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.409	JB	0.0245	MDL	5.20	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0992	JB	0.0421	MDL	1.04	PQL	ng/Kg	U	B
OCDF	1.33	JB	0.0312	MDL	10.4	PQL	ng/Kg	J	Z

Sample ID: SL-015-SA8S-SS-0.0-0.5 *Collected:* 9/29/2011 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
1,2,3,4,6,7,8-HPCDD	5.08	JB	0.0435	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.862	JB	0.0254	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.108	JB	0.0244	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0940	JBQ	0.0360	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.189	JBQ	0.0463	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.169	JBQ	0.0345	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.129	JBQ	0.0412	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0999	JB	0.0333	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0687	JQ	0.0240	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0439	JB	0.0285	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0687	JB	0.0184	MDL	5.14	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.178	JB	0.0190	MDL	5.14	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.220	JBQ	0.0185	MDL	5.14	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0580	JQ	0.0372	MDL	1.03	PQL	ng/Kg	J	Z
OCDF	0.875	JB	0.0367	MDL	10.3	PQL	ng/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DX147 **Laboratory: LL**

EDD Filename: DX147_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **SVOA**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: SL-024-SA8S-SS-0.0-0.5 ***Collected:*** 9/29/2011 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
1,2,3,4,6,7,8-HPCDD	3.94	JB	0.0303	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.772	JB	0.0181	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0874	JBQ	0.0267	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.137	JBQ	0.0388	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.179	JBQ	0.0242	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.225	JB	0.0417	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.138	JB	0.0222	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.183	JBQ	0.0314	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0642	JQ	0.0265	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0493	JBQ	0.0288	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.190	JB	0.0273	MDL	5.00	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.190	JBQ	0.0224	MDL	5.00	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0436	JBQ	0.0256	MDL	5.00	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0482	JQ	0.0321	MDL	1.00	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.282	J	0.0531	MDL	1.00	PQL	ng/Kg	J	Z
OCDF	1.26	JB	0.0253	MDL	10.0	PQL	ng/Kg	U	B

Sample ID: SL-126-SA7-SB-4.0-5.0 ***Collected:*** 9/29/2011 11:33:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.211	JBQ	0.0217	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0901	JBQ	0.0170	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0193	JB	0.0156	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.124	JB	0.0231	MDL	5.35	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.234	JB	0.0209	MDL	5.35	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.210	JBQ	0.0136	MDL	5.35	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0429	JB	0.0155	MDL	5.35	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0159	JB	0.0120	MDL	5.35	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0412	JB	0.0145	MDL	5.35	PQL	ng/Kg	U	B
OCDD	0.577	JB	0.0193	MDL	10.7	PQL	ng/Kg	U	B
OCDF	0.124	JBQ	0.0278	MDL	10.7	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX147 **Laboratory: LL**

EDD Filename: DX147_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **SVOA**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: SL-127-SA7-SB-4.0-5.0 ***Collected:*** 9/29/2011 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
1,2,3,4,6,7,8-HPCDD	0.284	JB	0.0175	MDL	5.11	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.163	JB	0.0112	MDL	5.11	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0235	JBQ	0.0114	MDL	5.11	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0219	J	0.0146	MDL	5.11	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.0346	JB	0.0158	MDL	5.11	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0482	JBQ	0.0180	MDL	5.11	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0636	JBQ	0.0146	MDL	5.11	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0500	JBQ	0.0119	MDL	5.11	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0360	J	0.0167	MDL	5.11	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0254	JBQ	0.00973	MDL	5.11	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0396	JB	0.0104	MDL	5.11	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0610	JBQ	0.00952	MDL	5.11	PQL	ng/Kg	U	B
OCDD	0.862	JB	0.0149	MDL	10.2	PQL	ng/Kg	U	B
OCDF	0.230	JB	0.0225	MDL	10.2	PQL	ng/Kg	U	B

Sample ID: SL-177-SA7-SB-3.0-4.0 ***Collected:*** 9/29/2011 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
1,2,3,4,6,7,8-HPCDD	0.339	JB	0.0214	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.135	JBQ	0.0113	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0411	JBQ	0.0186	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0413	JBQ	0.0161	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0551	JBQ	0.0204	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0191	JBQ	0.0139	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0930	JBQ	0.0202	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0556	JQ	0.0176	MDL	5.28	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0346	JBQ	0.0234	MDL	5.28	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0291	JBQ	0.0138	MDL	5.28	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0511	JBQ	0.0147	MDL	5.28	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0319	JQ	0.0314	MDL	1.06	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0344	JQ	0.0252	MDL	1.06	PQL	ng/Kg	J	Z
OCDD	1.15	JB	0.0208	MDL	10.6	PQL	ng/Kg	U	B
OCDF	0.179	JB	0.0316	MDL	10.6	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX147 **Laboratory: LL**

EDD Filename: DX147_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-229-SA6-SB-2.0-3.0 *Collected:* 10/6/2011 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
1,2,3,4,7,8,9-HPCDF	3.51	JB	0.0617	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	2.52	JB	0.0622	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	1.65	JB	0.0372	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	1.38	JB	0.0337	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	3.92	JB	0.0645	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.432	J	0.0407	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	1.03	JB	0.0556	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.714	JB	0.0280	MDL	5.18	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	2.20	JB	0.0354	MDL	5.18	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.834	JB	0.0280	MDL	5.18	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.224	J	0.0333	MDL	1.04	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.319	J	0.0443	MDL	1.04	PQL	ng/Kg	J	Z

Sample ID: SL-229-SA6-SS-0.0-0.5 *Collected:* 10/6/2011 8:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	2.79	JB	0.0599	MDL	5.23	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	1.87	J	0.0542	MDL	5.23	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	1.32	J	0.0740	MDL	5.23	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	1.06	JB	0.0629	MDL	5.23	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	2.84	JB	0.0511	MDL	5.23	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.254	JBQ	0.0378	MDL	5.23	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	2.23	J	0.0461	MDL	5.23	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.255	JBQ	0.0214	MDL	5.23	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	1.79	JB	0.0359	MDL	5.23	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.555	JB	0.0214	MDL	5.23	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.151	JBQ	0.0307	MDL	1.05	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.184	JBQ	0.0368	MDL	1.05	PQL	ng/Kg	U	B

Sample ID: SL-230-SA6-SB-4.0-5.0 *Collected:* 10/6/2011 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
1,2,3,4,6,7,8-HPCDF	3.22	JB	0.0287	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.398	JBQ	0.0497	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.206	JBQ	0.0591	MDL	5.18	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX147 **Laboratory: LL**

EDD Filename: DX147_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-230-SA6-SB-4.0-5.0 *Collected:* 10/6/2011 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
1,2,3,4,7,8-HXCDF	0.336	JB	0.0404	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.544	JBQ	0.0581	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.234	JBQ	0.0346	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.226	JBQ	0.0605	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0487	JQ	0.0456	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0606	JBQ	0.0544	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.110	JBQ	0.0274	MDL	5.18	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.322	JB	0.0365	MDL	5.18	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0939	JBQ	0.0274	MDL	5.18	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0620	JQ	0.0441	MDL	1.04	PQL	ng/Kg	J	Z
OCDF	7.59	JB	0.0550	MDL	10.4	PQL	ng/Kg	J	Z

Sample ID: SL-230-SA6-SS-0.0-0.5 *Collected:* 10/6/2011 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
1,2,3,4,7,8,9-HPCDF	1.20	JB	0.0490	MDL	5.34	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.816	JB	0.0620	MDL	5.34	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	1.95	JB	0.0434	MDL	5.34	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	2.49	JB	0.0629	MDL	5.34	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	1.07	JB	0.0399	MDL	5.34	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	1.51	JB	0.0630	MDL	5.34	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.316	J	0.0474	MDL	5.34	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.427	JB	0.0702	MDL	5.34	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	1.45	JB	0.0473	MDL	5.34	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	1.09	JB	0.0433	MDL	5.34	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	1.35	JB	0.0449	MDL	5.34	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0733	J	0.0493	MDL	1.07	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.939	J	0.0847	MDL	1.07	PQL	ng/Kg	J	Z

Sample ID: SL-232-SA6-SB-2.5-3.5 *Collected:* 10/6/2011 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
1,2,3,4,6,7,8-HPCDD	0.308	JBQ	0.0206	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.175	JBQ	0.0145	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0271	JBQ	0.0270	MDL	5.37	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX147 **Laboratory:** LL

EDD Filename: DX147_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-232-SA6-SB-2.5-3.5 *Collected:* 10/6/2011 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
1,2,3,4,7,8-HxCDD	0.0832	JBQ	0.0237	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.106	JBQ	0.0177	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0730	JB	0.0225	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0607	JB	0.0146	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0963	JB	0.0216	MDL	5.37	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0889	JQ	0.0201	MDL	5.37	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.121	JBQ	0.0144	MDL	5.37	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0858	JB	0.0156	MDL	5.37	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0960	JB	0.0151	MDL	5.37	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0684	JQ	0.0263	MDL	1.07	PQL	ng/Kg	J	Z
OCDD	1.23	JB	0.0212	MDL	10.7	PQL	ng/Kg	U	B
OCDF	0.213	JB	0.0310	MDL	10.7	PQL	ng/Kg	U	B

Sample ID: SL-232-SA6-SS-0.0-0.5 *Collected:* 10/6/2011 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
1,2,3,4,6,7,8-HPCDD	4.46	JB	0.0399	MDL	5.61	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	1.18	JB	0.0246	MDL	5.61	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.131	JBQ	0.0420	MDL	5.61	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.129	JBQ	0.0366	MDL	5.61	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.158	JBQ	0.0292	MDL	5.61	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.289	JB	0.0324	MDL	5.61	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.103	JBQ	0.0255	MDL	5.61	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.291	JB	0.0307	MDL	5.61	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0996	JQ	0.0313	MDL	5.61	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.104	JBQ	0.0340	MDL	5.61	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0936	JB	0.0212	MDL	5.61	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.175	JB	0.0251	MDL	5.61	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.209	JB	0.0214	MDL	5.61	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0661	J	0.0364	MDL	1.12	PQL	ng/Kg	J	Z
OCDF	3.55	JB	0.0404	MDL	11.2	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX147 **Laboratory: LL**

EDD Filename: DX147_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-234-SA6-SS-0.0-0.5 *Collected:* 10/6/2011 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
1,2,3,4,6,7,8-HPCDF	3.56	JB	0.0220	MDL	5.51	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.338	JB	0.0372	MDL	5.51	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.200	JB	0.0436	MDL	5.51	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.386	JBQ	0.0378	MDL	5.51	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.648	JB	0.0422	MDL	5.51	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.369	JB	0.0319	MDL	5.51	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.588	JB	0.0420	MDL	5.51	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.183	JQ	0.0401	MDL	5.51	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.202	JB	0.0429	MDL	5.51	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.546	JB	0.0320	MDL	5.51	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.551	JB	0.0320	MDL	5.51	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.783	JBQ	0.0315	MDL	5.51	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.294	J	0.0639	MDL	1.10	PQL	ng/Kg	J	Z

Sample ID: SL-254-SA6-SB-2.5-3.5 *Collected:* 10/6/2011 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
1,2,3,4,6,7,8-HPCDD	2.33	JB	0.0314	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.913	JB	0.0185	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0826	JB	0.0311	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0357	JBQ	0.0309	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.281	JBQ	0.0277	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.247	JB	0.0313	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.172	JBQ	0.0229	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.198	JBQ	0.0307	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0849	JQ	0.0302	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0424	JB	0.0276	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.242	JB	0.0225	MDL	5.09	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.133	JB	0.0239	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.472	JB	0.0226	MDL	5.09	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.372	JQ	0.0526	MDL	1.02	PQL	ng/Kg	J	Z
OCDF	1.19	JB	0.0340	MDL	10.2	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX147

Laboratory: LL

EDD Filename: DX147_v1

eQAPP Name: CDM_SSFL_110509

* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DX147

Laboratory: LL

EDD Filename: DX147_v1

eQAPP Name: CDM_SSFL_110509

Reason Code Legend

Reason Code	*Description*
B	Method Blank Contamination
FD	Field Duplicate Precision
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DX147

Method Blank Outlier Report

Lab Reporting Batch ID: DX147 **Laboratory: LL**

EDD Filename: DX147_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK2860B370829	10/15/2011 8:29:00 AM	1,2,3,4,6,7,8-HPCDD	0.202 ng/Kg	DUP01-SA8S-QC-092911
		1,2,3,4,6,7,8-HPCDF	0.0913 ng/Kg	SL-001-SA8S-SS-0.0-0.5
		1,2,3,4,7,8,9-HPCDF	0.0260 ng/Kg	SL-003-SA8S-SS-0.0-0.5
		1,2,3,6,7,8-HXCDD	0.0344 ng/Kg	SL-005-SA8S-SS-0.0-0.5
		1,2,3,6,7,8-HXCDF	0.0263 ng/Kg	SL-007-SA8S-SS-0.0-0.5
		1,2,3,7,8,9-HXCDD	0.0271 ng/Kg	SL-013-SA8S-SS-0.0-0.5
		1,2,3,7,8,9-HXCDF	0.0293 ng/Kg	SL-014-SA8S-SS-0.0-0.5
		1,2,3,7,8-PECDF	0.0281 ng/Kg	SL-126-SA7-SB-4.0-5.0
		2,3,4,6,7,8-HXCDF	0.0606 ng/Kg	SL-127-SA7-SB-4.0-5.0
		2,3,4,7,8-PECDF	0.0553 ng/Kg	SL-229-SA6-SS-0.0-0.5
		2,3,7,8-TCDD	0.0626 ng/Kg	
		2,3,7,8-TCDF	0.0391 ng/Kg	
		OCDD	0.380 ng/Kg	
		OCDF	0.189 ng/Kg	
BLK2920B371824	10/20/2011 6:24:00 PM	1,2,3,4,6,7,8-HPCDD	0.305 ng/Kg	SL-015-SA8S-SS-0.0-0.5
		1,2,3,4,6,7,8-HPCDF	0.370 ng/Kg	SL-024-SA8S-SS-0.0-0.5
		1,2,3,4,7,8,9-HPCDF	0.0805 ng/Kg	SL-177-SA7-SB-3.0-4.0
		1,2,3,4,7,8-HxCDD	0.0310 ng/Kg	SL-229-SA6-SB-2.0-3.0
		1,2,3,4,7,8-HXCDF	0.114 ng/Kg	SL-230-SA6-SB-4.0-5.0
		1,2,3,6,7,8-HXCDD	0.0294 ng/Kg	SL-230-SA6-SS-0.0-0.5
		1,2,3,6,7,8-HXCDF	0.0822 ng/Kg	SL-232-SA6-SB-2.5-3.5
		1,2,3,7,8,9-HXCDD	0.0415 ng/Kg	SL-232-SA6-SS-0.0-0.5
		1,2,3,7,8-PECDD	0.0488 ng/Kg	SL-234-SA6-SS-0.0-0.5
		1,2,3,7,8-PECDF	0.0392 ng/Kg	SL-254-SA6-SB-2.5-3.5
		2,3,4,6,7,8-HXCDF	0.0874 ng/Kg	
		2,3,4,7,8-PECDF	0.0693 ng/Kg	
		OCDD	0.653 ng/Kg	
		OCDF	0.256 ng/Kg	

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-SA8S-QC-092911(RES)	1,2,3,4,7,8,9-HPCDF	0.0624 ng/Kg	5.15U ng/Kg
DUP01-SA8S-QC-092911(RES)	1,2,3,7,8,9-HXCDF	0.0609 ng/Kg	5.15U ng/Kg
DUP01-SA8S-QC-092911(RES)	1,2,3,7,8-PECDF	0.0763 ng/Kg	5.15U ng/Kg
DUP01-SA8S-QC-092911(RES)	2,3,4,6,7,8-HXCDF	0.149 ng/Kg	5.15U ng/Kg
DUP01-SA8S-QC-092911(RES)	2,3,4,7,8-PECDF	0.233 ng/Kg	5.15U ng/Kg
SL-001-SA8S-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.118 ng/Kg	5.28U ng/Kg
SL-001-SA8S-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDD	0.152 ng/Kg	5.28U ng/Kg
SL-001-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8,9-HXCDD	0.125 ng/Kg	5.28U ng/Kg
SL-001-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.0547 ng/Kg	5.28U ng/Kg
SL-001-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.0941 ng/Kg	5.28U ng/Kg
SL-001-SA8S-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.203 ng/Kg	5.28U ng/Kg
SL-001-SA8S-SS-0.0-0.5(RES)	2,3,7,8-TCDF	0.179 ng/Kg	1.06U ng/Kg
SL-003-SA8S-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0457 ng/Kg	5.09U ng/Kg
SL-003-SA8S-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDD	0.165 ng/Kg	5.09U ng/Kg
SL-003-SA8S-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.113 ng/Kg	5.09U ng/Kg
SL-003-SA8S-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.150 ng/Kg	5.09U ng/Kg
SL-003-SA8S-SS-0.0-0.5(RES)	OCDF	0.882 ng/Kg	10.2U ng/Kg
SL-005-SA8S-SS-0.0-0.5(RES)	1,2,3,4,6,7,8-HPCDD	0.781 ng/Kg	5.09U ng/Kg
SL-005-SA8S-SS-0.0-0.5(RES)	1,2,3,4,6,7,8-HPCDF	0.151 ng/Kg	5.09U ng/Kg

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DX147 **Laboratory: LL**

EDD Filename: DX147_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
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-005-SA8S-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0559 ng/Kg	5.09U ng/Kg
SL-005-SA8S-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDD	0.0811 ng/Kg	5.09U ng/Kg
SL-005-SA8S-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.0340 ng/Kg	5.09U ng/Kg
SL-005-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8,9-HXCDD	0.0560 ng/Kg	5.09U ng/Kg
SL-005-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.0374 ng/Kg	5.09U ng/Kg
SL-005-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.0389 ng/Kg	5.09U ng/Kg
SL-005-SA8S-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.0512 ng/Kg	5.09U ng/Kg
SL-005-SA8S-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.0720 ng/Kg	5.09U ng/Kg
SL-005-SA8S-SS-0.0-0.5(RES)	OCDF	0.353 ng/Kg	10.2U ng/Kg
SL-007-SA8S-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0508 ng/Kg	5.14U ng/Kg
SL-007-SA8S-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDD	0.119 ng/Kg	5.14U ng/Kg
SL-007-SA8S-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.0674 ng/Kg	5.14U ng/Kg
SL-007-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8,9-HXCDD	0.118 ng/Kg	5.14U ng/Kg
SL-007-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.0505 ng/Kg	5.14U ng/Kg
SL-007-SA8S-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.0823 ng/Kg	5.14U ng/Kg
SL-007-SA8S-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.0428 ng/Kg	5.14U ng/Kg
SL-007-SA8S-SS-0.0-0.5(RES)	2,3,7,8-TCDF	0.0545 ng/Kg	1.03U ng/Kg
SL-007-SA8S-SS-0.0-0.5(RES)	OCDF	0.884 ng/Kg	10.3U ng/Kg
SL-013-SA8S-SS-0.0-0.5(RES)	2,3,7,8-TCDF	0.183 ng/Kg	1.03U ng/Kg
SL-014-SA8S-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0761 ng/Kg	5.20U ng/Kg
SL-014-SA8S-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.184 ng/Kg	5.20U ng/Kg
SL-014-SA8S-SS-0.0-0.5(RES)	2,3,7,8-TCDF	0.0992 ng/Kg	1.04U ng/Kg
SL-015-SA8S-SS-0.0-0.5(RES)	1,2,3,4,6,7,8-HPCDF	0.862 ng/Kg	5.14U ng/Kg
SL-015-SA8S-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.108 ng/Kg	5.14U ng/Kg
SL-015-SA8S-SS-0.0-0.5(RES)	1,2,3,4,7,8-HxCDD	0.0940 ng/Kg	5.14U ng/Kg
SL-015-SA8S-SS-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.189 ng/Kg	5.14U ng/Kg
SL-015-SA8S-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.129 ng/Kg	5.14U ng/Kg
SL-015-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8,9-HXCDD	0.0999 ng/Kg	5.14U ng/Kg
SL-015-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.0439 ng/Kg	5.14U ng/Kg
SL-015-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.0687 ng/Kg	5.14U ng/Kg
SL-015-SA8S-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.178 ng/Kg	5.14U ng/Kg
SL-015-SA8S-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.220 ng/Kg	5.14U ng/Kg
SL-015-SA8S-SS-0.0-0.5(RES)	OCDF	0.875 ng/Kg	10.3U ng/Kg
SL-024-SA8S-SS-0.0-0.5(RES)	1,2,3,4,6,7,8-HPCDF	0.772 ng/Kg	5.00U ng/Kg
SL-024-SA8S-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0874 ng/Kg	5.00U ng/Kg
SL-024-SA8S-SS-0.0-0.5(RES)	1,2,3,4,7,8-HxCDD	0.137 ng/Kg	5.00U ng/Kg
SL-024-SA8S-SS-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.179 ng/Kg	5.00U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX147 **Laboratory: LL**

EDD Filename: DX147_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
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-024-SA8S-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.138 ng/Kg	5.00U ng/Kg
SL-024-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8,9-HXCDD	0.183 ng/Kg	5.00U ng/Kg
SL-024-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.0493 ng/Kg	5.00U ng/Kg
SL-024-SA8S-SS-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.190 ng/Kg	5.00U ng/Kg
SL-024-SA8S-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.190 ng/Kg	5.00U ng/Kg
SL-024-SA8S-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.0436 ng/Kg	5.00U ng/Kg
SL-024-SA8S-SS-0.0-0.5(RES)	OCDF	1.26 ng/Kg	10.0U ng/Kg
SL-126-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.211 ng/Kg	5.35U ng/Kg
SL-126-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0901 ng/Kg	5.35U ng/Kg
SL-126-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0193 ng/Kg	5.35U ng/Kg
SL-126-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.124 ng/Kg	5.35U ng/Kg
SL-126-SA7-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0429 ng/Kg	5.35U ng/Kg
SL-126-SA7-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0159 ng/Kg	5.35U ng/Kg
SL-126-SA7-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0412 ng/Kg	5.35U ng/Kg
SL-126-SA7-SB-4.0-5.0(RES)	OCDD	0.577 ng/Kg	10.7U ng/Kg
SL-126-SA7-SB-4.0-5.0(RES)	OCDF	0.124 ng/Kg	10.7U ng/Kg
SL-127-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDD	0.284 ng/Kg	5.11U ng/Kg
SL-127-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.163 ng/Kg	5.11U ng/Kg
SL-127-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0235 ng/Kg	5.11U ng/Kg
SL-127-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDD	0.0346 ng/Kg	5.11U ng/Kg
SL-127-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0482 ng/Kg	5.11U ng/Kg
SL-127-SA7-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDD	0.0636 ng/Kg	5.11U ng/Kg
SL-127-SA7-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.0500 ng/Kg	5.11U ng/Kg
SL-127-SA7-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.0254 ng/Kg	5.11U ng/Kg
SL-127-SA7-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0396 ng/Kg	5.11U ng/Kg
SL-127-SA7-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0610 ng/Kg	5.11U ng/Kg
SL-127-SA7-SB-4.0-5.0(RES)	OCDD	0.862 ng/Kg	10.2U ng/Kg
SL-127-SA7-SB-4.0-5.0(RES)	OCDF	0.230 ng/Kg	10.2U ng/Kg
SL-177-SA7-SB-3.0-4.0(RES)	1,2,3,4,6,7,8-HPCDD	0.339 ng/Kg	5.28U ng/Kg
SL-177-SA7-SB-3.0-4.0(RES)	1,2,3,4,6,7,8-HPCDF	0.135 ng/Kg	5.28U ng/Kg
SL-177-SA7-SB-3.0-4.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0411 ng/Kg	5.28U ng/Kg
SL-177-SA7-SB-3.0-4.0(RES)	1,2,3,4,7,8-HXCDF	0.0413 ng/Kg	5.28U ng/Kg
SL-177-SA7-SB-3.0-4.0(RES)	1,2,3,6,7,8-HXCDD	0.0551 ng/Kg	5.28U ng/Kg
SL-177-SA7-SB-3.0-4.0(RES)	1,2,3,6,7,8-HXCDF	0.0191 ng/Kg	5.28U ng/Kg
SL-177-SA7-SB-3.0-4.0(RES)	1,2,3,7,8,9-HXCDD	0.0930 ng/Kg	5.28U ng/Kg
SL-177-SA7-SB-3.0-4.0(RES)	1,2,3,7,8-PECDD	0.0346 ng/Kg	5.28U ng/Kg
SL-177-SA7-SB-3.0-4.0(RES)	1,2,3,7,8-PECDF	0.0291 ng/Kg	5.28U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX147 **Laboratory: LL**

EDD Filename: DX147_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**
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-177-SA7-SB-3.0-4.0(RES)	2,3,4,6,7,8-HXCDF	0.0511 ng/Kg	5.28U ng/Kg
SL-177-SA7-SB-3.0-4.0(RES)	OCDD	1.15 ng/Kg	10.6U ng/Kg
SL-177-SA7-SB-3.0-4.0(RES)	OCDF	0.179 ng/Kg	10.6U ng/Kg
SL-229-SA6-SS-0.0-0.5(RES)	2,3,7,8-TCDD	0.151 ng/Kg	1.05U ng/Kg
SL-229-SA6-SS-0.0-0.5(RES)	2,3,7,8-TCDF	0.184 ng/Kg	1.05U ng/Kg
SL-230-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.398 ng/Kg	5.18U ng/Kg
SL-230-SA6-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.336 ng/Kg	5.18U ng/Kg
SL-230-SA6-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.234 ng/Kg	5.18U ng/Kg
SL-230-SA6-SB-4.0-5.0(RES)	1,2,3,7,8-PECDD	0.0606 ng/Kg	5.18U ng/Kg
SL-230-SA6-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.110 ng/Kg	5.18U ng/Kg
SL-230-SA6-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.322 ng/Kg	5.18U ng/Kg
SL-230-SA6-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.0939 ng/Kg	5.18U ng/Kg
SL-232-SA6-SB-2.5-3.5(RES)	1,2,3,4,6,7,8-HPCDD	0.308 ng/Kg	5.37U ng/Kg
SL-232-SA6-SB-2.5-3.5(RES)	1,2,3,4,6,7,8-HPCDF	0.175 ng/Kg	5.37U ng/Kg
SL-232-SA6-SB-2.5-3.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0271 ng/Kg	5.37U ng/Kg
SL-232-SA6-SB-2.5-3.5(RES)	1,2,3,4,7,8-HxCDD	0.0832 ng/Kg	5.37U ng/Kg
SL-232-SA6-SB-2.5-3.5(RES)	1,2,3,4,7,8-HXCDF	0.106 ng/Kg	5.37U ng/Kg
SL-232-SA6-SB-2.5-3.5(RES)	1,2,3,6,7,8-HXCDD	0.0730 ng/Kg	5.37U ng/Kg
SL-232-SA6-SB-2.5-3.5(RES)	1,2,3,6,7,8-HXCDF	0.0607 ng/Kg	5.37U ng/Kg
SL-232-SA6-SB-2.5-3.5(RES)	1,2,3,7,8,9-HXCDD	0.0963 ng/Kg	5.37U ng/Kg
SL-232-SA6-SB-2.5-3.5(RES)	1,2,3,7,8-PECDF	0.121 ng/Kg	5.37U ng/Kg
SL-232-SA6-SB-2.5-3.5(RES)	2,3,4,6,7,8-HXCDF	0.0858 ng/Kg	5.37U ng/Kg
SL-232-SA6-SB-2.5-3.5(RES)	2,3,4,7,8-PECDF	0.0960 ng/Kg	5.37U ng/Kg
SL-232-SA6-SB-2.5-3.5(RES)	OCDD	1.23 ng/Kg	10.7U ng/Kg
SL-232-SA6-SB-2.5-3.5(RES)	OCDF	0.213 ng/Kg	10.7U ng/Kg
SL-232-SA6-SS-0.0-0.5(RES)	1,2,3,4,6,7,8-HPCDF	1.18 ng/Kg	5.61U ng/Kg
SL-232-SA6-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.131 ng/Kg	5.61U ng/Kg
SL-232-SA6-SS-0.0-0.5(RES)	1,2,3,4,7,8-HxCDD	0.129 ng/Kg	5.61U ng/Kg
SL-232-SA6-SS-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.158 ng/Kg	5.61U ng/Kg
SL-232-SA6-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.103 ng/Kg	5.61U ng/Kg
SL-232-SA6-SS-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.104 ng/Kg	5.61U ng/Kg
SL-232-SA6-SS-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.0936 ng/Kg	5.61U ng/Kg
SL-232-SA6-SS-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.175 ng/Kg	5.61U ng/Kg
SL-232-SA6-SS-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.209 ng/Kg	5.61U ng/Kg
SL-234-SA6-SS-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.338 ng/Kg	5.51U ng/Kg
SL-234-SA6-SS-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.386 ng/Kg	5.51U ng/Kg
SL-234-SA6-SS-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.369 ng/Kg	5.51U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DX147 Laboratory: LL

EDD Filename: DX147_v1 eQAPP Name: CDM_SSFL_110509

Method: 1613B
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-234-SA6-SS-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.202 ng/Kg	5.51U ng/Kg
SL-254-SA6-SB-2.5-3.5(RES)	1,2,3,4,6,7,8-HPCDF	0.913 ng/Kg	5.09U ng/Kg
SL-254-SA6-SB-2.5-3.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0826 ng/Kg	5.09U ng/Kg
SL-254-SA6-SB-2.5-3.5(RES)	1,2,3,4,7,8-HxCDD	0.0357 ng/Kg	5.09U ng/Kg
SL-254-SA6-SB-2.5-3.5(RES)	1,2,3,4,7,8-HXCDF	0.281 ng/Kg	5.09U ng/Kg
SL-254-SA6-SB-2.5-3.5(RES)	1,2,3,6,7,8-HXCDF	0.172 ng/Kg	5.09U ng/Kg
SL-254-SA6-SB-2.5-3.5(RES)	1,2,3,7,8,9-HXCDD	0.198 ng/Kg	5.09U ng/Kg
SL-254-SA6-SB-2.5-3.5(RES)	1,2,3,7,8-PECDD	0.0424 ng/Kg	5.09U ng/Kg
SL-254-SA6-SB-2.5-3.5(RES)	2,3,4,6,7,8-HXCDF	0.133 ng/Kg	5.09U ng/Kg
SL-254-SA6-SB-2.5-3.5(RES)	OCDF	1.19 ng/Kg	10.2U ng/Kg

Field Duplicate RPD Report

Lab Reporting Batch ID: DX147 Laboratory: LL

EDD Filename: DX147_v1 eQAPP Name: CDM_SSFL_110509

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-003-SA8S-SS-0.0-0.5	DUP01-SA8S-QC-092911			
MOISTURE	3.3	3.1	6		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-003-SA8S-SS-0.0-0.5	DUP01-SA8S-QC-092911			
1,2,3,4,6,7,8-HPCDD	2.71	3.04	11	50.00	
1,2,3,4,6,7,8-HPCDF	0.574	0.615	7	50.00	
1,2,3,4,7,8,9-HPCDF	0.0457	0.0624	31	50.00	
1,2,3,4,7,8-HxCDD	0.0692	0.0704	2	50.00	
1,2,3,4,7,8-HXCDF	0.220	0.361	49	50.00	
1,2,3,6,7,8-HXCDD	0.165	0.193	16	50.00	
1,2,3,6,7,8-HXCDF	0.113	0.148	27	50.00	
1,2,3,7,8,9-HXCDD	0.163	0.138	17	50.00	No Qualifiers Applied
1,2,3,7,8-PECDD	0.0765	0.0846	10	50.00	
2,3,4,6,7,8-HXCDF	0.150	0.149	1	50.00	
2,3,4,7,8-PECDF	0.317	0.233	31	50.00	
2,3,7,8-TCDF	0.196	0.265	30	50.00	
OCDD	18.7	27.5	38	50.00	
OCDF	0.882	1.00	13	50.00	
1,2,3,7,8,9-HXCDF	5.09 U	0.0609	200	50.00	J(all detects)
1,2,3,7,8-PECDF	5.09 U	0.0763	200	50.00	UJ(all non-detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DX147 Laboratory: LL

EDD Filename: DX147_v1 eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA8S-QC-092911	1,2,3,4,6,7,8-HPCDD	JB	3.04	5.15	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.615	5.15	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0624	5.15	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0704	5.15	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.361	5.15	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.193	5.15	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.148	5.15	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.138	5.15	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JB	0.0609	5.15	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0846	5.15	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0763	5.15	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.149	5.15	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.233	5.15	PQL	ng/Kg	
	2,3,7,8-TCDF	JB	0.265	1.03	PQL	ng/Kg	
	OCDF	JB	1.00	10.3	PQL	ng/Kg	
SL-001-SA8S-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	2.77	5.28	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.592	5.28	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.118	5.28	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0733	5.28	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.288	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.152	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.133	5.28	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.125	5.28	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0547	5.28	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.0599	5.28	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0941	5.28	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.203	5.28	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.381	5.28	PQL	ng/Kg	
	2,3,7,8-TCDF	JB	0.179	1.06	PQL	ng/Kg	
	OCDF	JB	1.15	10.6	PQL	ng/Kg	
SL-003-SA8S-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	2.71	5.09	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.574	5.09	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0457	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0692	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.220	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.165	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.113	5.09	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDD	JBQ	0.163	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.0765	5.09	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.150	5.09	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.317	5.09	PQL	ng/Kg	
	2,3,7,8-TCDF	JB	0.196	1.02	PQL	ng/Kg	
	OCDF	JB	0.882	10.2	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX147 **Laboratory: LL**

EDD Filename: DX147_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-005-SA8S-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	0.781	5.09	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.151	5.09	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0559	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0315	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.0398	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0811	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0340	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0560	5.09	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0374	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0587	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0389	5.09	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0512	5.09	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0720	5.09	PQL	ng/Kg	
	OCDD	JB	5.28	10.2	PQL	ng/Kg	
	OCDF	JB	0.353	10.2	PQL	ng/Kg	
SL-007-SA8S-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	2.29	5.14	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.474	5.14	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0508	5.14	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JQ	0.0397	5.14	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JQ	0.0598	5.14	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.119	5.14	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0674	5.14	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.118	5.14	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0505	5.14	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0474	5.14	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0823	5.14	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0428	5.14	PQL	ng/Kg	
	2,3,7,8-TCDF	JB	0.0545	1.03	PQL	ng/Kg	
	OCDF	JB	0.884	10.3	PQL	ng/Kg	
SL-013-SA8S-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	2.17	5.14	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.756	5.14	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.211	5.14	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.224	5.14	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.438	5.14	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.253	5.14	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.372	5.14	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.289	5.14	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.222	5.14	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.188	5.14	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.268	5.14	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.311	5.14	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.601	5.14	PQL	ng/Kg	
	2,3,7,8-TCDF	JB	0.183	1.03	PQL	ng/Kg	
	OCDF	JB	1.27	10.3	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX147 Laboratory: LL

EDD Filename: DX147_v1 eQAPP Name: CDM_SSFL_110509

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-014-SA8S-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	0.690	5.20	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0761	5.20	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.194	5.20	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	0.220	5.20	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.247	5.20	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.172	5.20	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.210	5.20	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.164	5.20	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.220	5.20	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.184	5.20	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.409	5.20	PQL	ng/Kg	
	2,3,7,8-TCDF	JB	0.0992	1.04	PQL	ng/Kg	
	OCDF	JB	1.33	10.4	PQL	ng/Kg	
SL-015-SA8S-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	5.08	5.14	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.862	5.14	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.108	5.14	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0940	5.14	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.189	5.14	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.169	5.14	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.129	5.14	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0999	5.14	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.0687	5.14	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.0439	5.14	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0687	5.14	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.178	5.14	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.220	5.14	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0580	1.03	PQL	ng/Kg	
	OCDF	JB	0.875	10.3	PQL	ng/Kg	
SL-024-SA8S-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	3.94	5.00	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.772	5.00	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0874	5.00	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.137	5.00	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.179	5.00	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.225	5.00	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.138	5.00	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.183	5.00	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.0642	5.00	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0493	5.00	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.190	5.00	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.190	5.00	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0436	5.00	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0482	1.00	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.282	1.00	PQL	ng/Kg	
	OCDF	JB	1.26	10.0	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX147 **Laboratory: LL**

EDD Filename: DX147_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-126-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JBQ	0.211	5.35	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0901	5.35	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0193	5.35	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.124	5.35	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.234	5.35	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.210	5.35	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDF	JB	0.0429	5.35	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0159	5.35	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0412	5.35	PQL	ng/Kg	
	OCDD	JB	0.577	10.7	PQL	ng/Kg	
	OCDF	JBQ	0.124	10.7	PQL	ng/Kg	
SL-127-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	0.284	5.11	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.163	5.11	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0235	5.11	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	0.0219	5.11	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0346	5.11	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0482	5.11	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0636	5.11	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0500	5.11	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.0360	5.11	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0254	5.11	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0396	5.11	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0610	5.11	PQL	ng/Kg	
	OCDD	JB	0.862	10.2	PQL	ng/Kg	
	OCDF	JB	0.230	10.2	PQL	ng/Kg	
SL-177-SA7-SB-3.0-4.0	1,2,3,4,6,7,8-HPCDD	JB	0.339	5.28	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.135	5.28	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0411	5.28	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0413	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0551	5.28	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0191	5.28	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0930	5.28	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.0556	5.28	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.0346	5.28	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0291	5.28	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0511	5.28	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0319	1.06	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0344	1.06	PQL	ng/Kg	
	OCDD	JB	1.15	10.6	PQL	ng/Kg	
	OCDF	JB	0.179	10.6	PQL	ng/Kg	
SL-229-SA6-SB-2.0-3.0	1,2,3,4,7,8,9-HPCDF	JB	3.51	5.18	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	2.52	5.18	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	1.65	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	1.38	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	3.92	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	0.432	5.18	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	1.03	5.18	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDF	JB	0.714	5.18	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	2.20	5.18	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.834	5.18	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.224	1.04	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.319	1.04	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX147 **Laboratory: LL**

EDD Filename: DX147_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-229-SA6-SS-0.0-0.5	1,2,3,4,7,8,9-HPCDF	JB	2.79	5.23	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	J	1.87	5.23	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	J	1.32	5.23	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	1.06	5.23	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	2.84	5.23	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.254	5.23	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	2.23	5.23	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.255	5.23	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	1.79	5.23	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.555	5.23	PQL	ng/Kg	
	2,3,7,8-TCDD	JBQ	0.151	1.05	PQL	ng/Kg	
	2,3,7,8-TCDF	JBQ	0.184	1.05	PQL	ng/Kg	
SL-230-SA6-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDF	JB	3.22	5.18	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.398	5.18	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.206	5.18	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.336	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.544	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.234	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.226	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.0487	5.18	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.0606	5.18	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.110	5.18	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.322	5.18	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0939	5.18	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0620	1.04	PQL	ng/Kg	
	OCDF	JB	7.59	10.4	PQL	ng/Kg	
SL-230-SA6-SS-0.0-0.5	1,2,3,4,7,8,9-HPCDF	JB	1.20	5.34	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.816	5.34	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	1.95	5.34	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	2.49	5.34	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	1.07	5.34	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	1.51	5.34	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	0.316	5.34	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.427	5.34	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	1.45	5.34	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	1.09	5.34	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	1.35	5.34	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0733	1.07	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.939	1.07	PQL	ng/Kg	
SL-232-SA6-SB-2.5-3.5	1,2,3,4,6,7,8-HPCDD	JBQ	0.308	5.37	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.175	5.37	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0271	5.37	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0832	5.37	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.106	5.37	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.0730	5.37	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0607	5.37	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.0963	5.37	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.0889	5.37	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.121	5.37	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0858	5.37	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0960	5.37	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0684	1.07	PQL	ng/Kg	
	OCDD	JB	1.23	10.7	PQL	ng/Kg	
	OCDF	JB	0.213	10.7	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DX147 **Laboratory: LL**

EDD Filename: DX147_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-232-SA6-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	4.46	5.61	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	1.18	5.61	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.131	5.61	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.129	5.61	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.158	5.61	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.289	5.61	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.103	5.61	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.291	5.61	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.0996	5.61	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.104	5.61	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0936	5.61	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.175	5.61	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.209	5.61	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0661	1.12	PQL	ng/Kg	
	OCDF	JB	3.55	11.2	PQL	ng/Kg	
SL-234-SA6-SS-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	3.56	5.51	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.338	5.51	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.200	5.51	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.386	5.51	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.648	5.51	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.369	5.51	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.588	5.51	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.183	5.51	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.202	5.51	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.546	5.51	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.551	5.51	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.783	5.51	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.294	1.10	PQL	ng/Kg	
SL-254-SA6-SB-2.5-3.5	1,2,3,4,6,7,8-HPCDD	JB	2.33	5.09	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.913	5.09	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0826	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0357	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.281	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.247	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.172	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.198	5.09	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.0849	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.0424	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.242	5.09	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.133	5.09	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.472	5.09	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.372	1.02	PQL	ng/Kg	
	OCDF	JB	1.19	10.2	PQL	ng/Kg	

Enclosure II

Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	September 29, 2011
LDC Report Date:	January 31, 2012
Matrix:	Soil
Parameters:	Dioxins/Dibenzofurans
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DX147

Sample Identification

SL-001-SA8S-SS-0.0-0.5
SL-003-SA8S-SS-0.0-0.5
SL-005-SA8S-SS-0.0-0.5
SL-007-SA8S-SS-0.0-0.5
SL-013-SA8S-SS-0.0-0.5
SL-014-SA8S-SS-0.0-0.5
SL-015-SA8S-SS-0.0-0.5
SL-024-SA8S-SS-0.0-0.5
DUP01-SA8S-QC-092911
SL-126-SA7-SB-4.0-5.0
SL-127-SA7-SB-4.0-5.0
SL-177-SA7-SB-3.0-4.0
SL-229-SA6-SS-0.0-0.5
SL-230-SA6-SS-0.0-0.5
SL-234-SA6-SS-0.0-0.5
SL-232-SA6-SS-0.0-0.5
SL-232-SA6-SB-2.5-3.5
SL-229-SA6-SB-2.0-3.0
SL-230-SA6-SB-4.0-5.0
SL-254-SA6-SB-2.5-3.5
SL-003-SA8S-SS-0.0-0.5MS
SL-003-SA8S-SS-0.0-0.5MSD

Introduction

This data review covers 22 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 1613B for Polychlorinated Dioxins/Dibenzofurans.

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 the USEPA Contract Laboratory Program National Functional Guidelines for Polychlorinated Dioxins/Dibenzofurans Data Review (September 2005).

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. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required daily frequency.

The chromatographic resolution between 2,3,7,8-TCDD and the peaks representing any other unlabeled TCDD isomers was resolved with a valley of less than or equal to 25%.

PFK and static resolving power were within validation criteria.

III. Initial Calibration

A five point initial calibration was performed as required by the method.

Percent relative standard deviations (%RSD) were less than or equal to 20.0% for unlabeled compounds and less than or equal to 35.0% for labeled compounds.

The ion abundance ratios for all PCDDs and PCDFs were within validation criteria.

The minimum S/N ratio was greater than or equal to 10 for each unlabeled compound and labeled compound.

IV. Routine Calibration (Continuing)

Routine calibration was performed at the required frequencies.

All of the routine calibration percent differences (%D) between the initial calibration RRF and the routine calibration RRF were within QC limits.

The ion abundance ratios for all PCDDs and PCDFs were within validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated dioxin/dibenzofuran contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound	Concentration	Associated Samples
BLK286001	10/13/11	2,3,7,8-TCDF 2,3,7,8-TCDD 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.0391 ng/Kg 0.0626 ng/Kg 0.0281 ng/Kg 0.0553 ng/Kg 0.0263 ng/Kg 0.0606 ng/Kg 0.0344 ng/Kg 0.0271 ng/Kg 0.0293 ng/Kg 0.0913 ng/Kg 0.202 ng/Kg 0.0260 ng/Kg 0.380 ng/Kg 0.189 ng/Kg	SL-001-SA8S-SS-0.0-0.5 SL-003-SA8S-SS-0.0-0.5 SL-005-SA8S-SS-0.0-0.5 SL-007-SA8S-SS-0.0-0.5 SL-013-SA8S-SS-0.0-0.5 SL-014-SA8S-SS-0.0-0.5 DUP01-SA8S-QC-092911 SL-126-SA7-SB-4.0-5.0 SL-127-SA7-SB-4.0-5.0 SL-229-SA6-SS-0.0-0.5
BLK292003	10/19/11	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.0392 ng/Kg 0.0693 ng/Kg 0.0488 ng/Kg 0.114 ng/Kg 0.0822 ng/Kg 0.0874 ng/Kg 0.0310 ng/Kg 0.0294 ng/Kg 0.0415 ng/Kg 0.370 ng/Kg 0.305 ng/Kg 0.0805 ng/Kg 0.653 ng/Kg 0.256 ng/Kg	SL-015-SA8S-SS-0.0-0.5 SL-024-SA8S-SS-0.0-0.5 SL-177-SA7-SB-3.0-4.0 SL-230-SA6-SS-0.0-0.5 SL-234-SA6-SS-0.0-0.5 SL-232-SA6-SS-0.0-0.5 SL-232-SA6-SB-2.5-3.5 SL-229-SA6-SB-2.0-3.0 SL-230-SA6-SB-4.0-5.0 SL-254-SA6-SB-2.5-3.5

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-001-SA8S-SS-0.0-0.5	2,3,7,8-TCDF 1,2,3,7,8-PeCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,7,8,9-HpCDF	0.179 ng/Kg 0.0941 ng/Kg 0.203 ng/Kg 0.152 ng/Kg 0.125 ng/Kg 0.0547 ng/Kg 0.118 ng/Kg	0.179U ng/Kg 0.0941U ng/Kg 0.203U ng/Kg 0.152U ng/Kg 0.125U ng/Kg 0.0547U ng/Kg 0.118U ng/Kg
SL-003-SA8S-SS-0.0-0.5	1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,4,7,8,9-HpCDF OCDF	0.113 ng/Kg 0.150 ng/Kg 0.165 ng/Kg 0.0457 ng/Kg 0.882 ng/Kg	0.113U ng/Kg 0.150U ng/Kg 0.165U ng/Kg 0.0457U ng/Kg 0.882U ng/Kg

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-005-SA8S-SS-0.0-0.5	1,2,3,7,8-PeCDF	0.0389 ng/Kg	0.0389U ng/Kg
	2,3,4,7,8-PeCDF	0.0720 ng/Kg	0.0720U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0340 ng/Kg	0.0340U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0512 ng/Kg	0.0512U ng/Kg
	1,2,3,6,7,8-HxCDD	0.0811 ng/Kg	0.0811U ng/Kg
	1,2,3,7,8,9-HxCDD	0.0560 ng/Kg	0.0560U ng/Kg
	1,2,3,7,8,9-HxCDF	0.0374 ng/Kg	0.0374U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.151 ng/Kg	0.151U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.781 ng/Kg	0.781U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0559 ng/Kg	0.0559U ng/Kg
	OCDF	0.353 ng/Kg	0.353U ng/Kg
SL-007-SA8S-SS-0.0-0.5	2,3,7,8-TCDF	0.0545 ng/Kg	0.0545U ng/Kg
	2,3,4,7,8-PeCDF	0.0428 ng/Kg	0.0428U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0674 ng/Kg	0.0674U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0823 ng/Kg	0.0823U ng/Kg
	1,2,3,6,7,8-HxCDD	0.119 ng/Kg	0.119U ng/Kg
	1,2,3,7,8,9-HxCDD	0.118 ng/Kg	0.118U ng/Kg
	1,2,3,7,8,9-HxCDF	0.0505 ng/Kg	0.0505U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0508 ng/Kg	0.0508U ng/Kg
	OCDF	0.884 ng/Kg	0.884U ng/Kg
SL-013-SA8S-SS-0.0-0.5	2,3,7,8-TCDF	0.183 ng/Kg	0.183U ng/Kg
SL-014-SA8S-SS-0.0-0.5	2,3,7,8-TCDF	0.0992 ng/Kg	0.0992U ng/Kg
	2,3,4,6,7,8-HxCDF	0.184 ng/Kg	0.184U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0761 ng/Kg	0.0761U ng/Kg
DUP01-SA8S-QC-092911	1,2,3,7,8-PeCDF	0.0763 ng/Kg	0.0763U ng/Kg
	2,3,4,7,8-PeCDF	0.233 ng/Kg	0.233U ng/Kg
	2,3,4,6,7,8-HxCDF	0.149 ng/Kg	0.149U ng/Kg
	1,2,3,7,8,9-HxCDF	0.0609 ng/Kg	0.0609U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0624 ng/Kg	0.0624U ng/Kg
SL-126-SA7-SB-4.0-5.0	1,2,3,7,8-PeCDF	0.0429 ng/Kg	0.0429U ng/Kg
	2,3,4,7,8-PeCDF	0.0412 ng/Kg	0.0412U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0159 ng/Kg	0.0159U ng/Kg
	1,2,3,6,7,8-HxCDD	0.124 ng/Kg	0.124U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.0901 ng/Kg	0.0901U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.211 ng/Kg	0.211U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0193 ng/Kg	0.0193U ng/Kg
	OCDD	0.577 ng/Kg	0.577U ng/Kg
	OCDF	0.124 ng/Kg	0.124U ng/Kg
SL-127-SA7-SB-4.0-5.0	1,2,3,7,8-PeCDF	0.0254 ng/Kg	0.0254U ng/Kg
	2,3,4,7,8-PeCDF	0.0610 ng/Kg	0.0610U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0482 ng/Kg	0.0482U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0396 ng/Kg	0.0396U ng/Kg
	1,2,3,6,7,8-HxCDD	0.0346 ng/Kg	0.0346U ng/Kg
	1,2,3,7,8,9-HxCDD	0.0636 ng/Kg	0.0636U ng/Kg
	1,2,3,7,8,9-HxCDF	0.0500 ng/Kg	0.0500U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.163 ng/Kg	0.163U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.284 ng/Kg	0.284U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0235 ng/Kg	0.0235U ng/Kg
	OCDD	0.862 ng/Kg	0.862U ng/Kg
	OCDF	0.230 ng/Kg	0.230U ng/Kg
SL-229-SA6-SS-0.0-0.5	2,3,7,8-TCDF	0.184 ng/Kg	0.184U ng/Kg
	2,3,7,8-TCDD	0.151 ng/Kg	0.151U ng/Kg

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-015-SA8S-SS-0.0-0.5 SL-024-SA8S-SS-0.0-0.5	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.0687 ng/Kg 0.220 ng/Kg 0.0439 ng/Kg 0.189 ng/Kg 0.129 ng/Kg 0.178 ng/Kg 0.0940 ng/Kg 0.0999 ng/Kg 0.862 ng/Kg 0.108 ng/Kg 0.875 ng/Kg	0.0687U ng/Kg 0.220U ng/Kg 0.0439U ng/Kg 0.189U ng/Kg 0.129U ng/Kg 0.178U ng/Kg 0.0940U ng/Kg 0.0999U ng/Kg 0.862U ng/Kg 0.108U ng/Kg 0.875U ng/Kg
SL-024-SA8S-SS-0.0-0.5	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.190 ng/Kg 0.0436 ng/Kg 0.0493 ng/Kg 0.179 ng/Kg 0.138 ng/Kg 0.190 ng/Kg 0.137 ng/Kg 0.183 ng/Kg 0.772 ng/Kg 0.0874 ng/Kg 1.26 ng/Kg	0.190U ng/Kg 0.0436U ng/Kg 0.0493U ng/Kg 0.179U ng/Kg 0.138U ng/Kg 0.190U ng/Kg 0.137U ng/Kg 0.183U ng/Kg 0.772U ng/Kg 0.0874U ng/Kg 1.26U ng/Kg
SL-177-SA7-SB-3.0-4.0	1,2,3,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.0291 ng/Kg 0.0346 ng/Kg 0.0413 ng/Kg 0.0191 ng/Kg 0.0511 ng/Kg 0.0551 ng/Kg 0.0930 ng/Kg 0.135 ng/Kg 0.339 ng/Kg 0.0411 ng/Kg 1.15 ng/Kg 0.179 ng/Kg	0.0291U ng/Kg 0.0346U ng/Kg 0.0413U ng/Kg 0.0191U ng/Kg 0.0511U ng/Kg 0.0551U ng/Kg 0.0930U ng/Kg 0.135U ng/Kg 0.339U ng/Kg 0.0411U ng/Kg 1.15U ng/Kg 0.179U ng/Kg
SL-234-SA6-SS-0.0-0.5	1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.202 ng/Kg 0.386 ng/Kg 0.369 ng/Kg 0.338 ng/Kg	0.202U ng/Kg 0.386U ng/Kg 0.369U ng/Kg 0.338U ng/Kg
SL-232-SA6-SS-0.0-0.5	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	0.0936 ng/Kg 0.209 ng/Kg 0.104 ng/Kg 0.158 ng/Kg 0.103 ng/Kg 0.175 ng/Kg 0.129 ng/Kg 1.18 ng/Kg 0.131 ng/Kg	0.0936U ng/Kg 0.209U ng/Kg 0.104U ng/Kg 0.158U ng/Kg 0.103U ng/Kg 0.175U ng/Kg 0.129U ng/Kg 1.18U ng/Kg 0.131U ng/Kg

Sample	Compound	Reported Concentration	Modified Final Concentration
SL-232-SA6-SB-2.5-3.5	1,2,3,7,8-PeCDF	0.121 ng/Kg	0.121U ng/Kg
	2,3,4,7,8-PeCDF	0.0960 ng/Kg	0.0960U ng/Kg
	1,2,3,4,7,8-HxCDF	0.106 ng/Kg	0.106U ng/Kg
	1,2,3,6,7,8-HxCDF	0.0607 ng/Kg	0.0607U ng/Kg
	2,3,4,6,7,8-HxCDF	0.0858 ng/Kg	0.0858U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0832 ng/Kg	0.0832U ng/Kg
	1,2,3,6,7,8-HxCDD	0.0730 ng/Kg	0.0730U ng/Kg
	1,2,3,7,8,9-HxCDD	0.0963 ng/Kg	0.0963U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.175 ng/Kg	0.175U ng/Kg
	1,2,3,4,6,7,8-HpCDD	0.308 ng/Kg	0.308U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0271 ng/Kg	0.0271U ng/Kg
	OCDD	1.23 ng/Kg	1.23U ng/Kg
	OCDF	0.213 ng/Kg	0.213U ng/Kg
SL-230-SA6-SB-4.0-5.0	1,2,3,7,8-PeCDF	0.110 ng/Kg	0.110U ng/Kg
	2,3,4,7,8-PeCDF	0.0939 ng/Kg	0.0939U ng/Kg
	1,2,3,7,8-PeCDD	0.0606 ng/Kg	0.0606U ng/Kg
	1,2,3,4,7,8-HxCDF	0.336 ng/Kg	0.336U ng/Kg
	1,2,3,6,7,8-HxCDF	0.234 ng/Kg	0.234U ng/Kg
	2,3,4,6,7,8-HxCDF	0.322 ng/Kg	0.322U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.398 ng/Kg	0.398U ng/Kg
SL-254-SA6-SB-2.5-3.5	1,2,3,7,8-PeCDD	0.0424 ng/Kg	0.0424U ng/Kg
	1,2,3,4,7,8-HxCDF	0.281 ng/Kg	0.281U ng/Kg
	1,2,3,6,7,8-HxCDF	0.172 ng/Kg	0.172U ng/Kg
	2,3,4,6,7,8-HxCDF	0.133 ng/Kg	0.133U ng/Kg
	1,2,3,4,7,8-HxCDD	0.0357 ng/Kg	0.0357U ng/Kg
	1,2,3,7,8,9-HxCDD	0.198 ng/Kg	0.198U ng/Kg
	1,2,3,4,6,7,8-HpCDF	0.913 ng/Kg	0.913U ng/Kg
	1,2,3,4,7,8,9-HpCDF	0.0826 ng/Kg	0.0826U ng/Kg
	OCDF	1.19 ng/Kg	1.19U ng/Kg

No field blanks were identified in this SDG.

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 the QC limits.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. The percent recoveries (%R) were within the QC limits.

VIII. Regional Quality Assurance and Quality Control

Not applicable.

IX. Internal Standards

All internal standard recoveries were within QC limits.

X. Target Compound Identifications

All target compound identifications were within validation criteria.

XI. 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 DX147	All compounds reported below the RL.	J (all detects)	A

XII. System Performance

The system performance was acceptable.

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-003-SA8S-SS-0.0-0.5 and DUP01-SA8S-QC-092911 were identified as field duplicates. No polychlorinated dioxins/dibenzofurans were detected in any of the samples with the following exceptions:

Compound	Concentration (ng/Kg)		RPD (Limits)	Flags	A or P
	SL-003-SA8S-SS-0.0-0.5	DUP01-SA8S-QC-092911			
1,2,3,7,8-PeCDD	0.0765	0.0846	10 (≤50)	-	-
1,2,3,4,7,8-HxCDD	0.0692	0.0704	2 (≤50)	-	-
1,2,3,6,7,8-HxCDD	0.165	0.193	16 (≤50)	-	-
1,2,3,7,8,9-HxCDD	0.163	0.138	17 (≤50)	-	-
1,2,3,4,6,7,8-HpCDD	2.71	3.04	11 (≤50)	-	-
OCDD	18.7	27.5	38 (≤50)	-	-
2,3,7,8-TCDF	0.196	0.265	30 (≤50)	-	-

Compound	Concentration (ng/Kg)		RPD (Limits)	Flags	A or P
	SL-003-SA8S-SS-0.0-0.5	DUP01-SA8S-QC-092911			
1,2,3,7,8-PeCDF	5.09U	0.0763	200 (≤50)	J (all detects) UJ (all non-detects)	A
2,3,4,7,8-PeCDF	0.317	0.233	31 (≤50)	-	-
1,2,3,4,7,8-HxCDF	0.220	0.361	49 (≤50)	-	-
1,2,3,6,7,8-HxCDF	0.113	0.148	27 (≤50)	-	-
1,2,3,7,8,9-HxCDF	5.09U	0.0609	200 (≤50)	J (all detects) UJ (all non-detects)	A
2,3,4,6,7,8-HxCDF	0.150	0.149	1 (≤50)	-	-
1,2,3,4,6,7,8-HpCDF	0.574	0.615	7 (≤50)	-	-
1,2,3,4,7,8,9-HpCDF	0.0457	0.0624	31 (≤50)	-	-
OCDF	0.882	1.0	13 (≤50)	-	-

Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Data Qualification Summary - SDG DX147

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DX147	SL-001-SA8S-SS-0.0-0.5 SL-003-SA8S-SS-0.0-0.5 SL-005-SA8S-SS-0.0-0.5 SL-007-SA8S-SS-0.0-0.5 SL-013-SA8S-SS-0.0-0.5 SL-014-SA8S-SS-0.0-0.5 SL-015-SA8S-SS-0.0-0.5 SL-024-SA8S-SS-0.0-0.5 DUP01-SA8S-QC-092911 SL-126-SA7-SB-4.0-5.0 SL-127-SA7-SB-4.0-5.0 SL-177-SA7-SB-3.0-4.0 SL-229-SA6-SS-0.0-0.5 SL-230-SA6-SS-0.0-0.5 SL-234-SA6-SS-0.0-0.5 SL-232-SA6-SS-0.0-0.5 SL-232-SA6-SB-2.5-3.5 SL-229-SA6-SB-2.0-3.0 SL-230-SA6-SB-4.0-5.0 SL-254-SA6-SB-2.5-3.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
DX147	SL-003-SA8S-SS-0.0-0.5 DUP01-SA8S-QC-09291	1,2,3,7,8-PeCDF 1,2,3,7,8,9-HxCDF	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Laboratory Blank Data Qualification Summary - SDG DX147

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
DX147	SL-001-SA8S-SS-0.0-0.5	2,3,7,8-TCDF 1,2,3,7,8-PeCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,7,8,9-HpCDF	0.179U ng/Kg 0.0941U ng/Kg 0.203U ng/Kg 0.152U ng/Kg 0.125U ng/Kg 0.0547U ng/Kg 0.118U ng/Kg	A	B
DX147	SL-003-SA8S-SS-0.0-0.5	1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,4,7,8,9-HpCDF OCDF	0.113U ng/Kg 0.150U ng/Kg 0.165U ng/Kg 0.0457U ng/Kg 0.882U ng/Kg	A	B
DX147	SL-005-SA8S-SS-0.0-0.5	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDF	0.0389U ng/Kg 0.0720U ng/Kg 0.0340U ng/Kg 0.0512U ng/Kg 0.0811U ng/Kg 0.0560U ng/Kg 0.0374U ng/Kg 0.151U ng/Kg 0.781U ng/Kg 0.0559U ng/Kg 0.353U ng/Kg	A	B

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
DX147	SL-007-SA8S-SS-0.0-0.5	2,3,7,8-TCDF 2,3,4,7,8-PeCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.0545U ng/Kg 0.0428U ng/Kg 0.0674U ng/Kg 0.0823U ng/Kg 0.119U ng/Kg 0.118U ng/Kg 0.0505U ng/Kg 0.0508U ng/Kg 0.884U ng/Kg	A	B
DX147	SL-013-SA8S-SS-0.0-0.5	2,3,7,8-TCDF	0.183U ng/Kg	A	B
DX147	SL-014-SA8S-SS-0.0-0.5	2,3,7,8-TCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.0992U ng/Kg 0.184U ng/Kg 0.0761U ng/Kg	A	B
DX147	DUP01-SA8S-QC-092911	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 2,3,4,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,7,8,9-HpCDF	0.0763U ng/Kg 0.233U ng/Kg 0.149U ng/Kg 0.0609U ng/Kg 0.0624U ng/Kg	A	B
DX147	SL-126-SA7-SB-4.0-5.0	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.0429U ng/Kg 0.0412U ng/Kg 0.0159U ng/Kg 0.124U ng/Kg 0.0901U ng/Kg 0.211U ng/Kg 0.0193U ng/Kg 0.577U ng/Kg 0.124U ng/Kg	A	B
DX147	SL-127-SA7-SB-4.0-5.0	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.0254U ng/Kg 0.0610U ng/Kg 0.0482U ng/Kg 0.0396U ng/Kg 0.0346U ng/Kg 0.0636U ng/Kg 0.0500U ng/Kg 0.163U ng/Kg 0.284U ng/Kg 0.0235U ng/Kg 0.862U ng/Kg 0.230U ng/Kg	A	B
DX147	SL-229-SA6-SS-0.0-0.5	2,3,7,8-TCDF 2,3,7,8-TCDD	0.184U ng/Kg 0.151U ng/Kg	A	B
DX147	SL-015-SA8S-SS-0.0-0.5 SL-024-SA8S-SS-0.0-0.5	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.0687U ng/Kg 0.220U ng/Kg 0.0439U ng/Kg 0.189U ng/Kg 0.129U ng/Kg 0.178U ng/Kg 0.0940U ng/Kg 0.0999U ng/Kg 0.862U ng/Kg 0.108U ng/Kg 0.875U ng/Kg	A	B

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
DX147	SL-024-SA8S-SS-0.0-0.5	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.190U ng/Kg 0.0436U ng/Kg 0.0493U ng/Kg 0.179U ng/Kg 0.138U ng/Kg 0.190U ng/Kg 0.137U ng/Kg 0.183U ng/Kg 0.772U ng/Kg 0.0874U ng/Kg 1.26U ng/Kg	A	B
DX147	SL-177-SA7-SB-3.0-4.0	1,2,3,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.0291U ng/Kg 0.0346U ng/Kg 0.0413U ng/Kg 0.0191U ng/Kg 0.0511U ng/Kg 0.0551U ng/Kg 0.0930U ng/Kg 0.135U ng/Kg 0.339U ng/Kg 0.0411U ng/Kg 1.15U ng/Kg 0.179U ng/Kg	A	B
DX147	SL-234-SA6-SS-0.0-0.5	1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.202U ng/Kg 0.386U ng/Kg 0.369U ng/Kg 0.338U ng/Kg	A	B
DX147	SL-232-SA6-SS-0.0-0.5	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF	0.0936U ng/Kg 0.209U ng/Kg 0.104U ng/Kg 0.158U ng/Kg 0.103U ng/Kg 0.175U ng/Kg 0.129U ng/Kg 1.18U ng/Kg 0.131U ng/Kg	A	B
DX147	SL-232-SA6-SB-2.5-3.5	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,6,7,8-HpCDD 1,2,3,4,7,8,9-HpCDF OCDD OCDF	0.121U ng/Kg 0.0960U ng/Kg 0.106U ng/Kg 0.0607U ng/Kg 0.0858U ng/Kg 0.0832U ng/Kg 0.0730U ng/Kg 0.0963U ng/Kg 0.175U ng/Kg 0.308U ng/Kg 0.0271U ng/Kg 1.23U ng/Kg 0.213U ng/Kg	A	B
DX147	SL-230-SA6-SB-4.0-5.0	1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8,9-HpCDF	0.110U ng/Kg 0.0939U ng/Kg 0.0606U ng/Kg 0.336U ng/Kg 0.234U ng/Kg 0.322U ng/Kg 0.398U ng/Kg	A	B

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
DX147	SL-254-SA6-SB-2.5-3.5	1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,4,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF OCDF	0.0424U ng/Kg 0.281U ng/Kg 0.172U ng/Kg 0.133U ng/Kg 0.0357U ng/Kg 0.198U ng/Kg 0.913U ng/Kg 0.0826U ng/Kg 1.19U ng/Kg	A	B

Santa Susana Field Laboratory
Dioxins/Dibenzofurans - Field Blank Data Qualification Summary - SDG DX147

No Sample Data Qualified in this SDG

LDC #: 26978A21 **VALIDATION COMPLETENESS WORKSHEET** Date: 1/24/12
SDG #: DX147 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: EJ
2nd Reviewer: A

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

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: 9/29/11
II.	HRGC/HRMS Instrument performance check	A	
III.	Initial calibration	A	%D RSD ≤ 20/35
IV.	Routine calibration/~~ICV~~	A	QC limits
V.	Blanks	SW	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS
VIII.	Regional quality assurance and quality control	N	
IX.	Internal standards	A	
X.	Target compound identifications	A	
XI.	Compound quantitation and CRQLs	A	
XII.	System performance	A	
XIII.	Overall assessment of data	A	
XIV.	Field duplicates	SW	D = 2, 9
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: SOILS

1	1	SL-001-SA8S-SS-0.0-0.5	11	1	SL-127-SA7-SB-4.0-5.0	21	1	SL-003-SA8S-SS-0.0-0.5MS	31	1	Blank 286001
2	1	SL-003-SA8S-SS-0.0-0.5 ✓	12	2	SL-177-SA7-SB-3.0-4.0	22	1	SL-003-SA8S-SS-0.0-0.5MSD	32		Blank 292003
3	1	SL-005-SA8S-SS-0.0-0.5	13	1	SL-229-SA6-SS-0.0-0.5	23			33		
4	1	SL-007-SA8S-SS-0.0-0.5	14	2	SL-230-SA6-SS-0.0-0.5	24			34		
5	1	SL-013-SA8S-SS-0.0-0.5	15	2	SL-234-SA6-SS-0.0-0.5	25			35		
6	1	SL-014-SA8S-SS-0.0-0.5	16	2	SL-232-SA6-SS-0.0-0.5	26			36		
7	2	SL-015-SA8S-SS-0.0-0.5	17	2	SL-232-SA6-SB-2.5-3.5	27			37		
8	2	SL-024-SA8S-SS-0.0-0.5	18	2	SL-229-SA6-SB-2.0-3.0	28			38		
9	1	DUP01-SA8S-QC-092911 ✓	19	2	SL-230-SA6-SB-4.0-5.0	29			39		
10	1	SL-126-SA7-SB-4.0-5.0	20	2	SL-254-SA6-SB-2.5-3.5	30			40		

Notes: _____

LDC #: 26978A21

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: [illegible]

Method: Dioxins/Dibenzofurans (EPA SW 846 Method 1613B)

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				
Was PFK exact mass 380.9760 verified?	✓			
Were the retention time windows established for all homologues?	✓			
Was the chromatographic resolution between 2,3,7,8-TCDD and peaks representing any other unlabeled TCDD isomers ≤ 25% ?	✓			
Is the static resolving power at least 10,000 (10% valley definition)?	✓			
Was the mass resolution adequately check with PFK?	✓			
Was the presence of 1,2,8,9-TCDD and 1,3,4,6,8-PeCDF verified?	✓			
III. Initial calibration				
Was the initial calibration performed at 5 concentration levels?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20% for unlabeled compounds and ≤ 35% for labeled compounds ?	✓			
Did all calibration standards meet the Ion Abundance Ratio criteria?	✓			
Was the signal to noise ratio for each target compound ≥ 2.5 and for each recovery and internal standard ≥ 10?	✓			
IV. Continuing calibration				
Was a routine calibration performed at the beginning and end of each 12 hour period?	✓			
Were all the concentrations for the unlabeled compounds and labeled compounds within the QC limits (Method 1613B, Table 6)?	✓			
Did all routine calibration standards meet the Ion Abundance Ratio criteria?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank performed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet?	✓			
VI. 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.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VII. 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?	✓			

LDC #: 26978A2 1

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
VIII. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
IX. Internal standards				
Were internal standard recoveries within the ~~25-150%~~ 6 Limits criteria?	✓			
Was the minimum S/N ratio of all internal standard peaks ≥ 10?	✓			
X. Target compound identification				
For 2,3,7,8 substituted congeners with associated labeled standards, were the retention times of the two quantitation peaks within -1 to 3 sec. of the RT of the labeled standard?	✓			
For 2,3,7,8 substituted congeners without associated labeled standards, were the relative retention times of the two quantitation peaks within 0.005 time units of the RRT measured in the routine calibration?	✓			
For non-2,3,7,8 substituted congeners, were the retention times of the two quantitation peaks within RT established in the performance check solution?	✓			
Did compound spectra contain all characteristic ions listed in the table attached?	✓			
Was the Ion Abundance Ratio for the two quantitation ions within criteria?	✓			
Was the signal to noise ratio for each target compound and labeled standard ≥ 2.5?	✓			
Does the maximum intensity of each specified characteristic ion coincide within ± 2 seconds (includes labeled standards)?	✓			
For PCDF identification, was any signal (S/N ≥ 2.5, at ± seconds RT) detected in the corresponding PCDPE channel?		✓		
Was an acceptable lock mass recorded and monitored?	✓			
XI. 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?	✓			
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: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

A. 2,3,7,8-TCDD	F. 1,2,3,4,6,7,8-HpCDD	K. 1,2,3,4,7,8-HxCDF	P. 1,2,3,4,7,8,9-HpCDF	U. Total HpCDD
B. 1,2,3,7,8-PeCDD	G. OCDD	L. 1,2,3,6,7,8-HxCDF	Q. OCDF	V. Total TCDF
C. 1,2,3,4,7,8-HxCDD	H. 2,3,7,8-TCDF	M. 2,3,4,6,7,8-HxCDF	R. Total TCDD	W. Total PeCDF
D. 1,2,3,6,7,8-HxCDD	I. 1,2,3,7,8-PeCDF	N. 1,2,3,7,8,9-HxCDF	S. Total PeCDD	X. Total HxCDF
E. 1,2,3,7,8,9-HxCDD	J. 2,3,4,7,8-PeCDF	O. 1,2,3,4,6,7,8-HpCDF	T. Total HxCDD	Y. Total HpCDF

Notes:

LDC #: 26978A21

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: EF
2nd Reviewer: C

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)
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 method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed?
Y N N/A Was the method blank contaminated?

(b)

Blank extraction date: 10/13/11 **Blank analysis date:** 10/15/11 **Associated samples:** 1-6, 9-11, 13I

Conc. units: ng/Kg

Compound	Blank ID		Sample Identification									
	BLK286001	5X	1	2	3	4	5	6	9	10	11	13
H	0.0391	0.1955	0.179			0.0545	0.183	0.0992				0.184*
A	0.0626*	0.313										0.151*
I	0.0281	0.1405	0.0941*		0.0389				0.0763	0.0429	0.0254*	
J	0.0553*	0.2765			0.0720*	0.0428*			0.233	0.0412	0.0610*	
L	0.0263*	0.1315		0.113*	0.0340	0.0674					0.0482*	
M	0.0606*	0.303	0.203	0.150	0.0512	0.0823*		0.184	0.149	0.0159	0.0396	
D	0.0344*	0.172	0.152	0.165	0.0811*	0.119				0.124	0.0346	
E	0.0271*	0.1355	0.125		0.0560	0.118*					0.0636*	
N	0.0293	0.1465	0.0547*		0.0374*	0.0505*			0.0609		0.0500*	
O	0.0913	0.4565			0.151					0.0901*	0.163	
F	0.202	1.01			0.781					0.211*	0.284	
P	0.0260*	0.13	0.118*	0.0457	0.0559	0.0508		0.0761*	0.0624*	0.0193	0.0235*	
G	0.380	1.9								0.577	0.862	
Q	0.189	0.945		0.882	0.353	0.884				0.124*	0.230	
		0										
		0										
		0										

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 #: ~~26064A21~~ 26978A21

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: PD
2nd Reviewer: A

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

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 method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed?
Y N N/A Was the method blank contaminated?

(b)

Blank extraction date: 10/19/11 **Blank analysis date:** 10/20/11 **Associated samples:** 7,8,12, 14-20

Conc. units: ng/Kg

Compound	Blank ID	Sample Identification								
	BLK292003	5X	7	8	12	15	16	17	19	20
I	0.0392*	0.196	0.0687U	0.190U	0.0291*U		0.0936U	0.121*U	0.110*U	
J	0.0693	0.3465	0.220*U	0.0436*U			0.209U	0.0960U	0.0939*U	
B	0.0488*	0.244	0.0439U	0.0493U	0.0346*U	0.202U	0.104*U		0.0606*U	0.0424U
K	0.114	0.57	0.189*U	0.179*U	0.0413*U	0.386*U	0.158*U	0.106*U	0.336U	0.281*U
L	0.0822*	0.411	0.129*U	0.138U	0.0191*U	0.369U	0.103*U	0.0607U	0.234*U	0.172*U
M	0.0874*	0.437	0.178U	0.190*U	0.0511*U		0.175U	0.0858U	0.322U	0.133U
C	0.0310	0.155	0.0940*U	0.137*U			0.129*U	0.0832*U		0.0357*U
D	0.0294*	0.147			0.0551*U			0.0730U		
E	0.0415*	0.2075	0.0999U	0.183*U	0.0930*U			0.0963U		0.198*U
O	0.370*	1.85	0.862U	0.772U	0.135*U		1.18U	0.175*U		0.913U
F	0.305*	1.525			0.339*U			0.308*U		
P	0.0805	0.4025	0.108U	0.0874*U	0.0411*U	0.338U	0.131*U	0.0271*U	0.398*U	0.0826U
G	0.653	3.265			1.15*U			1.23U		
Q	0.256	1.28	0.875U	1.26U	0.179*U			0.213U		1.19U

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#: 26978A21 **VALIDATION FINDINGS WORKSHEET**
Field Duplicates

Page: 1 of 1
Reviewer: F
2nd Reviewer: A APL

METHOD: Method 1613B
Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

(fd

Compound	Concentration (ng/kg)		(≤30) RPD	
	2	9		
B	0.0765	0.0846*	10	
C	0.0692*	0.0704*	2	
D	0.165	0.193	16	
E	0.163*	0.138	17	
F	2.71	3.04	11	
G	18.7	27.5	38	
H	0.196	0.265	30	
I	5.09 u ~~0.0217U~~	0.0763	200 ~~111*~~	~~J~~ J/UJ/A
J	0.317	0.233	31	A
K	0.220	0.361	49	
L	0.113*	0.148	27	
N	5.09 u ~~0.0252U~~	0.0609	200	J/UJ/A
M	0.150	0.149	1	
O	0.574	0.615*	7	
P	0.0457	0.0624*	31	
Q	0.882	1.0	13	

LDC #: 26928A2/

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

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 Average RRF (initial)	Recalculated Average RRF (initial)	Reported RRF (CS3 std)	Recalculated RRF (CS3 std)	Reported %RSD	Recalculated %RSD
1	ICAL	6/24/11	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	1.022	1.022	1.028	1.028	7.7	7.7
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	1.133	1.133	1.142	1.142	3.52	3.52
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	0.971	0.971	1.018	1.018	4.32	4.32
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	1.053	1.053	1.087	1.087	4.49	4.49
			OCDF (^{13}C-OCDF)	0.950	0.952	1.001	1.001	5.01	5.01
2			2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)						
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)						
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)						
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)						
			OCDF (^{13}C-OCDF)						
3			2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)						
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)						
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)						
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)						
			OCDF (^{13}C-OCDF)						

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 #: 26978A21

VALIDATION FINDINGS WORKSHEET
Routine Calibration Results Verification

Reviewer: FT
2nd Reviewer: A

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compound 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 conc (CC)	Recalculated RRF conc (CC)	Reported %D	Recalculated %D
1	CCV 3:46	10/15/11	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	1.022	9.590	9.590		
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	1.133	10.070	10.070		
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	0.971	49.150	49.150		
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	1.053	49.320	49.320		
			OCDF (^{13}C-OCDF)	0.950	98.970	98.970		
2	CCV 16:15	10/15/11	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)		9.570	9.570		
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)		10.370	10.370		
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)		50.980	50.980		
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)		49.220	49.220		
			OCDF (^{13}C-OCDF)		100.270	100.270		
3	CCV 0049	10/18/11	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)		9.620	9.620		
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)		10.380	10.380		
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)		50.620	50.620		
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)		49.800	49.800		
			OCDF (^{13}C-OCDF)		100.970	100.970		

Comments: Refer to Routine Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results

LDC #: 26978A21

VALIDATION FINDINGS WORKSHEET
Routine Calibration Results Verification

Reviewer: FT
2nd Reviewer:

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compound 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 13:24	10/20/11	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)	1.022	9.890	9.890		
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)	1.133	10.040	10.040		
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)	0.971	51.230	51.230		
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)	1.053	50.540	50.540		
			OCDF (^{13}C-OCDF)	0.950	101.220	101.220		
2	CCV 01:13	10/21/11	2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)		9.920	9.920		
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)		10.190	10.190		
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)		51.650	51.650		
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)		50.720	50.720		
			OCDF (^{13}C-OCDF)		101.730	101.730		
3			2,3,7,8-TCDF (^{13}C-2,3,7,8-TCDF)					
			2,3,7,8-TCDD (^{13}C-2,3,7,8-TCDD)					
			1,2,3,6,7,8-HxCDD (^{13}C-1,2,3,6,7,8-HxCDD)					
			1,2,3,4,6,7,8-HpCDD (^{13}C-1,2,4,6,7,8,-HpCDD)					
			OCDF (^{13}C-OCDF)					

Comments: Refer to Routine Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26978A2 1

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA SW 846 Method 1613B)

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 * (SSR - SR)/SA Where: SSR = Spiked sample result, SR = Sample result
SA = Spike added

RPD = | MSR - MSDR | * 2/(MSR + MSDR) MSR = Matrix spike percent recovery MSDR = Matrix spike duplicate percent recovery

MS/MSD samples: 21 + 22

Compound	Spike Added (ng/kg)		Sample Concentration (ng/kg)	Spiked Sample Concentration (ng/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		Reported RPD	Recalculated RPD
	MS	MSD	-----	MS	MSD	Reported	Recalc	Reported	Recalc	---	---
2,3,7,8-TCDD	20.2	20.2	0.196	20.8	20.0	102	102	98	98	4	4
1,2,3,7,8-PeCDD	101	101	0.0765	104	104	103	103	103	103	1	1
1,2,3,4,7,8-HxCDD	101	101	0.0692	105	103	104	104	102	102	2	2
1,2,3,4,7,8,9-HpCDF	101	101	0.0457	101	99.5	100	100	99	99	1	1
OCDF	202	202	0.882	207	201	102	102	99	99	3	3

Comments: Refer to Matrix Spike/Matrix Spike Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26978A21

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer:

METHOD: GC/MS Dioxins/Dibenzofurans (EPA SW 846 Method 1613B)

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: OPR286001

Compound	Spike Added (ng/kg)		Spiked Sample Concentration (ng/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
2,3,7,8-TCDD	20.0	NA	20.8	NA	104	104				
1,2,3,7,8-PeCDD	100.0		102		102	102				
1,2,3,4,7,8-HxCDD	100.0		103		103	103				
1,2,3,4,7,8,9-HpCDF	100		98.5		98	98				
OCDF	200		198		99	99	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 #: 26978A2 / **VALIDATION FINDINGS WORKSHEET**
Sample Calculation Verification

Page: 1 of 1
Reviewer: F7
2nd reviewer: A

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA Method 1613B)

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)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

RRF = Relative Response Factor (average) from the initial calibration

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

Example:

Sample I.D. #1 , OCDD :

Conc. = ( ) ( ) ( ) / ( ) ( ) ( ) ( )

= 19.3 ng/kg

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification
	OCDD =	$\frac{(5013\text{7} + 46357)(4000)}{(1071590 + 954322)(1.041)(10.04)(0.943)}$			
		= 19.3 ng/kg			

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SAMPLE DELIVERY GROUP

DE148

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-May-2011	TB-051111	6285041	TB	5030B	8015M	III
11-May-2011	TB-051111	6285041	TB	5030B	8260B	III
11-May-2011	TB-051111	6285041	TB	5030B	8260B SIM	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	3050B	6010B	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	3050B	6020	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	3060A	7199	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	3546	1625C	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	3550B	8015B	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	3550B	8015M	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	3550B	8082	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	3550B	8270C	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	3550B	8270C SIM	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	5035	8015M	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	5035	8260B	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	5035	8260B SIM	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	8330	8330A	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	METHOD	300.0	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	METHOD	314.0	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	METHOD	6850	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	METHOD	7471A	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	METHOD	8015B	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	METHOD	8015M	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	METHOD	8315A	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0	6285036	N	METHOD	9012B	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0DUP	P285036D220654	DUP	METHOD	7471A	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0DUP	P285036D220920A	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
11-May-2011	SL-120-SA8N-SB-4.0-5.0DUP	P285036D220920B	DUP	3050B	6020	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0DUP	P285036D220920C	DUP	3050B	6020	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0DUP	P285036D220920D	DUP	3050B	6020	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0DUP	P285036D221316	DUP	3050B	6010B	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0DUP	P285036D271652A	DUP	METHOD	314.0	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MSD	P285036M220657	MSD	METHOD	7471A	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MSD	P285036M220926A	MSD	3050B	6020	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MSD	P285036M220926B	MSD	3050B	6020	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MSD	P285036M220926C	MSD	3050B	6020	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MSD	P285036M220926D	MSD	3050B	6020	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MSD	P285036M221324	MSD	3050B	6010B	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MSD	P285036M240124A	MSD	3550B	8082	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MSD	P285036M241828A	MSD	METHOD	6850	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MSD	P285036M321659A	MSD	3550B	8015M	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MSD	P285036M322030A	MSD	METHOD	8015M	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MS	P285036R220656	MS	METHOD	7471A	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MS	P285036R220923A	MS	3050B	6020	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MS	P285036R220923B	MS	3050B	6020	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MS	P285036R220923C	MS	3050B	6020	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MS	P285036R220923D	MS	3050B	6020	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MS	P285036R221320	MS	3050B	6010B	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MS	P285036R240105A	MS	3550B	8082	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MS	P285036R241821A	MS	METHOD	6850	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MS	P285036R272311A	MS	METHOD	314.0	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MS	P285036R321634A	MS	3550B	8015M	III
11-May-2011	SL-120-SA8N-SB-4.0-5.0MS	P285036R322017A	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*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	3050B	6010B	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	3050B	6020	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	3060A	7199	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	3546	1625C	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	3550B	8015B	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	3550B	8015M	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	3550B	8082	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	3550B	8270C	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	3550B	8270C SIM	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	5035	8015M	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	5035	8260B	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	5035	8260B SIM	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	8330	8330A	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	METHOD	300.0	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	METHOD	314.0	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	METHOD	7471A	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	METHOD	8015B	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	METHOD	8015M	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	METHOD	8315A	III
11-May-2011	SL-120-SA8N-SB-9.0-10.0	6285037	N	METHOD	9012B	III
11-May-2011	SL-136-SA8N-SB-4.0-5.0	6285038	N	3050B	6010B	III
11-May-2011	SL-136-SA8N-SB-4.0-5.0	6285038	N	3050B	6020	III
11-May-2011	SL-136-SA8N-SB-4.0-5.0	6285038	N	3060A	7199	III
11-May-2011	SL-136-SA8N-SB-4.0-5.0	6285038	N	3550B	8082	III
11-May-2011	SL-136-SA8N-SB-4.0-5.0	6285038	N	3550B	8270C	III
11-May-2011	SL-136-SA8N-SB-4.0-5.0	6285038	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
11-May-2011	SL-136-SA8N-SB-4.0-5.0	6285038	N	5035	8260B	III
11-May-2011	SL-136-SA8N-SB-4.0-5.0	6285038	N	5035	8260B SIM	III
11-May-2011	SL-136-SA8N-SB-4.0-5.0	6285038	N	METHOD	300.0	III
11-May-2011	SL-136-SA8N-SB-4.0-5.0	6285038	N	METHOD	314.0	III
11-May-2011	SL-136-SA8N-SB-4.0-5.0	6285038	N	METHOD	7471A	III
11-May-2011	SL-136-SA8N-SB-9.0-10.0	6285039	N	3050B	6010B	III
11-May-2011	SL-136-SA8N-SB-9.0-10.0	6285039	N	3050B	6020	III
11-May-2011	SL-136-SA8N-SB-9.0-10.0	6285039	N	3060A	7199	III
11-May-2011	SL-136-SA8N-SB-9.0-10.0	6285039	N	3550B	8082	III
11-May-2011	SL-136-SA8N-SB-9.0-10.0	6285039	N	3550B	8270C	III
11-May-2011	SL-136-SA8N-SB-9.0-10.0	6285039	N	3550B	8270C SIM	III
11-May-2011	SL-136-SA8N-SB-9.0-10.0	6285039	N	METHOD	300.0	III
11-May-2011	SL-136-SA8N-SB-9.0-10.0	6285039	N	METHOD	314.0	III
11-May-2011	SL-136-SA8N-SB-9.0-10.0	6285039	N	METHOD	7471A	III
11-May-2011	EB10-SA8N-SB-051111	6285040	EB	3510C	8015B	III
11-May-2011	EB10-SA8N-SB-051111	6285040	EB	3510C	8015M	III
11-May-2011	EB10-SA8N-SB-051111	6285040	EB	3520C	1625C	III
11-May-2011	EB10-SA8N-SB-051111	6285040	EB	5030B	8015M	III
11-May-2011	EB10-SA8N-SB-051111	6285040	EB	8330	8330A	III
11-May-2011	EB10-SA8N-SB-051111	6285040	EB	Gen Prep	300.0	III
11-May-2011	EB10-SA8N-SB-051111	6285040	EB	Gen Prep	8015B	III
11-May-2011	EB10-SA8N-SB-051111	6285040	EB	Gen Prep	8015M	III
11-May-2011	EB10-SA8N-SB-051111	6285040	EB	METHOD	8315A	III
11-May-2011	EB10-SA8N-SB-051111	6285040	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: DE148 **Laboratory: LL**

EDD Filename: DE148_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-120-SA8N-SB-4.0-5.0 *Collected:* 5/11/2011 8:47:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.3	J	0.87	MDL	1.6	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-120-SA8N-SB-4.0-5.0 *Collected:* 5/11/2011 8:47:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3940		6.60	MDL	21.5	PQL	mg/Kg	J	E
PHOSPHORUS	277		0.603	MDL	10.8	PQL	mg/Kg	J	Q, E
POTASSIUM	2310		19.4	MDL	53.8	PQL	mg/Kg	J	Q
SODIUM	84.4	J	40.1	MDL	108	PQL	mg/Kg	J	Z
TIN	2.81	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	1.06	J	0.904	MDL	5.38	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA8N-SB-9.0-10.0 *Collected:* 5/11/2011 8:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	4710		6.86	MDL	22.4	PQL	mg/Kg	J	E
PHOSPHORUS	227		0.626	MDL	11.2	PQL	mg/Kg	J	Q, E
POTASSIUM	2480		20.1	MDL	55.9	PQL	mg/Kg	J	Q
TIN	2.88	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	2.15	J	0.940	MDL	5.59	PQL	mg/Kg	J	Z

Sample ID: SL-136-SA8N-SB-4.0-5.0 *Collected:* 5/11/2011 9:59:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	5730		6.51	MDL	21.2	PQL	mg/Kg	J	E
PHOSPHORUS	342		0.595	MDL	10.6	PQL	mg/Kg	J	Q, E
POTASSIUM	3240		19.1	MDL	53.1	PQL	mg/Kg	J	Q
SODIUM	89.1	J	39.6	MDL	106	PQL	mg/Kg	J	Z
TIN	2.81	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: DE148 **Laboratory: LL**

EDD Filename: DE148_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-136-SA8N-SB-9.0-10.0 *Collected:* 5/11/2011 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
CALCIUM	1690		6.40	MDL	20.9	PQL	mg/Kg	J	E
PHOSPHORUS	163		0.585	MDL	10.4	PQL	mg/Kg	J	Q, E
POTASSIUM	1940		18.8	MDL	52.2	PQL	mg/Kg	J	Q
TIN	2.62	J	1.04	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	0.930	J	0.877	MDL	5.22	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-120-SA8N-SB-4.0-5.0 *Collected:* 5/11/2011 8:47:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.160	J	0.0426	MDL	0.426	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA8N-SB-4.0-5.0 *Collected:* 5/11/2011 8:47:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.185	J	0.0639	MDL	0.213	PQL	mg/Kg	J	Z, Q, E
ARSENIC	4.45		0.0853	MDL	0.426	PQL	mg/Kg	J	Q
BERYLLIUM	0.630		0.0171	MDL	0.107	PQL	mg/Kg	J	Q
CADMIUM	0.251		0.0426	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	20.5		0.128	MDL	0.426	PQL	mg/Kg	J	Q
COBALT	7.36		0.0213	MDL	0.107	PQL	mg/Kg	J	Q
COPPER	12.5		0.0703	MDL	0.426	PQL	mg/Kg	J	Q
LEAD	14.1		0.0111	MDL	0.213	PQL	mg/Kg	J	E
NICKEL	14.0		0.107	MDL	0.426	PQL	mg/Kg	J	Q
SILVER	0.0374	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.299		0.0320	MDL	0.107	PQL	mg/Kg	J	Q
VANADIUM	36.7		0.0234	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-120-SA8N-SB-9.0-10.0 *Collected:* 5/11/2011 8:49:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.113	J	0.0443	MDL	0.443	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: DE148 **Laboratory:** LL

EDD Filename: DE148_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-120-SA8N-SB-9.0-10.0 **Collected:** 5/11/2011 8:49:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.127	J	0.0665	MDL	0.222	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.32		0.0886	MDL	0.443	PQL	mg/Kg	J	Q
BERYLLIUM	0.630		0.0177	MDL	0.111	PQL	mg/Kg	J	Q
CADMIUM	0.0959	J	0.0443	MDL	0.111	PQL	mg/Kg	J	Z, Q
CHROMIUM	19.4		0.133	MDL	0.443	PQL	mg/Kg	J	Q
COBALT	6.22		0.0222	MDL	0.111	PQL	mg/Kg	J	Q
COPPER	9.29		0.0731	MDL	0.443	PQL	mg/Kg	J	Q
LEAD	7.47		0.0115	MDL	0.222	PQL	mg/Kg	J	E
NICKEL	12.1		0.111	MDL	0.443	PQL	mg/Kg	J	Q
SILVER	0.0466	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z, Q
THALLIUM	0.238		0.0332	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	38.0		0.0244	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: SL-136-SA8N-SB-4.0-5.0 **Collected:** 5/11/2011 9:59:00 **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	0.0429	MDL	0.429	PQL	mg/Kg	J	Z

Sample ID: SL-136-SA8N-SB-4.0-5.0 **Collected:** 5/11/2011 9:59:00 **Analysis Type:** RES **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0644	U	0.0644	MDL	0.215	PQL	mg/Kg	UJ	Q, E
ARSENIC	2.54		0.0858	MDL	0.429	PQL	mg/Kg	J	Q
BERYLLIUM	0.321		0.0172	MDL	0.107	PQL	mg/Kg	J	Q
CADMIUM	0.0808	J	0.0429	MDL	0.107	PQL	mg/Kg	J	Z, Q
CHROMIUM	8.73		0.129	MDL	0.429	PQL	mg/Kg	J	Q
COBALT	3.65		0.0215	MDL	0.107	PQL	mg/Kg	J	Q
COPPER	3.91		0.0708	MDL	0.429	PQL	mg/Kg	J	Q
LEAD	10.8		0.0112	MDL	0.215	PQL	mg/Kg	J	E
NICKEL	5.73		0.107	MDL	0.429	PQL	mg/Kg	J	Q
THALLIUM	0.220		0.0322	MDL	0.107	PQL	mg/Kg	J	Q
VANADIUM	21.1		0.0236	MDL	0.107	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: DE148 **Laboratory: LL**

EDD Filename: DE148_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-136-SA8N-SB-9.0-10.0 *Collected:* 5/11/2011 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
SELENIUM	0.144	J	0.0409	MDL	0.409	PQL	mg/Kg	J	Z

Sample ID: SL-136-SA8N-SB-9.0-10.0 *Collected:* 5/11/2011 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	0.129	J	0.0614	MDL	0.205	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.84		0.0819	MDL	0.409	PQL	mg/Kg	J	Q
BERYLLIUM	0.767		0.0164	MDL	0.102	PQL	mg/Kg	J	Q
CADMIUM	0.0588	J	0.0409	MDL	0.102	PQL	mg/Kg	J	Z, Q
CHROMIUM	18.4		0.123	MDL	0.409	PQL	mg/Kg	J	Q
COBALT	8.03		0.0205	MDL	0.102	PQL	mg/Kg	J	Q
COPPER	6.72		0.0675	MDL	0.409	PQL	mg/Kg	J	Q
LEAD	6.93		0.0106	MDL	0.205	PQL	mg/Kg	J	E
NICKEL	11.1		0.102	MDL	0.409	PQL	mg/Kg	J	Q
SILVER	0.0435	J	0.0123	MDL	0.102	PQL	mg/Kg	J	Z, Q
THALLIUM	0.310		0.0307	MDL	0.102	PQL	mg/Kg	J	Q
VANADIUM	40.5		0.0225	MDL	0.102	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-120-SA8N-SB-4.0-5.0 *Collected:* 5/11/2011 8:47:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.33	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA8N-SB-9.0-10.0 *Collected:* 5/11/2011 8:49:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.42	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE148 Laboratory: LL

EDD Filename: DE148_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 1625C **Matrix:** AQ

Sample ID: EB10-SA8N-SB-051111 *Collected:* 5/11/2011 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
N-NITROSODIMETHYLAMINE	0.765	J	0.519	MDL	1.04	PQL	ng/L	J	Z, S

Method Category: SVOA **Method:** 1625C **Matrix:** SO

Sample ID: SL-120-SA8N-SB-4.0-5.0 *Collected:* 5/11/2011 8:47:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	34.5	J	18.0	MDL	36.0	PQL	ng/Kg	J	Z

Method Category: SVOA **Method:** 6850 **Matrix:** SO

Sample ID: SL-120-SA8N-SB-4.0-5.0 *Collected:* 5/11/2011 8:47:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PERCHLORATE	3.1	J	2.3	MDL	5.4	PQL	ug/Kg	J	Z

Method Category: SVOA **Method:** 8015M **Matrix:** AQ

Sample ID: EB10-SA8N-SB-051111 *Collected:* 5/11/2011 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 (C8-C11)	0.14	J	0.11	MDL	0.65	PQL	mg/L	U	B

Method Category: SVOA **Method:** 8015M **Matrix:** SO

Sample ID: SL-120-SA8N-SB-4.0-5.0 *Collected:* 5/11/2011 8:47:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.4	U	5.4	MDL	11	PQL	mg/Kg	UJ	Q
ETHYLENE GLYCOL	5.4	U	5.4	MDL	11	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: DE148 Laboratory: LL

EDD Filename: DE148_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 8015M **Matrix:** SO

Sample ID: SL-120-SA8N-SB-4.0-5.0 *Collected:* 5/11/2011 8:47:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	1.3	J	0.87	MDL	2.6	PQL	mg/Kg	UJ	Q, L, B

Sample ID: SL-120-SA8N-SB-9.0-10.0 *Collected:* 5/11/2011 8:49:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	1.3	J	0.92	MDL	2.7	PQL	mg/Kg	UJ	L, B

Method Category: SVOA **Method:** 8082 **Matrix:** SO

Sample ID: SL-120-SA8N-SB-9.0-10.0 *Collected:* 5/11/2011 8:49:00 *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 1254	1.8	J	0.38	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5460	3.0	J	1.2	MDL	3.8	PQL	ug/Kg	J	Z

Method Category: SVOA **Method:** 8270C **Matrix:** SO

Sample ID: SL-120-SA8N-SB-4.0-5.0 *Collected:* 5/11/2011 8:47:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DICHLOROBENZENE	90	U	90	MDL	900	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	90	U	90	MDL	900	PQL	ug/Kg	UJ	L

Sample ID: SL-120-SA8N-SB-9.0-10.0 *Collected:* 5/11/2011 8:49:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	26	J	19	MDL	380	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE148 Laboratory: LL

EDD Filename: DE148_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-136-SA8N-SB-4.0-5.0 *Collected:* 5/11/2011 9:59:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	19	J	18	MDL	350	PQL	ug/Kg	J	Z

Sample ID: SL-136-SA8N-SB-9.0-10.0 *Collected:* 5/11/2011 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
1,2-DICHLOROBENZENE	17	U	17	MDL	170	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	17	U	17	MDL	170	PQL	ug/Kg	UJ	L

Method Category: SVOA

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

Sample ID: SL-120-SA8N-SB-4.0-5.0 *Collected:* 5/11/2011 8:47:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	13	J	7.2	MDL	18	PQL	ug/Kg	J	Z
FLUORANTHENE	10	J	7.2	MDL	18	PQL	ug/Kg	J	Z
PYRENE	11	J	7.2	MDL	18	PQL	ug/Kg	J	Z

Sample ID: SL-120-SA8N-SB-9.0-10.0 *Collected:* 5/11/2011 8:49:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.90	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	1.1	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
Di-n-butylphthalate	7.3	J	6.9	MDL	21	PQL	ug/Kg	J	Z
FLUORANTHENE	1.3	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.1	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-136-SA8N-SB-4.0-5.0 *Collected:* 5/11/2011 9:59:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-butylphthalate	13	J	6.4	MDL	19	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE148 **Laboratory: LL**

EDD Filename: DE148_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-136-SA8N-SB-9.0-10.0 *Collected:* 5/11/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	8.4	J	6.2	MDL	19	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-120-SA8N-SB-9.0-10.0 *Collected:* 5/11/2011 8:49:00 *Analysis Type:* RES *Dilution:* 0.85

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOLUENE	0.08	J	0.08	MDL	3.9	PQL	ug/Kg	J	Z

Sample ID: SL-136-SA8N-SB-4.0-5.0 *Collected:* 5/11/2011 9:59:00 *Analysis Type:* RES *Dilution:* 0.92

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHLOROFORM	0.13	J	0.12	MDL	3.9	PQL	ug/Kg	J	Z
TOLUENE	0.08	J	0.08	MDL	3.9	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: DE148 **Laboratory: LL**

EDD Filename: DE148_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

Data Qualifier Summary

Lab Reporting Batch ID: DE148 **Laboratory: LL**

EDD Filename: DE148_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	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE148 **Laboratory: LL**

EDD Filename: DE148_v1 **eQAPP Name: CDM_SSFL_110509**

Q	Matrix Spike Upper Rejection
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

DE148

Method Blank Outlier Report

Lab Reporting Batch ID: DE148 **Laboratory: LL**

EDD Filename: DE148_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P13908BB221256	5/20/2011 12:56:00 PM	PHOSPHORUS TIN	1.29 mg/Kg 1.65 mg/Kg	SL-120-SA8N-SB-4.0-5.0 SL-120-SA8N-SB-9.0-10.0 SL-136-SA8N-SB-4.0-5.0 SL-136-SA8N-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-120-SA8N-SB-4.0-5.0(RES)	TIN	2.81 mg/Kg	2.81U mg/Kg
SL-120-SA8N-SB-9.0-10.0(RES)	TIN	2.88 mg/Kg	2.88U mg/Kg
SL-136-SA8N-SB-4.0-5.0(RES)	TIN	2.81 mg/Kg	2.81U mg/Kg
SL-136-SA8N-SB-9.0-10.0(RES)	TIN	2.62 mg/Kg	2.62U mg/Kg

Method: 8015M
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P36367AB321327A	5/18/2011 1:27:00 PM	EFH (C8-C11)	0.10 mg/L	EB10-SA8N-SB-051111

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-SA8N-SB-051111(REA2)	EFH (C8-C11)	0.14 mg/L	0.65U mg/L

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P37375AB321339A	5/25/2011 1:39:00 PM	EFH (C8-C11)	1.3 mg/Kg	SL-120-SA8N-SB-4.0-5.0 SL-120-SA8N-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-120-SA8N-SB-4.0-5.0(REA2)	EFH (C8-C11)	1.3 mg/Kg	2.6U mg/Kg
SL-120-SA8N-SB-9.0-10.0(REA2)	EFH (C8-C11)	1.3 mg/Kg	2.7U mg/Kg

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB57B210500A	5/17/2011 5:00:00 AM	METHYLENE CHLORIDE	0.55 ug/Kg	SL-120-SA8N-SB-4.0-5.0 SL-120-SA8N-SB-9.0-10.0 SL-136-SA8N-SB-4.0-5.0

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE148 **Laboratory: LL**

EDD Filename: DE148_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-120-SA8N-SB-4.0-5.0MSD (SL-120-SA8N-SB-4.0-5.0)	Propylene glycol	-	-	63.00-107.00	24 (20.00)	Propylene glycol	J (all detects)
SL-120-SA8N-SB-4.0-5.0MS SL-120-SA8N-SB-4.0-5.0MSD (SL-120-SA8N-SB-4.0-5.0)	DIETHYLENE GLYCOL ETHYLENE GLYCOL	43 58	56 -	59.00-109.00 63.00-107.00	27 (20.00) 26 (20.00)	DIETHYLENE GLYCOL ETHYLENE GLYCOL	J(all detects) UJ(all non-detects)
SL-120-SA8N-SB-4.0-5.0MS SL-120-SA8N-SB-4.0-5.0MSD (SL-120-SA8N-SB-4.0-5.0)	EFH (C21-C30)	492	249	49.00-123.00	30 (20.00)	EFH (C21-C30)	No Qual, >4x
SL-120-SA8N-SB-4.0-5.0MS SL-120-SA8N-SB-4.0-5.0MSD (SL-120-SA8N-SB-4.0-5.0)	EFH (C30-C40)	1306	-595	49.00-123.00	63 (20.00)	EFH (C30-C40)	No Qual, >4x
SL-120-SA8N-SB-4.0-5.0MSD (SL-120-SA8N-SB-4.0-5.0)	EFH (C8-C11)	-	36	49.00-123.00	-	EFH (C8-C11)	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-120-SA8N-SB-4.0-5.0MS SL-120-SA8N-SB-4.0-5.0MSD (SL-120-SA8N-SB-4.0-5.0 SL-120-SA8N-SB-9.0-10.0 SL-136-SA8N-SB-4.0-5.0 SL-136-SA8N-SB-9.0-10.0)	ARSENIC	165	213	75.00-125.00	-	ARSENIC	
	BERYLLIUM	126	142	75.00-125.00	-	BERYLLIUM	
	CADMIUM	126	130	75.00-125.00	-	CADMIUM	
	CHROMIUM	127	146	75.00-125.00	-	CHROMIUM	
	COBALT	-	146	75.00-125.00	-	COBALT	J(all detects)
	COPPER	-	150	75.00-125.00	-	COPPER	
	LEAD	238	330	75.00-125.00	-	LEAD	
	NICKEL	130	170	75.00-125.00	-	NICKEL	Pb, Zn,
	SILVER	-	131	75.00-125.00	-	SILVER	No Qual, >4x
	THALLIUM	-	129	75.00-125.00	-	THALLIUM	
	VANADIUM	157	209	75.00-125.00	-	VANADIUM	
	ZINC	150	268	75.00-125.00	-	ZINC	
SL-120-SA8N-SB-4.0-5.0MS SL-120-SA8N-SB-4.0-5.0MSD (SL-120-SA8N-SB-4.0-5.0 SL-120-SA8N-SB-9.0-10.0 SL-136-SA8N-SB-4.0-5.0 SL-136-SA8N-SB-9.0-10.0)	ANTIMONY	46	63	75.00-125.00	25 (20.00)	ANTIMONY	J(all detects) UJ(all non-detects)
SL-120-SA8N-SB-4.0-5.0MS SL-120-SA8N-SB-4.0-5.0MSD (SL-120-SA8N-SB-4.0-5.0 SL-120-SA8N-SB-9.0-10.0 SL-136-SA8N-SB-4.0-5.0 SL-136-SA8N-SB-9.0-10.0)	BARIUM	220	382	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-120-SA8N-SB-4.0-5.0MS SL-120-SA8N-SB-4.0-5.0MSD (SL-120-SA8N-SB-4.0-5.0 SL-120-SA8N-SB-9.0-10.0 SL-136-SA8N-SB-4.0-5.0 SL-136-SA8N-SB-9.0-10.0)	ALUMINUM	2046	1418	75.00-125.00	-	ALUMINUM	
	IRON	1062	257	75.00-125.00	-	IRON	J(all detects)
	MAGNESIUM	338	199	75.00-125.00	-	MAGNESIUM	
	MANGANESE	169	-	75.00-125.00	-	MANGANESE	
	POTASSIUM	128	134	75.00-125.00	-	POTASSIUM	Al, Fe, Mg, Mn, Ti,
	TITANIUM	243	324	75.00-125.00	-	TITANIUM	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: DE148 **Laboratory: LL**

EDD Filename: DE148_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-120-SA8N-SB-4.0-5.0MS SL-120-SA8N-SB-4.0-5.0MSD (SL-120-SA8N-SB-4.0-5.0 SL-120-SA8N-SB-9.0-10.0 SL-136-SA8N-SB-4.0-5.0 SL-136-SA8N-SB-9.0-10.0)	CALCIUM PHOSPHORUS	349 591	46 156	75.00-125.00 75.00-125.00	27 (20.00) 68 (20.00)	CALCIUM PHOSPHORUS	J(all detects) UJ(all non-detects) Ca, No Qual %R, >4x

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE148 **Laboratory: LL**

EDD Filename: DE148_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-120-SA8N-SB-4.0-5.0DUP (SL-120-SA8N-SB-4.0-5.0 SL -120-SA8N-SB-9.0-10.0 SL -136-SA8N-SB-4.0-5.0 SL -136-SA8N-SB-9.0-10.0)	Zirconium	61	20.00	No Qual, OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-120-SA8N-SB-4.0-5.0DUP (SL-120-SA8N-SB-4.0-5.0 SL -120-SA8N-SB-9.0-10.0 SL -136-SA8N-SB-4.0-5.0 SL -136-SA8N-SB-9.0-10.0)	CADMIUM	22	20.00	J(all detects) UJ(all non-detects)
	LEAD	22	20.00	
	SELENIUM	30	20.00	Cd, Se, Ag,Tl, No Qual, OK by difference
	SILVER	52	20.00	
	THALLIUM	21	20.00	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE148 **Laboratory: LL**

EDD Filename: DE148_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
P11372AQ240134A (SL-120-SA8N-SB-4.0-5.0 SL-120-SA8N-SB-9.0-10.0)	PETN	121	-	80.00-120.00	-	PETN	J (all detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11375AQ321405A (SL-120-SA8N-SB-4.0-5.0 SL-120-SA8N-SB-9.0-10.0)	EFH (C8-C11)	198	-	66.00-113.00	-	EFH (C8-C11)	J(all detects)

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P6LCLCSQ260838 (SL-120-SA8N-SB-4.0-5.0 SL-120-SA8N-SB-9.0-10.0 SL-136-SA8N-SB-4.0-5.0 SL-136-SA8N-SB-9.0-10.0)	1,2-DICHLOROBENZENE	75	-	79.00-102.00	-	1,2-DICHLOROBENZENE	J(all detects) UJ(all non-detects)
	4-BROMOPHENYL-PHENYLETH	78	-	79.00-117.00	-	4-BROMOPHENYL-PHENYLET	

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSB57Q210522A	N-BUTYLBENZENE	121	121	72.00-120.00	-	N-BUTYLBENZENE	J(all detects)
LCSB57Y210544A	N-PROPYLBENZENE	123	-	77.00-120.00	-	N-PROPYLBENZENE	
(SL-120-SA8N-SB-4.0-5.0 SL-120-SA8N-SB-9.0-10.0 SL-136-SA8N-SB-4.0-5.0)	SEC-BUTYLBENZENE	125	125	75.00-120.00	-	SEC-BUTYLBENZENE	

Surrogate Outlier Report

Lab Reporting Batch ID: DE148 **Laboratory: LL**

EDD Filename: DE148_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1625C**
Matrix: **AQ**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
EB10-SA8N-SB-051111	N-Nitrosodimethylamine-d6	241	50.00-150.00	All Target Analytes	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE148 **Laboratory: LL**

EDD Filename: DE148_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB10-SA8N-SB-051111	N-NITROSODIMETHYLAMINE	J	0.765	1.04	PQL	ng/L	J (all detects)

Method: 8015M

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB10-SA8N-SB-051111	EFH (C8-C11)	J	0.14	0.65	PQL	mg/L	J (all detects)

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-120-SA8N-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	34.5	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-120-SA8N-SB-4.0-5.0	Nitrate-NO3	J	1.3	1.6	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-120-SA8N-SB-4.0-5.0	SODIUM	J	84.4	108	PQL	mg/Kg	J (all detects)
	TIN	J	2.81	10.8	PQL	mg/Kg	
	Zirconium	J	1.06	5.38	PQL	mg/Kg	
SL-120-SA8N-SB-9.0-10.0	TIN	J	2.88	11.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.15	5.59	PQL	mg/Kg	
SL-136-SA8N-SB-4.0-5.0	SODIUM	J	89.1	106	PQL	mg/Kg	J (all detects)
	TIN	J	2.81	10.6	PQL	mg/Kg	
SL-136-SA8N-SB-9.0-10.0	TIN	J	2.62	10.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	0.930	5.22	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-120-SA8N-SB-4.0-5.0	ANTIMONY	J	0.185	0.213	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.160	0.426	PQL	mg/Kg	
	SILVER	J	0.0374	0.107	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE148 **Laboratory: LL**

EDD Filename: DE148_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-120-SA8N-SB-9.0-10.0	ANTIMONY	J	0.127	0.222	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0959	0.111	PQL	mg/Kg	
	SELENIUM	J	0.113	0.443	PQL	mg/Kg	
	SILVER	J	0.0466	0.111	PQL	mg/Kg	
SL-136-SA8N-SB-4.0-5.0	CADMIUM	J	0.0808	0.107	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.133	0.429	PQL	mg/Kg	
SL-136-SA8N-SB-9.0-10.0	ANTIMONY	J	0.129	0.205	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0588	0.102	PQL	mg/Kg	
	SELENIUM	J	0.144	0.409	PQL	mg/Kg	
	SILVER	J	0.0435	0.102	PQL	mg/Kg	

Method: 6850

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-120-SA8N-SB-4.0-5.0	PERCHLORATE	J	3.1	5.4	PQL	ug/Kg	J (all detects)

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-120-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.33	1.1	PQL	mg/Kg	J (all detects)
SL-120-SA8N-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.42	1.2	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-120-SA8N-SB-4.0-5.0	EFH (C8-C11)	J	1.3	2.6	PQL	mg/Kg	J (all detects)
SL-120-SA8N-SB-9.0-10.0	EFH (C8-C11)	J	1.3	2.7	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-120-SA8N-SB-9.0-10.0	AROCLOR 1254	J	1.8	2.0	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	3.0	3.8	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE148 **Laboratory: LL**

EDD Filename: DE148_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-120-SA8N-SB-9.0-10.0	TOLUENE	J	0.08	3.9	PQL	ug/Kg	J (all detects)
SL-136-SA8N-SB-4.0-5.0	CHLOROFORM	J	0.13	3.9	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.08	3.9	PQL	ug/Kg	

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-120-SA8N-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	26	380	PQL	ug/Kg	J (all detects)
SL-136-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	19	350	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-120-SA8N-SB-4.0-5.0	BENZO(G,H,I)PERYLENE	J	13	18	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	10	18	PQL	ug/Kg	
	PYRENE	J	11	18	PQL	ug/Kg	
SL-120-SA8N-SB-9.0-10.0	BENZO(A)PYRENE	J	0.90	1.9	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	1.1	1.9	PQL	ug/Kg	
	Di-n-butylphthalate	J	7.3	21	PQL	ug/Kg	
	FLUORANTHENE	J	1.3	1.9	PQL	ug/Kg	
	PYRENE	J	1.1	1.9	PQL	ug/Kg	
SL-136-SA8N-SB-4.0-5.0	Di-n-butylphthalate	J	13	19	PQL	ug/Kg	J (all detects)
SL-136-SA8N-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.4	19	PQL	ug/Kg	J (all detects)

LDC #: 26277X4 **VALIDATION COMPLETENESS WORKSHEET** Date: 10/4/11
SDG #: DE148 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: W
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	N	
III.	Calibration	N	
IV.	Blanks	A	Mn from RPD
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Fe, Pb, Mg, Mn, Ti, Zn >4X; No gw Mn %R
VII.	Duplicate Sample Analysis	SW	Cd, Se, Ag, Tl, Zr <5X (Pb RPD (6))
VIII.	Laboratory Control Samples (LCS)	A	SRM
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	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-120-SA8N-SB-4.0-5.0	11	#1 MS	21		31	
2	SL-120-SA8N-SB-9.0-10.0	12	MSD	22		32	
3	SL-136-SA8N-SB-4.0-5.0	13	DUP	23		33	
4	SL-136-SA8N-SB-9.0-10.0	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:

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE148
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6285036BKG Matrix Spike Lab Sample ID: 6285036MS Matrix Spike Duplicate Lab Sample ID: 6285036MSD
% Solids for Sample: 92.0
Batch Id(s): P13908B, P13926A, P13911A

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		15799.8138		20117.3301		18792.3966		211.0595	211.0595	MG/KG	2046		1418		7			20	P
Antimony	121	0.1846	B	0.7671		0.9872		1.2788	1.2788	MG/KG	46	N	63	N	25	*	75 - 125	20	MS
Arsenic	75	4.4459		7.9518		8.9855		2.1313	2.1313	MG/KG	164	N	213	N	12		75 - 125	20	MS
Barium	137	119.9275		143.3504		160.5925		10.6564	10.6564	MG/KG	220		382		11			20	MS
Beryllium	9	0.6302		1.7008		1.8412		0.8525	0.8525	MG/KG	126	N	142	N	8		75 - 125	20	MS
Boron		13.2899		221.1228		217.1929		211.0595	211.0595	MG/KG	98		97		2		84 - 115	20	P
Cadmium	111	0.2511		1.5948		1.6319		1.0656	1.0656	MG/KG	126	N	130	N	2		75 - 125	20	MS
Calcium		3941.6304		5415.2438		4135.2279		422.1190	422.1190	MG/KG	349		46		27	*		20	P
Chromium	52	20.4774		34.0153		35.9974		10.6564	10.6564	MG/KG	127	N	146	N	6		75 - 125	20	MS
Cobalt	59	7.3636		69.7144		85.3581		53.2822	53.2822	MG/KG	117		146	N	20		75 - 125	20	MS
Copper	63	12.5085		25.8738		28.4953		10.6564	10.6564	MG/KG	125		150	N	10		75 - 125	20	MS
Iron		21754.8407		22875.2881		22025.8917		105.5298	105.5298	MG/KG	1062		257		4			20	P
Lead	208	14.0772		21.6965		24.6164		3.1969	3.1969	MG/KG	238		330		13			20	MS
Lithium		18.9496		127.5338		125.6680		105.5298	105.5298	MG/KG	103		101		1		82 - 114	20	P
Magnesium		4471.1655		5184.1684		4890.8685		211.0595	211.0595	MG/KG	338		199		6			20	P
Manganese		254.0626		343.2049		317.8240		52.7649	52.7649	MG/KG	169		121		8			20	P
Mercury		0.0032	U	0.1458		0.1275		0.1755	0.1723	MG/KG	83		74		13		65 - 135	20	CV
Molybdenum	98	0.5684		12.6918		13.8704		10.6564	10.6564	MG/KG	114		125		9		75 - 125	20	MS
Nickel	60	14.0175		27.8772		32.1398		10.6564	10.6564	MG/KG	130	N	170	N	14		75 - 125	20	MS
Phosphorus		276.9770		901.0701		441.3719		105.5298	105.5298	MG/KG	591	N	156	N	68	*	75 - 125	20	P
Potassium		2315.0000		3666.0965		3727.1486		1055.2976	1055.2976	MG/KG	128	N	134	N	2		75 - 125	20	P
Selenium	78	0.1604	B	2.4744		2.6982		2.1313	2.1313	MG/KG	109		119		9		75 - 125	20	MS
Silver	107	0.0374	B	13.1223		14.0345		10.6564	10.6564	MG/KG	123		131	N	7		75 - 125	20	MS
Sodium		84.4404	B	1205.6807		1143.9384		1055.2976	1055.2976	MG/KG	106		100		5		75 - 125	20	P
Strontium		27.6507		131.5312		128.4455		105.5298	105.5298	MG/KG	98		96		2		75 - 115	20	P
Thallium	203	0.2992		0.7434		0.8497		0.4263	0.4263	MG/KG	104		129	N	13		75 - 125	20	MS
Tin		2.8099	B	380.8854		374.3732		422.1190	422.1190	MG/KG	90		88		2		80 - 110	20	P
Titanium		985.9029		1242.6098		1327.5253		105.5298	105.5298	MG/KG	243		324		7			20	P
Vanadium	51	36.6795		53.4101		58.9727		10.6564	10.6564	MG/KG	157	N	209	N	10		75 - 125	20	MS
Zinc	66	63.3845		79.3265		91.9864		10.6564	10.6564	MG/KG	150		268		15			20	MS
Zirconium		1.0622	B	104.0808		103.6176		105.5298	105.5298	MG/KG	98		97		0		75 - 125	20	P

DE148
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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 6
DUPLICATES
SDG No.: DE148
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6285036BKG
% Solids for Duplicate: 92.0
Batch ID(s): P13908B, P13926A, P13911A
Concentration Units: MG/KG

Duplicate Lab Sample ID: 6285036DUP
% Solids for Sample: 92.0

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			15799.8138		14325.6217		10		P
Antimony	121		0.1846	B	0.1710	B	8		MS
Arsenic	75		4.4459		5.0211		12		MS
Barium	137		119.9275		106.5006		12		MS
Beryllium	9		0.6302		0.5692		10		MS
Boron		5.4	13.2899		11.9250		11		P
Cadmium	111	0.1	0.2511		0.2017		22		MS
Calcium			3941.6304		4161.1359		5		P
Chromium	52		20.4774		18.4276		11		MS
Cobalt	59		7.3636		8.0540		9		MS
Copper	63		12.5085		10.6965		16		MS
Iron			21754.8407		20229.8511		7		P
Lead	208		14.0772		11.2727		22	*	MS
Lithium			18.9496		16.8207		12		P
Magnesium			4471.1655		4148.6359		7		P
Manganese			254.0626		271.8098		7		P
Mercury			0.0032	U	0.0032	U			CV
Molybdenum	98		0.5684		0.5946		5		MS
Nickel	60		14.0175		12.3385		13		MS
Phosphorus			276.9770		277.8283		0		P
Potassium			2315.0000		2486.2707		7		P
Selenium	78		0.1604	B	0.1185	B	30		MS
Silver	107		0.0374	B	0.0634	B	52		MS
Sodium			84.4404	B	87.3457	B	3		P
Strontium			27.6507		24.8315		11		P
Thallium	203	0.1	0.2992		0.2415		21		MS
Tin			2.8099	B	2.5913	B	8		P
Titanium			985.9029		993.5674		1		P
Vanadium	51		36.6795		33.3052		10		MS
Zinc	66		63.3845		56.0363		12		MS
Zirconium			1.0622	B	2.0000	B	61		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:	CONCENTRATION QUALIFIERS:
P = ICP Atomic Emission Spectrometer	U= Below MDL
MS = ICP Mass Spectrometry	B= Below LOQ
CV = Cold Vapor	FLAGS:
AF = Cold Vapor Atomic Fluorescence	* = Duplicate Out of Spec

SAMPLE DELIVERY GROUP

DE149

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
12-May-2011	TB-051211	6286422	TB	5030B	8015M	III
12-May-2011	TB-051211	6286422	TB	5030B	8260B	III
12-May-2011	TB-051211	6286422	TB	5030B	8260B SIM	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	3050B	6010B	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	3050B	6020	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	3060A	7199	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	3546	1625C	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	3550B	8015B	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	3550B	8015M	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	3550B	8082	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	3550B	8270C	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	3550B	8270C SIM	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	5035	8015M	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	5035	8260B	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	5035	8260B SIM	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	8330	8330A	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	METHOD	300.0	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	METHOD	314.0	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	METHOD	7471A	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	METHOD	8015B	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	METHOD	8015M	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	METHOD	8315A	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0	6286419	N	METHOD	9012B	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0MSD	P286419M322200A	MSD	METHOD	8015B	III
12-May-2011	SL-101-SA8N-SB-4.0-5.0MS	P286419R322145A	MS	METHOD	8015B	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	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
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	3050B	6020	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	3060A	7199	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	3546	1625C	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	3550B	8015B	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	3550B	8015M	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	3550B	8082	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	3550B	8270C	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	3550B	8270C SIM	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	5035	8015M	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	5035	8260B	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	5035	8260B SIM	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	8330	8330A	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	METHOD	300.0	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	METHOD	314.0	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	METHOD	7471A	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	METHOD	8015B	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	METHOD	8015M	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	METHOD	8315A	III
12-May-2011	SL-101-SA8N-SB-7.0-8.0	6286420	N	METHOD	9012B	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	3050B	6010B	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	3050B	6020	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	3060A	7199	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	3546	1625C	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	3550B	8015B	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	3550B	8015M	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	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
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	3550B	8270C	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	3550B	8270C SIM	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	5035	8015M	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	5035	8260B	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	5035	8260B SIM	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	8330	8330A	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	METHOD	300.0	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	METHOD	314.0	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	METHOD	7471A	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	METHOD	8015B	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	METHOD	8015M	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	METHOD	8315A	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0	6286421	N	METHOD	9012B	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0DUP	P286421D270336B	DUP	METHOD	314.0	III
12-May-2011	SL-103-SA8N-SB-3.0-4.0MS	P286421R270358B	MS	METHOD	314.0	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	3050B	6010B	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	3050B	6020	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	3060A	7199	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	3546	1625C	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	3550B	8015B	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	3550B	8015M	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	3550B	8082	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	3550B	8270C	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	3550B	8270C SIM	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	5035	8015M	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	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
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	5035	8260B SIM	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	8330	8330A	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	METHOD	300.0	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	METHOD	314.0	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	METHOD	7471A	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	METHOD	8015B	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	METHOD	8015M	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	METHOD	8315A	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0	6286418	N	METHOD	9012B	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0DUP	P286418D271049A	DUP	METHOD	9012B	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0MSD	P286418M321157A	MSD	3550B	8015B	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0MS	P286418R271050A	MS	METHOD	9012B	III
12-May-2011	SL-099-SA8N-SB-4.0-5.0MS	P286418R321111A	MS	3550B	8015B	III
12-May-2011	SL-098-SA8N-SB-4.0-5.0	6286416	N	3050B	6010B	III
12-May-2011	SL-098-SA8N-SB-4.0-5.0	6286416	N	3050B	6020	III
12-May-2011	SL-098-SA8N-SB-4.0-5.0	6286416	N	3060A	7199	III
12-May-2011	SL-098-SA8N-SB-4.0-5.0	6286416	N	3550B	8082	III
12-May-2011	SL-098-SA8N-SB-4.0-5.0	6286416	N	3550B	8270C	III
12-May-2011	SL-098-SA8N-SB-4.0-5.0	6286416	N	3550B	8270C SIM	III
12-May-2011	SL-098-SA8N-SB-4.0-5.0	6286416	N	5035	8260B	III
12-May-2011	SL-098-SA8N-SB-4.0-5.0	6286416	N	5035	8260B SIM	III
12-May-2011	SL-098-SA8N-SB-4.0-5.0	6286416	N	METHOD	300.0	III
12-May-2011	SL-098-SA8N-SB-4.0-5.0	6286416	N	METHOD	314.0	III
12-May-2011	SL-098-SA8N-SB-4.0-5.0	6286416	N	METHOD	7471A	III
12-May-2011	SL-098-SA8N-SB-9.0-10	6286417	N	3050B	6010B	III
12-May-2011	SL-098-SA8N-SB-9.0-10	6286417	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
12-May-2011	SL-098-SA8N-SB-9.0-10	6286417	N	3060A	7199	III
12-May-2011	SL-098-SA8N-SB-9.0-10	6286417	N	3550B	8082	III
12-May-2011	SL-098-SA8N-SB-9.0-10	6286417	N	3550B	8270C	III
12-May-2011	SL-098-SA8N-SB-9.0-10	6286417	N	3550B	8270C SIM	III
12-May-2011	SL-098-SA8N-SB-9.0-10	6286417	N	METHOD	300.0	III
12-May-2011	SL-098-SA8N-SB-9.0-10	6286417	N	METHOD	314.0	III
12-May-2011	SL-098-SA8N-SB-9.0-10	6286417	N	METHOD	7471A	III
12-May-2011	SL-097-SA8N-SB-4.0-5.0	6286415	N	3050B	6010B	III
12-May-2011	SL-097-SA8N-SB-4.0-5.0	6286415	N	3050B	6020	III
12-May-2011	SL-097-SA8N-SB-4.0-5.0	6286415	N	3060A	7199	III
12-May-2011	SL-097-SA8N-SB-4.0-5.0	6286415	N	3550B	8082	III
12-May-2011	SL-097-SA8N-SB-4.0-5.0	6286415	N	3550B	8270C	III
12-May-2011	SL-097-SA8N-SB-4.0-5.0	6286415	N	3550B	8270C SIM	III
12-May-2011	SL-097-SA8N-SB-4.0-5.0	6286415	N	5035	8260B	III
12-May-2011	SL-097-SA8N-SB-4.0-5.0	6286415	N	5035	8260B SIM	III
12-May-2011	SL-097-SA8N-SB-4.0-5.0	6286415	N	METHOD	300.0	III
12-May-2011	SL-097-SA8N-SB-4.0-5.0	6286415	N	METHOD	314.0	III
12-May-2011	SL-097-SA8N-SB-4.0-5.0	6286415	N	METHOD	7471A	III
12-May-2011	SL-097-SA8N-SB-4.0-5.0DUP	P286415D271336B	DUP	METHOD	300.0	III
12-May-2011	SL-097-SA8N-SB-4.0-5.0MS	P286415R271351B	MS	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*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE149 **Laboratory:** LL

EDD Filename: DE149_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-097-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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	9.5		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-098-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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	11.0		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-098-SA8N-SB-9.0-10 *Collected:* 5/12/2011 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	2.0		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-099-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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
FLUORIDE	2.2		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-101-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-101-SA8N-SB-7.0-8.0 *Collected:* 5/12/2011 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
Nitrate-NO3	1.3	J	0.94	MDL	1.8	PQL	mg/Kg	J	Z

Sample ID: SL-101-SA8N-SB-7.0-8.0 *Collected:* 5/12/2011 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	1.4		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-103-SA8N-SB-3.0-4.0 *Collected:* 5/12/2011 9:55:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.2	J	0.95	MDL	1.8	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: DE149 Laboratory: LL

EDD Filename: DE149_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-103-SA8N-SB-3.0-4.0 *Collected:* 5/12/2011 9:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.95	U	0.95	MDL	1.2	PQL	mg/Kg	UJ	Q

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-097-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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
TIN	3.19	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	5.55	J	0.955	MDL	5.69	PQL	mg/Kg	J	Z

Sample ID: SL-098-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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
TIN	3.11	J	1.16	MDL	11.6	PQL	mg/Kg	U	B

Sample ID: SL-098-SA8N-SB-9.0-10 *Collected:* 5/12/2011 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
BORON	3.34	J	1.00	MDL	5.62	PQL	mg/Kg	J	Z
SODIUM	97.6	J	41.9	MDL	112	PQL	mg/Kg	J	Z
TIN	2.85	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	2.79	J	0.944	MDL	5.62	PQL	mg/Kg	J	Z

Sample ID: SL-099-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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	4.50	J	0.980	MDL	5.51	PQL	mg/Kg	J	Z
TIN	3.01	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.95	J	0.925	MDL	5.51	PQL	mg/Kg	J	Z

Sample ID: SL-101-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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	5.27	J	1.04	MDL	5.82	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: DE149 Laboratory: LL

EDD Filename: DE149_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-101-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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
SODIUM	86.3	J	43.4	MDL	116	PQL	mg/Kg	J	Z
TIN	3.06	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	4.38	J	0.978	MDL	5.82	PQL	mg/Kg	J	Z

Sample ID: SL-101-SA8N-SB-7.0-8.0 *Collected:* 5/12/2011 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	3.05	J	1.04	MDL	5.83	PQL	mg/Kg	J	Z
SODIUM	85.5	J	43.5	MDL	117	PQL	mg/Kg	J	Z
TIN	3.34	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	3.23	J	0.980	MDL	5.83	PQL	mg/Kg	J	Z

Sample ID: SL-103-SA8N-SB-3.0-4.0 *Collected:* 5/12/2011 9:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	90.2	J	43.9	MDL	118	PQL	mg/Kg	J	Z
TIN	3.61	J	1.18	MDL	11.8	PQL	mg/Kg	U	B
Zirconium	4.29	J	0.989	MDL	5.89	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-097-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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	0.0666	J	0.0446	MDL	0.446	PQL	mg/Kg	J	Z

Sample ID: SL-097-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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	0.259		0.0669	MDL	0.223	PQL	mg/Kg	J	E
ARSENIC	7.06		0.0892	MDL	0.446	PQL	mg/Kg	J	Q
CHROMIUM	25.4		0.134	MDL	0.446	PQL	mg/Kg	J	Q, A
COPPER	12.3		0.0736	MDL	0.446	PQL	mg/Kg	J	Q
LEAD	7.65		0.0116	MDL	0.223	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: DE149 **Laboratory: LL**

EDD Filename: DE149_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-097-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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
NICKEL	16.0		0.112	MDL	0.446	PQL	mg/Kg	J	Q
SILVER	0.0246	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z
THALLIUM	0.365		0.0335	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	50.3		0.0245	MDL	0.112	PQL	mg/Kg	J	A
ZINC	62.9		0.625	MDL	3.35	PQL	mg/Kg	J	A

Sample ID: SL-098-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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
SELENIUM	0.0905	J	0.0456	MDL	0.456	PQL	mg/Kg	J	Z

Sample ID: SL-098-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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
ANTIMONY	0.272		0.0685	MDL	0.228	PQL	mg/Kg	J	E
ARSENIC	8.30		0.0913	MDL	0.456	PQL	mg/Kg	J	Q
CHROMIUM	35.9		0.137	MDL	0.456	PQL	mg/Kg	J	Q, A
COPPER	18.8		0.0753	MDL	0.456	PQL	mg/Kg	J	Q
LEAD	11.9		0.0119	MDL	0.228	PQL	mg/Kg	J	Q
NICKEL	23.3		0.114	MDL	0.456	PQL	mg/Kg	J	Q
SILVER	0.0538	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z
THALLIUM	0.354		0.0342	MDL	0.114	PQL	mg/Kg	J	Q
VANADIUM	67.1		0.0251	MDL	0.114	PQL	mg/Kg	J	A
ZINC	75.4		0.639	MDL	3.42	PQL	mg/Kg	J	A

Sample ID: SL-098-SA8N-SB-9.0-10 *Collected:* 5/12/2011 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	0.139	J	0.0454	MDL	0.454	PQL	mg/Kg	J	Z

Sample ID: SL-098-SA8N-SB-9.0-10 *Collected:* 5/12/2011 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	0.0909	J	0.0681	MDL	0.227	PQL	mg/Kg	J	Z, E
ARSENIC	5.41		0.0907	MDL	0.454	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: DE149 Laboratory: LL

EDD Filename: DE149_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-098-SA8N-SB-9.0-10 *Collected:* 5/12/2011 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
CHROMIUM	16.3		0.136	MDL	0.454	PQL	mg/Kg	J	Q, A
COPPER	7.34		0.0749	MDL	0.454	PQL	mg/Kg	J	Q
LEAD	7.01		0.0118	MDL	0.227	PQL	mg/Kg	J	Q
NICKEL	8.52		0.113	MDL	0.454	PQL	mg/Kg	J	Q
SILVER	0.0306	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z
THALLIUM	0.358		0.0340	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	36.6		0.0250	MDL	0.113	PQL	mg/Kg	J	A
ZINC	52.1		0.635	MDL	3.40	PQL	mg/Kg	J	A

Sample ID: SL-099-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 11:45:00 *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	0.0445	MDL	0.445	PQL	mg/Kg	J	Z

Sample ID: SL-099-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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	0.126	J	0.0667	MDL	0.222	PQL	mg/Kg	J	Z, E
ARSENIC	5.67		0.0890	MDL	0.445	PQL	mg/Kg	J	Q
CHROMIUM	22.8		0.133	MDL	0.445	PQL	mg/Kg	J	Q, A
COPPER	7.44		0.0734	MDL	0.445	PQL	mg/Kg	J	Q
LEAD	8.10		0.0116	MDL	0.222	PQL	mg/Kg	J	Q
NICKEL	12.2		0.111	MDL	0.445	PQL	mg/Kg	J	Q
SILVER	0.0401	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z
THALLIUM	0.313		0.0334	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	49.7		0.0245	MDL	0.111	PQL	mg/Kg	J	A
ZINC	47.1		0.623	MDL	3.34	PQL	mg/Kg	J	A

Sample ID: SL-101-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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
SELENIUM	0.118	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: DE149 **Laboratory:** LL

EDD Filename: DE149_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-101-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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	0.257		0.0699	MDL	0.233	PQL	mg/Kg	J	E
ARSENIC	6.45		0.0931	MDL	0.466	PQL	mg/Kg	J	Q
CHROMIUM	22.3		0.140	MDL	0.466	PQL	mg/Kg	J	Q, A
COPPER	13.4		0.0768	MDL	0.466	PQL	mg/Kg	J	Q
LEAD	9.51		0.0121	MDL	0.233	PQL	mg/Kg	J	Q
NICKEL	13.3		0.116	MDL	0.466	PQL	mg/Kg	J	Q
SILVER	0.0352	J	0.0140	MDL	0.116	PQL	mg/Kg	J	Z
THALLIUM	0.300		0.0349	MDL	0.116	PQL	mg/Kg	J	Q
VANADIUM	45.9		0.0256	MDL	0.116	PQL	mg/Kg	J	A
ZINC	58.5		0.652	MDL	3.49	PQL	mg/Kg	J	A

Sample ID: SL-101-SA8N-SB-7.0-8.0 *Collected:* 5/12/2011 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
SELENIUM	0.0605	J	0.0457	MDL	0.457	PQL	mg/Kg	J	Z

Sample ID: SL-101-SA8N-SB-7.0-8.0 *Collected:* 5/12/2011 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	0.0686	U	0.0686	MDL	0.229	PQL	mg/Kg	UJ	E
ARSENIC	4.00		0.0915	MDL	0.457	PQL	mg/Kg	J	Q
CHROMIUM	12.5		0.137	MDL	0.457	PQL	mg/Kg	J	Q, A
COPPER	4.96		0.0755	MDL	0.457	PQL	mg/Kg	J	Q
LEAD	5.09		0.0119	MDL	0.229	PQL	mg/Kg	J	Q
NICKEL	5.61		0.114	MDL	0.457	PQL	mg/Kg	J	Q
SILVER	0.0167	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z
THALLIUM	0.208		0.0343	MDL	0.114	PQL	mg/Kg	J	Q
VANADIUM	29.6		0.0252	MDL	0.114	PQL	mg/Kg	J	A
ZINC	37.9		0.640	MDL	3.43	PQL	mg/Kg	J	A

Sample ID: SL-103-SA8N-SB-3.0-4.0 *Collected:* 5/12/2011 9:55:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.109	J	0.0706	MDL	0.235	PQL	mg/Kg	J	Z, E
ARSENIC	5.42		0.0942	MDL	0.471	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: DE149 **Laboratory: LL**

EDD Filename: DE149_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-103-SA8N-SB-3.0-4.0 *Collected:* 5/12/2011 9:55:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	18.6		0.141	MDL	0.471	PQL	mg/Kg	J	Q, A
COPPER	6.05		0.0777	MDL	0.471	PQL	mg/Kg	J	Q
LEAD	7.23		0.0122	MDL	0.235	PQL	mg/Kg	J	Q
NICKEL	10.0		0.118	MDL	0.471	PQL	mg/Kg	J	Q
THALLIUM	0.261		0.0353	MDL	0.118	PQL	mg/Kg	J	Q
VANADIUM	41.5		0.0259	MDL	0.118	PQL	mg/Kg	J	A
ZINC	65.2		0.659	MDL	3.53	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-097-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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	0.32	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-103-SA8N-SB-3.0-4.0 *Collected:* 5/12/2011 9:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.64	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-101-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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
N-NITROSODIMETHYLAMINE	27.3	J	19.6	MDL	39.2	PQL	ng/Kg	J	Z

Sample ID: SL-101-SA8N-SB-7.0-8.0 *Collected:* 5/12/2011 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
N-NITROSODIMETHYLAMINE	26.1	J	19.6	MDL	39.1	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: DE149 **Laboratory:** LL

EDD Filename: DE149_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1625C **Matrix:** SO

Sample ID: SL-103-SA8N-SB-3.0-4.0 *Collected:* 5/12/2011 9:55:00 *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	46.0		19.7	MDL	39.4	PQL	ng/Kg	J	S

Method Category: SVOA

Method: 8015M **Matrix:** SO

Sample ID: SL-099-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 11:45:00 *Analysis Type:* REA2S *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.97	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C8-C11)	1.3	J	0.45	MDL	1.4	PQL	mg/Kg	UJ	L, B

Sample ID: SL-101-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 8:40:00 *Analysis Type:* REA2S *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.94	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C8-C11)	1.3	J	0.47	MDL	1.4	PQL	mg/Kg	UJ	L, B

Sample ID: SL-101-SA8N-SB-7.0-8.0 *Collected:* 5/12/2011 8:45:00 *Analysis Type:* REA2S *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.99	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C8-C11)	1.3	J	0.47	MDL	1.4	PQL	mg/Kg	UJ	L, B

Sample ID: SL-103-SA8N-SB-3.0-4.0 *Collected:* 5/12/2011 9:55:00 *Analysis Type:* REA2S *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.87	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C8-C11)	1.4		0.47	MDL	1.4	PQL	mg/Kg	UJ	L, 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: DE149 **Laboratory:** LL

EDD Filename: DE149_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-097-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-098-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-098-SA8N-SB-9.0-10 *Collected:* 5/12/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-099-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	22	J	19	MDL	380	PQL	ug/Kg	J	Z

Sample ID: SL-101-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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
1,2-DICHLOROBENZENE	20	U	20	MDL	200	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	20	U	20	MDL	200	PQL	ug/Kg	UJ	L

Sample ID: SL-101-SA8N-SB-7.0-8.0 *Collected:* 5/12/2011 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
1,2-DICHLOROBENZENE	20	U	20	MDL	200	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	20	U	20	MDL	200	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: DE149 Laboratory: LL

EDD Filename: DE149_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-103-SA8N-SB-3.0-4.0 *Collected:* 5/12/2011 9:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DICHLOROBENZENE	20	U	20	MDL	200	PQL	ug/Kg	UJ	L
4-BROMOPHENYL-PHENYLETHER	20	U	20	MDL	200	PQL	ug/Kg	UJ	L

Method Category: SVOA

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

Sample ID: SL-097-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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	7.4	J	7.0	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-098-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	8.8	J	7.0	MDL	21	PQL	ug/Kg	J	Z
Di-n-butylphthalate	8.4	J	7.0	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-098-SA8N-SB-9.0-10 *Collected:* 5/12/2011 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	7.0	J	7.0	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-099-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 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
Di-n-butylphthalate	7.1	J	6.9	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-103-SA8N-SB-3.0-4.0 *Collected:* 5/12/2011 9:55:00 *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	7.4	J	7.1	MDL	21	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE149 Laboratory: LL

EDD Filename: DE149_v1 eQAPP Name: CDM_SSFL_110509

Method Category: VOA

Method: 8015B **Matrix:** SO

Sample ID: SL-099-SA8N-SB-4.0-5.0 *Collected:* 5/12/2011 11:45:00 *Analysis Type:* REA3S *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m-Terphenyl	1.7	U	1.7	MDL	4.0	PQL	mg/Kg	UJ	Q

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-103-SA8N-SB-3.0-4.0 *Collected:* 5/12/2011 9:55:00 *Analysis Type:* RES *Dilution:* 0.8

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHYLENE CHLORIDE	4.3		0.23	MDL	3.8	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE149 **Laboratory: LL**

EDD Filename: DE149_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	Laboratory Triplicate Precision
E	Matrix Spike Precision

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE149 **Laboratory: LL**

EDD Filename: DE149_v1 **eQAPP Name: CDM_SSFL_110509**

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	Laboratory Duplicate Precision
Q	Laboratory Triplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE149 **Laboratory: LL**

EDD Filename: DE149_v1 **eQAPP Name: CDM_SSFL_110509**

Q	Matrix Spike Upper Rejection
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

DE149

Method Blank Outlier Report

Lab Reporting Batch ID: DE149 **Laboratory: LL**

EDD Filename: DE149_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P13608AB221711	5/18/2011 5:11:00 PM	CALCIUM PHOSPHORUS TIN	9.14 mg/Kg 1.29 mg/Kg 1.61 mg/Kg	SL-097-SA8N-SB-4.0-5.0 SL-098-SA8N-SB-4.0-5.0 SL-098-SA8N-SB-9.0-10 SL-099-SA8N-SB-4.0-5.0 SL-101-SA8N-SB-4.0-5.0 SL-101-SA8N-SB-7.0-8.0 SL-103-SA8N-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-097-SA8N-SB-4.0-5.0(RES)	TIN	3.19 mg/Kg	3.19U mg/Kg
SL-098-SA8N-SB-4.0-5.0(RES)	TIN	3.11 mg/Kg	3.11U mg/Kg
SL-098-SA8N-SB-9.0-10(RES)	TIN	2.85 mg/Kg	2.85U mg/Kg
SL-099-SA8N-SB-4.0-5.0(RES)	TIN	3.01 mg/Kg	3.01U mg/Kg
SL-101-SA8N-SB-4.0-5.0(RES)	TIN	3.06 mg/Kg	3.06U mg/Kg
SL-101-SA8N-SB-7.0-8.0(RES)	TIN	3.34 mg/Kg	3.34U mg/Kg
SL-103-SA8N-SB-3.0-4.0(RES)	TIN	3.61 mg/Kg	3.61U mg/Kg

Method: **8015M**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P37375AB321339A	5/25/2011 1:39:00 PM	EFH (C8-C11)	1.3 mg/Kg	SL-099-SA8N-SB-4.0-5.0 SL-101-SA8N-SB-4.0-5.0 SL-101-SA8N-SB-7.0-8.0 SL-103-SA8N-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-099-SA8N-SB-4.0-5.0(REA2S)	EFH (C8-C11)	1.3 mg/Kg	1.4U mg/Kg
SL-101-SA8N-SB-4.0-5.0(REA2S)	EFH (C8-C11)	1.3 mg/Kg	1.4U mg/Kg
SL-101-SA8N-SB-7.0-8.0(REA2S)	EFH (C8-C11)	1.3 mg/Kg	1.4U mg/Kg
SL-103-SA8N-SB-3.0-4.0(REA2S)	EFH (C8-C11)	1.4 mg/Kg	1.4U mg/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB57B210500A	5/17/2011 5:00:00 AM	METHYLENE CHLORIDE	0.55 ug/Kg	SL-097-SA8N-SB-4.0-5.0 SL-098-SA8N-SB-4.0-5.0 SL-099-SA8N-SB-4.0-5.0 SL-101-SA8N-SB-4.0-5.0 SL-101-SA8N-SB-7.0-8.0 SL-103-SA8N-SB-3.0-4.0

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DE149 **Laboratory: LL**

EDD Filename: DE149_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-103-SA8N-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	4.3 ug/Kg	4.3U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE149 **Laboratory: LL**

EDD Filename: DE149_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-099-SA8N-SB-4.0-5.0MS SL-099-SA8N-SB-4.0-5.0MSD (SL-099-SA8N-SB-4.0-5.0)	m-Terphenyl	74	69	75.00-125.00	-	m-Terphenyl	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-097-SA8N-SB-4.0-5.0MS (SL-097-SA8N-SB-4.0-5.0 SL-098-SA8N-SB-4.0-5.0 SL-098-SA8N-SB-9.0-10 SL-099-SA8N-SB-4.0-5.0 SL-101-SA8N-SB-4.0-5.0 SL-101-SA8N-SB-7.0-8.0 SL-103-SA8N-SB-3.0-4.0)	FLUORIDE	71	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE149 **Laboratory: LL**

EDD Filename: DE149_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-097-SA8N-SB-4.0-5.0DUP (SL-097-SA8N-SB-4.0-5.0 SL -098-SA8N-SB-4.0-5.0 SL -098-SA8N-SB-9.0-10 SL -099-SA8N-SB-4.0-5.0 SL -101-SA8N-SB-4.0-5.0 SL -101-SA8N-SB-7.0-8.0 SL -103-SA8N-SB-3.0-4.0)	FLUORIDE	33	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: DE149 **Laboratory: LL**

EDD Filename: DE149_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
P11372AQ240134A (SL-099-SA8N-SB-4.0-5.0 SL -101-SA8N-SB-4.0-5.0 SL -101-SA8N-SB-7.0-8.0 SL -103-SA8N-SB-3.0-4.0)	PETN	121	-	80.00-120.00	-	PETN	J (all detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11375AQ321405A (SL-099-SA8N-SB-4.0-5.0 SL -101-SA8N-SB-4.0-5.0 SL -101-SA8N-SB-7.0-8.0 SL -103-SA8N-SB-3.0-4.0)	EFH (C8-C11)	198	-	66.00-113.00	-	EFH (C8-C11)	J(all detects)

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P13626AQ221000A (SL-097-SA8N-SB-4.0-5.0 SL -098-SA8N-SB-4.0-5.0 SL -098-SA8N-SB-9.0-10 SL -099-SA8N-SB-4.0-5.0 SL -101-SA8N-SB-4.0-5.0 SL -101-SA8N-SB-7.0-8.0 SL -103-SA8N-SB-3.0-4.0)	ANTIMONY	155	-	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
P6LCLCSQ260838 (SL-097-SA8N-SB-4.0-5.0 SL -098-SA8N-SB-4.0-5.0 SL -098-SA8N-SB-9.0-10 SL -099-SA8N-SB-4.0-5.0 SL -101-SA8N-SB-4.0-5.0 SL -101-SA8N-SB-7.0-8.0 SL -103-SA8N-SB-3.0-4.0)	1,2-DICHLOROBENZENE 4-BROMOPHENYL-PHENYLETH	75 78	- -	79.00-102.00 79.00-117.00	- -	1,2-DICHLOROBENZENE 4-BROMOPHENYL-PHENYLET	J(all detects) UJ(all non-detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE149 **Laboratory:** LL

EDD Filename: DE149_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*
LCSB57Q210522A	N-BUTYLBENZENE	121	121	72.00-120.00	-	N-BUTYLBENZENE	J(all detects)
LCSB57Y210544A	N-PROPYLBENZENE	123	-	77.00-120.00	-	N-PROPYLBENZENE	
(SL-097-SA8N-SB-4.0-5.0	SEC-BUTYLBENZENE	125	125	75.00-120.00	-	SEC-BUTYLBENZENE	
SL -098-SA8N-SB-4.0-5.0							
SL -099-SA8N-SB-4.0-5.0							
SL -101-SA8N-SB-4.0-5.0							
SL -101-SA8N-SB-7.0-8.0							
SL -103-SA8N-SB-3.0-4.0)							

Surrogate Outlier Report

Lab Reporting Batch ID: DE149 **Laboratory: LL**

EDD Filename: DE149_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1625C**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-103-SA8N-SB-3.0-4.0	N-Nitrosodimethylamine-d6	160	50.00-150.00	All Target Analytes	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE149 **Laboratory: LL**

EDD Filename: DE149_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-101-SA8N-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	27.3	39.2	PQL	ng/Kg	J (all detects)
SL-101-SA8N-SB-7.0-8.0	N-NITROSODIMETHYLAMINE	J	26.1	39.1	PQL	ng/Kg	J (all detects)

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-101-SA8N-SB-7.0-8.0	Nitrate-NO3	J	1.3	1.8	PQL	mg/Kg	J (all detects)
SL-103-SA8N-SB-3.0-4.0	Nitrate-NO3	J	1.2	1.8	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-097-SA8N-SB-4.0-5.0	TIN	J	3.19	11.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	5.55	5.69	PQL	mg/Kg	
SL-098-SA8N-SB-4.0-5.0	TIN	J	3.11	11.6	PQL	mg/Kg	J (all detects)
SL-098-SA8N-SB-9.0-10	BORON	J	3.34	5.62	PQL	mg/Kg	J (all detects)
	SODIUM	J	97.6	112	PQL	mg/Kg	
	TIN	J	2.85	11.2	PQL	mg/Kg	
	Zirconium	J	2.79	5.62	PQL	mg/Kg	
SL-099-SA8N-SB-4.0-5.0	BORON	J	4.50	5.51	PQL	mg/Kg	J (all detects)
	TIN	J	3.01	11.0	PQL	mg/Kg	
	Zirconium	J	3.95	5.51	PQL	mg/Kg	
SL-101-SA8N-SB-4.0-5.0	BORON	J	5.27	5.82	PQL	mg/Kg	J (all detects)
	SODIUM	J	86.3	116	PQL	mg/Kg	
	TIN	J	3.06	11.6	PQL	mg/Kg	
	Zirconium	J	4.38	5.82	PQL	mg/Kg	
SL-101-SA8N-SB-7.0-8.0	BORON	J	3.05	5.83	PQL	mg/Kg	J (all detects)
	SODIUM	J	85.5	117	PQL	mg/Kg	
	TIN	J	3.34	11.7	PQL	mg/Kg	
	Zirconium	J	3.23	5.83	PQL	mg/Kg	
SL-103-SA8N-SB-3.0-4.0	SODIUM	J	90.2	118	PQL	mg/Kg	J (all detects)
	TIN	J	3.61	11.8	PQL	mg/Kg	
	Zirconium	J	4.29	5.89	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-097-SA8N-SB-4.0-5.0	SELENIUM	J	0.0666	0.446	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0246	0.112	PQL	mg/Kg	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Reporting Limit Outliers

Lab Reporting Batch ID: DE149 **Laboratory: LL**

EDD Filename: DE149_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-098-SA8N-SB-4.0-5.0	SELENIUM SILVER	J J	0.0905 0.0538	0.456 0.114	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-098-SA8N-SB-9.0-10	ANTIMONY SELENIUM SILVER	J J J	0.0909 0.139 0.0306	0.227 0.454 0.113	PQL PQL PQL	mg/Kg mg/Kg mg/Kg	J (all detects)
SL-099-SA8N-SB-4.0-5.0	ANTIMONY SELENIUM SILVER	J J J	0.126 0.153 0.0401	0.222 0.445 0.111	PQL PQL PQL	mg/Kg mg/Kg mg/Kg	J (all detects)
SL-101-SA8N-SB-4.0-5.0	SELENIUM SILVER	J J	0.118 0.0352	0.466 0.116	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-101-SA8N-SB-7.0-8.0	SELENIUM SILVER	J J	0.0605 0.0167	0.457 0.114	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-103-SA8N-SB-3.0-4.0	ANTIMONY	J	0.109	0.235	PQL	mg/Kg	J (all detects)

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-097-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.32	1.2	PQL	mg/Kg	J (all detects)
SL-103-SA8N-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.64	1.2	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-099-SA8N-SB-4.0-5.0	EFH (C30-C40) EFH (C8-C11)	J J	0.97 1.3	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-101-SA8N-SB-4.0-5.0	EFH (C30-C40) EFH (C8-C11)	J J	0.94 1.3	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-101-SA8N-SB-7.0-8.0	EFH (C30-C40) EFH (C8-C11)	J J	0.99 1.3	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-103-SA8N-SB-3.0-4.0	EFH (C30-C40)	J	0.87	1.4	PQL	mg/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-099-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	22	380	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE149 **Laboratory: LL**

EDD Filename: DE149_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-097-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.4	21	PQL	ug/Kg	J (all detects)
SL-098-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE Di-n-butylphthalate	J J	8.8 8.4	21 21	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-098-SA8N-SB-9.0-10	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.0	21	PQL	ug/Kg	J (all detects)
SL-099-SA8N-SB-4.0-5.0	Di-n-butylphthalate	J	7.1	21	PQL	ug/Kg	J (all detects)
SL-103-SA8N-SB-3.0-4.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.4	21	PQL	ug/Kg	J (all detects)

LDC #: 26275K4 **VALIDATION COMPLETENESS WORKSHEET** Date: 9/29/17
SDG #: DE149 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: MV
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: 5/12/11
II.	ICP/MS Tune	N	
III.	Calibration	N	
IV.	Blanks	A	Not qual. by RB/CCBs
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	3 DE 149 ✓
VII.	Duplicate Sample Analysis	SW	
VIII.	Laboratory Control Samples (LCS)	NA	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Cr, V, Zn (DE149)
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: Soil

1	SL-097-SA8N-SB-4.0-5.0	11		21		31	
2	SL-098-SA8N-SB-4.0-5.0	12		22		32	
3	SL-098-SA8N-SB-9.0-10.0	13		23		33	
4	SL-099-SA8N-SB-4.0-5.0	14		24		34	
5	SL-101-SA8N-SB-4.0-5.0	15		25		35	
6	SL-101-SA8N-SB-7.0-8.0	16		26		36	
7	SL-103-SA8N-SB-3.0-4.0	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

SAMPLE DELIVERY GROUP

DE150

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
13-May-2011	TB-051311	6287603	TB	5030B	8260B	III
13-May-2011	TB-051311	6287603	TB	5030B	8260B SIM	III
13-May-2011	SL-096-SA8N-SB-4.0-5.0	6287599	N	3050B	6010B	III
13-May-2011	SL-096-SA8N-SB-4.0-5.0	6287599	N	3050B	6020	III
13-May-2011	SL-096-SA8N-SB-4.0-5.0	6287599	N	3060A	7199	III
13-May-2011	SL-096-SA8N-SB-4.0-5.0	6287599	N	3550B	8082	III
13-May-2011	SL-096-SA8N-SB-4.0-5.0	6287599	N	3550B	8270C	III
13-May-2011	SL-096-SA8N-SB-4.0-5.0	6287599	N	3550B	8270C SIM	III
13-May-2011	SL-096-SA8N-SB-4.0-5.0	6287599	N	5035	8260B	III
13-May-2011	SL-096-SA8N-SB-4.0-5.0	6287599	N	5035	8260B SIM	III
13-May-2011	SL-096-SA8N-SB-4.0-5.0	6287599	N	METHOD	300.0	III
13-May-2011	SL-096-SA8N-SB-4.0-5.0	6287599	N	METHOD	314.0	III
13-May-2011	SL-096-SA8N-SB-4.0-5.0	6287599	N	METHOD	7471A	III
13-May-2011	SL-096-SA8N-SB-9.0-10.0	6287600	N	3050B	6010B	III
13-May-2011	SL-096-SA8N-SB-9.0-10.0	6287600	N	3050B	6020	III
13-May-2011	SL-096-SA8N-SB-9.0-10.0	6287600	N	3060A	7199	III
13-May-2011	SL-096-SA8N-SB-9.0-10.0	6287600	N	3550B	8082	III
13-May-2011	SL-096-SA8N-SB-9.0-10.0	6287600	N	3550B	8270C	III
13-May-2011	SL-096-SA8N-SB-9.0-10.0	6287600	N	3550B	8270C SIM	III
13-May-2011	SL-096-SA8N-SB-9.0-10.0	6287600	N	METHOD	300.0	III
13-May-2011	SL-096-SA8N-SB-9.0-10.0	6287600	N	METHOD	314.0	III
13-May-2011	SL-096-SA8N-SB-9.0-10.0	6287600	N	METHOD	7471A	III
13-May-2011	SL-094-SA8N-SB-4.0-5.0	6287596	N	3050B	6010B	III
13-May-2011	SL-094-SA8N-SB-4.0-5.0	6287596	N	3050B	6020	III
13-May-2011	SL-094-SA8N-SB-4.0-5.0	6287596	N	3060A	7199	III
13-May-2011	SL-094-SA8N-SB-4.0-5.0	6287596	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
13-May-2011	SL-094-SA8N-SB-4.0-5.0	6287596	N	3550B	8270C	III
13-May-2011	SL-094-SA8N-SB-4.0-5.0	6287596	N	3550B	8270C SIM	III
13-May-2011	SL-094-SA8N-SB-4.0-5.0	6287596	N	5035	8260B	III
13-May-2011	SL-094-SA8N-SB-4.0-5.0	6287596	N	5035	8260B SIM	III
13-May-2011	SL-094-SA8N-SB-4.0-5.0	6287596	N	METHOD	300.0	III
13-May-2011	SL-094-SA8N-SB-4.0-5.0	6287596	N	METHOD	314.0	III
13-May-2011	SL-094-SA8N-SB-4.0-5.0	6287596	N	METHOD	7471A	III
13-May-2011	SL-094-SA8N-SB-4.0-5.0DUP	P287596D271043A	DUP	METHOD	300.0	III
13-May-2011	SL-094-SA8N-SB-4.0-5.0MSD	P287596M260237	MSD	3550B	8270C SIM	III
13-May-2011	SL-094-SA8N-SB-4.0-5.0MSD	P287596M262339	MSD	3550B	8270C	III
13-May-2011	SL-094-SA8N-SB-4.0-5.0MS	P287596R260207	MS	3550B	8270C SIM	III
13-May-2011	SL-094-SA8N-SB-4.0-5.0MS	P287596R262313	MS	3550B	8270C	III
13-May-2011	SL-094-SA8N-SB-4.0-5.0MS	P287596R271058A	MS	METHOD	300.0	III
13-May-2011	SL-094-SA8N-SB-7.5-8.5	6287597	N	3050B	6010B	III
13-May-2011	SL-094-SA8N-SB-7.5-8.5	6287597	N	3050B	6020	III
13-May-2011	SL-094-SA8N-SB-7.5-8.5	6287597	N	3060A	7199	III
13-May-2011	SL-094-SA8N-SB-7.5-8.5	6287597	N	3550B	8082	III
13-May-2011	SL-094-SA8N-SB-7.5-8.5	6287597	N	3550B	8270C	III
13-May-2011	SL-094-SA8N-SB-7.5-8.5	6287597	N	3550B	8270C SIM	III
13-May-2011	SL-094-SA8N-SB-7.5-8.5	6287597	N	METHOD	300.0	III
13-May-2011	SL-094-SA8N-SB-7.5-8.5	6287597	N	METHOD	314.0	III
13-May-2011	SL-094-SA8N-SB-7.5-8.5	6287597	N	METHOD	7471A	III
13-May-2011	SL-095-SA8N-SB-4.0-5.0	6287598	N	3050B	6010B	III
13-May-2011	SL-095-SA8N-SB-4.0-5.0	6287598	N	3050B	6020	III
13-May-2011	SL-095-SA8N-SB-4.0-5.0	6287598	N	3060A	7199	III
13-May-2011	SL-095-SA8N-SB-4.0-5.0	6287598	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
13-May-2011	SL-104-SA8N-SB-9.0-10.0	6287602	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: DE150 **Laboratory:** LL

EDD Filename: DE150_v1. **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-094-SA8N-SB-4.0-5.0 **Collected:** 5/13/2011 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	2.5		0.96	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-094-SA8N-SB-7.5-8.5 **Collected:** 5/13/2011 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	1.9		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-095-SA8N-SB-4.0-5.0 **Collected:** 5/13/2011 11:43:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.4		0.93	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-096-SA8N-SB-4.0-5.0 **Collected:** 5/13/2011 9:10:00 **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

Sample ID: SL-096-SA8N-SB-9.0-10.0 **Collected:** 5/13/2011 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
FLUORIDE	1.2		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-104-SA8N-SB-4.0-5.0 **Collected:** 5/13/2011 2:50:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.3		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-104-SA8N-SB-9.0-10.0 **Collected:** 5/13/2011 3:06:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.6		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: DE150 **Laboratory: LL**

EDD Filename: DE150_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6010B** ***Matrix:*** **SO**

Sample ID: SL-094-SA8N-SB-4.0-5.0 ***Collected:*** 5/13/2011 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
TIN	3.05	J	1.15	MDL	11.5	PQL	mg/Kg	U	B

Sample ID: SL-094-SA8N-SB-7.5-8.5 ***Collected:*** 5/13/2011 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
TIN	3.25	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	3.19	J	0.951	MDL	5.66	PQL	mg/Kg	J	Z

Sample ID: SL-095-SA8N-SB-4.0-5.0 ***Collected:*** 5/13/2011 11:43:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.00	J	1.13	MDL	11.3	PQL	mg/Kg	U	B

Sample ID: SL-096-SA8N-SB-4.0-5.0 ***Collected:*** 5/13/2011 9:10:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.07	J	1.16	MDL	11.6	PQL	mg/Kg	U	B

Sample ID: SL-096-SA8N-SB-9.0-10.0 ***Collected:*** 5/13/2011 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	5.00	J	1.02	MDL	5.71	PQL	mg/Kg	J	Z
TIN	3.15	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	2.65	J	0.959	MDL	5.71	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA8N-SB-4.0-5.0 ***Collected:*** 5/13/2011 2:50:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.05	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	4.38	J	0.949	MDL	5.65	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA8N-SB-9.0-10.0 ***Collected:*** 5/13/2011 3:06:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.77	J	1.02	MDL	5.74	PQL	mg/Kg	J	Z
TIN	3.65	J	1.15	MDL	11.5	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: DE150 Laboratory: LL

EDD Filename: DE150_v1. eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6010B **Matrix:** SO

Sample ID: SL-104-SA8N-SB-9.0-10.0 *Collected:* 5/13/2011 3:06:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	4.51	J	0.965	MDL	5.74	PQL	mg/Kg	J	Z

Method Category: METALS **Method:** 6020 **Matrix:** SO

Sample ID: SL-094-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 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	0.248	J	0.0474	MDL	0.474	PQL	mg/Kg	J	Z

Sample ID: SL-094-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 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
SILVER	0.0479	J	0.0142	MDL	0.118	PQL	mg/Kg	J	Z

Sample ID: SL-094-SA8N-SB-7.5-8.5 *Collected:* 5/13/2011 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	0.0988	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

Sample ID: SL-094-SA8N-SB-7.5-8.5 *Collected:* 5/13/2011 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	0.0689	J	0.0666	MDL	0.222	PQL	mg/Kg	J	Z
CADMIUM	0.0740	J	0.0444	MDL	0.111	PQL	mg/Kg	J	Z
SILVER	0.0560	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-095-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 11:43:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0518	J	0.0458	MDL	0.458	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: DE150 **Laboratory: LL**

EDD Filename: DE150_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-095-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 11:43:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0440	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-096-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 9:10:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.157	J	0.0470	MDL	0.470	PQL	mg/Kg	J	Z

Sample ID: SL-096-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 9:10:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0746	J	0.0141	MDL	0.118	PQL	mg/Kg	J	Z

Sample ID: SL-096-SA8N-SB-9.0-10.0 *Collected:* 5/13/2011 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
SELENIUM	0.177	J	0.0448	MDL	0.448	PQL	mg/Kg	J	Z

Sample ID: SL-096-SA8N-SB-9.0-10.0 *Collected:* 5/13/2011 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	0.104	J	0.0672	MDL	0.224	PQL	mg/Kg	J	Z
SILVER	0.0401	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 2:50:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0680	J	0.0448	MDL	0.448	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 2:50:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.141	J	0.0672	MDL	0.224	PQL	mg/Kg	J	Z
CADMIUM	0.0892	J	0.0448	MDL	0.112	PQL	mg/Kg	J	Z
SILVER	0.0509	J	0.0134	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: DE150 **Laboratory: LL**

EDD Filename: DE150_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-104-SA8N-SB-9.0-10.0 *Collected:* 5/13/2011 3:06:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0526	J	0.0473	MDL	0.473	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA8N-SB-9.0-10.0 *Collected:* 5/13/2011 3:06:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0203	J	0.0142	MDL	0.118	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-094-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 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	0.46	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-096-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 9:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.47	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 2:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.38	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA8N-SB-9.0-10.0 *Collected:* 5/13/2011 3:06:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.37	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE150 **Laboratory:** LL

EDD Filename: DE150_v1. **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS **Method:** 7471A **Matrix:** SO

Sample ID: SL-095-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 11:43:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0135	J	0.0033	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-096-SA8N-SB-9.0-10.0 *Collected:* 5/13/2011 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	0.0078	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

Method Category: SVOA **Method:** 8082 **Matrix:** SO

Sample ID: SL-095-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 11:43:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.94	J	0.38	MDL	2.0	PQL	ug/Kg	J	Z

Method Category: SVOA **Method:** 8270C **Matrix:** SO

Sample ID: SL-094-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 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
BENZIDINE	1400	U	1400	MDL	4000	PQL	ug/Kg	UJ	Q

Sample ID: SL-096-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 9:10:00 *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	21	J	20	MDL	390	PQL	ug/Kg	J	Z

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

Sample ID: SL-094-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 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
BENZO(B)FLUORANTHENE	0.88	J	0.80	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: DE150 **Laboratory: LL**

EDD Filename: DE150_v1. **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-094-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	9.2	J	7.2	MDL	22	PQL	ug/Kg	J	Z, L

Sample ID: SL-094-SA8N-SB-7.5-8.5 *Collected:* 5/13/2011 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	7.4	J	6.8	MDL	20	PQL	ug/Kg	J	Z, L

Sample ID: SL-095-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 11:43:00 *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	7.7	J	6.9	MDL	21	PQL	ug/Kg	J	Z, L

Sample ID: SL-104-SA8N-SB-9.0-10.0 *Collected:* 5/13/2011 3:06:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	1.6	U	1.6	MDL	3.9	PQL	ug/Kg	UJ	S
ACENAPHTHENE	1.6	U	1.6	MDL	3.9	PQL	ug/Kg	UJ	S
ACENAPHTHYLENE	0.78	U	0.78	MDL	3.9	PQL	ug/Kg	UJ	S
ANTHRACENE	0.78	U	0.78	MDL	3.9	PQL	ug/Kg	UJ	S
BENZO(A)ANTHRACENE	1.6	U	1.6	MDL	3.9	PQL	ug/Kg	UJ	S
BENZO(A)PYRENE	1.6	U	1.6	MDL	3.9	PQL	ug/Kg	UJ	S
BENZO(B)FLUORANTHENE	1.6	U	1.6	MDL	3.9	PQL	ug/Kg	UJ	S
BENZO(G,H,I)PERYLENE	1.6	U	1.6	MDL	3.9	PQL	ug/Kg	UJ	S
BENZO(K)FLUORANTHENE	1.6	U	1.6	MDL	3.9	PQL	ug/Kg	UJ	S
BIS(2-ETHYLHEXYL)PHTHALATE	14	U	14	MDL	42	PQL	ug/Kg	UJ	S
Butylbenzylphthalate	14	U	14	MDL	42	PQL	ug/Kg	UJ	S
CHRYSENE	0.78	U	0.78	MDL	3.9	PQL	ug/Kg	UJ	S
DIBENZO(A,H)ANTHRACENE	1.6	U	1.6	MDL	3.9	PQL	ug/Kg	UJ	S
Diethylphthalate	14	U	14	MDL	42	PQL	ug/Kg	UJ	S
Dimethylphthalate	14	U	14	MDL	42	PQL	ug/Kg	UJ	S
Di-n-butylphthalate	14	U	14	MDL	42	PQL	ug/Kg	UJ	S
Di-n-octylphthalate	14	U	14	MDL	42	PQL	ug/Kg	UJ	S
FLUORANTHENE	1.6	U	1.6	MDL	3.9	PQL	ug/Kg	UJ	S
FLUORENE	1.6	U	1.6	MDL	3.9	PQL	ug/Kg	UJ	S
INDENO(1,2,3-CD)PYRENE	1.6	U	1.6	MDL	3.9	PQL	ug/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: DE150 **Laboratory:** LL

EDD Filename: DE150_v1. **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

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

Sample ID: SL-104-SA8N-SB-9.0-10.0 *Collected:* 5/13/2011 3:06:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	1.6	U	1.6	MDL	3.9	PQL	ug/Kg	UJ	S
N-NITROSODIMETHYLAMINE	1.6	U	1.6	MDL	3.9	PQL	ug/Kg	UJ	S
PHENANTHRENE	1.6	U	1.6	MDL	3.9	PQL	ug/Kg	UJ	S
PYRENE	1.6	U	1.6	MDL	3.9	PQL	ug/Kg	UJ	S

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-096-SA8N-SB-4.0-5.0 *Collected:* 5/13/2011 9:10:00 *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	4.6		0.26	MDL	4.3	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE150 **Laboratory: LL**

EDD Filename: DE150_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
	Sampling to Leaching Estimation
	Sampling to Leaching Rejection
*#	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	Continuing Calibration Verification Percent Recovery Lower Estimation
C	Continuing Calibration Verification Percent Recovery Lower Rejection
C	Continuing Calibration Verification Percent Recovery Upper Estimation
C	Continuing Calibration Verification Percent Recovery Upper Rejection
C	Continuing Calibration Verification Relative Response Factor
C	Initial Calibration Correlation Coefficient
C	Initial Calibration Percent Relative Standard Deviation
C	Initial Calibration Relative Response Factor
C	Initial Calibration Verification Correlation Coefficient

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE150 **Laboratory: LL**

EDD Filename: DE150_v1. **eQAPP Name: CDM_SSFL_110509**

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 Lower Estimation
C	Initial Calibration Verification Percent Recovery Lower Rejection
C	Initial Calibration Verification Percent Recovery Upper Estimation
C	Initial Calibration Verification Percent Recovery Upper Rejection
C	Initial Calibration Verification Relative Response Factor
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Laboratory Triplicate Precision
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

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE150 **Laboratory: LL**

EDD Filename: DE150_v1. **eQAPP Name: CDM_SSFL_110509**

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	Laboratory Triplicate 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
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

DE150

Method Blank Outlier Report

Lab Reporting Batch ID: DE150 Laboratory: LL

EDD Filename: DE150_v1. eQAPP Name: CDM_SSFL_110509

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P13608AB221711	5/18/2011 5:11:00 PM	CALCIUM PHOSPHORUS TIN	9.14 mg/Kg 1.29 mg/Kg 1.61 mg/Kg	SL-094-SA8N-SB-4.0-5.0 SL-094-SA8N-SB-7.5-8.5 SL-095-SA8N-SB-4.0-5.0 SL-096-SA8N-SB-4.0-5.0 SL-096-SA8N-SB-9.0-10.0 SL-104-SA8N-SB-4.0-5.0 SL-104-SA8N-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-094-SA8N-SB-4.0-5.0(RES)	TIN	3.05 mg/Kg	3.05U mg/Kg
SL-094-SA8N-SB-7.5-8.5(RES)	TIN	3.25 mg/Kg	3.25U mg/Kg
SL-095-SA8N-SB-4.0-5.0(RES)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-096-SA8N-SB-4.0-5.0(RES)	TIN	3.07 mg/Kg	3.07U mg/Kg
SL-096-SA8N-SB-9.0-10.0(RES)	TIN	3.15 mg/Kg	3.15U mg/Kg
SL-104-SA8N-SB-4.0-5.0(RES)	TIN	3.05 mg/Kg	3.05U mg/Kg
SL-104-SA8N-SB-9.0-10.0(RES)	TIN	3.65 mg/Kg	3.65U mg/Kg

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB57B210500A	5/17/2011 5:00:00 AM	METHYLENE CHLORIDE	0.55 ug/Kg	SL-094-SA8N-SB-4.0-5.0 SL-095-SA8N-SB-4.0-5.0 SL-096-SA8N-SB-4.0-5.0 SL-104-SA8N-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-096-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	4.6 ug/Kg	4.6U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE150 **Laboratory: LL**

EDD Filename: DE150_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-094-SA8N-SB-4.0-5.0MS (SL-094-SA8N-SB-4.0-5.0 SL-094-SA8N-SB-7.5-8.5 SL-095-SA8N-SB-4.0-5.0 SL-096-SA8N-SB-4.0-5.0 SL-096-SA8N-SB-9.0-10.0 SL-104-SA8N-SB-4.0-5.0 SL-104-SA8N-SB-9.0-10.0)	FLUORIDE	46	-	80.00-120.00	-	FLUORIDE	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-094-SA8N-SB-4.0-5.0MSD (SL-094-SA8N-SB-4.0-5.0)	BENZIDINE	-	31	35.00-141.00	31 (30.00)	BENZIDINE	J(all detects) UJ(all non-detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE150 Laboratory: LL

EDD Filename: DE150_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
P13626AQ221000A (SL-094-SA8N-SB-4.0-5.0 SL-094-SA8N-SB-7.5-8.5 SL-095-SA8N-SB-4.0-5.0 SL-096-SA8N-SB-4.0-5.0 SL-096-SA8N-SB-9.0-10.0 SL-104-SA8N-SB-4.0-5.0 SL-104-SA8N-SB-9.0-10.0)	ANTIMONY	155	-	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
P8LDLCSQ261934 (SL-094-SA8N-SB-4.0-5.0 SL-094-SA8N-SB-7.5-8.5 SL-095-SA8N-SB-4.0-5.0 SL-096-SA8N-SB-4.0-5.0 SL-096-SA8N-SB-9.0-10.0 SL-104-SA8N-SB-4.0-5.0 SL-104-SA8N-SB-9.0-10.0)	BIS(2-ETHYLHEXYL)PHTHALAT	226	-	67.00-143.00	-	BIS(2-ETHYLHEXYL)PHTHALA	J(all detects)

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSB57Q210522A	N-BUTYLBENZENE	121	121	72.00-120.00	-	N-BUTYLBENZENE	J(all detects)
LCSB57Y210544A	N-PROPYLBENZENE	123	-	77.00-120.00	-	N-PROPYLBENZENE	
(SL-094-SA8N-SB-4.0-5.0 SL-095-SA8N-SB-4.0-5.0 SL-096-SA8N-SB-4.0-5.0 SL-104-SA8N-SB-4.0-5.0)	SEC-BUTYLBENZENE	125	125	75.00-120.00	-	SEC-BUTYLBENZENE	

Surrogate Outlier Report

Lab Reporting Batch ID: DE150 Laboratory: LL

EDD Filename: DE150_v1. eQAPP Name: CDM_SSFL_110509

Method: 8082
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-104-SA8N-SB-4.0-5.0	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	140 140	45.00-120.00 53.00-139.00	All Target Analytes	J (all detects)
SL-104-SA8N-SB-9.0-10.0	DECACHLOROBIPHENYL	141	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-104-SA8N-SB-9.0-10.0	2-FLUOROBIPHENYL Nitrobenzene-d5 Terphenyl-d14	26 36 17	45.00-130.00 40.00-130.00 45.00-135.00	All Base/Neutral Target Analytes	J(all detects) UJ(all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE150 Laboratory: LL

EDD Filename: DE150_v1. eQAPP Name: CDM_SSFL_110509

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-094-SA8N-SB-4.0-5.0	TIN	J	3.05	11.5	PQL	mg/Kg	J (all detects)
SL-094-SA8N-SB-7.5-8.5	TIN	J	3.25	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.19	5.66	PQL	mg/Kg	
SL-095-SA8N-SB-4.0-5.0	TIN	J	3.00	11.3	PQL	mg/Kg	J (all detects)
SL-096-SA8N-SB-4.0-5.0	TIN	J	3.07	11.6	PQL	mg/Kg	J (all detects)
SL-096-SA8N-SB-9.0-10.0	BORON	J	5.00	5.71	PQL	mg/Kg	J (all detects)
	TIN	J	3.15	11.4	PQL	mg/Kg	
	Zirconium	J	2.65	5.71	PQL	mg/Kg	
SL-104-SA8N-SB-4.0-5.0	TIN	J	3.05	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.38	5.65	PQL	mg/Kg	
SL-104-SA8N-SB-9.0-10.0	BORON	J	4.77	5.74	PQL	mg/Kg	J (all detects)
	TIN	J	3.65	11.5	PQL	mg/Kg	
	Zirconium	J	4.51	5.74	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-094-SA8N-SB-4.0-5.0	SELENIUM	J	0.248	0.474	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0479	0.118	PQL	mg/Kg	
SL-094-SA8N-SB-7.5-8.5	ANTIMONY	J	0.0689	0.222	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0740	0.111	PQL	mg/Kg	
	SELENIUM	J	0.0988	0.444	PQL	mg/Kg	
	SILVER	J	0.0560	0.111	PQL	mg/Kg	
SL-095-SA8N-SB-4.0-5.0	SELENIUM	J	0.0518	0.458	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0440	0.114	PQL	mg/Kg	
SL-096-SA8N-SB-4.0-5.0	SELENIUM	J	0.157	0.470	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0746	0.118	PQL	mg/Kg	
SL-096-SA8N-SB-9.0-10.0	ANTIMONY	J	0.104	0.224	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.177	0.448	PQL	mg/Kg	
	SILVER	J	0.0401	0.112	PQL	mg/Kg	
SL-104-SA8N-SB-4.0-5.0	ANTIMONY	J	0.141	0.224	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0892	0.112	PQL	mg/Kg	
	SELENIUM	J	0.0680	0.448	PQL	mg/Kg	
	SILVER	J	0.0509	0.112	PQL	mg/Kg	
SL-104-SA8N-SB-9.0-10.0	SELENIUM	J	0.0526	0.473	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0203	0.118	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-094-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.46	1.2	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: DE150 Laboratory: LL

EDD Filename: DE150_v1. eQAPP Name: CDM_SSFL_110509

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-096-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.47	1.2	PQL	mg/Kg	J (all detects)
SL-104-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.38	1.1	PQL	mg/Kg	J (all detects)
SL-104-SA8N-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.37	1.2	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-095-SA8N-SB-4.0-5.0	MERCURY	J	0.0135	0.114	PQL	mg/Kg	J (all detects)
SL-096-SA8N-SB-9.0-10.0	MERCURY	J	0.0078	0.111	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-095-SA8N-SB-4.0-5.0	AROCLOR 1254	J	0.94	2.0	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-096-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	21	390	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-094-SA8N-SB-4.0-5.0	BENZO(B)FLUORANTHENE BIS(2-ETHYLHEXYL)PHTHALATE	J J	0.88 9.2	2.0 22	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-094-SA8N-SB-7.5-8.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.4	20	PQL	ug/Kg	J (all detects)
SL-095-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.7	21	PQL	ug/Kg	J (all detects)

LDC #: 26078J4 **VALIDATION COMPLETENESS WORKSHEET** Date: 8/29/11
SDG #: DE150 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: AR
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 for ICB/CCB
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N	CS
VII.	Duplicate Sample Analysis	N	↓
VIII.	Laboratory Control Samples (LCS)	N	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-094-SA8N-SB-4.0-5.0	11		21		31	
2	SL-094-SA8N-SB-7.5-8.5	12		22		32	
3	SL-095-SA8N-SB-4.0-5.0	13		23		33	
4	SL-096-SA8N-SB-4.0-5.0	14		24		34	
5	SL-096-SA8N-SB-9.0-10.0	15		25		35	
6	SL-104-SA8N-SB-4.0-5.0	16		26		36	
7	SL-104-SA8N-SB-9.0-10.0	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

SAMPLE DELIVERY GROUP

DE165

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
26-May-2011	SL-001-SA8N-SB-4.0-5.0	6300332	N	3050B	6010B	III
26-May-2011	SL-001-SA8N-SB-4.0-5.0	6300332	N	3050B	6020	III
26-May-2011	SL-001-SA8N-SB-4.0-5.0	6300332	N	3060A	7199	III
26-May-2011	SL-001-SA8N-SB-4.0-5.0	6300332	N	3550B	8082	III
26-May-2011	SL-001-SA8N-SB-4.0-5.0	6300332	N	3550B	8270C	III
26-May-2011	SL-001-SA8N-SB-4.0-5.0	6300332	N	3550B	8270C SIM	III
26-May-2011	SL-001-SA8N-SB-4.0-5.0	6300332	N	5035	8260B	III
26-May-2011	SL-001-SA8N-SB-4.0-5.0	6300332	N	5035	8260B SIM	III
26-May-2011	SL-001-SA8N-SB-4.0-5.0	6300332	N	METHOD	300.0	III
26-May-2011	SL-001-SA8N-SB-4.0-5.0	6300332	N	METHOD	314.0	III
26-May-2011	SL-001-SA8N-SB-4.0-5.0	6300332	N	METHOD	7471A	III
26-May-2011	SL-001-SA8N-SB-4.0-5.0	6300332	N	METHOD	8015M	III
26-May-2011	SL-001-SA8N-SB-9.0-10.0	6300333	N	3050B	6010B	III
26-May-2011	SL-001-SA8N-SB-9.0-10.0	6300333	N	3050B	6020	III
26-May-2011	SL-001-SA8N-SB-9.0-10.0	6300333	N	3060A	7199	III
26-May-2011	SL-001-SA8N-SB-9.0-10.0	6300333	N	3550B	8082	III
26-May-2011	SL-001-SA8N-SB-9.0-10.0	6300333	N	3550B	8270C	III
26-May-2011	SL-001-SA8N-SB-9.0-10.0	6300333	N	3550B	8270C SIM	III
26-May-2011	SL-001-SA8N-SB-9.0-10.0	6300333	N	METHOD	300.0	III
26-May-2011	SL-001-SA8N-SB-9.0-10.0	6300333	N	METHOD	314.0	III
26-May-2011	SL-001-SA8N-SB-9.0-10.0	6300333	N	METHOD	6850	III
26-May-2011	SL-001-SA8N-SB-9.0-10.0	6300333	N	METHOD	7471A	III
26-May-2011	SL-001-SA8N-SB-9.0-10.0	6300333	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*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: DE165 **Laboratory:** LL

EDD Filename: DE165_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-001-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 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
TIN	2.84	J	1.15	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	4.28	J	0.963	MDL	5.73	PQL	mg/Kg	J	Z

Sample ID: SL-001-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 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
TIN	2.81	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.88	J	0.926	MDL	5.51	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-001-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 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	0.112	J	0.0463	MDL	0.463	PQL	mg/Kg	J	Z

Sample ID: SL-001-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 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	0.416		0.0579	MDL	0.116	PQL	mg/Kg	J	E

Sample ID: SL-001-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 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	0.270		0.0694	MDL	0.231	PQL	mg/Kg	J	Q
ARSENIC	8.20		0.0926	MDL	0.463	PQL	mg/Kg	J	E
CHROMIUM	32.4		0.139	MDL	0.463	PQL	mg/Kg	J	A
LEAD	12.8		0.0120	MDL	0.231	PQL	mg/Kg	J	E
SILVER	0.0563	J	0.0139	MDL	0.116	PQL	mg/Kg	J	Z
VANADIUM	56.3		0.0255	MDL	0.116	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: DE165 **Laboratory:** LL

EDD Filename: DE165_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-001-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 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	0.218		0.0546	MDL	0.109	PQL	mg/Kg	J	E

Sample ID: SL-001-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 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	0.114	J	0.0655	MDL	0.218	PQL	mg/Kg	J	Z, Q
ARSENIC	5.41		0.0874	MDL	0.437	PQL	mg/Kg	J	E
CHROMIUM	17.4		0.131	MDL	0.437	PQL	mg/Kg	J	A
LEAD	5.81		0.0114	MDL	0.218	PQL	mg/Kg	J	E
SILVER	0.0205	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z
VANADIUM	34.7		0.0240	MDL	0.109	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-001-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 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	0.39	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-001-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 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
HEXAVALENT CHROMIUM	0.28	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: SL-001-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 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	0.0106	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: DE165 Laboratory: LL

EDD Filename: DE165_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-001-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 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	21	J	20	MDL	390	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-001-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 11:05:00 *Analysis Type:* RES *Dilution:* 0.93

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.8		7.3	MDL	8.8	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	2.0	J	0.26	MDL	4.4	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE165 **Laboratory: LL**

EDD Filename: DE165_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	Laboratory Triplicate Precision
E	Matrix Spike Precision

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE165 **Laboratory: LL**

EDD Filename: DE165_v1 **eQAPP Name: CDM_SSFL_110509**

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	Laboratory Duplicate Precision
Q	Laboratory Triplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper 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: DE165 **Laboratory: LL**

EDD Filename: DE165_v1 **eQAPP Name: CDM_SSFL_110509**

Q	Matrix Spike Upper Rejection
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

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE165

Method Blank Outlier Report

Lab Reporting Batch ID: DE165 **Laboratory: LL**

EDD Filename: DE165_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15708BB220800	6/7/2011 8:00:00 AM	CALCIUM PHOSPHORUS TIN	6.81 mg/Kg 1.17 mg/Kg 1.38 mg/Kg	SL-001-SA8N-SB-4.0-5.0 SL-001-SA8N-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-001-SA8N-SB-4.0-5.0(RES)	TIN	2.84 mg/Kg	2.84U mg/Kg
SL-001-SA8N-SB-9.0-10.0(RES)	TIN	2.81 mg/Kg	2.81U mg/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB72B211210A	6/1/2011 12:10:00 PM	ACETONE METHYLENE CHLORIDE	8.6 ug/Kg 1.4 ug/Kg	SL-001-SA8N-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-001-SA8N-SB-4.0-5.0(RES)	ACETONE	9.8 ug/Kg	9.8U ug/Kg
SL-001-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	2.0 ug/Kg	4.4U ug/Kg

Reporting Limit Outliers

Lab Reporting Batch ID: DE165 **Laboratory: LL**

EDD Filename: DE165_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA8N-SB-4.0-5.0	TIN	J	2.84	11.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.28	5.73	PQL	mg/Kg	
SL-001-SA8N-SB-9.0-10.0	TIN	J	2.81	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.88	5.51	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA8N-SB-4.0-5.0	SELENIUM	J	0.112	0.463	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0563	0.116	PQL	mg/Kg	
SL-001-SA8N-SB-9.0-10.0	ANTIMONY	J	0.114	0.218	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0205	0.109	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.39	1.2	PQL	mg/Kg	J (all detects)
SL-001-SA8N-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.28	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA8N-SB-4.0-5.0	MERCURY	J	0.0106	0.111	PQL	mg/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA8N-SB-4.0-5.0	METHYLENE CHLORIDE	J	2.0	4.4	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	21	390	PQL	ug/Kg	J (all detects)

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

LDC #: 26275W4 **VALIDATION COMPLETENESS WORKSHEET** Date: 9/28/11
SDG #: DE165 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: MY
2nd Reviewer: CR

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.
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	} DE164
VII.	Duplicate Sample Analysis	SW	
VIII.	Laboratory Control Samples (LCS)	NA	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Cr, V
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-001-SA8N-SB-4.0-5.0	11		21		31	
2	SL-001-SA8N-SB-9.0-10.0	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

DE166

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
26-May-2011	TB-052611	6300344	TB	5030B	8260B	III
26-May-2011	TB-052611	6300344	TB	5030B	8260B SIM	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3050B	6010B	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3050B	6020	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3060A	7199	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3546	1625C	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3550B	8015B	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3550B	8015M	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3550B	8081A	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3550B	8082	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3550B	8151A	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3550B	8270C	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	3550B	8270C SIM	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	8330	8330A	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	METHOD	300.0	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	METHOD	314.0	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	METHOD	6850	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	METHOD	7471A	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	METHOD	8015B	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	METHOD	8015M	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	METHOD	8315A	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5	6300354	N	METHOD	9012B	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5DU	P300354D270911B	DUP	METHOD	9012B	III
26-May-2011	SL-179-SA5DN-SS-0.0-0.5MS	P300354R270915B	MS	METHOD	9012B	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	3050B	6010B	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	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
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	3060A	7199	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	3550B	8082	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	3550B	8270C	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	3550B	8270C SIM	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	5035	8260B	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	5035	8260B SIM	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	METHOD	300.0	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	METHOD	314.0	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	METHOD	7471A	III
26-May-2011	SL-008-SA8N-SB-4.0-5.0	6300341	N	METHOD	8015M	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	3050B	6010B	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	3050B	6020	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	3060A	7199	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	3550B	8081A	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	3550B	8082	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	3550B	8151A	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	3550B	8270C	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	3550B	8270C SIM	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	METHOD	300.0	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	METHOD	314.0	III
26-May-2011	SL-172-SA5DN-SS-0.0-0.5	6300349	N	METHOD	7471A	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3050B	6010B	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3050B	6020	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3060A	7199	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3546	1625C	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	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
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3550B	8015M	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3550B	8081A	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3550B	8082	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3550B	8151A	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3550B	8270C	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	3550B	8270C SIM	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	8330	8330A	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	METHOD	300.0	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	METHOD	314.0	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	METHOD	7471A	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	METHOD	8015B	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	METHOD	8015M	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	METHOD	8315A	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5	6300348	N	METHOD	9012B	III
26-May-2011	SL-171-SA5DN-SS-0.0-0.5MS	P300348R320502A	MS	3550B	8015B	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	3050B	6010B	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	3050B	6020	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	3060A	7199	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	3550B	8082	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	3550B	8270C	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	3550B	8270C SIM	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	METHOD	300.0	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	METHOD	314.0	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	METHOD	7471A	III
26-May-2011	SL-008-SA8N-SB-9.0-10.0	6300342	N	METHOD	8015M	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	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
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	3050B	6020	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	3060A	7199	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	3550B	8081A	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	3550B	8082	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	3550B	8151A	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	3550B	8270C	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	3550B	8270C SIM	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	METHOD	300.0	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	METHOD	314.0	III
26-May-2011	SL-170-SA5DN-SS-0.0-0.5	6300347	N	METHOD	7471A	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	3050B	6010B	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	3050B	6020	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	3060A	7199	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	3550B	8081A	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	3550B	8082	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	3550B	8151A	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	3550B	8270C	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	3550B	8270C SIM	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	METHOD	300.0	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	METHOD	314.0	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5	6300350	N	METHOD	7471A	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5DU	P300350D271020B	DUP	METHOD	314.0	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5DU	P300350D272337B	DUP	METHOD	300.0	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5MS	P300350R270018B	MS	METHOD	300.0	III
26-May-2011	SL-173-SA5DN-SS-0.0-0.5MS	P300350R271042B	MS	METHOD	314.0	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	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
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	3050B	6020	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	3060A	7199	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	3550B	8081A	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	3550B	8082	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	3550B	8151A	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	3550B	8270C	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	3550B	8270C SIM	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	METHOD	300.0	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	METHOD	314.0	III
26-May-2011	SL-174-SA5DN-SS-0.0-0.5	6300351	N	METHOD	7471A	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3050B	6010B	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3050B	6020	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3060A	7199	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3546	1625C	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3550B	8015B	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3550B	8015M	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3550B	8081A	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3550B	8082	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3550B	8151A	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3550B	8270C	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	3550B	8270C SIM	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	8330	8330A	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	METHOD	300.0	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	METHOD	314.0	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	METHOD	7471A	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	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
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	METHOD	8015M	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	METHOD	8315A	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5	6300352	N	METHOD	9012B	III
26-May-2011	SL-175-SA5DN-SS-0.0-0.5MS	P300352R320238A	MS	METHOD	8015B	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	3050B	6010B	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	3050B	6020	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	3060A	7199	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	3550B	8081A	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	3550B	8082	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	3550B	8151A	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	3550B	8270C	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	3550B	8270C SIM	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	METHOD	300.0	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	METHOD	314.0	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	METHOD	6850	III
26-May-2011	SL-176-SA5DN-SS-0.0-0.5	6300353	N	METHOD	7471A	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3005A	6010B	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3020A	6020	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3510C	8015B	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3510C	8015M	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3510C	8081A	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3510C	8082	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3510C	8270C	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3510C	8270C SIM	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	3520C	1625C	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	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
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	Gen Prep	300.0	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	Gen Prep	314.0	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	Gen Prep	7199	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	Gen Prep	8015B	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	Gen Prep	8015M	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	METHOD	7470A	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	METHOD	8151A	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	METHOD	8315A	III
26-May-2011	EB09-SA5DN-SS-052611	6300360	EB	METHOD	9012B	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	3005A	6010B	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	3020A	6020	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	3510C	8082	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	3510C	8270C	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	3510C	8270C SIM	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	5030B	8260B	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	5030B	8260B SIM	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	Gen Prep	300.0	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	Gen Prep	314.0	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	Gen Prep	7199	III
26-May-2011	EB11-SA8N-SB-052611	6300361	EB	METHOD	7470A	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	3050B	6010B	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	3050B	6020	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	3060A	7199	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	3550B	8081A	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	3550B	8082	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	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
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	3550B	8270C	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	3550B	8270C SIM	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	METHOD	300.0	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	METHOD	314.0	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	METHOD	6850	III
26-May-2011	SL-180-SA5DN-SS-0.0-0.5	6300355	N	METHOD	7471A	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	3050B	6010B	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	3050B	6020	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	3060A	7199	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	3550B	8081A	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	3550B	8082	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	3550B	8151A	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	3550B	8270C	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	3550B	8270C SIM	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	METHOD	300.0	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	METHOD	314.0	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	METHOD	6850	III
26-May-2011	SL-181-SA5DN-SS-0.0-0.5	6300356	N	METHOD	7471A	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	3050B	6010B	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	3050B	6020	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	3060A	7199	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	3550B	8082	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	3550B	8270C	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	3550B	8270C SIM	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	5035	8260B	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	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
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	METHOD	300.0	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	METHOD	314.0	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	METHOD	7471A	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0	6300336	N	METHOD	8015M	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	3050B	6010B	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	3050B	6020	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	3060A	7199	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	3550B	8082	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	3550B	8270C	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	3550B	8270C SIM	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	5035	8260B	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	5035	8260B SIM	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	METHOD	314.0	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	METHOD	7471A	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	6300337	MS	METHOD	8015M	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	3050B	6010B	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	3050B	6020	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	3550B	8082	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	3550B	8270C	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	3550B	8270C SIM	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	5035	8260B	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	5035	8260B SIM	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	METHOD	7471A	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MSD	6300338	MSD	METHOD	8015M	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0DUP	6300339	DUP	3050B	6010B	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0DUP	6300339	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
26-May-2011	SL-002-SA8N-SB-4.0-5.0DUP	6300339	DUP	3060A	7199	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0DUP	6300339	DUP	METHOD	300.0	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0DUP	6300339	DUP	METHOD	314.0	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0DUP	6300339	DUP	METHOD	7471A	III
26-May-2011	SL-002-SA8N-SB-4.0-5.0MS	P300336R272039A	MS	METHOD	300.0	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	3050B	6010B	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	3050B	6020	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	3060A	7199	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	3550B	8081A	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	3550B	8082	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	3550B	8151A	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	3550B	8270C	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	3550B	8270C SIM	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	METHOD	300.0	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	METHOD	314.0	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	METHOD	6850	III
26-May-2011	SL-182-SA5DN-SS-0.0-0.5	6300357	N	METHOD	7471A	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	3050B	6010B	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	3050B	6020	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	3060A	7199	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	3550B	8082	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	3550B	8270C	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	3550B	8270C SIM	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	5035	8260B	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	5035	8260B SIM	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	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
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	METHOD	314.0	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	METHOD	7471A	III
26-May-2011	DUP09-SA8N-QC-052611	6300343	FD	METHOD	8015M	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	3050B	6010B	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	3050B	6020	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	3060A	7199	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	3550B	8081A	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	3550B	8082	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	3550B	8151A	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	3550B	8270C	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	3550B	8270C SIM	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	METHOD	300.0	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	METHOD	314.0	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	METHOD	6850	III
26-May-2011	SL-183-SA5DN-SS-0.0-0.5	6300358	N	METHOD	7471A	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	3050B	6010B	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	3050B	6020	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	3060A	7199	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	3550B	8082	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	3550B	8270C	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	3550B	8270C SIM	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	METHOD	300.0	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	METHOD	314.0	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	METHOD	7471A	III
26-May-2011	SL-002-SA8N-SB-9.0-10.0	6300340	N	METHOD	8015M	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	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
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	3050B	6020	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	3060A	7199	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	3550B	8081A	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	3550B	8082	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	3550B	8151A	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	3550B	8270C	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	3550B	8270C SIM	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	METHOD	300.0	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	METHOD	314.0	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	METHOD	6850	III
26-May-2011	SL-184-SA5DN-SS-0.0-0.5	6300359	N	METHOD	7471A	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	3050B	6010B	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	3050B	6020	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	3060A	7199	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	3550B	8081A	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	3550B	8082	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	3550B	8151A	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	3550B	8270C	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	3550B	8270C SIM	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	METHOD	300.0	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	METHOD	314.0	III
26-May-2011	SL-165-SA5DN-SS-0.0-0.5	6300346	N	METHOD	7471A	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	3050B	6010B	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	3050B	6020	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	3060A	7199	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	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
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	3550B	8082	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	3550B	8151A	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	3550B	8270C	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	3550B	8270C SIM	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	METHOD	300.0	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	METHOD	314.0	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5	6300345	N	METHOD	7471A	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5MS	P300345R240512A	MS	3550B	8081A	III
26-May-2011	SL-164-SA5DN-SS-0.0-0.5MS	P300345R242058A	MS	3550B	8151A	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: DE166 Laboratory: LL

EDD Filename: PrepDE166_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: DUP09-SA8N-QC-052611 *Collected:* 5/26/2011 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	4.3		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-002-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 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	4.6		0.96	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-002-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 2:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.3		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-008-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 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
FLUORIDE	3.8		0.95	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-008-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 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	5.2		0.92	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-164-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:55:00 *Analysis Type:* RES *Dilution:* 1

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

Sample ID: SL-165-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	2.1		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-170-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.82	U	0.82	MDL	1.0	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: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-171-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.85	U	0.85	MDL	1.1	PQL	mg/Kg	UJ	Q
Nitrate-NO3	1.3	J	0.85	MDL	1.6	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	1.1	J	0.86	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: DUP09-SA8N-QC-052611 *Collected:* 5/26/2011 2:45:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3730		20.8	MDL	57.9	PQL	mg/Kg	J	Q
TIN	2.64	J	1.16	MDL	11.6	PQL	mg/Kg	U	B
Zirconium	3.92	J	0.972	MDL	5.79	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 2:20:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3770		21.5	MDL	59.7	PQL	mg/Kg	J	Q
TIN	2.72	J	1.19	MDL	11.9	PQL	mg/Kg	U	B
Zirconium	4.41	J	1.00	MDL	5.97	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 2:50:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3010		21.0	MDL	58.4	PQL	mg/Kg	J	Q
TIN	2.44	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	3.57	J	0.981	MDL	5.84	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: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-008-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 9:15:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	4750		20.6	MDL	57.2	PQL	mg/Kg	J	Q
TIN	2.53	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	3.48	J	0.960	MDL	5.72	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 9:40:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.46	J	1.01	MDL	5.65	PQL	mg/Kg	J	Z
POTASSIUM	2830		20.3	MDL	56.5	PQL	mg/Kg	J	Q
TIN	2.65	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	2.78	J	0.949	MDL	5.65	PQL	mg/Kg	J	Z

Sample ID: SL-164-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:55:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	4800		19.4	MDL	53.9	PQL	mg/Kg	J	Q
SODIUM	67.9	J	40.2	MDL	108	PQL	mg/Kg	J	Z
TIN	2.45	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	3.03	J	0.905	MDL	5.39	PQL	mg/Kg	J	Z

Sample ID: SL-165-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
POTASSIUM	3760		19.0	MDL	52.7	PQL	mg/Kg	J	Q
SODIUM	75.2	J	39.3	MDL	105	PQL	mg/Kg	J	Z
TIN	2.37	J	1.05	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	2.07	J	0.886	MDL	5.27	PQL	mg/Kg	J	Z

Sample ID: SL-170-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
BORON	3.06	J	0.890	MDL	5.00	PQL	mg/Kg	J	Z
POTASSIUM	2890		18.0	MDL	50.0	PQL	mg/Kg	J	Q
SODIUM	56.5	J	37.3	MDL	100	PQL	mg/Kg	J	Z
TIN	2.23	J	1.00	MDL	10.0	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: DE166 **Laboratory: LL**

EDD Filename: PrepDE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-170-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
Zirconium	0.906	J	0.840	MDL	5.00	PQL	mg/Kg	J	Z

Sample ID: SL-171-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 9:35:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.71	J	0.928	MDL	5.21	PQL	mg/Kg	J	Z
POTASSIUM	4130		18.8	MDL	52.1	PQL	mg/Kg	J	Q
SODIUM	82.3	J	38.9	MDL	104	PQL	mg/Kg	J	Z
TIN	2.24	J	1.04	MDL	10.4	PQL	mg/Kg	U	B

Sample ID: SL-172-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
BORON	4.94	J	0.932	MDL	5.24	PQL	mg/Kg	J	Z
POTASSIUM	3020		18.9	MDL	52.4	PQL	mg/Kg	J	Q
SODIUM	91.7	J	39.1	MDL	105	PQL	mg/Kg	J	Z
TIN	2.17	J	1.05	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	3.31	J	0.880	MDL	5.24	PQL	mg/Kg	J	Z

Sample ID: SL-173-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:20:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.90	J	0.909	MDL	5.10	PQL	mg/Kg	J	Z
POTASSIUM	2820		18.4	MDL	51.0	PQL	mg/Kg	J	Q
SODIUM	63.1	J	38.1	MDL	102	PQL	mg/Kg	J	Z
TIN	2.37	J	1.02	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: SL-174-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:53:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.86	J	0.908	MDL	5.10	PQL	mg/Kg	J	Z
POTASSIUM	4290		18.4	MDL	51.0	PQL	mg/Kg	J	Q
TIN	2.34	J	1.02	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	1.27	J	0.857	MDL	5.10	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-175-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 11:15:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.38	J	0.927	MDL	5.21	PQL	mg/Kg	J	Z
POTASSIUM	3070		18.8	MDL	52.1	PQL	mg/Kg	J	Q
SODIUM	66.4	J	38.9	MDL	104	PQL	mg/Kg	J	Z
TIN	2.16	J	1.04	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	1.33	J	0.875	MDL	5.21	PQL	mg/Kg	J	Z

Sample ID: SL-176-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
BORON	2.60	J	0.891	MDL	5.01	PQL	mg/Kg	J	Z
POTASSIUM	2560		18.0	MDL	50.1	PQL	mg/Kg	J	Q
SODIUM	61.7	J	37.4	MDL	100	PQL	mg/Kg	J	Z
TIN	4.84	J	1.00	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	1.06	J	0.841	MDL	5.01	PQL	mg/Kg	J	Z

Sample ID: SL-179-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 8:50:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.23	J	0.933	MDL	5.24	PQL	mg/Kg	J	Z
POTASSIUM	3040		18.9	MDL	52.4	PQL	mg/Kg	J	Q
SODIUM	72.2	J	39.1	MDL	105	PQL	mg/Kg	J	Z
TIN	2.39	J	1.05	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	1.76	J	0.881	MDL	5.24	PQL	mg/Kg	J	Z

Sample ID: SL-180-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 1:45:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.69	J	0.912	MDL	5.12	PQL	mg/Kg	J	Z
POTASSIUM	3170		18.4	MDL	51.2	PQL	mg/Kg	J	Q
SODIUM	84.5	J	38.2	MDL	102	PQL	mg/Kg	J	Z
TIN	2.40	J	1.02	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	1.67	J	0.861	MDL	5.12	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: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-181-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 2:00:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.59	J	0.912	MDL	5.13	PQL	mg/Kg	J	Z
POTASSIUM	3450		18.5	MDL	51.3	PQL	mg/Kg	J	Q
SODIUM	82.8	J	38.2	MDL	103	PQL	mg/Kg	J	Z
TIN	2.27	J	1.03	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	1.90	J	0.861	MDL	5.13	PQL	mg/Kg	J	Z

Sample ID: SL-182-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	3.95	J	0.917	MDL	5.15	PQL	mg/Kg	J	Z
POTASSIUM	3190		18.6	MDL	51.5	PQL	mg/Kg	J	Q
SODIUM	96.7	J	38.4	MDL	103	PQL	mg/Kg	J	Z
TIN	2.15	J	1.03	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	1.92	J	0.866	MDL	5.15	PQL	mg/Kg	J	Z

Sample ID: SL-183-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 2:45:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.11	J	0.886	MDL	4.98	PQL	mg/Kg	J	Z
POTASSIUM	3140		17.9	MDL	49.8	PQL	mg/Kg	J	Q
TIN	2.44	J	0.996	MDL	9.96	PQL	mg/Kg	U	B

Sample ID: SL-184-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:05:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.51	J	0.908	MDL	5.10	PQL	mg/Kg	J	Z
POTASSIUM	3200		18.4	MDL	51.0	PQL	mg/Kg	J	Q
SODIUM	78.2	J	38.1	MDL	102	PQL	mg/Kg	J	Z
TIN	2.19	J	1.02	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	1.87	J	0.857	MDL	5.10	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** AQ

Sample ID: EB09-SA5DN-SS-052611 *Collected:* 5/26/2011 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	0.000071	J	0.000052	MDL	0.0010	PQL	mg/L	U	B

Sample ID: EB11-SA8N-SB-052611 *Collected:* 5/26/2011 1:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	0.000062	J	0.000052	MDL	0.0010	PQL	mg/L	U	B

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP09-SA8N-QC-052611 *Collected:* 5/26/2011 2:45:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.129	J	0.0675	MDL	0.225	PQL	mg/Kg	J	Z, Q
LEAD	11.7		0.0117	MDL	0.225	PQL	mg/Kg	J	Q, A
SILVER	0.0304	J	0.0135	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: DUP09-SA8N-QC-052611 *Collected:* 5/26/2011 2:45:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.89		0.0900	MDL	0.450	PQL	mg/Kg	J	Q
CHROMIUM	33.6		0.135	MDL	0.450	PQL	mg/Kg	J	Q, A
NICKEL	28.5		0.112	MDL	0.450	PQL	mg/Kg	J	Q
VANADIUM	68.6		0.0247	MDL	0.112	PQL	mg/Kg	J	A

Sample ID: DUP09-SA8N-QC-052611 *Collected:* 5/26/2011 2:45:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.140	J	0.0450	MDL	0.450	PQL	mg/Kg	J	Z

Sample ID: DUP09-SA8N-QC-052611 *Collected:* 5/26/2011 2:45:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	129		0.121	MDL	0.450	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: DE166 Laboratory: LL

EDD Filename: PrepDE166_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-002-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 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
ANTIMONY	0.140	J	0.0683	MDL	0.228	PQL	mg/Kg	J	Z, Q
LEAD	10.2		0.0118	MDL	0.228	PQL	mg/Kg	J	Q, A
SILVER	0.0264	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 2:20:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.98		0.0910	MDL	0.455	PQL	mg/Kg	J	Q
CHROMIUM	31.8		0.137	MDL	0.455	PQL	mg/Kg	J	Q, A
NICKEL	23.0		0.114	MDL	0.455	PQL	mg/Kg	J	Q
VANADIUM	63.9		0.0250	MDL	0.114	PQL	mg/Kg	J	A

Sample ID: SL-002-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 2:20:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.147	J	0.0455	MDL	0.455	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 2:20:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	113		0.123	MDL	0.455	PQL	mg/Kg	J	A

Sample ID: SL-002-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 2:50:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.139	J	0.0701	MDL	0.234	PQL	mg/Kg	J	Z, Q
LEAD	11.5		0.0121	MDL	0.234	PQL	mg/Kg	J	Q, A
SILVER	0.0453	J	0.0140	MDL	0.117	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 2:50:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.73		0.0934	MDL	0.467	PQL	mg/Kg	J	Q
CHROMIUM	33.3		0.140	MDL	0.467	PQL	mg/Kg	J	Q, A
NICKEL	24.6		0.117	MDL	0.467	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: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-002-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 2:50:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	65.9		0.0257	MDL	0.117	PQL	mg/Kg	J	A

Sample ID: SL-002-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 2:50:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0898	J	0.0467	MDL	0.467	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 2:50:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	117		0.126	MDL	0.467	PQL	mg/Kg	J	A

Sample ID: SL-008-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 9:15:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.128	J	0.0686	MDL	0.229	PQL	mg/Kg	J	Z, Q
LEAD	8.93		0.0119	MDL	0.229	PQL	mg/Kg	J	Q, A
SILVER	0.0372	J	0.0137	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 9:15:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.32		0.0915	MDL	0.457	PQL	mg/Kg	J	Q
CHROMIUM	29.8		0.137	MDL	0.457	PQL	mg/Kg	J	Q, A
NICKEL	19.2		0.114	MDL	0.457	PQL	mg/Kg	J	Q
VANADIUM	56.6		0.0252	MDL	0.114	PQL	mg/Kg	J	A

Sample ID: SL-008-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 9:15:00 *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	0.0457	MDL	0.457	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 9:15:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	100		0.123	MDL	0.457	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: DE166 Laboratory: LL

EDD Filename: PrepDE166_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-008-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 9:40:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0814	J	0.0671	MDL	0.224	PQL	mg/Kg	J	Z, Q
LEAD	6.58		0.0116	MDL	0.224	PQL	mg/Kg	J	Q, A
SILVER	0.0394	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 9:40:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	5.39		0.0895	MDL	0.447	PQL	mg/Kg	J	Q
CHROMIUM	25.5		0.134	MDL	0.447	PQL	mg/Kg	J	Q, A
NICKEL	17.2		0.112	MDL	0.447	PQL	mg/Kg	J	Q
VANADIUM	49.5		0.0246	MDL	0.112	PQL	mg/Kg	J	A

Sample ID: SL-008-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 9:40:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0529	J	0.0447	MDL	0.447	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 9:40:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	86.3		0.121	MDL	0.447	PQL	mg/Kg	J	A

Sample ID: SL-164-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:55:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.179	J	0.0640	MDL	0.213	PQL	mg/Kg	J	Z, Q
LEAD	11.4		0.0111	MDL	0.213	PQL	mg/Kg	J	Q, A
SILVER	0.0410	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-164-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:55:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	10.1		0.0854	MDL	0.427	PQL	mg/Kg	J	Q
CHROMIUM	24.5		0.128	MDL	0.427	PQL	mg/Kg	J	Q, A
NICKEL	18.5		0.107	MDL	0.427	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: DE166 **Laboratory: LL**

EDD Filename: PrepDE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-164-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:55:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	48.7		0.0235	MDL	0.107	PQL	mg/Kg	J	A

Sample ID: SL-164-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:55:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.221	J	0.0427	MDL	0.427	PQL	mg/Kg	J	Z

Sample ID: SL-164-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:55:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	106		0.115	MDL	0.427	PQL	mg/Kg	J	A

Sample ID: SL-165-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:30:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0721	J	0.0626	MDL	0.209	PQL	mg/Kg	J	Z, Q
LEAD	9.29		0.0109	MDL	0.209	PQL	mg/Kg	J	Q, A
SILVER	0.0647	J	0.0125	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-165-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
ARSENIC	5.30		0.0835	MDL	0.418	PQL	mg/Kg	J	Q
CHROMIUM	21.7		0.125	MDL	0.418	PQL	mg/Kg	J	Q, A
NICKEL	15.4		0.104	MDL	0.418	PQL	mg/Kg	J	Q
VANADIUM	43.3		0.0230	MDL	0.104	PQL	mg/Kg	J	A

Sample ID: SL-165-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
SELENIUM	0.128	J	0.0418	MDL	0.418	PQL	mg/Kg	J	Z

Sample ID: SL-165-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:30:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	98.4		0.113	MDL	0.418	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: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-170-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:00:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0588	U	0.0588	MDL	0.196	PQL	mg/Kg	UJ	Q
CADMIUM	0.0683	J	0.0392	MDL	0.0981	PQL	mg/Kg	J	Z
LEAD	3.56		0.0102	MDL	0.196	PQL	mg/Kg	J	Q, A

Sample ID: SL-170-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:00:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.48		0.0785	MDL	0.392	PQL	mg/Kg	J	Q
CHROMIUM	16.5		0.118	MDL	0.392	PQL	mg/Kg	J	Q, A
NICKEL	11.5		0.0981	MDL	0.392	PQL	mg/Kg	J	Q
VANADIUM	31.2		0.0216	MDL	0.0981	PQL	mg/Kg	J	A

Sample ID: SL-170-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:00:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0474	J	0.0392	MDL	0.392	PQL	mg/Kg	J	Z

Sample ID: SL-170-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:00:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	67.2		0.106	MDL	0.392	PQL	mg/Kg	J	A

Sample ID: SL-171-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 9:35:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0646	J	0.0626	MDL	0.209	PQL	mg/Kg	J	Z, Q
LEAD	12.2		0.0108	MDL	0.209	PQL	mg/Kg	J	Q, A

Sample ID: SL-171-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 9:35:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	13.4		0.0834	MDL	0.417	PQL	mg/Kg	J	Q
CHROMIUM	16.3		0.125	MDL	0.417	PQL	mg/Kg	J	Q, A
NICKEL	13.3		0.104	MDL	0.417	PQL	mg/Kg	J	Q
VANADIUM	33.8		0.0229	MDL	0.104	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-171-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 9:35:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0725	J	0.0417	MDL	0.417	PQL	mg/Kg	J	Z

Sample ID: SL-171-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 9:35:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	106		0.113	MDL	0.417	PQL	mg/Kg	J	A

Sample ID: SL-172-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
ANTIMONY	0.0818	J	0.0616	MDL	0.205	PQL	mg/Kg	J	Z, Q
LEAD	6.87		0.0107	MDL	0.205	PQL	mg/Kg	J	Q, A
SILVER	0.0272	J	0.0123	MDL	0.103	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
ARSENIC	3.81		0.0822	MDL	0.411	PQL	mg/Kg	J	Q
CHROMIUM	18.7		0.123	MDL	0.411	PQL	mg/Kg	J	Q, A
NICKEL	12.6		0.103	MDL	0.411	PQL	mg/Kg	J	Q
VANADIUM	38.3		0.0226	MDL	0.103	PQL	mg/Kg	J	A

Sample ID: SL-172-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.256	J	0.0411	MDL	0.411	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	107		0.111	MDL	0.411	PQL	mg/Kg	J	A

Sample ID: SL-173-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:20:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0902	J	0.0607	MDL	0.202	PQL	mg/Kg	J	Z, 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: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-173-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:20:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	14.4		0.0105	MDL	0.202	PQL	mg/Kg	J	Q, A
SILVER	0.0392	J	0.0121	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-173-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
ARSENIC	5.09		0.0809	MDL	0.404	PQL	mg/Kg	J	Q
CHROMIUM	16.1		0.121	MDL	0.404	PQL	mg/Kg	J	Q, A
NICKEL	12.8		0.101	MDL	0.404	PQL	mg/Kg	J	Q
VANADIUM	29.3		0.0222	MDL	0.101	PQL	mg/Kg	J	A

Sample ID: SL-173-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
SELENIUM	0.228	J	0.0404	MDL	0.404	PQL	mg/Kg	J	Z

Sample ID: SL-173-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:20:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	82.3		0.109	MDL	0.404	PQL	mg/Kg	J	A

Sample ID: SL-174-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:53:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.111	J	0.0618	MDL	0.206	PQL	mg/Kg	J	Z, Q
LEAD	11.9		0.0107	MDL	0.206	PQL	mg/Kg	J	Q, A
SILVER	0.0761	J	0.0124	MDL	0.103	PQL	mg/Kg	J	Z

Sample ID: SL-174-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:53:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.11		0.0824	MDL	0.412	PQL	mg/Kg	J	Q
CHROMIUM	21.8		0.124	MDL	0.412	PQL	mg/Kg	J	Q, A
NICKEL	26.3		0.103	MDL	0.412	PQL	mg/Kg	J	Q
VANADIUM	43.8		0.0227	MDL	0.103	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-174-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:53:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.180	J	0.0412	MDL	0.412	PQL	mg/Kg	J	Z

Sample ID: SL-174-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:53:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	162		0.111	MDL	0.412	PQL	mg/Kg	J	A

Sample ID: SL-175-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 11:15:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0802	J	0.0619	MDL	0.206	PQL	mg/Kg	J	Z, Q
LEAD	6.55		0.0107	MDL	0.206	PQL	mg/Kg	J	Q, A
SILVER	0.0421	J	0.0124	MDL	0.103	PQL	mg/Kg	J	Z

Sample ID: SL-175-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 11:15:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.89		0.0825	MDL	0.413	PQL	mg/Kg	J	Q
CHROMIUM	16.6		0.124	MDL	0.413	PQL	mg/Kg	J	Q, A
NICKEL	11.7		0.103	MDL	0.413	PQL	mg/Kg	J	Q
VANADIUM	33.9		0.0227	MDL	0.103	PQL	mg/Kg	J	A

Sample ID: SL-175-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 11:15:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.129	J	0.0413	MDL	0.413	PQL	mg/Kg	J	Z

Sample ID: SL-175-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 11:15:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	101		0.111	MDL	0.413	PQL	mg/Kg	J	A

Sample ID: SL-176-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 11:35:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0871	J	0.0601	MDL	0.200	PQL	mg/Kg	J	Z, 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: DE166 **Laboratory: LL**

EDD Filename: PrepDE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-176-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 11:35:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	7.30		0.0104	MDL	0.200	PQL	mg/Kg	J	Q, A

Sample ID: SL-176-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 11:35:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	7.23		0.0801	MDL	0.401	PQL	mg/Kg	J	Q
CHROMIUM	15.0		0.120	MDL	0.401	PQL	mg/Kg	J	Q, A
NICKEL	11.2		0.100	MDL	0.401	PQL	mg/Kg	J	Q
VANADIUM	27.5		0.0220	MDL	0.100	PQL	mg/Kg	J	A

Sample ID: SL-176-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 11:35:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.178	J	0.0401	MDL	0.401	PQL	mg/Kg	J	Z

Sample ID: SL-176-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 11:35:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	80.0		0.108	MDL	0.401	PQL	mg/Kg	J	A

Sample ID: SL-179-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
ANTIMONY	0.102	J	0.0623	MDL	0.208	PQL	mg/Kg	J	Z, Q
LEAD	5.56		0.0108	MDL	0.208	PQL	mg/Kg	J	Q, A
SILVER	0.0498	J	0.0125	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-179-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 8:50:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	8.07		0.0830	MDL	0.415	PQL	mg/Kg	J	Q
CHROMIUM	14.4		0.125	MDL	0.415	PQL	mg/Kg	J	Q, A
NICKEL	9.48		0.104	MDL	0.415	PQL	mg/Kg	J	Q
VANADIUM	25.6		0.0228	MDL	0.104	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE166 Laboratory: LL

EDD Filename: PrepDE166_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-179-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 8:50:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.120	J	0.0415	MDL	0.415	PQL	mg/Kg	J	Z

Sample ID: SL-179-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 8:50:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	72.6		0.112	MDL	0.415	PQL	mg/Kg	J	A

Sample ID: SL-180-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 1:45:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0627	U	0.0627	MDL	0.209	PQL	mg/Kg	UJ	Q
LEAD	4.48		0.0109	MDL	0.209	PQL	mg/Kg	J	Q, A
SILVER	0.0495	J	0.0125	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-180-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 1:45:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.30		0.0836	MDL	0.418	PQL	mg/Kg	J	Q
CHROMIUM	13.0		0.125	MDL	0.418	PQL	mg/Kg	J	Q, A
NICKEL	9.17		0.104	MDL	0.418	PQL	mg/Kg	J	Q
VANADIUM	27.9		0.0230	MDL	0.104	PQL	mg/Kg	J	A

Sample ID: SL-180-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 1:45:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0911	J	0.0418	MDL	0.418	PQL	mg/Kg	J	Z

Sample ID: SL-180-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 1:45:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	74.2		0.113	MDL	0.418	PQL	mg/Kg	J	A

Sample ID: SL-181-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 2:00:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0858	J	0.0621	MDL	0.207	PQL	mg/Kg	J	Z, 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: DE166 Laboratory: LL

EDD Filename: PrepDE166_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-181-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 2:00:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	8.04		0.0108	MDL	0.207	PQL	mg/Kg	J	Q, A
SILVER	0.0466	J	0.0124	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-181-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 2:00:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.45		0.0828	MDL	0.414	PQL	mg/Kg	J	Q
CHROMIUM	14.3		0.124	MDL	0.414	PQL	mg/Kg	J	Q, A
NICKEL	10.1		0.104	MDL	0.414	PQL	mg/Kg	J	Q
VANADIUM	31.2		0.0228	MDL	0.104	PQL	mg/Kg	J	A

Sample ID: SL-181-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 2:00:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.126	J	0.0414	MDL	0.414	PQL	mg/Kg	J	Z

Sample ID: SL-181-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 2:00:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	113		0.112	MDL	0.414	PQL	mg/Kg	J	A

Sample ID: SL-182-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
ANTIMONY	0.136	J	0.0624	MDL	0.208	PQL	mg/Kg	J	Z, Q
LEAD	9.67		0.0108	MDL	0.208	PQL	mg/Kg	J	Q, A
SILVER	0.0367	J	0.0125	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-182-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
ARSENIC	4.52		0.0833	MDL	0.416	PQL	mg/Kg	J	Q
CHROMIUM	38.1		0.125	MDL	0.416	PQL	mg/Kg	J	Q, A
NICKEL	27.7		0.104	MDL	0.416	PQL	mg/Kg	J	Q
VANADIUM	41.5		0.0229	MDL	0.104	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: PrepDE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-182-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.112	J	0.0416	MDL	0.416	PQL	mg/Kg	J	Z

Sample ID: SL-182-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	109		0.112	MDL	0.416	PQL	mg/Kg	J	A

Sample ID: SL-183-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 2:45:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0609	U	0.0609	MDL	0.203	PQL	mg/Kg	UJ	Q
LEAD	4.85		0.0106	MDL	0.203	PQL	mg/Kg	J	Q, A

Sample ID: SL-183-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 2:45:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	5.67		0.0812	MDL	0.406	PQL	mg/Kg	J	Q
CHROMIUM	13.0		0.122	MDL	0.406	PQL	mg/Kg	J	Q, A
NICKEL	8.89		0.102	MDL	0.406	PQL	mg/Kg	J	Q
VANADIUM	24.3		0.0223	MDL	0.102	PQL	mg/Kg	J	A

Sample ID: SL-183-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 2:45:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.142	J	0.0406	MDL	0.406	PQL	mg/Kg	J	Z

Sample ID: SL-183-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 2:45:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	71.2		0.110	MDL	0.406	PQL	mg/Kg	J	A

Sample ID: SL-184-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:05:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.133	J	0.0624	MDL	0.208	PQL	mg/Kg	J	Z, Q
LEAD	9.63		0.0108	MDL	0.208	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: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-184-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:05:00 *Analysis Type:* REA5 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0547	J	0.0125	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-184-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:05:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	4.27		0.0833	MDL	0.416	PQL	mg/Kg	J	Q
CHROMIUM	19.1		0.125	MDL	0.416	PQL	mg/Kg	J	Q, A
NICKEL	13.9		0.104	MDL	0.416	PQL	mg/Kg	J	Q
VANADIUM	44.1		0.0229	MDL	0.104	PQL	mg/Kg	J	A

Sample ID: SL-184-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:05:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.252	J	0.0416	MDL	0.416	PQL	mg/Kg	J	Z

Sample ID: SL-184-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:05:00 *Analysis Type:* REA9 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	122		0.112	MDL	0.416	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: DUP09-SA8N-QC-052611 *Collected:* 5/26/2011 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	0.38	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-002-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 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
HEXAVALENT CHROMIUM	0.49	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-008-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 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	0.55	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-165-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.85	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-171-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.52	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-173-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.83	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-174-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:53:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.34	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-175-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
HEXAVALENT CHROMIUM	0.50	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-176-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
HEXAVALENT CHROMIUM	0.31	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-179-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.43	J	0.21	MDL	1.0	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: DE166 **Laboratory: LL**

EDD Filename: PrepDE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: SL-180-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.39	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-181-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
HEXAVALENT CHROMIUM	0.29	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-182-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.48	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-184-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.30	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7470A **Matrix: AQ**

Sample ID: EB09-SA5DN-SS-052611 *Collected:* 5/26/2011 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.000046	U	0.000046	MDL	0.00020	PQL	mg/L	UJ	L

Sample ID: EB11-SA8N-SB-052611 *Collected:* 5/26/2011 1:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.000046	U	0.000046	MDL	0.00020	PQL	mg/L	UJ	L

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: PrepDE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-008-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 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
MERCURY	0.0059	J	0.0032	MDL	0.113	PQL	mg/Kg	J	Z

Sample ID: SL-164-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0128	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-165-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
MERCURY	0.0070	J	0.0029	MDL	0.103	PQL	mg/Kg	J	Z

Sample ID: SL-170-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.0068	J	0.0028	MDL	0.0972	PQL	mg/Kg	J	Z

Sample ID: SL-171-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.0150	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.0172	J	0.0030	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-173-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.0207	J	0.0029	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-174-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:53:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0143	J	0.0029	MDL	0.0999	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: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: SL-175-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
MERCURY	0.0151	J	0.0029	MDL	0.103	PQL	mg/Kg	J	Z

Sample ID: SL-176-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.0050	J	0.0028	MDL	0.0968	PQL	mg/Kg	J	Z

Sample ID: SL-179-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.0083	J	0.0030	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-184-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0344	J	0.0029	MDL	0.0997	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1625C **Matrix:** AQ

Sample ID: EB09-SA5DN-SS-052611 *Collected:* 5/26/2011 12:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	1.68		0.495	MDL	0.990	PQL	ng/L	U	B

Method Category: SVOA

Method: 8015M **Matrix:** AQ

Sample ID: EB09-SA5DN-SS-052611 *Collected:* 5/26/2011 12:45:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C12-C14)	0.22	U	0.22	MDL	1.3	PQL	mg/L	UJ	H
EFH (C15-C20)	0.22	U	0.22	MDL	1.3	PQL	mg/L	UJ	H
EFH (C21-C30)	0.22	U	0.22	MDL	1.3	PQL	mg/L	UJ	H
EFH (C30-C40)	0.22	U	0.22	MDL	1.3	PQL	mg/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: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA **Method:** 8015M **Matrix:** AQ

Sample ID: EB09-SA5DN-SS-052611 *Collected:* 5/26/2011 12:45:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	0.40	J	0.22	MDL	1.3	PQL	mg/L	UJ	B, H

Method Category: SVOA **Method:** 8015M **Matrix:** SO

Sample ID: SL-002-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 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
DIETHYLENE GLYCOL	6.0	U	6.0	MDL	12	PQL	mg/Kg	UJ	Q

Sample ID: SL-175-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 11:15:00 *Analysis Type:* REA3 *Dilution:* 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	6.0	J	4.3	MDL	13	PQL	mg/Kg	J	Z

Sample ID: SL-179-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 8:50:00 *Analysis Type:* REA3 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	3.5		0.42	MDL	1.3	PQL	mg/Kg	J	L
EFH (C30-C40)	36		0.42	MDL	1.3	PQL	mg/Kg	J	L

Method Category: SVOA **Method:** 8081A **Matrix:** AQ

Sample ID: EB09-SA5DN-SS-052611 *Collected:* 5/26/2011 12:45:00 *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	0.0088	J	0.0026	MDL	0.010	PQL	ug/L	J	Z, L

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-164-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:55:00 *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	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
4,4'-DDE	0.56	U	0.56	MDL	0.56	PQL	ug/Kg	UJ	S
4,4'-DDT	0.82	U	0.82	MDL	0.82	PQL	ug/Kg	UJ	S
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	0.12	J	0.066	MDL	0.18	PQL	ug/Kg	J	Z, Q, Q, S
Chlordane	2.5	J	0.88	MDL	3.7	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.040	U	0.040	MDL	0.18	PQL	ug/Kg	UJ	S
DIELDRIN	0.073	U	0.073	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	0.10	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z, 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	0.16	U	0.16	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
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	0.089	U	0.089	MDL	0.37	PQL	ug/Kg	UJ	S
TOXAPHENE	2.4	U	2.4	MDL	7.3	PQL	ug/Kg	UJ	S

Sample ID: SL-165-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
4,4'-DDT	1.5		0.071	MDL	0.37	PQL	ug/Kg	J	L
Chlordane	2.1	J	0.86	MDL	3.7	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.053	J	0.037	MDL	0.18	PQL	ug/Kg	J	Z

Sample ID: SL-171-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
BETA-BHC	0.27		0.064	MDL	0.18	PQL	ug/Kg	J	S
Chlordane	1.2	J	0.85	MDL	3.6	PQL	ug/Kg	J	Z, S
gamma-BHC (Lindane)	0.041	J	0.036	MDL	0.18	PQL	ug/Kg	J	Z, 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: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-172-SA5DN-SS-0.0-0.5 ***Collected:*** 5/26/2011 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'-DDD	0.071	U	0.071	MDL	0.37	PQL	ug/Kg	UJ	S
4,4'-DDE	0.18	U	0.18	MDL	0.37	PQL	ug/Kg	UJ	S
4,4'-DDT	0.50	U	0.50	MDL	0.50	PQL	ug/Kg	UJ	S
ALDRIN	0.071	U	0.071	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	0.065	U	0.065	MDL	0.18	PQL	ug/Kg	UJ	S
Chlordane	5.1		0.86	MDL	3.7	PQL	ug/Kg	J	S, S
DELTA-BHC	0.039	U	0.039	MDL	0.18	PQL	ug/Kg	UJ	S
DIELDRIN	0.30	U	0.30	MDL	0.37	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.12	U	0.12	MDL	0.18	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.071	U	0.071	MDL	0.37	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.071	U	0.071	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN	0.071	U	0.071	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.071	U	0.071	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.27	U	0.27	MDL	0.37	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.065	U	0.065	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	0.071	U	0.071	MDL	0.37	PQL	ug/Kg	UJ	S
TOXAPHENE	2.4	U	2.4	MDL	7.1	PQL	ug/Kg	UJ	S

Sample ID: SL-173-SA5DN-SS-0.0-0.5 ***Collected:*** 5/26/2011 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
4,4'-DDT	1.9		0.069	MDL	0.36	PQL	ug/Kg	J	L, S
Chlordane	2.3	J	0.84	MDL	3.6	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.067	J	0.038	MDL	0.17	PQL	ug/Kg	J	Z, S

Sample ID: SL-176-SA5DN-SS-0.0-0.5 ***Collected:*** 5/26/2011 11:35:00 ***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	1.7		0.069	MDL	0.35	PQL	ug/Kg	J	L

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: PrepDE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: SL-179-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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'-DDT	0.88		0.069	MDL	0.36	PQL	ug/Kg	J	L

Sample ID: SL-180-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
ALDRIN	0.11	J	0.069	MDL	0.17	PQL	ug/Kg	J	Z, S

Sample ID: SL-181-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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'-DDT	2.4		0.070	MDL	0.36	PQL	ug/Kg	J	L, S

Sample ID: SL-183-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
MIREX	2.2		0.068	MDL	0.35	PQL	ug/Kg	J	S

Sample ID: SL-184-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:05:00 *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	0.23	J	0.070	MDL	0.36	PQL	ug/Kg	J	Z
4,4'-DDT	0.41		0.070	MDL	0.36	PQL	ug/Kg	J	L
Chlordane	1.6	J	0.85	MDL	3.6	PQL	ug/Kg	J	Z
ENDRIN KETONE	0.11	J	0.070	MDL	0.36	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.051	J	0.036	MDL	0.18	PQL	ug/Kg	J	Z
MIREX	0.25	J	0.070	MDL	0.36	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-164-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:55:00 *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	1.4	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-165-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
AROCLOR 1260	0.45	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-170-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
AROCLOR 1260	1.7	J	0.40	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-172-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	1.1	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	2.8	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

Sample ID: SL-173-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
AROCLOR 1016	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1221	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1232	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1242	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1248	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1254	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1260	2.0		0.41	MDL	1.8	PQL	ug/Kg	J	S
Aroclor 1262	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	S
Aroclor 1268	0.35	U	0.35	MDL	1.8	PQL	ug/Kg	UJ	S
Aroclor 5432	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	S
Aroclor 5442	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	S
Aroclor 5460	2.0	J	1.1	MDL	3.5	PQL	ug/Kg	J	Z, S

Sample ID: SL-174-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:53:00 *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 1260	1.1	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-175-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
AROCLOR 1260	1.2	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	1.9	J	1.1	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-179-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
AROCLOR 1260	1.2	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-180-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
AROCLOR 1254	0.86	J	0.34	MDL	1.8	PQL	ug/Kg	J	Z
AROCLOR 1260	0.52	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	1.5	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-182-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	0.74	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
AROCLOR 1260	0.83	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	2.7	J	1.1	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-184-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	3.2	J	1.1	MDL	3.5	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8151A **Matrix:** SO

Sample ID: SL-164-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	230	J	83	MDL	270	PQL	ug/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: DE166 Laboratory: LL

EDD Filename: PrepDE166_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8151A **Matrix:** SO

Sample ID: SL-170-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
MCPA	160	J	78	MDL	260	PQL	ug/Kg	J	Z

Sample ID: SL-172-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
MCPA	220	J	82	MDL	270	PQL	ug/Kg	J	Z

Sample ID: SL-180-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
MCPA	210	J	79	MDL	260	PQL	ug/Kg	J	Z

Sample ID: SL-181-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
2,4-DB	1.2	J	0.65	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-182-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
MCPP	160	J	79	MDL	260	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C **Matrix:** AQ

Sample ID: EB09-SA5DN-SS-052611 *Collected:* 5/26/2011 12:45:00 *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	6	U	6	MDL	15	PQL	ug/L	UJ	E

Sample ID: EB11-SA8N-SB-052611 *Collected:* 5/26/2011 1:00:00 *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	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: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-164-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:55:00 *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	24	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-170-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	18	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-171-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
BENZO(A)ANTHRACENE	35	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	31	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	39	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	23	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	24	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	31	J	18	MDL	350	PQL	ug/Kg	J	Z
CHRYSENE	40	J	18	MDL	180	PQL	ug/Kg	J	Z
FLUORANTHENE	43	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	44	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-172-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	28	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-173-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
BENZO(A)ANTHRACENE	31	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	23	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	34	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	21	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	26	J	18	MDL	350	PQL	ug/Kg	J	Z
CHRYSENE	35	J	18	MDL	180	PQL	ug/Kg	J	Z
FLUORANTHENE	69	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: DE166 Laboratory: LL

EDD Filename: PrepDE166_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-173-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
PHENANTHRENE	45	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	55	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-174-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 10:53:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	20	J	17	MDL	350	PQL	ug/Kg	J	Z

Sample ID: SL-175-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	34	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-176-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 11:35:00 *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	22	J	17	MDL	350	PQL	ug/Kg	J	Z

Sample ID: SL-179-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
ANTHRACENE	62	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	160	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	100	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	100	J	17	MDL	170	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	29	J	17	MDL	350	PQL	ug/Kg	J	Z
CARBAZOLE	27	J	17	MDL	170	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	32	J	17	MDL	170	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	94	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-180-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
1-METHYLNAPHTHALENE	26	J	17	MDL	170	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	31	J	17	MDL	170	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: DE166 **Laboratory: LL**

EDD Filename: PrepDE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-180-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	28	J	17	MDL	350	PQL	ug/Kg	J	Z
DIBENZOFURAN	150	J	17	MDL	170	PQL	ug/Kg	J	Z
NAPHTHALENE	37	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-181-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	22	J	18	MDL	350	PQL	ug/Kg	J	Z

Sample ID: SL-182-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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	25	J	18	MDL	350	PQL	ug/Kg	J	Z

Sample ID: SL-183-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	38	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-184-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:05:00 *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	18	MDL	350	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8270C SIM **Matrix: AQ**

Sample ID: EB09-SA5DN-SS-052611 *Collected:* 5/26/2011 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.032	J	0.0098	MDL	0.049	PQL	ug/L	J	Z
2-METHYLNAPHTHALENE	0.032	J	0.0098	MDL	0.049	PQL	ug/L	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	0.059	J	0.049	MDL	0.98	PQL	ug/L	U	B
Di-n-butylphthalate	0.065	J	0.049	MDL	0.98	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: DE166 Laboratory: LL

EDD Filename: PrepDE166_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C SIM **Matrix:** AQ

Sample ID: EB11-SA8N-SB-052611 *Collected:* 5/26/2011 1:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.033	J	0.0097	MDL	0.048	PQL	ug/L	J	Z
2-METHYLNAPHTHALENE	0.034	J	0.0097	MDL	0.048	PQL	ug/L	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	0.058	J	0.048	MDL	0.97	PQL	ug/L	U	B
Di-n-butylphthalate	0.065	J	0.048	MDL	0.97	PQL	ug/L	J	Z

Method Category: SVOA

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

Sample ID: DUP09-SA8N-QC-052611 *Collected:* 5/26/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	12	J	7.1	MDL	21	PQL	ug/Kg	J	Z, FD

Sample ID: SL-002-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 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	7.2	U	7.2	MDL	22	PQL	ug/Kg	UJ	FD

Sample ID: SL-008-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	9.8	J	7.1	MDL	21	PQL	ug/Kg	J	Z
CHRYSENE	0.47	J	0.40	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-008-SA8N-SB-9.0-10.0 *Collected:* 5/26/2011 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
BENZO(B)FLUORANTHENE	1.1	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
BIS(2-ETHYLHEXYL)PHTHALATE	11	J	6.9	MDL	21	PQL	ug/Kg	J	Z

Sample ID: SL-164-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:55:00 *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	0.77	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: DE166 **Laboratory: LL**

EDD Filename: PrepDE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: **SL-164-SA5DN-SS-0.0-0.5** *Collected:* **5/26/2011 3:55:00** *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)PYRENE	0.83	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.6	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.1	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.9	J	6.6	MDL	20	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	1.2	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-165-SA5DN-SS-0.0-0.5** *Collected:* **5/26/2011 3:30:00** *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	2.5	J	1.8	MDL	9.0	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	64	J	32	MDL	97	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	5.8	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z

Sample ID: **SL-172-SA5DN-SS-0.0-0.5** *Collected:* **5/26/2011 9:25:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **5**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	3.7	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	4.9	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
CHRYSENE	4.7	J	1.8	MDL	9.0	PQL	ug/Kg	J	Z
FLUORANTHENE	4.9	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
PYRENE	7.1	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z

Sample ID: **SL-173-SA5DN-SS-0.0-0.5** *Collected:* **5/26/2011 10:20:00** *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	2.9	J	1.8	MDL	8.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	7.4	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	4.3	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	7.9	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z

Sample ID: **SL-174-SA5DN-SS-0.0-0.5** *Collected:* **5/26/2011 10:53:00** *Analysis Type:* **RES-BASE/NEUTRAL** *Dilution:* **5**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	1.8	J	1.7	MDL	8.7	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: DE166 **Laboratory: LL**

EDD Filename: PrepDE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **SVOA**

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

Sample ID: **SL-175-SA5DN-SS-0.0-0.5** ***Collected:*** **5/26/2011 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
BENZO(A)ANTHRACENE	0.79	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.83	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.88	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.79	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	1.4	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	1.2	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-176-SA5DN-SS-0.0-0.5** ***Collected:*** **5/26/2011 11:35:00** ***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	0.97	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.87	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.5	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.4	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.5	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-182-SA5DN-SS-0.0-0.5** ***Collected:*** **5/26/2011 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	1.2	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.80	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.9	J	6.4	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	0.80	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	0.89	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	0.96	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: **SL-183-SA5DN-SS-0.0-0.5** ***Collected:*** **5/26/2011 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
BENZO(A)PYRENE	0.87	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.5	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.81	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.0	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.82	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	0.92	J	0.68	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: DE166 Laboratory: LL

EDD Filename: PrepDE166_v1 eQAPP Name: CDM_SSFL_110509

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

Sample ID: SL-184-SA5DN-SS-0.0-0.5 *Collected:* 5/26/2011 3:05:00 *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(B)FLUORANTHENE	4.4	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z
CHRYSENE	3.3	J	1.8	MDL	8.8	PQL	ug/Kg	J	Z
FLUORANTHENE	3.8	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z
PYRENE	4.4	J	3.5	MDL	8.8	PQL	ug/Kg	J	Z

Method Category: SVOA
Method: 8330A **Matrix:** AQ

Sample ID: EB09-SA5DN-SS-052611 *Collected:* 5/26/2011 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
RDX	0.58	J	0.20	MDL	0.60	PQL	ug/L	J	Z

Method Category: VOA
Method: 8260B **Matrix:** AQ

Sample ID: EB11-SA8N-SB-052611 *Collected:* 5/26/2011 1:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZENE	1	J	0.5	MDL	5	PQL	ug/L	J	Z
TOLUENE	0.7	J	0.7	MDL	5	PQL	ug/L	J	Z

Method Category: VOA
Method: 8260B **Matrix:** SO

Sample ID: DUP09-SA8N-QC-052611 *Collected:* 5/26/2011 2:45:00 *Analysis Type:* RES *Dilution:* 0.96

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.8		7.6	MDL	9.0	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.6	J	0.27	MDL	4.5	PQL	ug/Kg	U	B
TOLUENE	0.09	U	0.09	MDL	4.5	PQL	ug/Kg	UJ	FD

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE166 **Laboratory:** LL

EDD Filename: PrepDE166_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-002-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 2:20:00 *Analysis Type:* RES *Dilution:* 1.04

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.7	J	8.3	MDL	9.9	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.9	J	0.30	MDL	5.0	PQL	ug/Kg	U	B
TOLUENE	0.11	J	0.1	MDL	5.0	PQL	ug/Kg	J	Z, FD

Sample ID: SL-008-SA8N-SB-4.0-5.0 *Collected:* 5/26/2011 9:15:00 *Analysis Type:* RES *Dilution:* 0.96

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.9		7.7	MDL	9.2	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.6	J	0.27	MDL	4.6	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: PrepDE166_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	Laboratory Triplicate Precision
E	Matrix Spike Precision

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: PrepDE166_v1 **eQAPP Name: CDM_SSFL_110509**

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	Laboratory Duplicate Precision
Q	Laboratory Triplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: PrepDE166_v1 **eQAPP Name: CDM_SSFL_110509**

Q	Matrix Spike Upper Rejection
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

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE166

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE166 **Laboratory: LL**
EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M **Preparation Method: 3510C**
Matrix: AQ

Sample ID	*Type*	*Actual*	*Criteria*	*Units*	*Flag*
EB09-SA5DN-SS-052611 (REA3)	Sampling To Analysis	9.00	7.00	DAYS	J (all detects) UJ (all non-detects)

Method: 9040B **Preparation Method: 3510C**
Matrix: AQ

Sample ID	*Type*	*Actual*	*Criteria*	*Units*	*Flag*
EB09-SA5DN-SS-052611 (RES)	Sampling To Analysis	150.00	48.00	HOURS	No Qualifiers Applied
EB11-SA8N-SB-052611 (RES)		150.00	48.00	HOURS	

Method Blank Outlier Report

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1625C**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWI15B261718	6/21/2011 5:18:00 PM	N-NITROSODIMETHYLAMINE	12.1 ng/L	EB09-SA5DN-SS-052611

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-SA5DN-SS-052611(RES)	N-NITROSODIMETHYLAMINE	1.68 ng/L	1.68U ng/L

Method: **6010B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P14748CB222255	5/31/2011 10:55:00 PM	MAGNESIUM	0.0211 mg/L	EB09-SA5DN-SS-052611 EB11-SA8N-SB-052611

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15208EB220140	6/3/2011 1:40:00 AM	ALUMINUM CALCIUM PHOSPHORUS STRONTIUM TIN	7.72 mg/Kg 21.3 mg/Kg 1.14 mg/Kg 0.118 mg/Kg 1.21 mg/Kg	DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-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
DUP09-SA8N-QC-052611(REA)	TIN	2.64 mg/Kg	2.64U mg/Kg
SL-002-SA8N-SB-4.0-5.0(REA)	TIN	2.72 mg/Kg	2.72U mg/Kg
SL-002-SA8N-SB-9.0-10.0(REA)	TIN	2.44 mg/Kg	2.44U mg/Kg
SL-008-SA8N-SB-4.0-5.0(REA)	TIN	2.53 mg/Kg	2.53U mg/Kg
SL-008-SA8N-SB-9.0-10.0(REA)	TIN	2.65 mg/Kg	2.65U mg/Kg

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_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-164-SA5DN-SS-0.0-0.5(REA)	TIN	2.45 mg/Kg	2.45U mg/Kg
SL-165-SA5DN-SS-0.0-0.5(REA)	TIN	2.37 mg/Kg	2.37U mg/Kg
SL-170-SA5DN-SS-0.0-0.5(REA)	TIN	2.23 mg/Kg	2.23U mg/Kg
SL-171-SA5DN-SS-0.0-0.5(REA)	TIN	2.24 mg/Kg	2.24U mg/Kg
SL-172-SA5DN-SS-0.0-0.5(REA)	TIN	2.17 mg/Kg	2.17U mg/Kg
SL-173-SA5DN-SS-0.0-0.5(REA)	TIN	2.37 mg/Kg	2.37U mg/Kg
SL-174-SA5DN-SS-0.0-0.5(REA)	TIN	2.34 mg/Kg	2.34U mg/Kg
SL-175-SA5DN-SS-0.0-0.5(REA)	TIN	2.16 mg/Kg	2.16U mg/Kg
SL-176-SA5DN-SS-0.0-0.5(REA)	TIN	4.84 mg/Kg	4.84U mg/Kg
SL-179-SA5DN-SS-0.0-0.5(REA)	TIN	2.39 mg/Kg	2.39U mg/Kg
SL-180-SA5DN-SS-0.0-0.5(REA)	TIN	2.40 mg/Kg	2.40U mg/Kg
SL-181-SA5DN-SS-0.0-0.5(REA)	TIN	2.27 mg/Kg	2.27U mg/Kg
SL-182-SA5DN-SS-0.0-0.5(REA)	TIN	2.15 mg/Kg	2.15U mg/Kg
SL-183-SA5DN-SS-0.0-0.5(REA)	TIN	2.44 mg/Kg	2.44U mg/Kg
SL-184-SA5DN-SS-0.0-0.5(REA)	TIN	2.19 mg/Kg	2.19U mg/Kg

Method: **6020**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P14750CB220953A	6/1/2011 9:53:00 AM	LEAD	0.000055 mg/L	EB09-SA5DN-SS-052611 EB11-SA8N-SB-052611

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-SA5DN-SS-052611(RES)	LEAD	0.000071 mg/L	0.000071U mg/L
EB11-SA8N-SB-052611(RES)	LEAD	0.000062 mg/L	0.000062U mg/L

Method Blank Outlier Report

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15826FB222052A	6/10/2011 8:52:00 PM	COPPER	0.160 mg/Kg	DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5
P15826FB222348A	6/9/2011 11:48:00 PM	LEAD	0.0416 mg/Kg	DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5

Method: **8015M**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P52524AB321224A	6/4/2011 12:24:00 PM	EFH (C8-C11)	0.17 mg/L	EB09-SA5DN-SS-052611

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-SA5DN-SS-052611(REA3)	EFH (C8-C11)	0.40 mg/L	1.3U mg/L

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Method Blank Outlier Report

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8015M**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P48483AB321813A	6/4/2011 6:13:00 PM	EFH (C30-C40)	1.4 mg/Kg	SL-171-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB72B211210A	6/1/2011 12:10:00 PM	ACETONE METHYLENE CHLORIDE	8.6 ug/Kg 1.4 ug/Kg	DUP09-SA8N-QC-052611 SL-008-SA8N-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
DUP09-SA8N-QC-052611(RES)	ACETONE	9.8 ug/Kg	9.8U ug/Kg
DUP09-SA8N-QC-052611(RES)	METHYLENE CHLORIDE	1.6 ug/Kg	4.5U ug/Kg
SL-002-SA8N-SB-4.0-5.0(RES)	ACETONE	9.7 ug/Kg	9.9U ug/Kg
SL-002-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.9 ug/Kg	5.0U ug/Kg
SL-008-SA8N-SB-4.0-5.0(RES)	ACETONE	9.9 ug/Kg	9.9U ug/Kg
SL-008-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.6 ug/Kg	4.6U ug/Kg

Method: **8270C SIM**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWH15B261040	6/4/2011 10:40:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE Di-n-octylphthalate	0.13 ug/L 0.053 ug/L	EB09-SA5DN-SS-052611 EB11-SA8N-SB-052611

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-SA5DN-SS-052611(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.059 ug/L	0.98U ug/L
EB11-SA8N-SB-052611(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.058 ug/L	0.97U ug/L

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_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-002-SA8N-SB-4.0-5.0MS SL-002-SA8N-SB-4.0-5.0MSD (SL-002-SA8N-SB-4.0-5.0)*	DIETHYLENE GLYCOL	51	54	59.00-109.00	-	DIETHYLENE GLYCOL	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-164-SA5DN-SS-0.0-0.5MS SL-164-SA5DN-SS-0.0-0.5MSD (SL-164-SA5DN-SS-0.0-0.5)	4,4'-DDE	171	-	18.00-161.00	-	4,4'-DDE	J(all detects)
	4,4'-DDT	230	227	10.00-176.00	-	4,4'-DDT	
	BETA-BHC	203	-	14.00-147.00	84 (50.00)	BETA-BHC	
	DIELDRIN	-	-	19.00-154.00	51 (50.00)	DIELDRIN	
	ENDRIN ALDEHYDE	-	-	10.00-148.00	46 (35.00)	ENDRIN ALDEHYDE	
	METHOXYCHLOR	149	-	32.00-147.00	-	METHOXYCHLOR	

Method: 8151A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-164-SA5DN-SS-0.0-0.5MSD (SL-164-SA5DN-SS-0.0-0.5)	2,4-D	-	-	17.00-180.00	78 (35.00)	2,4-D	J(all detects)
	DALAPON	-	-	10.00-125.00	62 (50.00)	DALAPON	
SL-164-SA5DN-SS-0.0-0.5MS SL-164-SA5DN-SS-0.0-0.5MSD (SL-164-SA5DN-SS-0.0-0.5)	MCPA	0	-	10.00-213.00	200 (50.00)	MCPA	J(all detects) R(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_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-002-SA8N-SB-4.0-5.0MS SL-002-SA8N-SB-4.0-5.0MSD (DUP09-SA8N-QC-052611 SL -002-SA8N-SB-4.0-5.0 SL -002-SA8N-SB-9.0-10.0 SL -008-SA8N-SB-4.0-5.0 SL -008-SA8N-SB-9.0-10.0 SL -164-SA5DN-SS-0.0-0.5 SL -165-SA5DN-SS-0.0-0.5 SL -170-SA5DN-SS-0.0-0.5 SL -171-SA5DN-SS-0.0-0.5 SL -172-SA5DN-SS-0.0-0.5 SL -173-SA5DN-SS-0.0-0.5 SL -174-SA5DN-SS-0.0-0.5 SL -175-SA5DN-SS-0.0-0.5 SL -176-SA5DN-SS-0.0-0.5 SL -179-SA5DN-SS-0.0-0.5 SL -180-SA5DN-SS-0.0-0.5 SL -181-SA5DN-SS-0.0-0.5 SL -182-SA5DN-SS-0.0-0.5 SL -183-SA5DN-SS-0.0-0.5 SL -184-SA5DN-SS-0.0-0.5)	ALUMINUM CALCIUM IRON MAGNESIUM POTASSIUM	4020 293 1258 579 135	3884 248 970 495 128	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	ALUMINUM CALCIUM IRON MAGNESIUM POTASSIUM	J(all detects) Al, Ca, Fe, Mg No Qual, >4x
SL-002-SA8N-SB-4.0-5.0MS SL-002-SA8N-SB-4.0-5.0MSD (DUP09-SA8N-QC-052611 SL -002-SA8N-SB-4.0-5.0 SL -002-SA8N-SB-9.0-10.0 SL -008-SA8N-SB-4.0-5.0 SL -008-SA8N-SB-9.0-10.0 SL -164-SA5DN-SS-0.0-0.5 SL -165-SA5DN-SS-0.0-0.5 SL -170-SA5DN-SS-0.0-0.5 SL -171-SA5DN-SS-0.0-0.5 SL -172-SA5DN-SS-0.0-0.5 SL -173-SA5DN-SS-0.0-0.5 SL -174-SA5DN-SS-0.0-0.5 SL -175-SA5DN-SS-0.0-0.5 SL -176-SA5DN-SS-0.0-0.5 SL -179-SA5DN-SS-0.0-0.5 SL -180-SA5DN-SS-0.0-0.5 SL -181-SA5DN-SS-0.0-0.5 SL -182-SA5DN-SS-0.0-0.5 SL -183-SA5DN-SS-0.0-0.5 SL -184-SA5DN-SS-0.0-0.5)	MANGANESE	37	19	75.00-125.00	-	MANGANESE	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-002-SA8N-SB-4.0-5.0MSD (SL-002-SA8N-SB-4.0-5.0)	2,4-DINITROPHENOL	-	-	20.00-143.00	65 (30.00)	2,4-DINITROPHENOL	J(all detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_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-002-SA8N-SB-4.0-5.0MS (DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5)	FLUORIDE	67	-	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-002-SA8N-SB-4.0-5.0MS SL-002-SA8N-SB-4.0-5.0MSD (DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5)	TITANIUM	254	263	75.00-125.00	-	TITANIUM	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_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-002-SA8N-SB-4.0-5.0MS **SL-002-SA8N-SB-4.0-5.0MSD** (DUP09-SA8N-QC-052611 SL -002-SA8N-SB-4.0-5.0 SL -002-SA8N-SB-9.0-10.0 SL -008-SA8N-SB-4.0-5.0 SL -008-SA8N-SB-9.0-10.0 SL -164-SA5DN-SS-0.0-0.5 SL -165-SA5DN-SS-0.0-0.5 SL -170-SA5DN-SS-0.0-0.5 SL -171-SA5DN-SS-0.0-0.5 SL -172-SA5DN-SS-0.0-0.5 SL -173-SA5DN-SS-0.0-0.5 SL -174-SA5DN-SS-0.0-0.5 SL -175-SA5DN-SS-0.0-0.5 SL -176-SA5DN-SS-0.0-0.5 SL -179-SA5DN-SS-0.0-0.5 SL -180-SA5DN-SS-0.0-0.5 SL -181-SA5DN-SS-0.0-0.5 SL -182-SA5DN-SS-0.0-0.5 SL -183-SA5DN-SS-0.0-0.5 SL -184-SA5DN-SS-0.0-0.5)	ARSENIC CHROMIUM LEAD NICKEL VANADIUM ZINC	- - - 137 169 194	151 131 146 152 193 192	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 CHROMIUM LEAD NICKEL VANADIUM ZINC	J(all detects) V, Zn No Qual, >4x
SL-002-SA8N-SB-4.0-5.0MS **SL-002-SA8N-SB-4.0-5.0MSD** (DUP09-SA8N-QC-052611 SL -002-SA8N-SB-4.0-5.0 SL -002-SA8N-SB-9.0-10.0 SL -008-SA8N-SB-4.0-5.0 SL -008-SA8N-SB-9.0-10.0 SL -164-SA5DN-SS-0.0-0.5 SL -165-SA5DN-SS-0.0-0.5 SL -170-SA5DN-SS-0.0-0.5 SL -171-SA5DN-SS-0.0-0.5 SL -172-SA5DN-SS-0.0-0.5 SL -173-SA5DN-SS-0.0-0.5 SL -174-SA5DN-SS-0.0-0.5 SL -175-SA5DN-SS-0.0-0.5 SL -176-SA5DN-SS-0.0-0.5 SL -179-SA5DN-SS-0.0-0.5 SL -180-SA5DN-SS-0.0-0.5 SL -181-SA5DN-SS-0.0-0.5 SL -182-SA5DN-SS-0.0-0.5 SL -183-SA5DN-SS-0.0-0.5 SL -184-SA5DN-SS-0.0-0.5)	ANTIMONY	33	31	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)
SL-002-SA8N-SB-4.0-5.0MS **SL-002-SA8N-SB-4.0-5.0MSD** (DUP09-SA8N-QC-052611 SL -002-SA8N-SB-4.0-5.0 SL -002-SA8N-SB-9.0-10.0 SL -008-SA8N-SB-4.0-5.0 SL -008-SA8N-SB-9.0-10.0 SL -164-SA5DN-SS-0.0-0.5 SL -165-SA5DN-SS-0.0-0.5 SL -170-SA5DN-SS-0.0-0.5 SL -171-SA5DN-SS-0.0-0.5 SL -172-SA5DN-SS-0.0-0.5 SL -173-SA5DN-SS-0.0-0.5 SL -174-SA5DN-SS-0.0-0.5 SL -175-SA5DN-SS-0.0-0.5 SL -176-SA5DN-SS-0.0-0.5 SL -179-SA5DN-SS-0.0-0.5 SL -180-SA5DN-SS-0.0-0.5 SL -181-SA5DN-SS-0.0-0.5 SL -182-SA5DN-SS-0.0-0.5 SL -183-SA5DN-SS-0.0-0.5 SL -184-SA5DN-SS-0.0-0.5)	BARIUM	207	213	75.00-125.00	-	BARIUM	No Qual, >4x

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-173-SA5DN-SS-0.0-0.5DUP (SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5)	Nitrate-NO3	24	20.00	No Qual, OK by difference
SL-002-SA8N-SB-4.0-5.0DUP (DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5)	FLUORIDE	26	20.00	No Qual, OK by difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-002-SA8N-SB-4.0-5.0DUP (DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5)	CADMIUM SILVER	22 22	20.00 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: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-002-SA8N-SB-4.0-5.0DUP (DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5)	HEXAVALENT CHROMIUM	36	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: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8081A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11473AQ240711A P11473AY240724A (EB09-SA5DN-SS-052611)	4,4'-DDT ENDOSULFAN I HEPTACHLOR	133 130 130	129 - -	53.00-126.00 68.00-128.00 57.00-126.00	- - -	4,4'-DDT ENDOSULFAN I HEPTACHLOR	J (all detects)

Method: 8330A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11518AQ241052A P11518AY241134A (EB09-SA5DN-SS-052611)	2,4,6-TRINITROTOLUENE PETN	110 121	110 121	76.00-109.00 80.00-120.00	- -	2,4,6-TRINITROTOLUENE PETN	J(all detects)

Method: 8151A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11516AQ241612A (EB09-SA5DN-SS-052611)	MCPP	140	-	67.00-137.00	-	MCPP	J(all detects)

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P1WFLCSY260101 (EB09-SA5DN-SS-052611 EB11-SA8N-SB-052611)	BENZOIC ACID	-	-	10.00-69.00	83 (30.00)	BENZOIC ACID	J(all detects) UJ(all non-detects)

Method: 8270C SIM
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P1WHLCSQ261112 P1WHLCSY261144 (EB09-SA5DN-SS-052611 EB11-SA8N-SB-052611)	ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(K)FLUORANTHENE DIBENZO(A,H)ANTHRACENE Di-n-octylphthalate INDENO(1,2,3-CD)PYRENE N-NITROSODIMETHYLAMINE	- 136 139 146 138 - 134 90	112 141 142 146 141 147 136 -	66.00-111.00 60.00-127.00 69.00-123.00 59.00-130.00 55.00-134.00 57.00-145.00 69.00-124.00 36.00-89.00	- - - - - - - -	ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(K)FLUORANTHENE DIBENZO(A,H)ANTHRACENE Di-n-octylphthalate INDENO(1,2,3-CD)PYRENE N-NITROSODIMETHYLAMINE	J(all detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_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
P15213DY222331 (EB09-SA5DN-SS-052611 EB11-SA8N-SB-052611)	MERCURY	-	89	90.00-115.00	-	MERCURY	J(all detects) UJ(all non-detects)

Method: 8081A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11545AQ240431A (SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5)	4,4'-DDT METHOXYCHLOR	131 139	- -	54.00-130.00 59.00-125.00	- -	4,4'-DDT METHOXYCHLOR	J(all detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11587AQ320825A (SL-179-SA5DN-SS-0.0-0.5)	EFH (C15-C20) EFH (C30-C40)	115 114	- -	66.00-113.00 66.00-113.00	- -	EFH (C15-C20) EFH (C30-C40)	J(all detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P15208EQ220144 (DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5)	ALUMINUM	78	-	80.00-120.00	-	ALUMINUM	No Qual, SRM within QC limits

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P15826FQ222351A (DUP09-SA8N-QC-052611 SL-002-SA8N-SB-4.0-5.0 SL-002-SA8N-SB-9.0-10.0 SL-008-SA8N-SB-4.0-5.0 SL-008-SA8N-SB-9.0-10.0 SL-164-SA5DN-SS-0.0-0.5 SL-165-SA5DN-SS-0.0-0.5 SL-170-SA5DN-SS-0.0-0.5 SL-171-SA5DN-SS-0.0-0.5 SL-172-SA5DN-SS-0.0-0.5 SL-173-SA5DN-SS-0.0-0.5 SL-174-SA5DN-SS-0.0-0.5 SL-175-SA5DN-SS-0.0-0.5 SL-176-SA5DN-SS-0.0-0.5 SL-179-SA5DN-SS-0.0-0.5 SL-180-SA5DN-SS-0.0-0.5 SL-181-SA5DN-SS-0.0-0.5 SL-182-SA5DN-SS-0.0-0.5 SL-183-SA5DN-SS-0.0-0.5 SL-184-SA5DN-SS-0.0-0.5)	ANTIMONY	67	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC limits

Surrogate Outlier Report

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8081A
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-164-SA5DN-SS-0.0-0.5	TETRACHLORO-M-XYLENE	49	50.00-130.00	All Target Analytes	J (all detects) UJ (all non-detects)
SL-171-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	184	20.00-120.00	All Target Analytes	J(all detects)
SL-172-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	125	20.00-120.00	All Target Analytes	J(all detects)
SL-172-SA5DN-SS-0.0-0.5	TETRACHLORO-M-XYLENE	45	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-173-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	132	20.00-120.00	All Target Analytes	J(all detects)
SL-180-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	130	20.00-120.00	All Target Analytes	J(all detects)
SL-181-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	130	20.00-120.00	All Target Analytes	J(all detects)
SL-183-SA5DN-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-173-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	39	45.00-120.00	All Target Analytes	J(all detects) UJ(all non-detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: PrepDE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-002-SA8N-SB-4.0-5.0	DUP09-SA8N-QC-052611			
MOISTURE	16.3	15.3	6		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-002-SA8N-SB-4.0-5.0	DUP09-SA8N-QC-052611			
FLUORIDE	4.6	4.3	7	50.00	No Qualifiers Applied

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-002-SA8N-SB-4.0-5.0	DUP09-SA8N-QC-052611			
ALUMINUM	28300	28700	1	50.00	No Qualifiers Applied
BORON	11.3	10.8	5	50.00	
CALCIUM	14300	10100	34	50.00	
IRON	35600	36000	1	50.00	
LITHIUM	26.0	27.3	5	50.00	
MAGNESIUM	7900	8080	2	50.00	
MANGANESE	430	303	35	50.00	
PHOSPHORUS	299	294	2	50.00	
POTASSIUM	3770	3730	1	50.00	
SODIUM	119	124	4	50.00	
STRONTIUM	51.1	50.0	2	50.00	
TIN	2.72	2.64	3	50.00	
TITANIUM	1460	1380	6	50.00	
Zirconium	4.41	3.92	12	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-002-SA8N-SB-4.0-5.0	DUP09-SA8N-QC-052611			
ANTIMONY	0.140	0.129	8	50.00	No Qualifiers Applied
ARSENIC	6.98	6.89	1	50.00	
BARIUM	113	129	13	50.00	
BERYLLIUM	0.842	0.889	5	50.00	
CADMIUM	0.229	0.284	21	50.00	
CHROMIUM	31.8	33.6	6	50.00	
COBALT	10.6	13.6	25	50.00	
COPPER	16.9	18.5	9	50.00	
LEAD	10.2	11.7	14	50.00	
MOLYBDENUM	0.327	0.396	19	50.00	
NICKEL	23.0	28.5	21	50.00	
SELENIUM	0.147	0.140	5	50.00	
SILVER	0.0264	0.0304	14	50.00	
THALLIUM	0.334	0.378	12	50.00	
VANADIUM	63.9	68.6	7	50.00	
ZINC	70.3	78.9	12	50.00	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: PrepDE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-002-SA8N-SB-4.0-5.0	DUP09-SA8N-QC-052611			
HEXAVALENT CHROMIUM	0.49	0.38	25	50.00	No Qualifiers Applied

Method: 8260B
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-002-SA8N-SB-4.0-5.0	DUP09-SA8N-QC-052611			
ACETONE	9.7	9.8	1	50.00	No Qualifiers Applied
METHYLENE CHLORIDE	1.9	1.6	17	50.00	
TOLUENE	0.11	4.5 U	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-002-SA8N-SB-4.0-5.0	DUP09-SA8N-QC-052611			
BIS(2-ETHYLHEXYL)PHTHALATE	22 U	12	200	50.00	J(all detects) UJ(all non-detects)

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-002-SA8N-SB-4.0-5.0	DUP09-SA8N-QC-052611			
PH	8.19	8.15	0	50.00	No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB09-SA5DN-SS-052611	LEAD	J	0.000071	0.0010	PQL	mg/L	J (all detects)
EB11-SA8N-SB-052611	LEAD	J	0.000062	0.0010	PQL	mg/L	J (all detects)

Method: 8015M

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB09-SA5DN-SS-052611	EFH (C8-C11)	J	0.40	1.3	PQL	mg/L	J (all detects)

Method: 8081A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB09-SA5DN-SS-052611	HEPTACHLOR	J	0.0088	0.010	PQL	ug/L	J (all detects)

Method: 8260B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB11-SA8N-SB-052611	BENZENE	J	1	5	PQL	ug/L	J (all detects)
	TOLUENE	J	0.7	5	PQL	ug/L	

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB09-SA5DN-SS-052611	1-METHYLNAPHTHALENE	J	0.032	0.049	PQL	ug/L	J (all detects)
	2-METHYLNAPHTHALENE	J	0.032	0.049	PQL	ug/L	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.059	0.98	PQL	ug/L	
	Di-n-butylphthalate	J	0.065	0.98	PQL	ug/L	
EB11-SA8N-SB-052611	1-METHYLNAPHTHALENE	J	0.033	0.048	PQL	ug/L	J (all detects)
	2-METHYLNAPHTHALENE	J	0.034	0.048	PQL	ug/L	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.058	0.97	PQL	ug/L	
	Di-n-butylphthalate	J	0.065	0.97	PQL	ug/L	

Reporting Limit Outliers

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8330A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB09-SA5DN-SS-052611	RDX	J	0.58	0.60	PQL	ug/L	J (all detects)

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-171-SA5DN-SS-0.0-0.5	Nitrate-NO3	J	1.3	1.6	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA8N-QC-052611	TIN	J	2.64	11.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.92	5.79	PQL	mg/Kg	
SL-002-SA8N-SB-4.0-5.0	TIN	J	2.72	11.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.41	5.97	PQL	mg/Kg	
SL-002-SA8N-SB-9.0-10.0	TIN	J	2.44	11.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.57	5.84	PQL	mg/Kg	
SL-008-SA8N-SB-4.0-5.0	TIN	J	2.53	11.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.48	5.72	PQL	mg/Kg	
SL-008-SA8N-SB-9.0-10.0	BORON	J	5.46	5.65	PQL	mg/Kg	J (all detects)
	TIN	J	2.65	11.3	PQL	mg/Kg	
	Zirconium	J	2.78	5.65	PQL	mg/Kg	
SL-164-SA5DN-SS-0.0-0.5	SODIUM	J	67.9	108	PQL	mg/Kg	J (all detects)
	TIN	J	2.45	10.8	PQL	mg/Kg	
	Zirconium	J	3.03	5.39	PQL	mg/Kg	
SL-165-SA5DN-SS-0.0-0.5	SODIUM	J	75.2	105	PQL	mg/Kg	J (all detects)
	TIN	J	2.37	10.5	PQL	mg/Kg	
	Zirconium	J	2.07	5.27	PQL	mg/Kg	
SL-170-SA5DN-SS-0.0-0.5	BORON	J	3.06	5.00	PQL	mg/Kg	J (all detects)
	SODIUM	J	56.5	100	PQL	mg/Kg	
	TIN	J	2.23	10.0	PQL	mg/Kg	
	Zirconium	J	0.906	5.00	PQL	mg/Kg	
SL-171-SA5DN-SS-0.0-0.5	BORON	J	3.71	5.21	PQL	mg/Kg	J (all detects)
	SODIUM	J	82.3	104	PQL	mg/Kg	
	TIN	J	2.24	10.4	PQL	mg/Kg	
SL-172-SA5DN-SS-0.0-0.5	BORON	J	4.94	5.24	PQL	mg/Kg	J (all detects)
	SODIUM	J	91.7	105	PQL	mg/Kg	
	TIN	J	2.17	10.5	PQL	mg/Kg	
	Zirconium	J	3.31	5.24	PQL	mg/Kg	
SL-173-SA5DN-SS-0.0-0.5	BORON	J	2.90	5.10	PQL	mg/Kg	J (all detects)
	SODIUM	J	63.1	102	PQL	mg/Kg	
	TIN	J	2.37	10.2	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-174-SA5DN-SS-0.0-0.5	BORON	J	2.86	5.10	PQL	mg/Kg	J (all detects)
	TIN	J	2.34	10.2	PQL	mg/Kg	
	Zirconium	J	1.27	5.10	PQL	mg/Kg	
SL-175-SA5DN-SS-0.0-0.5	BORON	J	3.38	5.21	PQL	mg/Kg	J (all detects)
	SODIUM	J	66.4	104	PQL	mg/Kg	
	TIN	J	2.16	10.4	PQL	mg/Kg	
	Zirconium	J	1.33	5.21	PQL	mg/Kg	
SL-176-SA5DN-SS-0.0-0.5	BORON	J	2.60	5.01	PQL	mg/Kg	J (all detects)
	SODIUM	J	61.7	100	PQL	mg/Kg	
	TIN	J	4.84	10.0	PQL	mg/Kg	
	Zirconium	J	1.06	5.01	PQL	mg/Kg	
SL-179-SA5DN-SS-0.0-0.5	BORON	J	3.23	5.24	PQL	mg/Kg	J (all detects)
	SODIUM	J	72.2	105	PQL	mg/Kg	
	TIN	J	2.39	10.5	PQL	mg/Kg	
	Zirconium	J	1.76	5.24	PQL	mg/Kg	
SL-180-SA5DN-SS-0.0-0.5	BORON	J	3.69	5.12	PQL	mg/Kg	J (all detects)
	SODIUM	J	84.5	102	PQL	mg/Kg	
	TIN	J	2.40	10.2	PQL	mg/Kg	
	Zirconium	J	1.67	5.12	PQL	mg/Kg	
SL-181-SA5DN-SS-0.0-0.5	BORON	J	4.59	5.13	PQL	mg/Kg	J (all detects)
	SODIUM	J	82.8	103	PQL	mg/Kg	
	TIN	J	2.27	10.3	PQL	mg/Kg	
	Zirconium	J	1.90	5.13	PQL	mg/Kg	
SL-182-SA5DN-SS-0.0-0.5	BORON	J	3.95	5.15	PQL	mg/Kg	J (all detects)
	SODIUM	J	96.7	103	PQL	mg/Kg	
	TIN	J	2.15	10.3	PQL	mg/Kg	
	Zirconium	J	1.92	5.15	PQL	mg/Kg	
SL-183-SA5DN-SS-0.0-0.5	BORON	J	3.11	4.98	PQL	mg/Kg	J (all detects)
	TIN	J	2.44	9.96	PQL	mg/Kg	
SL-184-SA5DN-SS-0.0-0.5	BORON	J	3.51	5.10	PQL	mg/Kg	J (all detects)
	SODIUM	J	78.2	102	PQL	mg/Kg	
	TIN	J	2.19	10.2	PQL	mg/Kg	
	Zirconium	J	1.87	5.10	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA8N-QC-052611	ANTIMONY	J	0.129	0.225	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.140	0.450	PQL	mg/Kg	
	SILVER	J	0.0304	0.112	PQL	mg/Kg	
SL-002-SA8N-SB-4.0-5.0	ANTIMONY	J	0.140	0.228	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.147	0.455	PQL	mg/Kg	
	SILVER	J	0.0264	0.114	PQL	mg/Kg	
SL-002-SA8N-SB-9.0-10.0	ANTIMONY	J	0.139	0.234	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0898	0.467	PQL	mg/Kg	
	SILVER	J	0.0453	0.117	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6020**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA8N-SB-4.0-5.0	ANTIMONY	J	0.128	0.229	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.125	0.457	PQL	mg/Kg	
	SILVER	J	0.0372	0.114	PQL	mg/Kg	
SL-008-SA8N-SB-9.0-10.0	ANTIMONY	J	0.0814	0.224	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0529	0.447	PQL	mg/Kg	
	SILVER	J	0.0394	0.112	PQL	mg/Kg	
SL-164-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.179	0.213	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.221	0.427	PQL	mg/Kg	
	SILVER	J	0.0410	0.107	PQL	mg/Kg	
SL-165-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.0721	0.209	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.128	0.418	PQL	mg/Kg	
	SILVER	J	0.0647	0.104	PQL	mg/Kg	
SL-170-SA5DN-SS-0.0-0.5	CADMIUM	J	0.0683	0.0981	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0474	0.392	PQL	mg/Kg	
SL-171-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.0646	0.209	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0725	0.417	PQL	mg/Kg	
SL-172-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.0818	0.205	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.256	0.411	PQL	mg/Kg	
	SILVER	J	0.0272	0.103	PQL	mg/Kg	
SL-173-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.0902	0.202	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.228	0.404	PQL	mg/Kg	
	SILVER	J	0.0392	0.101	PQL	mg/Kg	
SL-174-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.111	0.206	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.180	0.412	PQL	mg/Kg	
	SILVER	J	0.0761	0.103	PQL	mg/Kg	
SL-175-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.0802	0.206	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.129	0.413	PQL	mg/Kg	
	SILVER	J	0.0421	0.103	PQL	mg/Kg	
SL-176-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.0871	0.200	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.178	0.401	PQL	mg/Kg	
SL-179-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.102	0.208	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.120	0.415	PQL	mg/Kg	
	SILVER	J	0.0498	0.104	PQL	mg/Kg	
SL-180-SA5DN-SS-0.0-0.5	SELENIUM	J	0.0911	0.418	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0495	0.104	PQL	mg/Kg	
SL-181-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.0858	0.207	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.126	0.414	PQL	mg/Kg	
	SILVER	J	0.0466	0.104	PQL	mg/Kg	
SL-182-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.136	0.208	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.112	0.416	PQL	mg/Kg	
	SILVER	J	0.0367	0.104	PQL	mg/Kg	
SL-183-SA5DN-SS-0.0-0.5	SELENIUM	J	0.142	0.406	PQL	mg/Kg	J (all detects)
SL-184-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.133	0.208	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.252	0.416	PQL	mg/Kg	
	SILVER	J	0.0547	0.104	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA8N-QC-052611	HEXAVALENT CHROMIUM	J	0.38	1.2	PQL	mg/Kg	J (all detects)
SL-002-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.49	1.2	PQL	mg/Kg	J (all detects)
SL-008-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.55	1.2	PQL	mg/Kg	J (all detects)
SL-165-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.85	1.1	PQL	mg/Kg	J (all detects)
SL-171-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.52	1.1	PQL	mg/Kg	J (all detects)
SL-173-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.83	1.1	PQL	mg/Kg	J (all detects)
SL-174-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.34	1.0	PQL	mg/Kg	J (all detects)
SL-175-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.50	1.1	PQL	mg/Kg	J (all detects)
SL-176-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.31	1.0	PQL	mg/Kg	J (all detects)
SL-179-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.43	1.0	PQL	mg/Kg	J (all detects)
SL-180-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.39	1.0	PQL	mg/Kg	J (all detects)
SL-181-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.29	1.1	PQL	mg/Kg	J (all detects)
SL-182-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.48	1.1	PQL	mg/Kg	J (all detects)
SL-184-SA5DN-SS-0.0-0.5	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-008-SA8N-SB-9.0-10.0	MERCURY	J	0.0059	0.113	PQL	mg/Kg	J (all detects)
SL-164-SA5DN-SS-0.0-0.5	MERCURY	J	0.0128	0.107	PQL	mg/Kg	J (all detects)
SL-165-SA5DN-SS-0.0-0.5	MERCURY	J	0.0070	0.103	PQL	mg/Kg	J (all detects)
SL-170-SA5DN-SS-0.0-0.5	MERCURY	J	0.0068	0.0972	PQL	mg/Kg	J (all detects)
SL-171-SA5DN-SS-0.0-0.5	MERCURY	J	0.0150	0.105	PQL	mg/Kg	J (all detects)
SL-172-SA5DN-SS-0.0-0.5	MERCURY	J	0.0172	0.104	PQL	mg/Kg	J (all detects)
SL-173-SA5DN-SS-0.0-0.5	MERCURY	J	0.0207	0.101	PQL	mg/Kg	J (all detects)
SL-174-SA5DN-SS-0.0-0.5	MERCURY	J	0.0143	0.0999	PQL	mg/Kg	J (all detects)
SL-175-SA5DN-SS-0.0-0.5	MERCURY	J	0.0151	0.103	PQL	mg/Kg	J (all detects)
SL-176-SA5DN-SS-0.0-0.5	MERCURY	J	0.0050	0.0968	PQL	mg/Kg	J (all detects)
SL-179-SA5DN-SS-0.0-0.5	MERCURY	J	0.0083	0.104	PQL	mg/Kg	J (all detects)
SL-184-SA5DN-SS-0.0-0.5	MERCURY	J	0.0344	0.0997	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-175-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	6.0	13	PQL	mg/Kg	J (all detects)

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-164-SA5DN-SS-0.0-0.5	BETA-BHC	J	0.12	0.18	PQL	ug/Kg	J (all detects)
	Chlordane	J	2.5	3.7	PQL	ug/Kg	
	ENDOSULFAN II	J	0.10	0.37	PQL	ug/Kg	
SL-165-SA5DN-SS-0.0-0.5	Chlordane	J	2.1	3.7	PQL	ug/Kg	J (all detects)
	HEPTACHLOR EPOXIDE	J	0.053	0.18	PQL	ug/Kg	
SL-171-SA5DN-SS-0.0-0.5	Chlordane	J	1.2	3.6	PQL	ug/Kg	J (all detects)
	gamma-BHC (Lindane)	J	0.041	0.18	PQL	ug/Kg	
SL-173-SA5DN-SS-0.0-0.5	Chlordane	J	2.3	3.6	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.067	0.17	PQL	ug/Kg	
SL-180-SA5DN-SS-0.0-0.5	ALDRIN	J	0.11	0.17	PQL	ug/Kg	J (all detects)
SL-184-SA5DN-SS-0.0-0.5	4,4'-DDE	J	0.23	0.36	PQL	ug/Kg	J (all detects)
	Chlordane	J	1.6	3.6	PQL	ug/Kg	
	ENDRIN KETONE	J	0.11	0.36	PQL	ug/Kg	
	HEPTACHLOR EPOXIDE	J	0.051	0.18	PQL	ug/Kg	
	MIREX	J	0.25	0.36	PQL	ug/Kg	

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-164-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.4	1.9	PQL	ug/Kg	J (all detects)
SL-165-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	0.45	1.8	PQL	ug/Kg	J (all detects)
SL-170-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.7	1.8	PQL	ug/Kg	J (all detects)
SL-172-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.1	1.8	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	2.8	3.6	PQL	ug/Kg	
SL-173-SA5DN-SS-0.0-0.5	Aroclor 5460	J	2.0	3.5	PQL	ug/Kg	J (all detects)
SL-174-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.1	1.8	PQL	ug/Kg	J (all detects)
SL-175-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.2	1.8	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	1.9	3.5	PQL	ug/Kg	
SL-179-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.2	1.8	PQL	ug/Kg	J (all detects)
SL-180-SA5DN-SS-0.0-0.5	AROCLOR 1254	J	0.86	1.8	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.52	1.8	PQL	ug/Kg	
	Aroclor 5460	J	1.5	3.4	PQL	ug/Kg	
SL-182-SA5DN-SS-0.0-0.5	AROCLOR 1254	J	0.74	1.8	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.83	1.8	PQL	ug/Kg	
	Aroclor 5460	J	2.7	3.5	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-184-SA5DN-SS-0.0-0.5	Aroclor 5460	J	3.2	3.5	PQL	ug/Kg	J (all detects)

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-164-SA5DN-SS-0.0-0.5	MCPA	J	230	270	PQL	ug/Kg	J (all detects)
SL-170-SA5DN-SS-0.0-0.5	MCPA	J	160	260	PQL	ug/Kg	J (all detects)
SL-172-SA5DN-SS-0.0-0.5	MCPA	J	220	270	PQL	ug/Kg	J (all detects)
SL-180-SA5DN-SS-0.0-0.5	MCPA	J	210	260	PQL	ug/Kg	J (all detects)
SL-181-SA5DN-SS-0.0-0.5	2,4-DB	J	1.2	1.8	PQL	ug/Kg	J (all detects)
SL-182-SA5DN-SS-0.0-0.5	MCPP	J	160	260	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA8N-QC-052611	METHYLENE CHLORIDE	J	1.6	4.5	PQL	ug/Kg	J (all detects)
SL-002-SA8N-SB-4.0-5.0	ACETONE	J	9.7	9.9	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	1.9	5.0	PQL	ug/Kg	
	TOLUENE	J	0.11	5.0	PQL	ug/Kg	
SL-008-SA8N-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.6	4.6	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-164-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	370	PQL	ug/Kg	J (all detects)
SL-170-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	18	340	PQL	ug/Kg	J (all detects)
SL-171-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	35	180	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	31	180	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	39	180	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	23	180	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	24	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	31	350	PQL	ug/Kg	
	CHRYSENE	J	40	180	PQL	ug/Kg	
	FLUORANTHENE	J	43	180	PQL	ug/Kg	
	PYRENE	J	44	180	PQL	ug/Kg	
SL-172-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	28	360	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-173-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	31	180	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	23	180	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	34	180	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	21	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	26	350	PQL	ug/Kg	
	CHRYSENE	J	35	180	PQL	ug/Kg	
	FLUORANTHENE	J	69	180	PQL	ug/Kg	
	PHENANTHRENE	J	45	180	PQL	ug/Kg	
	PYRENE	J	55	180	PQL	ug/Kg	
SL-174-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	20	350	PQL	ug/Kg	J (all detects)
SL-175-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	34	360	PQL	ug/Kg	J (all detects)
SL-176-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	22	350	PQL	ug/Kg	J (all detects)
SL-179-SA5DN-SS-0.0-0.5	ANTHRACENE	J	62	170	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	160	170	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	100	170	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	100	170	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	29	350	PQL	ug/Kg	
	CARBAZOLE	J	27	170	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	32	170	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	94	170	PQL	ug/Kg	
SL-180-SA5DN-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	26	170	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	31	170	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	28	350	PQL	ug/Kg	
	DIBENZOFURAN	J	150	170	PQL	ug/Kg	
	NAPHTHALENE	J	37	170	PQL	ug/Kg	
SL-181-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	22	350	PQL	ug/Kg	J (all detects)
SL-182-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	350	PQL	ug/Kg	J (all detects)
SL-183-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	38	340	PQL	ug/Kg	J (all detects)
SL-184-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	350	PQL	ug/Kg	J (all detects)

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA8N-QC-052611	BIS(2-ETHYLHEXYL)PHTHALATE	J	12	21	PQL	ug/Kg	J (all detects)
SL-008-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.8	21	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.47	2.0	PQL	ug/Kg	
SL-008-SA8N-SB-9.0-10.0	BENZO(B)FLUORANTHENE	J	1.1	1.9	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	1.1	1.9	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	11	21	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE166 **Laboratory: LL**

EDD Filename: DE166_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-164-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.77	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.83	1.8	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.6	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.1	1.8	PQL	ug/Kg	
	Butylbenzylphthalate	J	6.9	20	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	1.8	PQL	ug/Kg	
SL-165-SA5DN-SS-0.0-0.5	ANTHRACENE	J	2.5	9.0	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	64	97	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	5.8	9.0	PQL	ug/Kg	
SL-172-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	3.7	9.0	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	4.9	9.0	PQL	ug/Kg	
	CHRYSENE	J	4.7	9.0	PQL	ug/Kg	
	FLUORANTHENE	J	4.9	9.0	PQL	ug/Kg	
	PYRENE	J	7.1	9.0	PQL	ug/Kg	
SL-173-SA5DN-SS-0.0-0.5	ANTHRACENE	J	2.9	8.8	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	7.4	8.8	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	4.3	8.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	7.9	8.8	PQL	ug/Kg	
SL-174-SA5DN-SS-0.0-0.5	CHRYSENE	J	1.8	8.7	PQL	ug/Kg	J (all detects)
SL-175-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.79	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.83	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.88	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.79	1.8	PQL	ug/Kg	
	CHRYSENE	J	1.4	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	1.8	PQL	ug/Kg	
SL-176-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.97	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.87	1.7	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.4	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.5	1.7	PQL	ug/Kg	
SL-182-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.2	1.8	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.80	1.8	PQL	ug/Kg	
	Butylbenzylphthalate	J	6.9	19	PQL	ug/Kg	
	CHRYSENE	J	0.80	1.8	PQL	ug/Kg	
	FLUORANTHENE	J	0.89	1.8	PQL	ug/Kg	
	PYRENE	J	0.96	1.8	PQL	ug/Kg	
SL-183-SA5DN-SS-0.0-0.5	BENZO(A)PYRENE	J	0.87	1.7	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.81	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.0	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.82	1.7	PQL	ug/Kg	
	PYRENE	J	0.92	1.7	PQL	ug/Kg	
SL-184-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	4.4	8.8	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	3.3	8.8	PQL	ug/Kg	
	FLUORANTHENE	J	3.8	8.8	PQL	ug/Kg	
	PYRENE	J	4.4	8.8	PQL	ug/Kg	

LDC #: 26275X4 **VALIDATION COMPLETENESS WORKSHEET** Date: 9/29/11
SDG #: DE166 ADR Page: 1 of 1
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	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Fe, Mg, Mn, Ti, V, Zn >4X
VII.	Duplicate Sample Analysis	A	cd, Ag, <5X
VIII.	Laboratory Control Samples (LCS)	A	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Ba, Cr, Pb, V.
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	SW	FB=21, 2W (No hits >5X)

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-002-SA8N-SB-4.0-5.0	11	SL-173-SA5DN-SS-0.0-0.5	21	EB09-SA5DN-SS-052611	31	
2	SL-002-SA8N-SB-9.0-10.0	12	SL-174-SA5DN-SS-0.0-0.5	22	EB11-SA8N-SB-052611	32	
3	SL-008-SA8N-SB-4.0-5.0	13	SL-175-SA5DN-SS-0.0-0.5	23	SL-002-SA8N-SB-4.0-5.0MS	33	
4	SL-008-SA8N-SB-9.0-10.0	14	SL-176-SA5DN-SS-0.0-0.5	24	SL-002-SA8N-SB-4.0-5.0MSD	34	
5	DUP09-SA8N-QC-052611	15	SL-179-SA5DN-SS-0.0-0.5	25	SL-002-SA8N-SB-4.0-5.0DUP	35	
6	SL-164-SA5DN-SS-0.0-0.5	16	SL-180-SA5DN-SS-0.0-0.5	26		36	
7	SL-165-SA5DN-SS-0.0-0.5	17	SL-181-SA5DN-SS-0.0-0.5	27		37	
8W	SL-170-SA5DN-SS-0.0-0.5	18	SL-182-SA5DN-SS-0.0-0.5	28		38	
9	SL-171-SA5DN-SS-0.0-0.5	19	SL-183-SA5DN-SS-0.0-0.5	29		39	
10	SL-172-SA5DN-SS-0.0-0.5	20	SL-184-SA5DN-SS-0.0-0.5	30		40	

Notes: _____

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE166
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6300336BKG Matrix Spike Lab Sample ID: 6300337MS Matrix Spike Duplicate Lab Sample ID: 6300338MSD
% Solids for Sample: 83.7
Batch Id(s): P15208E, P15826F, P15211D, P15708A

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		28327.6523		37652.5733		37251.9047		231.9890	229.7583	MG/KG	4020		3884		1			20	P
Antimony	121	0.1399	B	0.5960		0.5756		1.3785	1.4195	MG/KG	33	N	31	N	3		75 - 125	20	MS
Arsenic	75	6.9750		9.8520		10.5563		2.2976	2.3658	MG/KG	125		151	N	7		75 - 125	20	MS
Barium	137	113.3072		137.0508		138.4956		11.4879	11.8291	MG/KG	207		213		1			20	MS
Beryllium	9	0.8422		1.7103		1.7479		0.9190	0.9463	MG/KG	94		96		2		75 - 125	20	MS
Boron		11.3190		236.6925		233.6182		231.9890	229.7583	MG/KG	97		97		1		84 - 115	20	P
Cadmium	111	0.2289		1.3574		1.4720		1.1488	1.1829	MG/KG	98		105		8		75 - 125	20	MS
Calcium		14293.6368		15651.6025		15434.4948		463.9779	459.5166	MG/KG	293		248		1			20	P
Chromium	52	31.8143		46.0665		47.3166		11.4879	11.8291	MG/KG	124		131	N	3		75 - 125	20	MS
Cobalt	59	10.6207		69.6397		70.9985		57.4396	59.1457	MG/KG	103		102		2		75 - 125	20	MS
Copper	63	16.9358		31.3161		31.6311		11.4879	11.8291	MG/KG	125		124		1		75 - 125	20	MS
Iron		35643.3453		37102.8233		36757.5533		115.9945	114.8791	MG/KG	1258		970		1			20	P
Lead	208	10.1724		12.8848		15.3661		3.4464	3.5487	MG/KG	79		146	N	18		75 - 125	20	MS
Lithium		26.0084		149.8196		146.6306		115.9945	114.8791	MG/KG	107		105		2		82 - 114	20	P
Magnesium		7900.1386		9243.9457		9037.9894		231.9890	229.7583	MG/KG	579		495		2			20	P
Manganese		430.4504		451.8797		441.3852		57.9972	57.4396	MG/KG	37		19		2			20	P
Mercury		0.0035	U	0.1717		0.1822		0.1914	0.1968	MG/KG	90		93		6		65 - 135	20	CV
Molybdenum	98	0.3272		10.2334		10.0453		11.4879	11.8291	MG/KG	86		82		2		75 - 125	20	MS
Nickel	60	22.9846		38.7372		40.9998		11.4879	11.8291	MG/KG	137	N	152	N	6		75 - 125	20	MS
Phosphorus		298.7993		429.1726		407.7612		115.9945	114.8791	MG/KG	112		95		5		75 - 125	20	P
Potassium		3772.9988		5344.6788		5247.2624		1159.9448	1148.7915	MG/KG	135	N	128	N	2		75 - 125	20	P
Selenium	78	0.1473	B	2.1080		2.0559		2.2976	2.3658	MG/KG	85		81		3		75 - 125	20	MS
Silver	107	0.0264	B	10.8928		10.9467		11.4879	11.8291	MG/KG	95		92		0		75 - 125	20	MS
Sodium		118.9546	B	1256.0659		1218.7046		1159.9448	1148.7915	MG/KG	98		96		3		75 - 125	20	P
Strontium		51.0932		167.7269		163.6499		115.9945	114.8791	MG/KG	101		98		2		75 - 115	20	P
Thallium	203	0.3338		0.7724		0.7866		0.4595	0.4732	MG/KG	95		96		2		75 - 125	20	MS
Tin		2.7180	B	401.6738		394.9384		463.9779	459.5166	MG/KG	86		85		2		80 - 110	20	P
Titanium		1459.8484		1754.1474		1767.5498		115.9945	117.1317	MG/KG	254		263		1			20	P
Vanadium	51	63.8562		83.2414		86.6839		11.4879	11.8291	MG/KG	169		193		4			20	MS
Zinc	66	70.3192		92.6385		93.0480		11.4879	11.8291	MG/KG	194		192		0			20	MS
Zirconium		4.4098	B	117.2542		114.4288		115.9945	114.8791	MG/KG	97		96		2		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

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QUALITY ASSURANCE SUMMARY
FORM 9
SERIAL DILUTIONS
SDG No.: DE166.
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6300336BKG Serial Dilution Lab Sample ID: 6300336L
Batch ID(s): P15208E, P15826F, P15708A
Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		237102.4500		228228.8000		4		P
Antimony	121	0.6147	B	1.5000	U	100		MS
Arsenic	75	30.6500		33.5400		9		MS
Barium	137	497.9000		570.5000		15	E	MS
Beryllium	9	3.7010		8.6100		133		MS
Boron		94.7400		47.1000	B	50		P
Cadmium	111	1.0060		1.8180	B	81		MS
Calcium		119637.7400		121137.1000		1		P
Chromium	52	139.8000		178.2000		27	E	MS
Cobalt	59	46.6700		49.0500		5		MS
Copper	63	74.4200		77.9500		5		MS
Iron		59666.9600		60155.3500		1		P
Lead	208	44.7000		54.5000		22	E	MS
Lithium		217.6900		217.7000		0		P
Magnesium		66124.1600		65942.2500		0		P
Manganese		3602.8700		3799.6000		5		P
Molybdenum	98	1.4380		2.2085	B	54		MS
Nickel	60	101.0000		103.8000		3		MS
Phosphorus		2500.9500		2491.7500		0		P
Potassium		31580.0000		31353.8000		1		P
Selenium	78	0.6473	B	1.0000	U	100		MS
Silver	107	0.1162	B	0.3000	U	100		MS
Sodium		995.6500	B	1865.0000	U	100		P
Strontium		427.6500		435.4500		2		P
Thallium	203	1.4670		1.6910	B	15		MS
Tin		22.7500	B	50.0000	U	100		P
Titanium		12463.3100		13174.1500		6		P
Vanadium	51	280.6000		336.7000		20	E	MS
Zinc	66	309.0000		326.7000		6		MS
Zirconium		36.9100	B	44.7000	B	21		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: DE166 7154
U= Below MDL
B= Below LOQ
FLAGS:
E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution

SAMPLE DELIVERY GROUP

DE167

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
27-May-2011	TB-052711	6301487	TB	5030B	8260B	III
27-May-2011	TB-052711	6301487	TB	5030B	8260B SIM	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	3050B	6010B	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	3050B	6020	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	3060A	7199	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	3550B	8081A	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	3550B	8082	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	3550B	8151A	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	3550B	8270C	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	3550B	8270C SIM	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	METHOD	300.0	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	METHOD	314.0	III
27-May-2011	SL-071-SA5DN-SS-0.0-0.5	6301472	N	METHOD	7471A	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	3050B	6010B	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	3050B	6020	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	3060A	7199	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	3550B	8081A	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	3550B	8082	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	3550B	8151A	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	3550B	8270C	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	3550B	8270C SIM	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	METHOD	300.0	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	METHOD	314.0	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	METHOD	6850	III
27-May-2011	SL-091-SA5DN-SS-0.0-0.5	6301473	N	METHOD	7471A	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	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
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	3050B	6020	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	3060A	7199	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	3550B	8082	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	3550B	8270C	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	3550B	8270C SIM	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	5035	8260B	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	5035	8260B SIM	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	METHOD	300.0	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	METHOD	314.0	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	METHOD	7471A	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0	6301485	N	METHOD	8015M	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0DUP	P301485D271900B	DUP	METHOD	314.0	III
27-May-2011	SL-003-SA8N-SB-4.0-5.0MS	P301485R271923B	MS	METHOD	314.0	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	3050B	6010B	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	3050B	6020	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	3060A	7199	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	3550B	8081A	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	3550B	8082	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	3550B	8151A	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	3550B	8270C	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	3550B	8270C SIM	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	METHOD	300.0	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	METHOD	314.0	III
27-May-2011	SL-122-SA5DN-SS-0.0-0.5	6301483	N	METHOD	7471A	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	3050B	6010B	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	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
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	3060A	7199	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	3550B	8082	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	3550B	8270C	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	3550B	8270C SIM	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	METHOD	300.0	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	METHOD	314.0	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	METHOD	6850	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	METHOD	7471A	III
27-May-2011	SL-003-SA8N-SB-9.0-10.0	6301486	N	METHOD	8015M	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	3050B	6010B	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	3050B	6020	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	3060A	7199	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	3550B	8081A	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	3550B	8082	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	3550B	8151A	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	3550B	8270C	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	3550B	8270C SIM	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	METHOD	300.0	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	METHOD	314.0	III
27-May-2011	SL-092-SA5DN-SS-0.0-0.5	6301474	N	METHOD	7471A	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	3050B	6010B	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	3050B	6020	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	3060A	7199	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	3550B	8081A	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	3550B	8082	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	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
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	3550B	8270C	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	3550B	8270C SIM	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	METHOD	300.0	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	METHOD	314.0	III
27-May-2011	SL-093-SA5DN-SS-0.0-0.5	6301475	N	METHOD	7471A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3050B	6010B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3050B	6020	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3060A	7199	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3546	1625C	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3550B	8015B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3550B	8015M	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3550B	8081A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3550B	8082	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3550B	8151A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3550B	8270C	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	3550B	8270C SIM	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	8330	8330A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	METHOD	300.0	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	METHOD	314.0	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	METHOD	7471A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	METHOD	8015B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	METHOD	8015M	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	METHOD	8315A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5	6301476	N	METHOD	9012B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3050B	6010B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	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
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3060A	7199	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3546	1625C	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3550B	8015B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3550B	8015M	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3550B	8081A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3550B	8082	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3550B	8151A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3550B	8270C	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	3550B	8270C SIM	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	8330	8330A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	METHOD	300.0	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	METHOD	314.0	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	METHOD	7471A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	METHOD	8015B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	METHOD	8015M	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	METHOD	8315A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5MS	6301477	MS	METHOD	9012B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5DU	6301479	DUP	3050B	6010B	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5DU	6301479	DUP	3050B	6020	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5DU	6301479	DUP	3060A	7199	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5DU	6301479	DUP	METHOD	300.0	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5DU	6301479	DUP	METHOD	314.0	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5DU	6301479	DUP	METHOD	7471A	III
27-May-2011	SL-117-SA5DN-SS-0.0-0.5DU	6301479	DUP	METHOD	9012B	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3050B	6010B	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	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
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3060A	7199	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3546	1625C	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3550B	8015B	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3550B	8015M	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3550B	8081A	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3550B	8082	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3550B	8151A	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3550B	8270C	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	3550B	8270C SIM	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	8330	8330A	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	METHOD	300.0	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	METHOD	314.0	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	METHOD	7471A	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	METHOD	8015B	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	METHOD	8015M	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	METHOD	8315A	III
27-May-2011	DUP09-SA5DN-QC-052711	6301484	FD	METHOD	9012B	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3050B	6010B	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3050B	6020	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3060A	7199	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3546	1625C	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3550B	8015B	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3550B	8015M	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3550B	8081A	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3550B	8082	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	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
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3550B	8270C	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	3550B	8270C SIM	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	8330	8330A	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	METHOD	300.0	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	METHOD	314.0	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	METHOD	7471A	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	METHOD	8015B	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	METHOD	8015M	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	METHOD	8315A	III
27-May-2011	SL-118-SA5DN-SS-0.0-0.5	6301480	N	METHOD	9012B	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3050B	6010B	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3050B	6020	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3060A	7199	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3546	1625C	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3550B	8015B	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3550B	8015M	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3550B	8081A	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3550B	8082	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3550B	8151A	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3550B	8270C	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	3550B	8270C SIM	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	8330	8330A	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	METHOD	300.0	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	METHOD	314.0	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	METHOD	7471A	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	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
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	METHOD	8015M	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	METHOD	8315A	III
27-May-2011	SL-120-SA5DN-SS-0.0-0.5	6301482	N	METHOD	9012B	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3050B	6010B	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3050B	6020	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3060A	7199	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3546	1625C	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3550B	8015B	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3550B	8015M	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3550B	8081A	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3550B	8082	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3550B	8151A	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3550B	8270C	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	3550B	8270C SIM	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	8330	8330A	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	METHOD	300.0	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	METHOD	314.0	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	METHOD	7471A	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	METHOD	8015B	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	METHOD	8015M	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	N	METHOD	8315A	III
27-May-2011	SL-119-SA5DN-SS-0.0-0.5	6301481	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: DE167 **Laboratory:** LL

EDD Filename: PrepDE167_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-122-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	1.1	J	0.95	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: DUP09-SA5DN-QC-052711 *Collected:* 5/27/2011 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
MANGANESE	503		0.0829	MDL	0.531	PQL	mg/Kg	J	A
SODIUM	92.8	J	39.6	MDL	106	PQL	mg/Kg	J	Z
TIN	2.59	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	3.46	J	0.892	MDL	5.31	PQL	mg/Kg	J	Z

Sample ID: SL-003-SA8N-SB-4.0-5.0 *Collected:* 5/27/2011 9:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	442		0.0915	MDL	0.587	PQL	mg/Kg	J	A
TIN	2.76	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	2.43	J	0.985	MDL	5.87	PQL	mg/Kg	J	Z

Sample ID: SL-003-SA8N-SB-9.0-10.0 *Collected:* 5/27/2011 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
MANGANESE	401		0.0964	MDL	0.618	PQL	mg/Kg	J	A
TIN	2.67	J	1.24	MDL	12.4	PQL	mg/Kg	U	B
Zirconium	4.26	J	1.04	MDL	6.18	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
MANGANESE	347		0.0857	MDL	0.549	PQL	mg/Kg	J	A
TIN	2.56	J	1.10	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.11	J	0.923	MDL	5.49	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: DE167 **Laboratory:** LL

EDD Filename: PrepDE167_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-091-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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
MANGANESE	463		0.0828	MDL	0.531	PQL	mg/Kg	J	A
SODIUM	95.2	J	39.6	MDL	106	PQL	mg/Kg	J	Z
TIN	2.72	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	3.34	J	0.891	MDL	5.31	PQL	mg/Kg	J	Z

Sample ID: SL-092-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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
MANGANESE	449		0.0863	MDL	0.553	PQL	mg/Kg	J	A
SODIUM	89.2	J	41.3	MDL	111	PQL	mg/Kg	J	Z
TIN	2.66	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	3.92	J	0.929	MDL	5.53	PQL	mg/Kg	J	Z

Sample ID: SL-093-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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
MANGANESE	452		0.0820	MDL	0.525	PQL	mg/Kg	J	A
SODIUM	92.0	J	39.2	MDL	105	PQL	mg/Kg	J	Z
TIN	2.64	J	1.05	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	3.78	J	0.883	MDL	5.25	PQL	mg/Kg	J	Z

Sample ID: SL-117-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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
MANGANESE	464		0.0845	MDL	0.542	PQL	mg/Kg	J	A
SODIUM	101	J	40.4	MDL	108	PQL	mg/Kg	J	Z
TIN	2.75	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	4.09	J	0.910	MDL	5.42	PQL	mg/Kg	J	Z

Sample ID: SL-118-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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
MANGANESE	484		0.0850	MDL	0.545	PQL	mg/Kg	J	A
SODIUM	95.6	J	40.6	MDL	109	PQL	mg/Kg	J	Z
TIN	2.65	J	1.09	MDL	10.9	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: DE167 **Laboratory:** LL

EDD Filename: PrepDE167_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-118-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
Zirconium	3.47	J	0.915	MDL	5.45	PQL	mg/Kg	J	Z

Sample ID: SL-119-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
MANGANESE	463		0.0831	MDL	0.533	PQL	mg/Kg	J	A
SODIUM	87.5	J	39.8	MDL	107	PQL	mg/Kg	J	Z
TIN	2.59	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	2.94	J	0.895	MDL	5.33	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
MANGANESE	488		0.0824	MDL	0.528	PQL	mg/Kg	J	A
SODIUM	92.5	J	39.4	MDL	106	PQL	mg/Kg	J	Z
TIN	2.79	J	1.06	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	3.04	J	0.888	MDL	5.28	PQL	mg/Kg	J	Z

Sample ID: SL-122-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
MANGANESE	473		0.0922	MDL	0.591	PQL	mg/Kg	J	A

Sample ID: SL-122-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
SODIUM	96.5	J	44.1	MDL	118	PQL	mg/Kg	J	Z
TIN	3.07	J	1.18	MDL	11.8	PQL	mg/Kg	U	B
Zirconium	4.09	J	0.993	MDL	5.91	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE167 **Laboratory:** LL

EDD Filename: PrepDE167_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP09-SA5DN-QC-052711 ***Collected:*** 5/27/2011 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
BERYLLIUM	0.897		0.0175	MDL	0.109	PQL	mg/Kg	J	Q

Sample ID: DUP09-SA5DN-QC-052711 ***Collected:*** 5/27/2011 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	0.193	J	0.0438	MDL	0.438	PQL	mg/Kg	J	Z

Sample ID: DUP09-SA5DN-QC-052711 ***Collected:*** 5/27/2011 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	0.101	J	0.0656	MDL	0.219	PQL	mg/Kg	J	Z, Q, Q
LEAD	13.6		0.0114	MDL	0.219	PQL	mg/Kg	J	Q
SILVER	0.0556	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: SL-003-SA8N-SB-4.0-5.0 ***Collected:*** 5/27/2011 9:10:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	1.03		0.0181	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: SL-003-SA8N-SB-4.0-5.0 ***Collected:*** 5/27/2011 9:10:00 ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.140	J	0.0451	MDL	0.451	PQL	mg/Kg	J	Z

Sample ID: SL-003-SA8N-SB-4.0-5.0 ***Collected:*** 5/27/2011 9:10:00 ***Analysis Type:*** RES ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.116	J	0.0677	MDL	0.226	PQL	mg/Kg	J	Z, Q, Q
LEAD	10.6		0.0117	MDL	0.226	PQL	mg/Kg	J	Q
SILVER	0.0394	J	0.0135	MDL	0.113	PQL	mg/Kg	J	Z

Sample ID: SL-003-SA8N-SB-9.0-10.0 ***Collected:*** 5/27/2011 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
BERYLLIUM	0.842		0.0194	MDL	0.121	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: DE167 **Laboratory: LL**

EDD Filename: PrepDE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-003-SA8N-SB-9.0-10.0 *Collected:* 5/27/2011 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	0.137	J	0.0485	MDL	0.485	PQL	mg/Kg	J	Z

Sample ID: SL-003-SA8N-SB-9.0-10.0 *Collected:* 5/27/2011 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	0.0916	J	0.0727	MDL	0.242	PQL	mg/Kg	J	Z, Q, Q
LEAD	9.79		0.0126	MDL	0.242	PQL	mg/Kg	J	Q
SILVER	0.0602	J	0.0145	MDL	0.121	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 8:25:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.712		0.0171	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-071-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	0.177	J	0.0427	MDL	0.427	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	0.136	J	0.0640	MDL	0.213	PQL	mg/Kg	J	Z, Q, Q
LEAD	11.1		0.0111	MDL	0.213	PQL	mg/Kg	J	Q
SILVER	0.0305	J	0.0128	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-091-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
BERYLLIUM	0.869		0.0170	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-091-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	0.161	J	0.0424	MDL	0.424	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: DE167 **Laboratory:** LL

EDD Filename: PrepDE167_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-091-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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	0.171	J	0.0637	MDL	0.212	PQL	mg/Kg	J	Z, Q, Q
LEAD	12.3		0.0110	MDL	0.212	PQL	mg/Kg	J	Q
SILVER	0.0521	J	0.0127	MDL	0.106	PQL	mg/Kg	J	Z

Sample ID: SL-092-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 9:45:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.926		0.0179	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: SL-092-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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	0.171	J	0.0447	MDL	0.447	PQL	mg/Kg	J	Z

Sample ID: SL-092-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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	0.0839	J	0.0670	MDL	0.223	PQL	mg/Kg	J	Z, Q, Q
LEAD	12.1		0.0116	MDL	0.223	PQL	mg/Kg	J	Q
SILVER	0.0519	J	0.0134	MDL	0.112	PQL	mg/Kg	J	Z

Sample ID: SL-093-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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
BERYLLIUM	0.866		0.0170	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-093-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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
SELENIUM	0.214	J	0.0424	MDL	0.424	PQL	mg/Kg	J	Z

Sample ID: SL-093-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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
ANTIMONY	0.126	J	0.0637	MDL	0.212	PQL	mg/Kg	J	Z, Q, Q
LEAD	12.7		0.0110	MDL	0.212	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: DE167 **Laboratory:** LL

EDD Filename: PrepDE167_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-093-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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
SILVER	0.0473	J	0.0127	MDL	0.106	PQL	mg/Kg	J	Z

Sample ID: SL-117-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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
BERYLLIUM	0.889		0.0173	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-117-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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	0.195	J	0.0433	MDL	0.433	PQL	mg/Kg	J	Z

Sample ID: SL-117-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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	0.135	J	0.0650	MDL	0.217	PQL	mg/Kg	J	Z, Q, Q
LEAD	12.6		0.0113	MDL	0.217	PQL	mg/Kg	J	Q
SILVER	0.0643	J	0.0130	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-118-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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
BERYLLIUM	0.808		0.0173	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-118-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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	0.185	J	0.0431	MDL	0.431	PQL	mg/Kg	J	Z

Sample ID: SL-118-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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	0.112	J	0.0647	MDL	0.216	PQL	mg/Kg	J	Z, Q, Q
LEAD	9.91		0.0112	MDL	0.216	PQL	mg/Kg	J	Q
SILVER	0.0376	J	0.0129	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: DE167 **Laboratory:** LL

EDD Filename: PrepDE167_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-119-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 11:45:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.886		0.0172	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-119-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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	0.184	J	0.0431	MDL	0.431	PQL	mg/Kg	J	Z

Sample ID: SL-119-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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	0.123	J	0.0646	MDL	0.215	PQL	mg/Kg	J	Z, Q, Q
LEAD	12.5		0.0112	MDL	0.215	PQL	mg/Kg	J	Q
SILVER	0.0569	J	0.0129	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 11:25:00 ***Analysis Type:*** REA ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.803		0.0176	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: SL-120-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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	0.156	J	0.0440	MDL	0.440	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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	0.136	J	0.0659	MDL	0.220	PQL	mg/Kg	J	Z, Q, Q
LEAD	16.4		0.0114	MDL	0.220	PQL	mg/Kg	J	Q

Sample ID: SL-122-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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
BERYLLIUM	1.07		0.0182	MDL	0.114	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: PrepDE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-122-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
SELENIUM	0.213	J	0.0455	MDL	0.455	PQL	mg/Kg	J	Z

Sample ID: SL-122-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	0.130	J	0.0682	MDL	0.227	PQL	mg/Kg	J	Z, Q, Q
LEAD	14.4		0.0118	MDL	0.227	PQL	mg/Kg	J	Q
SILVER	0.0558	J	0.0136	MDL	0.114	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7199 **Matrix: SO**

Sample ID: DUP09-SA5DN-QC-052711 *Collected:* 5/27/2011 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	0.78	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z, FD

Sample ID: SL-003-SA8N-SB-4.0-5.0 *Collected:* 5/27/2011 9:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.31	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-003-SA8N-SB-9.0-10.0 *Collected:* 5/27/2011 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	0.40	J	0.25	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	0.77	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE167 **Laboratory:** LL

EDD Filename: PrepDE167_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-091-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	0.59	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-093-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
HEXAVALENT CHROMIUM	0.95	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-117-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	1.5		0.22	MDL	1.1	PQL	mg/Kg	J	FD

Sample ID: SL-118-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	1.0	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-119-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	1.0	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-122-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	0.72	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: DUP09-SA5DN-QC-052711 *Collected:* 5/27/2011 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	0.0407	J	0.0030	MDL	0.106	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: DE167 Laboratory: LL

EDD Filename: PrepDE167_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 7471A **Matrix:** SO

Sample ID: SL-003-SA8N-SB-4.0-5.0 ***Collected:*** 5/27/2011 9:10:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0032	U	0.0032	MDL	0.112	PQL	mg/Kg	UJ	E

Sample ID: SL-003-SA8N-SB-9.0-10.0 ***Collected:*** 5/27/2011 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
MERCURY	0.0034	U	0.0034	MDL	0.120	PQL	mg/Kg	UJ	E

Sample ID: SL-071-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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
MERCURY	0.0036	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z, E

Sample ID: SL-091-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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	0.0351	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z, E

Sample ID: SL-092-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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
MERCURY	0.0048	J	0.0030	MDL	0.106	PQL	mg/Kg	J	Z, E

Sample ID: SL-093-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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	0.0127	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z, E

Sample ID: SL-117-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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	0.0644	J	0.0030	MDL	0.104	PQL	mg/Kg	J	Z, E

Sample ID: SL-118-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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	0.0247	J	0.0031	MDL	0.110	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: DE167 **Laboratory: LL**

EDD Filename: PrepDE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 7471A **Matrix: SO**

Sample ID: SL-119-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
MERCURY	0.0644	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z, E

Sample ID: SL-120-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	0.461		0.0030	MDL	0.104	PQL	mg/Kg	J	E

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-119-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 11:45:00 *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	252	J	184	MDL	368	PQL	ng/Kg	J	Z

Sample ID: SL-120-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 11:25:00 *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	320	J	183	MDL	366	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: DUP09-SA5DN-QC-052711 *Collected:* 5/27/2011 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
EFH (C21-C30)	30		0.88	MDL	2.7	PQL	mg/Kg	J	FD
EFH (C30-C40)	72		0.88	MDL	2.7	PQL	mg/Kg	J	FD

Sample ID: SL-117-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
DIETHYLENE GLYCOL	5.5	U	5.5	MDL	11	PQL	mg/Kg	UJ	Q
ETHYLENE GLYCOL	5.5	U	5.5	MDL	11	PQL	mg/Kg	UJ	Q
Propylene glycol	5.5	U	5.5	MDL	11	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: DE167 **Laboratory: LL**

EDD Filename: PrepDE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-117-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 10:45:00 *Analysis Type:* REA3 *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	67		2.2	MDL	6.6	PQL	mg/Kg	J	FD
EFH (C30-C40)	210		2.2	MDL	6.6	PQL	mg/Kg	J	FD

Sample ID: SL-119-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 11:45:00 *Analysis Type:* REA3 *Dilution:* 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	12	J	4.4	MDL	13	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8081A **Matrix: SO**

Sample ID: DUP09-SA5DN-QC-052711 *Collected:* 5/27/2011 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
4,4'-DDD	0.073	U	0.073	MDL	0.38	PQL	ug/Kg	UJ	S
4,4'-DDE	0.47		0.073	MDL	0.38	PQL	ug/Kg	J	S
4,4'-DDT	0.97		0.073	MDL	0.38	PQL	ug/Kg	J	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	0.066	U	0.066	MDL	0.18	PQL	ug/Kg	UJ	S
Chlordane	2.1	J	0.88	MDL	3.8	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.040	U	0.040	MDL	0.18	PQL	ug/Kg	UJ	S
DIELDRIN	0.14	U	0.14	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	0.090	U	0.090	MDL	0.38	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.073	U	0.073	MDL	0.38	PQL	ug/Kg	UJ	S
ENDRIN	0.073	U	0.073	MDL	0.38	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.073	U	0.073	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	0.066	U	0.066	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.061	U	0.061	MDL	0.18	PQL	ug/Kg	UJ	S, FD
METHOXYCHLOR	0.38	U	0.38	MDL	1.8	PQL	ug/Kg	UJ	S
MIREX	0.26	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z, S, 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: DE167 Laboratory: LL

EDD Filename: PrepDE167_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: DUP09-SA5DN-QC-052711 *Collected:* 5/27/2011 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
TOXAPHENE	2.4	U	2.4	MDL	7.3	PQL	ug/Kg	UJ	S

Sample ID: SL-071-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
ENDRIN KETONE	0.23	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z

Sample ID: SL-091-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
Chlordane	2.3	J	0.87	MDL	3.7	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.050	J	0.037	MDL	0.18	PQL	ug/Kg	J	Z

Sample ID: SL-092-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
Chlordane	2.7	J	0.89	MDL	3.8	PQL	ug/Kg	J	Z
ENDOSULFAN SULFATE	0.27	J	0.074	MDL	0.38	PQL	ug/Kg	J	Z

Sample ID: SL-093-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
Chlordane	2.4	J	0.87	MDL	3.7	PQL	ug/Kg	J	Z

Sample ID: SL-117-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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'-DDE	0.52		0.073	MDL	0.38	PQL	ug/Kg	J	S
4,4'-DDT	1.1		0.073	MDL	0.38	PQL	ug/Kg	J	S
Chlordane	2.3	J	0.88	MDL	3.8	PQL	ug/Kg	J	Z, S
HEPTACHLOR EPOXIDE	0.095	J	0.038	MDL	0.18	PQL	ug/Kg	J	Z, S, FD
MIREX	0.073	U	0.073	MDL	0.38	PQL	ug/Kg	UJ	FD

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE167 **Laboratory:** LL

EDD Filename: PrepDE167_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-118-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
4,4'-DDD	0.076	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z
4,4'-DDE	0.19	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z
4,4'-DDT	0.16	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z
MIREX	0.31	J	0.073	MDL	0.37	PQL	ug/Kg	J	Z

Sample ID: SL-119-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
4,4'-DDE	0.31	J	0.073	MDL	0.38	PQL	ug/Kg	J	Z, S
4,4'-DDT	1.4		0.073	MDL	0.38	PQL	ug/Kg	J	S
Chlordane	5.6		0.89	MDL	3.8	PQL	ug/Kg	J	S
DELTA-BHC	0.086	J	0.040	MDL	0.18	PQL	ug/Kg	J	Z, S

Sample ID: SL-120-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
4,4'-DDD	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
4,4'-DDE	0.39		0.073	MDL	0.37	PQL	ug/Kg	J	S
4,4'-DDT	1.4		0.073	MDL	0.37	PQL	ug/Kg	J	S
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	9.3		0.88	MDL	3.7	PQL	ug/Kg	J	S
DELTA-BHC	0.040	U	0.040	MDL	0.18	PQL	ug/Kg	UJ	S
DIELDRIN	2.9	U	2.9	MDL	2.9	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.048	U	0.048	MDL	0.18	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.19	U	0.19	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	0.073	U	0.073	MDL	0.37	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.12	U	0.12	MDL	0.37	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.037	U	0.037	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.066	U	0.066	MDL	0.18	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.19	U	0.19	MDL	0.19	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.37	U	0.37	MDL	1.8	PQL	ug/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: DE167 Laboratory: LL

EDD Filename: PrepDE167_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8081A **Matrix:** SO

Sample ID: SL-120-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
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

Sample ID: SL-122-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	0.50		0.078	MDL	0.40	PQL	ug/Kg	J	S
4,4'-DDT	1.3		0.078	MDL	0.40	PQL	ug/Kg	J	S
Chlordane	3.0	J	0.95	MDL	4.0	PQL	ug/Kg	J	Z, S

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: DUP09-SA5DN-QC-052711 *Collected:* 5/27/2011 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	5.0		1.1	MDL	3.6	PQL	ug/Kg	J	FD

Sample ID: SL-071-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
Aroclor 5460	1.6	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

Sample ID: SL-093-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
Aroclor 5460	1.9	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

Sample ID: SL-117-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
Aroclor 5460	1.9	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z, FD

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE167 **Laboratory:** LL

EDD Filename: PrepDE167_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-119-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	1.7	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z
Aroclor 5460	2.1	J	1.1	MDL	3.6	PQL	ug/Kg	J	Z

Sample ID: SL-120-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 11:25:00 *Analysis Type:* RES *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	12	J	5.5	MDL	18	PQL	ug/Kg	J	Z

Sample ID: SL-122-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	1.9	J	0.46	MDL	2.0	PQL	ug/Kg	J	Z

Method Category: SVOA

Method: 8151A **Matrix:** SO

Sample ID: DUP09-SA5DN-QC-052711 *Collected:* 5/27/2011 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
MCPA	400		83	MDL	270	PQL	ug/Kg	J	FD

Sample ID: SL-091-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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-TP (Silvex)	0.10	J	0.082	MDL	0.19	PQL	ug/Kg	J	Z

Sample ID: SL-092-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
2,4,5-TP (Silvex)	0.16	J	0.083	MDL	0.19	PQL	ug/Kg	J	Z

Sample ID: SL-093-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
2,4,5-TP (Silvex)	0.15	J	0.082	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: DE167 **Laboratory: LL**

EDD Filename: PrepDE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8151A **Matrix: SO**

Sample ID: SL-117-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	490	U	490	MDL	490	PQL	ug/Kg	UJ	FD

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: DUP09-SA5DN-QC-052711 *Collected:* 5/27/2011 10:55:00 *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-DINITROPHENOL	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L

Sample ID: SL-003-SA8N-SB-4.0-5.0 *Collected:* 5/27/2011 9:10:00 *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-DINITROPHENOL	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	25	J	20	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-003-SA8N-SB-9.0-10.0 *Collected:* 5/27/2011 9:30:00 *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-DINITROPHENOL	410	U	410	MDL	1200	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	23	J	20	MDL	410	PQL	ug/Kg	J	Z

Sample ID: SL-071-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 8:25:00 *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-DINITROPHENOL	360	U	360	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	43	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-091-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 9:05:00 *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-DINITROPHENOL	360	U	360	MDL	1100	PQL	ug/Kg	UJ	L
BENZO(A)ANTHRACENE	56	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	58	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	68	J	18	MDL	180	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: PrepDE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-091-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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(K)FLUORANTHENE	27	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	43	J	18	MDL	360	PQL	ug/Kg	J	Z
Butylbenzylphthalate	24	J	18	MDL	180	PQL	ug/Kg	J	Z
CHRYSENE	78	J	18	MDL	180	PQL	ug/Kg	J	Z
FLUORANTHENE	120	J	18	MDL	180	PQL	ug/Kg	J	Z
PHENANTHRENE	76	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	130	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-092-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 9:45:00 *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-DINITROPHENOL	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	40	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-093-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 10:05:00 *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-DINITROPHENOL	360	U	360	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	33	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-117-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 10:45:00 *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-DINITROPHENOL	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L
BENZIDINE	1300	U	1300	MDL	3700	PQL	ug/Kg	R	Q
BIS(2-ETHYLHEXYL)PHTHALATE	51	J	18	MDL	370	PQL	ug/Kg	J	Z
CHRYSENE	130	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-118-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 11:05:00 *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-DINITROPHENOL	360	U	360	MDL	1100	PQL	ug/Kg	UJ	L
BENZO(A)ANTHRACENE	23	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	25	J	18	MDL	180	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	35	J	18	MDL	360	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: DE167 **Laboratory:** LL

EDD Filename: PrepDE167_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-118-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 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
FLUORANTHENE	40	J	18	MDL	180	PQL	ug/Kg	J	Z
PHENANTHRENE	24	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	41	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-119-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 11:45:00 ***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-DINITROPHENOL	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	38	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-120-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 11:25:00 ***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-DINITROPHENOL	370	U	370	MDL	1100	PQL	ug/Kg	UJ	L
BENZO(A)PYRENE	26	J	18	MDL	180	PQL	ug/Kg	J	Z
CHRYSENE	130	J	18	MDL	180	PQL	ug/Kg	J	Z
Di-n-butylphthalate	66	J	18	MDL	180	PQL	ug/Kg	J	Z
FLUORANTHENE	48	J	18	MDL	180	PQL	ug/Kg	J	Z
PHENANTHRENE	41	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	46	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-122-SA5DN-SS-0.0-0.5 ***Collected:*** 5/27/2011 9:25:00 ***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-DINITROPHENOL	390	U	390	MDL	1200	PQL	ug/Kg	UJ	L
ANTHRACENE	43	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	140	J	20	MDL	200	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	170	J	20	MDL	200	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	48	J	20	MDL	390	PQL	ug/Kg	J	Z
CARBAZOLE	28	J	20	MDL	200	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	43	J	20	MDL	200	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	180	J	20	MDL	200	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: PrepDE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: DUP09-SA5DN-QC-052711 *Collected:* 5/27/2011 10:55:00 *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	5.0	J	1.8	MDL	9.2	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	47		3.7	MDL	9.2	PQL	ug/Kg	J	FD
BENZO(A)PYRENE	40		3.7	MDL	9.2	PQL	ug/Kg	J	FD
BENZO(B)FLUORANTHENE	67		3.7	MDL	9.2	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	13		3.7	MDL	9.2	PQL	ug/Kg	J	FD
BENZO(K)FLUORANTHENE	36		3.7	MDL	9.2	PQL	ug/Kg	J	FD
BIS(2-ETHYLHEXYL)PHTHALATE	68	J	33	MDL	99	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	5.3	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	96		3.7	MDL	9.2	PQL	ug/Kg	J	FD
INDENO(1,2,3-CD)PYRENE	14		3.7	MDL	9.2	PQL	ug/Kg	J	FD
PHENANTHRENE	25		3.7	MDL	9.2	PQL	ug/Kg	J	FD
PYRENE	76		3.7	MDL	9.2	PQL	ug/Kg	J	FD

Sample ID: SL-071-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 8:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	5.1	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	8.7	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z
CHRYSENE	2.7	J	1.8	MDL	9.2	PQL	ug/Kg	J	Z

Sample ID: SL-091-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 9:05:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	3.5	J	1.8	MDL	9.0	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	3.8	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z

Sample ID: SL-092-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 9:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	7.5	J	3.7	MDL	9.3	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	8.0	J	3.7	MDL	9.3	PQL	ug/Kg	J	Z
FLUORENE	6.0	J	3.7	MDL	9.3	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: PrepDE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

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

Sample ID: SL-093-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 10:05:00 *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(B)FLUORANTHENE	4.9	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
CHRYSENE	5.6	J	1.8	MDL	9.0	PQL	ug/Kg	J	Z
FLUORANTHENE	7.8	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
PHENANTHRENE	4.8	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
PYRENE	7.0	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z

Sample ID: SL-117-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 10:45:00 *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	4.5	J	1.8	MDL	9.2	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	6.7	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	7.2	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z, FD
BENZO(B)FLUORANTHENE	13		3.7	MDL	9.2	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	7.6	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z, FD
BENZO(K)FLUORANTHENE	6.0	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z, FD
DIBENZO(A,H)ANTHRACENE	3.7	U	3.7	MDL	9.2	PQL	ug/Kg	UJ	FD
FLUORANTHENE	10		3.7	MDL	9.2	PQL	ug/Kg	J	FD
INDENO(1,2,3-CD)PYRENE	3.9	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	4.8	J	3.7	MDL	9.2	PQL	ug/Kg	J	Z, FD
PYRENE	13		3.7	MDL	9.2	PQL	ug/Kg	J	FD

Sample ID: SL-118-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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	1.6	J	0.37	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-120-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 11:25:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	3.5	J	1.8	MDL	9.0	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	7.5	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	7.7	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	3.7	J	3.6	MDL	9.0	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE167 **Laboratory:** LL

EDD Filename: PrepDE167_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: VOA **Method:** 8015B **Matrix:** SO

Sample ID: DUP09-SA5DN-QC-052711 *Collected:* 5/27/2011 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
p-Terphenyl	1.7	J	1.7	MDL	3.9	PQL	mg/Kg	J	Z

Sample ID: SL-117-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 10:45:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
p-Terphenyl	2.2	J	1.7	MDL	3.9	PQL	mg/Kg	J	Z, Q, Q

Sample ID: SL-119-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 11:45:00 *Analysis Type:* REA2 *Dilution:* 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
p-Terphenyl	12	J	8.3	MDL	19	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA5DN-SS-0.0-0.5 *Collected:* 5/27/2011 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
p-Terphenyl	6.6	J	3.3	MDL	7.7	PQL	mg/Kg	J	Z

Method Category: VOA **Method:** 8260B **Matrix:** AQ

Sample ID: TB-052711 *Collected:* 5/27/2011 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
BENZENE	1	J	0.5	MDL	5	PQL	ug/L	J	Z
TOLUENE	0.7	J	0.7	MDL	5	PQL	ug/L	J	Z

Method Category: VOA **Method:** 8260B **Matrix:** SO

Sample ID: SL-003-SA8N-SB-4.0-5.0 *Collected:* 5/27/2011 9:10:00 *Analysis Type:* RES *Dilution:* 0.94

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	11		7.4	MDL	8.9	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.1	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: DE167

Laboratory: LL

EDD Filename: PrepDE167_v1

eQAPP Name: CDM_SSFL_110509

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: PrepDE167_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: DE167 **Laboratory: LL**

EDD Filename: PrepDE167_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: DE167 **Laboratory: LL**

EDD Filename: PrepDE167_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

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE167

Method Blank Outlier Report

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: DE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15708DB221712	6/7/2011 5:12:00 PM	CALCIUM PHOSPHORUS TIN	6.72 mg/Kg 1.29 mg/Kg 1.55 mg/Kg	DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-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
DUP09-SA5DN-QC-052711(RES)	TIN	2.59 mg/Kg	2.59U mg/Kg
SL-003-SA8N-SB-4.0-5.0(RES)	TIN	2.76 mg/Kg	2.76U mg/Kg
SL-003-SA8N-SB-9.0-10.0(RES)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-071-SA5DN-SS-0.0-0.5(RES)	TIN	2.56 mg/Kg	2.56U mg/Kg
SL-091-SA5DN-SS-0.0-0.5(RES)	TIN	2.72 mg/Kg	2.72U mg/Kg
SL-092-SA5DN-SS-0.0-0.5(RES)	TIN	2.66 mg/Kg	2.66U mg/Kg
SL-093-SA5DN-SS-0.0-0.5(RES)	TIN	2.64 mg/Kg	2.64U mg/Kg
SL-117-SA5DN-SS-0.0-0.5(RES)	TIN	2.75 mg/Kg	2.75U mg/Kg
SL-118-SA5DN-SS-0.0-0.5(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-119-SA5DN-SS-0.0-0.5(RES)	TIN	2.59 mg/Kg	2.59U mg/Kg
SL-120-SA5DN-SS-0.0-0.5(RES)	TIN	2.79 mg/Kg	2.79U mg/Kg
SL-122-SA5DN-SS-0.0-0.5(RES)	TIN	3.07 mg/Kg	3.07U mg/Kg

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15726HB222324A	6/10/2011 11:24:00 PM	LEAD	0.0194 mg/Kg	DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5

Method Blank Outlier Report

Lab Reporting Batch ID: DE167 **Laboratory:** LL

EDD Filename: DE167_v1 **eQAPP Name:** CDM_SSFL_110509

Method: **8015M**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P57571AB322158A	6/7/2011 9:58:00 PM	EFH (C8-C11)	0.40 mg/Kg	DUP09-SA5DN-QC-052711 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5

Method: **8151A**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P57576AB240515A	6/9/2011 5:15:00 AM	MCPP	84 ug/Kg	DUP09-SA5DN-QC-052711 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB72B211210A	6/1/2011 12:10:00 PM	ACETONE METHYLENE CHLORIDE	8.6 ug/Kg 1.4 ug/Kg	SL-003-SA8N-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-003-SA8N-SB-4.0-5.0(RES)	ACETONE	11 ug/Kg	11U ug/Kg
SL-003-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.1 ug/Kg	4.4U ug/Kg

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: DE167 **Laboratory: LL**

EDD Filename: DE167_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-117-SA5DN -SS-0.0-0.5MS SL-117-SA5DN -SS-0.0-0.5MSD (SL-117-SA5DN -SS-0.0-0.5)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	45 - -	40 57 62	59.00-109.00 63.00-107.00 63.00-107.00	- - -	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	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-117-SA5DN -SS-0.0-0.5MS SL-117-SA5DN -SS-0.0-0.5MSD (SL-117-SA5DN -SS-0.0-0.5)	p-Terphenyl	28	63	75.00-125.00	21 (20.00)	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-117-SA5DN -SS-0.0-0.5MS SL-117-SA5DN -SS-0.0-0.5MSD (SL-117-SA5DN -SS-0.0-0.5)	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30) EFH (C30-C40) EFH (C8-C11)	0 -196 -889 -226 0	0 -43 -1432 -1853 0	49.00-123.00 49.00-123.00 49.00-123.00 49.00-123.00 49.00-123.00	- 26 (20.00) 31 (20.00) 25 (20.00) -	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30) EFH (C30-C40) EFH (C8-C11)	No Qual Diluted Out

Method: 1625C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-117-SA5DN -SS-0.0-0.5MS SL-117-SA5DN -SS-0.0-0.5MSD (SL-117-SA5DN -SS-0.0-0.5)	N-NITROSODIMETHYLAMINE	157	136	70.00-130.00	-	N-NITROSODIMETHYLAMINE	J(all detects)

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-117-SA5DN -SS-0.0-0.5MSD (SL-117-SA5DN -SS-0.0-0.5)	3,3'-DICHLOROBENZIDINE HEXACHLOROCYCLOPENTADI	- -	- -	16.00-119.00 10.00-153.00	33 (30.00) 79 (30.00)	3,3'-DICHLOROBENZIDINE HEXACHLOROCYCLOPENTAD	J(all detects)
SL-117-SA5DN -SS-0.0-0.5MS SL-117-SA5DN -SS-0.0-0.5MSD (SL-117-SA5DN -SS-0.0-0.5)	BENZIDINE	0	0	35.00-141.00	-	BENZIDINE	J(all detects) R(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: DE167_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-117-SA5DN-SS-0.0-0.5MS SL-117-SA5DN-SS-0.0-0.5MSD (SL-117-SA5DN-SS-0.0-0.5)	BENZO(A)ANTHRACENE	142	-	59.00-128.00	47 (30.00)	BENZO(A)ANTHRACENE	No Qual, Diluted Out
	BENZO(A)PYRENE	156	-	45.00-138.00	57 (30.00)	BENZO(A)PYRENE	
	BENZO(B)FLUORANTHENE	166	-	43.00-155.00	57 (30.00)	BENZO(B)FLUORANTHENE	
	BENZO(G,H,I)PERYLENE	-	-	33.00-141.00	33 (30.00)	BENZO(G,H,I)PERYLENE	
	BENZO(K)FLUORANTHENE	-	-	42.00-144.00	50 (30.00)	BENZO(K)FLUORANTHENE	
	FLUORANTHENE	221	-	26.00-166.00	83 (30.00)	FLUORANTHENE	
	INDENO(1,2,3-CD)PYRENE	-	-	21.00-143.00	40 (30.00)	INDENO(1,2,3-CD)PYRENE	
	PHENANTHRENE	167	-	12.00-165.00	66 (30.00)	PHENANTHRENE	
	PYRENE	188	-	15.00-153.00	72 (30.00)	PYRENE	
SL-117-SA5DN-SS-0.0-0.5MS SL-117-SA5DN-SS-0.0-0.5MSD (SL-117-SA5DN-SS-0.0-0.5)	CHRYSENE	-	-4	48.00-134.00	37 (30.00)	CHRYSENE	No Qual Diluted Out
	Diethylphthalate	-	0	70.00-136.00	200 (30.00)	Diethylphthalate	
	Dimethylphthalate	0	0	74.00-118.00	-	Dimethylphthalate	

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-117-SA5DN-SS-0.0-0.5MS (DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5)	LEAD	143	-	75.00-125.00	-	LEAD	J(all detects)
SL-117-SA5DN-SS-0.0-0.5MS SL-117-SA5DN-SS-0.0-0.5MSD (DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5)	ANTIMONY	28	32	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects) Post Spike=102%
SL-117-SA5DN-SS-0.0-0.5MS (DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5)	BERYLLIUM	62	-	75.00-125.00	-	BERYLLIUM	J(all detects) UJ(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: DE167_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-117-SA5DN-SS-0.0-0.5MSD (DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5)	BARIUM	-	134	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-117-SA5DN-SS-0.0-0.5MS	ALUMINUM	1015	1227	75.00-125.00	-	ALUMINUM	
SL-117-SA5DN-SS-0.0-0.5MSD	POTASSIUM	137	126	75.00-125.00	-	POTASSIUM	
(DUP09-SA5DN-QC-052711	TITANIUM	182	226	75.00-125.00	-	TITANIUM	
SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5)							No Qual, >4x
SL-117-SA5DN-SS-0.0-0.5MS	IRON	438	-2108	75.00-125.00	-	IRON	
SL-117-SA5DN-SS-0.0-0.5MSD	MANGANESE	-	-18	75.00-125.00	-	MANGANESE	
(DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5)							No Qual, >4x

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: DE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-117-SA5DN-SS-0.0-0.5DUP (DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5)	SILVER	36	20.00	No Qual, OK by difference

Method: 7199
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-117-SA5DN-SS-0.0-0.5DUP (DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5)	HEXAVALENT CHROMIUM	30	20.00	No Qual, OK by difference

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-117-SA5DN-SS-0.0-0.5DUP (DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5)	MERCURY	1.4942	0.208	J(all detects) UJ(all non-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: DE167 Laboratory: LL

EDD Filename: DE167_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
P3LFLCSQ260356 (DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5)	2,4-DINITROPHENOL	35	-	37.00-120.00	-	2,4-DINITROPHENOL	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
P15726HQ222327A (DUP09-SA5DN-QC-052711 SL-003-SA8N-SB-4.0-5.0 SL-003-SA8N-SB-9.0-10.0 SL-071-SA5DN-SS-0.0-0.5 SL-091-SA5DN-SS-0.0-0.5 SL-092-SA5DN-SS-0.0-0.5 SL-093-SA5DN-SS-0.0-0.5 SL-117-SA5DN-SS-0.0-0.5 SL-118-SA5DN-SS-0.0-0.5 SL-119-SA5DN-SS-0.0-0.5 SL-120-SA5DN-SS-0.0-0.5 SL-122-SA5DN-SS-0.0-0.5)	ANTIMONY	64	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC limits

Surrogate Outlier Report

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: DE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8081A**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
DUP09-SA5DN-QC-052711	TETRACHLORO-M-XYLENE	48	50.00-130.00	All Target Analytes	J (all detects) UJ (all non-detects)
SL-117-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	135	20.00-120.00	All Target Analytes	J(all detects)
SL-119-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	173	20.00-120.00	All Target Analytes	J(all detects)
SL-120-SA5DN-SS-0.0-0.5	TETRACHLORO-M-XYLENE	48	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-122-SA5DN-SS-0.0-0.5	DECACHLOROBIPHENYL	146	20.00-120.00	All Target Analytes	J(all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE167 Laboratory: LL

EDD Filename: DE167_v1 eQAPP Name: CDM_SSFL_110509

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
MOISTURE	9.5	9.5	0		No Qualifiers Applied

Method: 300.0
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
FLUORIDE	1.6	2.0	22	50.00	No Qualifiers Applied
Nitrate-NO3	2.4	3.0	22	50.00	

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
ALUMINUM	30100	30000	0	50.00	No Qualifiers Applied
CALCIUM	5500	5290	4	50.00	
IRON	31800	32300	2	50.00	
LITHIUM	24.1	23.2	4	50.00	
MAGNESIUM	6580	6500	1	50.00	
MANGANESE	464	503	8	50.00	
PHOSPHORUS	387	396	2	50.00	
POTASSIUM	5780	5660	2	50.00	
SODIUM	101	92.8	8	50.00	
STRONTIUM	31.7	30.6	4	50.00	
TIN	2.75	2.59	6	50.00	
TITANIUM	1420	1350	5	50.00	
Zirconium	4.09	3.46	17	50.00	

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
ANTIMONY	0.135	0.101	29	50.00	No Qualifiers Applied
ARSENIC	5.24	5.39	3	50.00	
BARIUM	138	134	3	50.00	
BERYLLIUM	0.889	0.897	1	50.00	
CADMIUM	0.500	0.489	2	50.00	
CHROMIUM	31.0	29.3	6	50.00	
COBALT	9.33	9.49	2	50.00	
COPPER	16.4	16.6	1	50.00	
LEAD	12.6	13.6	8	50.00	
MOLYBDENUM	0.536	0.519	3	50.00	
NICKEL	21.1	21.0	0	50.00	
SELENIUM	0.195	0.193	1	50.00	
SILVER	0.0643	0.0556	15	50.00	
THALLIUM	0.362	0.354	2	50.00	
VANADIUM	56.6	54.9	3	50.00	
ZINC	80.2	78.8	2	50.00	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE167 Laboratory: LL

EDD Filename: DE167_v1 eQAPP Name: CDM_SSFL_110509

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg) SL-117-SA5DN-SS-0.0-0.5	Concentration (mg/Kg) DUP09-SA5DN-QC-052711	Sample RPD	eQAPP RPD	Flag
HEXAVALENT CHROMIUM	1.5	0.78	63	50.00	J(all detects)

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg) SL-117-SA5DN-SS-0.0-0.5	Concentration (mg/Kg) DUP09-SA5DN-QC-052711	Sample RPD	eQAPP RPD	Flag
MERCURY	0.0644	0.0407	45	50.00	No Qualifiers Applied

Method: 8015B
Matrix: SO

Analyte	Concentration (mg/Kg) SL-117-SA5DN-SS-0.0-0.5	Concentration (mg/Kg) DUP09-SA5DN-QC-052711	Sample RPD	eQAPP RPD	Flag
p-Terphenyl	2.2	1.7	26	50.00	No Qualifiers Applied

Method: 8015M
Matrix: SO

Analyte	Concentration (mg/Kg) SL-117-SA5DN-SS-0.0-0.5	Concentration (mg/Kg) DUP09-SA5DN-QC-052711	Sample RPD	eQAPP RPD	Flag
EFH (C15-C20)	9.8	9.8	0	50.00	No Qualifiers Applied
EFH (C21-C30) EFH (C30-C40)	67 210	30 72	76 98	50.00 50.00	J(all detects)

Method: 8081A
Matrix: SO

Analyte	Concentration (ug/Kg) SL-117-SA5DN-SS-0.0-0.5	Concentration (ug/Kg) DUP09-SA5DN-QC-052711	Sample RPD	eQAPP RPD	Flag
4,4'-DDE 4,4'-DDT Chlordane	0.52 1.1 2.3	0.47 0.97 2.1	10 13 9	50.00 50.00 50.00	No Qualifiers Applied
HEPTACHLOR EPOXIDE MIREX	0.095 0.38 U	0.18 U 0.26	200 200	50.00 50.00	J(all detects) UJ(all non-detects)

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg) SL-117-SA5DN-SS-0.0-0.5	Concentration (ug/Kg) DUP09-SA5DN-QC-052711	Sample RPD	eQAPP RPD	Flag
AROCLOR 1260	4.0	6.1	42	50.00	No Qualifiers Applied
Aroclor 5460	1.9	5.0	90	50.00	J(all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: DE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8151A
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
MCPA	490 U	400	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-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
ANTHRACENE	4.5	5.0	11	50.00	No Qualifiers Applied
BENZO(A)ANTHRACENE	6.7	47	150	50.00	
BENZO(A)PYRENE	7.2	40	139	50.00	
BENZO(B)FLUORANTHENE	13	67	135	50.00	
BENZO(G,H,I)PERYLENE	7.6	13	52	50.00	
BENZO(K)FLUORANTHENE	6.0	36	143	50.00	J(all detects)
DIBENZO(A,H)ANTHRACENE	9.2 U	5.3	200	50.00	UJ(all non-detects)
FLUORANTHENE	10	96	162	50.00	
INDENO(1,2,3-CD)PYRENE	3.9	14	113	50.00	
PHENANTHRENE	4.8	25	136	50.00	
PYRENE	13	76	142	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-117-SA5DN-SS-0.0-0.5	DUP09-SA5DN-QC-052711			
PH	6.85	6.84	0	50.00	No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: DE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
TB-052711	BENZENE	J	1	5	PQL	ug/L	J (all detects)
	TOLUENE	J	0.7	5	PQL	ug/L	

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-119-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	252	368	PQL	ng/Kg	J (all detects)
SL-120-SA5DN-SS-0.0-0.5	N-NITROSODIMETHYLAMINE	J	320	366	PQL	ng/Kg	J (all detects)

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-122-SA5DN-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
DUP09-SA5DN-QC-052711	SODIUM	J	92.8	106	PQL	mg/Kg	J (all detects)
	TIN	J	2.59	10.6	PQL	mg/Kg	
	Zirconium	J	3.46	5.31	PQL	mg/Kg	
SL-003-SA8N-SB-4.0-5.0	TIN	J	2.76	11.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.43	5.87	PQL	mg/Kg	
SL-003-SA8N-SB-9.0-10.0	TIN	J	2.67	12.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.26	6.18	PQL	mg/Kg	
SL-071-SA5DN-SS-0.0-0.5	TIN	J	2.56	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.11	5.49	PQL	mg/Kg	
SL-091-SA5DN-SS-0.0-0.5	SODIUM	J	95.2	106	PQL	mg/Kg	J (all detects)
	TIN	J	2.72	10.6	PQL	mg/Kg	
	Zirconium	J	3.34	5.31	PQL	mg/Kg	
SL-092-SA5DN-SS-0.0-0.5	SODIUM	J	89.2	111	PQL	mg/Kg	J (all detects)
	TIN	J	2.66	11.1	PQL	mg/Kg	
	Zirconium	J	3.92	5.53	PQL	mg/Kg	
SL-093-SA5DN-SS-0.0-0.5	SODIUM	J	92.0	105	PQL	mg/Kg	J (all detects)
	TIN	J	2.64	10.5	PQL	mg/Kg	
	Zirconium	J	3.78	5.25	PQL	mg/Kg	
SL-117-SA5DN-SS-0.0-0.5	SODIUM	J	101	108	PQL	mg/Kg	J (all detects)
	TIN	J	2.75	10.8	PQL	mg/Kg	
	Zirconium	J	4.09	5.42	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: DE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-118-SA5DN-SS-0.0-0.5	SODIUM	J	95.6	109	PQL	mg/Kg	
	TIN	J	2.65	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.47	5.45	PQL	mg/Kg	
SL-119-SA5DN-SS-0.0-0.5	SODIUM	J	87.5	107	PQL	mg/Kg	
	TIN	J	2.59	10.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.94	5.33	PQL	mg/Kg	
SL-120-SA5DN-SS-0.0-0.5	SODIUM	J	92.5	106	PQL	mg/Kg	
	TIN	J	2.79	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.04	5.28	PQL	mg/Kg	
SL-122-SA5DN-SS-0.0-0.5	SODIUM	J	96.5	118	PQL	mg/Kg	
	TIN	J	3.07	11.8	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.09	5.91	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5DN-QC-052711	ANTIMONY	J	0.101	0.219	PQL	mg/Kg	
	SELENIUM	J	0.193	0.438	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0556	0.109	PQL	mg/Kg	
SL-003-SA8N-SB-4.0-5.0	ANTIMONY	J	0.116	0.226	PQL	mg/Kg	
	SELENIUM	J	0.140	0.451	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0394	0.113	PQL	mg/Kg	
SL-003-SA8N-SB-9.0-10.0	ANTIMONY	J	0.0916	0.242	PQL	mg/Kg	
	SELENIUM	J	0.137	0.485	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0602	0.121	PQL	mg/Kg	
SL-071-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.136	0.213	PQL	mg/Kg	
	SELENIUM	J	0.177	0.427	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0305	0.107	PQL	mg/Kg	
SL-091-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.171	0.212	PQL	mg/Kg	
	SELENIUM	J	0.161	0.424	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0521	0.106	PQL	mg/Kg	
SL-092-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.0839	0.223	PQL	mg/Kg	
	SELENIUM	J	0.171	0.447	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0519	0.112	PQL	mg/Kg	
SL-093-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.126	0.212	PQL	mg/Kg	
	SELENIUM	J	0.214	0.424	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0473	0.106	PQL	mg/Kg	
SL-117-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.135	0.217	PQL	mg/Kg	
	SELENIUM	J	0.195	0.433	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0643	0.108	PQL	mg/Kg	
SL-118-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.112	0.216	PQL	mg/Kg	
	SELENIUM	J	0.185	0.431	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0376	0.108	PQL	mg/Kg	
SL-119-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.123	0.215	PQL	mg/Kg	
	SELENIUM	J	0.184	0.431	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0569	0.108	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: DE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-120-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.136	0.220	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.156	0.440	PQL	mg/Kg	
SL-122-SA5DN-SS-0.0-0.5	ANTIMONY	J	0.130	0.227	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.213	0.455	PQL	mg/Kg	
	SILVER	J	0.0558	0.114	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5DN-QC-052711	HEXAVALENT CHROMIUM	J	0.78	1.1	PQL	mg/Kg	J (all detects)
SL-003-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.31	1.2	PQL	mg/Kg	J (all detects)
SL-003-SA8N-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.40	1.2	PQL	mg/Kg	J (all detects)
SL-071-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.77	1.1	PQL	mg/Kg	J (all detects)
SL-091-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.59	1.1	PQL	mg/Kg	J (all detects)
SL-093-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.95	1.1	PQL	mg/Kg	J (all detects)
SL-118-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	1.0	1.1	PQL	mg/Kg	J (all detects)
SL-119-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	1.0	1.1	PQL	mg/Kg	J (all detects)
SL-122-SA5DN-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.72	1.2	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5DN-QC-052711	MERCURY	J	0.0407	0.106	PQL	mg/Kg	J (all detects)
SL-071-SA5DN-SS-0.0-0.5	MERCURY	J	0.0036	0.109	PQL	mg/Kg	J (all detects)
SL-091-SA5DN-SS-0.0-0.5	MERCURY	J	0.0351	0.105	PQL	mg/Kg	J (all detects)
SL-092-SA5DN-SS-0.0-0.5	MERCURY	J	0.0048	0.106	PQL	mg/Kg	J (all detects)
SL-093-SA5DN-SS-0.0-0.5	MERCURY	J	0.0127	0.107	PQL	mg/Kg	J (all detects)
SL-117-SA5DN-SS-0.0-0.5	MERCURY	J	0.0644	0.104	PQL	mg/Kg	J (all detects)
SL-118-SA5DN-SS-0.0-0.5	MERCURY	J	0.0247	0.110	PQL	mg/Kg	J (all detects)
SL-119-SA5DN-SS-0.0-0.5	MERCURY	J	0.0644	0.107	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: DE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5DN-QC-052711	p-Terphenyl	J	1.7	3.9	PQL	mg/Kg	J (all detects)
SL-117-SA5DN-SS-0.0-0.5	p-Terphenyl	J	2.2	3.9	PQL	mg/Kg	J (all detects)
SL-119-SA5DN-SS-0.0-0.5	p-Terphenyl	J	12	19	PQL	mg/Kg	J (all detects)
SL-120-SA5DN-SS-0.0-0.5	p-Terphenyl	J	6.6	7.7	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-119-SA5DN-SS-0.0-0.5	EFH (C15-C20)	J	12	13	PQL	mg/Kg	J (all detects)

Method: 8081A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5DN-QC-052711	Chlordane MIREX	J J	2.1 0.26	3.8 0.38	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-071-SA5DN-SS-0.0-0.5	ENDRIN KETONE	J	0.23	0.37	PQL	ug/Kg	J (all detects)
SL-091-SA5DN-SS-0.0-0.5	Chlordane HEPTACHLOR EPOXIDE	J J	2.3 0.050	3.7 0.18	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-092-SA5DN-SS-0.0-0.5	Chlordane ENDOSULFAN SULFATE	J J	2.7 0.27	3.8 0.38	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-093-SA5DN-SS-0.0-0.5	Chlordane	J	2.4	3.7	PQL	ug/Kg	J (all detects)
SL-117-SA5DN-SS-0.0-0.5	Chlordane HEPTACHLOR EPOXIDE	J J	2.3 0.095	3.8 0.18	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-118-SA5DN-SS-0.0-0.5	4,4'-DDD 4,4'-DDE 4,4'-DDT MIREX	J J J J	0.076 0.19 0.16 0.31	0.37 0.37 0.37 0.37	PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)
SL-119-SA5DN-SS-0.0-0.5	4,4'-DDE DELTA-BHC	J J	0.31 0.086	0.38 0.18	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-122-SA5DN-SS-0.0-0.5	Chlordane	J	3.0	4.0	PQL	ug/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-071-SA5DN-SS-0.0-0.5	Aroclor 5460	J	1.6	3.6	PQL	ug/Kg	J (all detects)
SL-093-SA5DN-SS-0.0-0.5	Aroclor 5460	J	1.9	3.6	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: DE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-117-SA5DN-SS-0.0-0.5	Aroclor 5460	J	1.9	3.6	PQL	ug/Kg	J (all detects)
SL-119-SA5DN-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J J	1.7 2.1	1.9 3.6	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-120-SA5DN-SS-0.0-0.5	Aroclor 5460	J	12	18	PQL	ug/Kg	J (all detects)
SL-122-SA5DN-SS-0.0-0.5	AROCLOR 1260	J	1.9	2.0	PQL	ug/Kg	J (all detects)

Method: 8151A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-091-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.10	0.19	PQL	ug/Kg	J (all detects)
SL-092-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.16	0.19	PQL	ug/Kg	J (all detects)
SL-093-SA5DN-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.15	0.18	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-003-SA8N-SB-4.0-5.0	METHYLENE CHLORIDE	J	1.1	4.4	PQL	ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-003-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	390	PQL	ug/Kg	J (all detects)
SL-003-SA8N-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	23	410	PQL	ug/Kg	J (all detects)
SL-071-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	43	360	PQL	ug/Kg	J (all detects)
SL-091-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(K)FLUORANTHENE BIS(2-ETHYLHEXYL)PHTHALATE Butylbenzylphthalate CHRYSENE FLUORANTHENE PHENANTHRENE PYRENE	J J J J J J J J J J	56 58 68 27 43 24 78 120 76 130	180 180 180 180 360 180 180 180 180 180	PQL PQL PQL PQL PQL PQL PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)
SL-092-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	40	370	PQL	ug/Kg	J (all detects)
SL-093-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	33	360	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: DE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-117-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	51	370	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	130	180	PQL	ug/Kg	
SL-118-SA5DN-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	23	180	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	25	180	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	35	360	PQL	ug/Kg	
	FLUORANTHENE	J	40	180	PQL	ug/Kg	
	PHENANTHRENE	J	24	180	PQL	ug/Kg	
	PYRENE	J	41	180	PQL	ug/Kg	
SL-119-SA5DN-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	38	370	PQL	ug/Kg	J (all detects)
SL-120-SA5DN-SS-0.0-0.5	BENZO(A)PYRENE	J	26	180	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	130	180	PQL	ug/Kg	
	Di-n-butylphthalate	J	66	180	PQL	ug/Kg	
	FLUORANTHENE	J	48	180	PQL	ug/Kg	
	PHENANTHRENE	J	41	180	PQL	ug/Kg	
	PYRENE	J	46	180	PQL	ug/Kg	
SL-122-SA5DN-SS-0.0-0.5	ANTHRACENE	J	43	200	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	140	200	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	170	200	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	48	390	PQL	ug/Kg	
	CARBAZOLE	J	28	200	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	43	200	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	180	200	PQL	ug/Kg	

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP09-SA5DN-QC-052711	ANTHRACENE	J	5.0	9.2	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	68	99	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	5.3	9.2	PQL	ug/Kg	
SL-071-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	5.1	9.2	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	8.7	9.2	PQL	ug/Kg	
	CHRYSENE	J	2.7	9.2	PQL	ug/Kg	
SL-091-SA5DN-SS-0.0-0.5	ANTHRACENE	J	3.5	9.0	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	3.8	9.0	PQL	ug/Kg	
SL-092-SA5DN-SS-0.0-0.5	ACENAPHTHENE	J	7.5	9.3	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	8.0	9.3	PQL	ug/Kg	
	FLUORENE	J	6.0	9.3	PQL	ug/Kg	
SL-093-SA5DN-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	4.9	9.0	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	5.6	9.0	PQL	ug/Kg	
	FLUORANTHENE	J	7.8	9.0	PQL	ug/Kg	
	PHENANTHRENE	J	4.8	9.0	PQL	ug/Kg	
	PYRENE	J	7.0	9.0	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE167 **Laboratory: LL**

EDD Filename: DE167_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-117-SA5DN-SS-0.0-0.5	ANTHRACENE	J	4.5	9.2	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	6.7	9.2	PQL	ug/Kg	
	BENZO(A)PYRENE	J	7.2	9.2	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	7.6	9.2	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	6.0	9.2	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	3.9	9.2	PQL	ug/Kg	
	PHENANTHRENE	J	4.8	9.2	PQL	ug/Kg	
SL-118-SA5DN-SS-0.0-0.5	ANTHRACENE	J	1.6	1.8	PQL	ug/Kg	J (all detects)
SL-120-SA5DN-SS-0.0-0.5	ANTHRACENE	J	3.5	9.0	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	7.5	9.0	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	7.7	9.0	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	3.7	9.0	PQL	ug/Kg	

LDC #: 26275Y4 **VALIDATION COMPLETENESS WORKSHEET** Date: 9/29/11
SDG #: DE167 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: MM
2nd Reviewer: CR

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 final
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	J N SW	Ag, Ba, Fe, Mn, K, Ti; > 4X
VII.	Duplicate Sample Analysis	SW N	Ag < 5X,
VIII.	Laboratory Control Samples (LCS)	N A	SRM,
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Mn.
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
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-071-SA5DN-SS-0.0-0.5	11	SL-003-SA8N-SB-4.0-5.0	21		31	
2	SL-091-SA5DN-SS-0.0-0.5	12	SL-003-SA8N-SB-9.0-10.0	22		32	
3	SL-092-SA5DN-SS-0.0-0.5	13	SL-117-SA5DN-SS-0.0-0.5MS	23		33	
4	SL-093-SA5DN-SS-0.0-0.5	14	SL-117-SA5DN-SS-0.0-0.5MSD	24		34	
5	SL-117-SA5DN-SS-0.0-0.5	15	SL-117-SA5DN-SS-0.0-0.5DUP	25		35	
6	SL-118-SA5DN-SS-0.0-0.5	16		26		36	
7	SL-119-SA5DN-SS-0.0-0.5	17		27		37	
8	SL-120-SA5DN-SS-0.0-0.5	18		28		38	
9	SL-122-SA5DN-SS-0.0-0.5	19		29		39	
10	DUP09-SA5DN-QC-052711	20		30		40	

Notes: # Sb J/UJ - post spike 10x%

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE167
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6301476BKG Matrix Spike Lab Sample ID: 6301477MS Matrix Spike Duplicate Lab Sample ID: 6301478MSD
% Solids for Sample: 90.5
Batch Id(s): P15708D, P15726H, P15911B

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		30141.1776		32318.3146		32852.4541		214.5577	220.9945	MG/KG	1015		1227		2			20	P
Antimony	121	0.1354	B	0.5050		0.5646		1.3128	1.3260	MG/KG	28	N	32	N	11		75 - 125	20	MS
Arsenic	75	5.2389		7.6823		7.6177		2.1881	2.2099	MG/KG	112		108		1		75 - 125	20	MS
Barium	137	137.8616		149.6855		152.6630		10.9403	11.0497	MG/KG	108		134		2			20	MS
Beryllium	9	0.8885		1.4312		1.7266		0.8752	0.8840	MG/KG	62	N	95		19		75 - 125	20	MS
Boron		0.9641	U	203.3042		213.4983		214.5577	220.9945	MG/KG	95		97		5		84 - 115	20	P
Cadmium	111	0.5003		1.5299		1.6223		1.0940	1.1050	MG/KG	94		102		6		75 - 125	20	MS
Calcium		5495.2725		5856.2195		5912.2818		429.1155	441.9890	MG/KG	84		94		1			20	P
Chromium	52	31.0259		40.8949		41.7901		10.9403	11.0497	MG/KG	90		97		2		75 - 125	20	MS
Cobalt	59	9.3251		61.6596		61.9669		54.7016	55.2486	MG/KG	96		95		0		75 - 125	20	MS
Copper	63	16.4294		26.4975		27.2707		10.9403	11.0497	MG/KG	92		98		3		75 - 125	20	MS
Iron		31761.4235		32230.9982		29432.5171		107.2789	110.4972	MG/KG	438		-2108		9			20	P
Lead	208	12.6292		17.3295		15.9978		3.2821	3.3149	MG/KG	143	N	102		8		75 - 125	20	MS
Lithium		24.0711		127.5460		131.2066		107.2789	110.4972	MG/KG	96		97		3		82 - 114	20	P
Magnesium		6578.9611		6836.6604		6792.2519		214.5577	220.9945	MG/KG	120		97		1			20	P
Manganese		463.7948		517.2912		453.7293		53.6394	55.2486	MG/KG	100		-18		13			20	P
Mercury		0.0644	B	0.2802		0.2598		0.1808	0.1767	MG/KG	119		111		8		65 - 135	20	CV
Molybdenum	98	0.5358		10.5487		10.2298		10.9403	11.0497	MG/KG	92		88		3		75 - 125	20	MS
Nickel	60	21.1461		31.9020		32.9282		10.9403	11.0497	MG/KG	98		107		3		75 - 125	20	MS
Phosphorus		387.4044		479.4593		475.7779		107.2789	110.4972	MG/KG	86		80		1		75 - 125	20	P
Potassium		5781.7452		7253.0805		7170.5845		1072.7887	1104.9724	MG/KG	137		126		1			20	P
Selenium	78	0.1948	B	2.2843		2.2762		2.1881	2.2099	MG/KG	95		94		0		75 - 125	20	MS
Silver	107	0.0643	B	11.0300		11.0232		10.9403	11.0497	MG/KG	100		99		0		75 - 125	20	MS
Sodium		101.3899	B	1097.7450		1163.6762		1072.7887	1104.9724	MG/KG	93		96		6		75 - 125	20	P
Strontium		31.7365		132.3682		136.0851		107.2789	110.4972	MG/KG	94		94		3		75 - 115	20	P
Thallium	203	0.3623		0.7785		0.7982		0.4376	0.4420	MG/KG	95		99		2		75 - 125	20	MS
Tin		2.7451	B	349.9941		367.7669		429.1155	441.9890	MG/KG	81		83		5		80 - 110	20	P
Titanium		1422.4580		1617.6731		1672.0663		107.2789	110.4972	MG/KG	182		226		3			20	P
Vanadium	51	56.6353		67.5674		69.9006		10.9403	11.0497	MG/KG	100		120		3			20	MS
Zinc	66	80.2080		89.9076		92.9282		10.9403	11.0497	MG/KG	89		115		3			20	MS
Zirconium		4.0906	B	99.9903		103.2077		107.2789	110.4972	MG/KG	89		90		3		75 - 125	20	P

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 6
DUPLICATES
SDG No.: DE167
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6301476BKG
% Solids for Duplicate: 90.2
Batch ID(s): P15708D, P15726H, P15911B
Concentration Units: MG/KG

Duplicate Lab Sample ID: 6301479DUP
% Solids for Sample: 90.5

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			30141.1776		29016.2734		4		P
Antimony	121		0.1354	B	0.1302	B	4		MS
Arsenic	75		5.2389		5.7459		9		MS
Barium	137		137.8616		138.4190		0		MS
Beryllium	9		0.8885		0.9180		3		MS
Boron			0.9641	U	0.9641	U			P
Cadmium	111	0.1	0.5003		0.5072		1		MS
Calcium			5495.2725		5246.8942		5		P
Chromium	52		31.0259		31.2155		1		MS
Cobalt	59		9.3251		9.9660		7		MS
Copper	63		16.4294		17.6307		7		MS
Iron			31761.4235		31597.3730		1		P
Lead	208		12.6292		13.3043		5		MS
Lithium			24.0711		25.6213		6		P
Magnesium			6578.9611		6532.5534		1		P
Manganese			463.7948		445.5519		4		P
Mercury			0.0644	B	1.5586		184	*	CV
Molybdenum	98	0.1	0.5358		0.5387		1		MS
Nickel	60		21.1461		21.7595		3		MS
Phosphorus			387.4044		417.8063		8		P
Potassium			5781.7452		5851.5459		1		P
Selenium	78		0.1948	B	0.2096	B	7		MS
Silver	107		0.0643	B	0.0448	B	36		MS
Sodium			101.3899	B	99.1019	B	2		P
Strontium			31.7365		29.9697		6		P
Thallium	203	0.1	0.3623		0.3553		2		MS
Tin			2.7451	B	2.8188	B	3		P
Titanium			1422.4580		1413.7764		1		P
Vanadium	51		56.6353		58.6910		4		MS
Zinc	66		80.2080		85.6991		7		MS
Zirconium			4.0906	B	4.9691	B	19		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.

* Hg by difference 1,4-dioxane (≤ 0.208 mg/kg) U/nJ
(Qual 1-8, 10-12) (#9 batched with SDG DE171 4498 DE167)

METHODS:	CONCENTRATION QUALIFIERS:
P = ICP Atomic Emission Spectrometer	U= Below MDL
MS = ICP Mass Spectrometry	B= Below LOQ
CV = Cold Vapor	FLAGS:
AF = Cold Vapor Atomic Fluorescence	* = Duplicate Out of Spec

SAMPLE DELIVERY GROUP

DE174

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-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	3050B	6010B	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	3050B	6020	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	3060A	7199	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	3546	1625C	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	3550B	8015B	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	3550B	8015M	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	3550B	8082	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	3550B	8270C	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	3550B	8270C SIM	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	5035	8015M	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	5035	8260B	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	5035	8260B SIM	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	8330	8330A	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	METHOD	300.0	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	METHOD	314.0	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	METHOD	6850	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	METHOD	7471A	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	METHOD	8015B	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	METHOD	8015M	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	METHOD	8315A	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0	6308035	N	METHOD	9012B	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0DU	P308035D270748A	DUP	METHOD	300.0	III
06-Jun-2011	SL-022-SA5DN-SB-4.0-5.0MS	P308035R270802A	MS	METHOD	300.0	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	3050B	6010B	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	3050B	6020	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	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
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	3546	1625C	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	3550B	8015B	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	3550B	8015M	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	3550B	8082	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	3550B	8270C	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	3550B	8270C SIM	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	5035	8015M	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	5035	8260B	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	5035	8260B SIM	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	8330	8330A	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	METHOD	300.0	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	METHOD	314.0	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	METHOD	7471A	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	METHOD	8015B	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	METHOD	8015M	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	METHOD	8315A	III
06-Jun-2011	SL-022-SA5DN-SB-15.0-16.0	6308036	N	METHOD	9012B	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	3050B	6010B	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	3050B	6020	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	3060A	7199	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	3546	1625C	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	3550B	8015B	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	3550B	8015M	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	3550B	8082	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	3550B	8270C	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	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
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	5035	8015M	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	5035	8260B	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	5035	8260B SIM	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	8330	8330A	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	METHOD	300.0	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	METHOD	314.0	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	METHOD	7471A	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	METHOD	8015B	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	METHOD	8015M	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	METHOD	8315A	III
06-Jun-2011	SL-079-SA8N-SB-9.0-10.0	6308040	N	METHOD	9012B	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	3050B	6010B	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	3050B	6020	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	3060A	7199	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	3546	1625C	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	3550B	8015B	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	3550B	8015M	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	3550B	8082	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	3550B	8270C	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	3550B	8270C SIM	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	5035	8015M	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	5035	8260B	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	5035	8260B SIM	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	8330	8330A	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	METHOD	300.0	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	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
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	METHOD	7471A	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	METHOD	8015B	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	METHOD	8015M	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	METHOD	8315A	III
06-Jun-2011	SL-079-SA8N-SB-4.0-5.0	6308039	N	METHOD	9012B	III
06-Jun-2011	TB-060611	6308042	TB	5030B	8015M	III
06-Jun-2011	TB-060611	6308042	TB	5030B	8260B	III
06-Jun-2011	TB-060611	6308042	TB	5030B	8260B SIM	III
06-Jun-2011	SL-053-SA5DN-SB-4.0-5.0	6308037	N	3050B	6010B	III
06-Jun-2011	SL-053-SA5DN-SB-4.0-5.0	6308037	N	3050B	6020	III
06-Jun-2011	SL-053-SA5DN-SB-4.0-5.0	6308037	N	3060A	7199	III
06-Jun-2011	SL-053-SA5DN-SB-4.0-5.0	6308037	N	3550B	8082	III
06-Jun-2011	SL-053-SA5DN-SB-4.0-5.0	6308037	N	3550B	8270C	III
06-Jun-2011	SL-053-SA5DN-SB-4.0-5.0	6308037	N	3550B	8270C SIM	III
06-Jun-2011	SL-053-SA5DN-SB-4.0-5.0	6308037	N	5035	8260B	III
06-Jun-2011	SL-053-SA5DN-SB-4.0-5.0	6308037	N	5035	8260B SIM	III
06-Jun-2011	SL-053-SA5DN-SB-4.0-5.0	6308037	N	METHOD	300.0	III
06-Jun-2011	SL-053-SA5DN-SB-4.0-5.0	6308037	N	METHOD	314.0	III
06-Jun-2011	SL-053-SA5DN-SB-4.0-5.0	6308037	N	METHOD	7471A	III
06-Jun-2011	SL-053-SA5DN-SB-11.5-12.5	6308038	N	3050B	6010B	III
06-Jun-2011	SL-053-SA5DN-SB-11.5-12.5	6308038	N	3050B	6020	III
06-Jun-2011	SL-053-SA5DN-SB-11.5-12.5	6308038	N	3060A	7199	III
06-Jun-2011	SL-053-SA5DN-SB-11.5-12.5	6308038	N	3550B	8082	III
06-Jun-2011	SL-053-SA5DN-SB-11.5-12.5	6308038	N	3550B	8270C	III
06-Jun-2011	SL-053-SA5DN-SB-11.5-12.5	6308038	N	3550B	8270C SIM	III
06-Jun-2011	SL-053-SA5DN-SB-11.5-12.5	6308038	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
06-Jun-2011	SL-053-SA5DN-SB-11.5-12.5	6308038	N	METHOD	314.0	III
06-Jun-2011	SL-053-SA5DN-SB-11.5-12.5	6308038	N	METHOD	7471A	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	3050B	6010B	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	3050B	6020	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	3060A	7199	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	3546	1625C	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	3550B	8015B	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	3550B	8015M	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	3550B	8082	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	3550B	8270C	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	3550B	8270C SIM	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	5035	8015M	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	5035	8260B	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	5035	8260B SIM	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	8330	8330A	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	METHOD	300.0	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	METHOD	314.0	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	METHOD	7471A	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	METHOD	8015B	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	METHOD	8015M	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	N	METHOD	8315A	III
06-Jun-2011	SL-133-SA8N-SB-4.0-5.0	6308041	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: DE174 Laboratory: LL

EDD Filename: PrepDE174_v1 eQAPP Name: CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-022-SA5DN-SB-15.0-16.0 *Collected:* 6/6/2011 11:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.2		0.87	MDL	1.1	PQL	mg/Kg	J	Q, E

Sample ID: SL-022-SA5DN-SB-4.0-5.0 *Collected:* 6/6/2011 11:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	20.2		0.91	MDL	1.1	PQL	mg/Kg	J	Q, E

Sample ID: SL-053-SA5DN-SB-11.5-12.5 *Collected:* 6/6/2011 4:00:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.2		0.89	MDL	1.1	PQL	mg/Kg	J	Q, E

Sample ID: SL-053-SA5DN-SB-4.0-5.0 *Collected:* 6/6/2011 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
FLUORIDE	15.9		0.94	MDL	1.2	PQL	mg/Kg	J	Q, E

Sample ID: SL-079-SA8N-SB-4.0-5.0 *Collected:* 6/6/2011 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	2.8		0.92	MDL	1.1	PQL	mg/Kg	J	Q, E

Sample ID: SL-079-SA8N-SB-9.0-10.0 *Collected:* 6/6/2011 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
FLUORIDE	3.6		0.94	MDL	1.2	PQL	mg/Kg	J	Q, E

Sample ID: SL-133-SA8N-SB-4.0-5.0 *Collected:* 6/6/2011 4:15:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.5		0.94	MDL	1.2	PQL	mg/Kg	J	Q, E
Nitrate-NO3	1.5	J	0.94	MDL	1.8	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: DE174 **Laboratory:** LL

EDD Filename: PrepDE174_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-022-SA5DN-SB-15.0-16.0 *Collected:* 6/6/2011 11:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	5530		6.63	MDL	21.6	PQL	mg/Kg	J	E
MANGANESE	245		0.0844	MDL	0.541	PQL	mg/Kg	J	E, E
POTASSIUM	2800		19.5	MDL	54.1	PQL	mg/Kg	J	Q
TIN	2.94	J	1.08	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	1.31	J	0.909	MDL	5.41	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA5DN-SB-4.0-5.0 *Collected:* 6/6/2011 11:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	12300		7.00	MDL	22.8	PQL	mg/Kg	J	E
MANGANESE	327		0.0890	MDL	0.571	PQL	mg/Kg	J	E, E
POTASSIUM	3580		20.5	MDL	57.1	PQL	mg/Kg	J	Q
TIN	3.09	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	2.53	J	0.959	MDL	5.71	PQL	mg/Kg	J	Z

Sample ID: SL-053-SA5DN-SB-11.5-12.5 *Collected:* 6/6/2011 4:00:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	4770		6.77	MDL	22.1	PQL	mg/Kg	J	E
MANGANESE	300		0.0862	MDL	0.553	PQL	mg/Kg	J	E, E
POTASSIUM	3220		19.9	MDL	55.3	PQL	mg/Kg	J	Q
TIN	2.95	J	1.11	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.80	J	0.928	MDL	5.53	PQL	mg/Kg	J	Z

Sample ID: SL-053-SA5DN-SB-4.0-5.0 *Collected:* 6/6/2011 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
CALCIUM	18000		7.18	MDL	23.4	PQL	mg/Kg	J	E
MANGANESE	242		0.0913	MDL	0.585	PQL	mg/Kg	J	E, E
POTASSIUM	3170		21.1	MDL	58.5	PQL	mg/Kg	J	Q
TIN	2.94	J	1.17	MDL	11.7	PQL	mg/Kg	U	B
Zirconium	1.98	J	0.984	MDL	5.85	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE174 **Laboratory:** LL

EDD Filename: PrepDE174_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-079-SA8N-SB-4.0-5.0 *Collected:* 6/6/2011 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
CALCIUM	3190		6.97	MDL	22.7	PQL	mg/Kg	J	E
MANGANESE	628		0.0887	MDL	0.568	PQL	mg/Kg	J	E, E
POTASSIUM	2580		20.5	MDL	56.8	PQL	mg/Kg	J	Q
TIN	3.00	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	2.88	J	0.955	MDL	5.68	PQL	mg/Kg	J	Z

Sample ID: SL-079-SA8N-SB-9.0-10.0 *Collected:* 6/6/2011 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
CALCIUM	3660		6.99	MDL	22.8	PQL	mg/Kg	J	E
MANGANESE	175		0.0889	MDL	0.570	PQL	mg/Kg	J	E, E
POTASSIUM	2140		20.5	MDL	57.0	PQL	mg/Kg	J	Q
TIN	3.06	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	2.62	J	0.957	MDL	5.70	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA8N-SB-4.0-5.0 *Collected:* 6/6/2011 4:15:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	10200		6.94	MDL	22.7	PQL	mg/Kg	J	E
MANGANESE	685		0.0883	MDL	0.566	PQL	mg/Kg	J	E, E
POTASSIUM	2780		20.4	MDL	56.6	PQL	mg/Kg	J	Q
TIN	3.09	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	4.96	J	0.951	MDL	5.66	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-022-SA5DN-SB-15.0-16.0 *Collected:* 6/6/2011 11:50:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0885	J	0.0630	MDL	0.210	PQL	mg/Kg	J	Z, Q
CHROMIUM	23.0		0.126	MDL	0.420	PQL	mg/Kg	J	A
LEAD	4.98		0.0109	MDL	0.210	PQL	mg/Kg	J	Q, E
SILVER	0.0549	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z
VANADIUM	35.8		0.0231	MDL	0.105	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE174 **Laboratory:** LL

EDD Filename: PrepDE174_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-022-SA5DN-SB-15.0-16.0 *Collected:* 6/6/2011 11:50:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.0168	U	0.0168	MDL	0.105	PQL	mg/Kg	UJ	Q

Sample ID: SL-022-SA5DN-SB-4.0-5.0 *Collected:* 6/6/2011 11:40:00 *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0978	J	0.0443	MDL	0.443	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA5DN-SB-4.0-5.0 *Collected:* 6/6/2011 11:40:00 *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.272		0.0665	MDL	0.222	PQL	mg/Kg	J	Q
BERYLLIUM	1.02		0.0177	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	34.1		0.133	MDL	0.443	PQL	mg/Kg	J	A
LEAD	10.7		0.0115	MDL	0.222	PQL	mg/Kg	J	Q, E
SILVER	0.0501	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z
VANADIUM	65.2		0.0244	MDL	0.111	PQL	mg/Kg	J	A

Sample ID: SL-053-SA5DN-SB-11.5-12.5 *Collected:* 6/6/2011 4:00:00 PM *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0697	J	0.0442	MDL	0.442	PQL	mg/Kg	J	Z

Sample ID: SL-053-SA5DN-SB-11.5-12.5 *Collected:* 6/6/2011 4:00:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.160	J	0.0663	MDL	0.221	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.735		0.0177	MDL	0.111	PQL	mg/Kg	J	Q
CADMIUM	0.0887	J	0.0442	MDL	0.111	PQL	mg/Kg	J	Z
CHROMIUM	24.7		0.133	MDL	0.442	PQL	mg/Kg	J	A
LEAD	9.71		0.0115	MDL	0.221	PQL	mg/Kg	J	Q, E
SILVER	0.0286	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z
VANADIUM	47.1		0.0243	MDL	0.111	PQL	mg/Kg	J	A

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE174 **Laboratory:** LL

EDD Filename: PrepDE174_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-053-SA5DN-SB-4.0-5.0 ***Collected:*** 6/6/2011 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	0.259		0.0703	MDL	0.234	PQL	mg/Kg	J	Q
BERYLLIUM	0.817		0.0187	MDL	0.117	PQL	mg/Kg	J	Q
CADMIUM	0.0861	J	0.0468	MDL	0.117	PQL	mg/Kg	J	Z
CHROMIUM	30.8		0.141	MDL	0.468	PQL	mg/Kg	J	A
LEAD	10.0		0.0122	MDL	0.234	PQL	mg/Kg	J	Q, E
SILVER	0.0428	J	0.0141	MDL	0.117	PQL	mg/Kg	J	Z
VANADIUM	53.4		0.0258	MDL	0.117	PQL	mg/Kg	J	A

Sample ID: SL-079-SA8N-SB-4.0-5.0 ***Collected:*** 6/6/2011 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
SELENIUM	0.0560	J	0.0450	MDL	0.450	PQL	mg/Kg	J	Z

Sample ID: SL-079-SA8N-SB-4.0-5.0 ***Collected:*** 6/6/2011 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	0.155	J	0.0675	MDL	0.225	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.871		0.0180	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.0801	J	0.0450	MDL	0.113	PQL	mg/Kg	J	Z
CHROMIUM	21.1		0.135	MDL	0.450	PQL	mg/Kg	J	A
LEAD	8.14		0.0117	MDL	0.225	PQL	mg/Kg	J	Q, E
SILVER	0.0579	J	0.0135	MDL	0.113	PQL	mg/Kg	J	Z
VANADIUM	44.9		0.0248	MDL	0.113	PQL	mg/Kg	J	A

Sample ID: SL-079-SA8N-SB-9.0-10.0 ***Collected:*** 6/6/2011 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
SELENIUM	0.0621	J	0.0460	MDL	0.460	PQL	mg/Kg	J	Z

Sample ID: SL-079-SA8N-SB-9.0-10.0 ***Collected:*** 6/6/2011 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	0.135	J	0.0690	MDL	0.230	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.673		0.0184	MDL	0.115	PQL	mg/Kg	J	Q
CHROMIUM	21.7		0.138	MDL	0.460	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: DE174 **Laboratory:** LL

EDD Filename: PrepDE174_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-079-SA8N-SB-9.0-10.0 *Collected:* 6/6/2011 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
LEAD	6.41		0.0120	MDL	0.230	PQL	mg/Kg	J	Q, E
SILVER	0.0280	J	0.0138	MDL	0.115	PQL	mg/Kg	J	Z
VANADIUM	42.5		0.0253	MDL	0.115	PQL	mg/Kg	J	A

Sample ID: SL-133-SA8N-SB-4.0-5.0 *Collected:* 6/6/2011 4:15:00 PM *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0498	J	0.0466	MDL	0.466	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA8N-SB-4.0-5.0 *Collected:* 6/6/2011 4:15:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.209	J	0.0700	MDL	0.233	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.835		0.0187	MDL	0.117	PQL	mg/Kg	J	Q
CADMIUM	0.106	J	0.0466	MDL	0.117	PQL	mg/Kg	J	Z
CHROMIUM	32.9		0.140	MDL	0.466	PQL	mg/Kg	J	A
LEAD	9.15		0.0121	MDL	0.233	PQL	mg/Kg	J	Q, E
SILVER	0.0337	J	0.0140	MDL	0.117	PQL	mg/Kg	J	Z
VANADIUM	63.7		0.0257	MDL	0.117	PQL	mg/Kg	J	A

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-022-SA5DN-SB-15.0-16.0 *Collected:* 6/6/2011 11:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.58	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA5DN-SB-4.0-5.0 *Collected:* 6/6/2011 11:40:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.35	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: DE174 **Laboratory: LL**

EDD Filename: PrepDE174_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **7199** ***Matrix:*** **SO**

Sample ID: SL-053-SA5DN-SB-4.0-5.0 ***Collected:*** 6/6/2011 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	0.35	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-079-SA8N-SB-4.0-5.0 ***Collected:*** 6/6/2011 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	0.40	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-079-SA8N-SB-9.0-10.0 ***Collected:*** 6/6/2011 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	1.0	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA8N-SB-4.0-5.0 ***Collected:*** 6/6/2011 4:15:00 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	0.39	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: **METALS**

Method: **7471A** ***Matrix:*** **SO**

Sample ID: SL-022-SA5DN-SB-4.0-5.0 ***Collected:*** 6/6/2011 11:40:00 ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0106	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-053-SA5DN-SB-4.0-5.0 ***Collected:*** 6/6/2011 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
MERCURY	0.0035	J	0.0031	MDL	0.109	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA8N-SB-4.0-5.0 ***Collected:*** 6/6/2011 4:15:00 PM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0159	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: DE174 **Laboratory: LL**

EDD Filename: PrepDE174_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1625C **Matrix: SO**

Sample ID: SL-022-SA5DN-SB-15.0-16.0 *Collected:* 6/6/2011 11:50:00 *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	53.1		18.0	MDL	36.1	PQL	ng/Kg	U	B

Sample ID: SL-079-SA8N-SB-4.0-5.0 *Collected:* 6/6/2011 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
N-NITROSODIMETHYLAMINE	37.9	J	19.1	MDL	38.3	PQL	ng/Kg	U	B

Sample ID: SL-079-SA8N-SB-9.0-10.0 *Collected:* 6/6/2011 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
N-NITROSODIMETHYLAMINE	52.8		19.6	MDL	39.1	PQL	ng/Kg	U	B

Sample ID: SL-133-SA8N-SB-4.0-5.0 *Collected:* 6/6/2011 4:15:00 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
N-NITROSODIMETHYLAMINE	61.8		19.6	MDL	39.3	PQL	ng/Kg	U	B

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-022-SA5DN-SB-4.0-5.0 *Collected:* 6/6/2011 11:40:00 *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)	0.78	J	0.46	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-079-SA8N-SB-4.0-5.0 *Collected:* 6/6/2011 12:05:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	0.85	J	0.46	MDL	1.4	PQL	mg/Kg	U	B
EFH (C30-C40)	2.0		0.46	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-079-SA8N-SB-9.0-10.0 *Collected:* 6/6/2011 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)	1.7		0.47	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: DE174 **Laboratory:** LL

EDD Filename: PrepDE174_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8015M **Matrix:** SO

Sample ID: SL-079-SA8N-SB-9.0-10.0 *Collected:* 6/6/2011 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 (C30-C40)	4.2		0.47	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-133-SA8N-SB-4.0-5.0 *Collected:* 6/6/2011 4:15:00 PM *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)	0.80	J	0.47	MDL	1.4	PQL	mg/Kg	U	B

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-022-SA5DN-SB-15.0-16.0 *Collected:* 6/6/2011 11:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	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-022-SA5DN-SB-4.0-5.0 *Collected:* 6/6/2011 11:40:00 *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	3.8	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	E

Sample ID: SL-053-SA5DN-SB-11.5-12.5 *Collected:* 6/6/2011 4:00:00 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-053-SA5DN-SB-4.0-5.0 *Collected:* 6/6/2011 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
Aroclor 5432	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	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: DE174 **Laboratory:** LL

EDD Filename: PrepDE174_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-053-SA5DN-SB-4.0-5.0 *Collected:* 6/6/2011 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
Aroclor 5442	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	E
Aroclor 5460	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	E

Sample ID: SL-079-SA8N-SB-9.0-10.0 *Collected:* 6/6/2011 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
Aroclor 5432	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	E
Aroclor 5442	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	E
Aroclor 5460	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	E

Sample ID: SL-133-SA8N-SB-4.0-5.0 *Collected:* 6/6/2011 4:15:00 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 1248	1.9	J	0.39	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5432	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	E
Aroclor 5442	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	E
Aroclor 5460	1.2	U	1.2	MDL	3.9	PQL	ug/Kg	UJ	E

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-022-SA5DN-SB-15.0-16.0 *Collected:* 6/6/2011 11:50:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: SL-022-SA5DN-SB-4.0-5.0 *Collected:* 6/6/2011 11:40:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-053-SA5DN-SB-11.5-12.5 *Collected:* 6/6/2011 4:00:00 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
1,2-DICHLOROBENZENE	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: DE174 **Laboratory:** LL

EDD Filename: PrepDE174_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-053-SA5DN-SB-11.5-12.5 *Collected:* 6/6/2011 4:00:00 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	19	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-053-SA5DN-SB-4.0-5.0 *Collected:* 6/6/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	22	J	19	MDL	390	PQL	ug/Kg	J	Z

Sample ID: SL-079-SA8N-SB-4.0-5.0 *Collected:* 6/6/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-079-SA8N-SB-9.0-10.0 *Collected:* 6/6/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-133-SA8N-SB-4.0-5.0 *Collected:* 6/6/2011 4:15:00 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-022-SA5DN-SB-15.0-16.0 *Collected:* 6/6/2011 11:50:00 *Analysis Type:* RES *Dilution:* 0.93

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.4		6.8	MDL	8.1	PQL	ug/Kg	U	B
CHLOROFORM	0.17	J	0.12	MDL	4.0	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	1.1	J	0.24	MDL	4.0	PQL	ug/Kg	U	B
TOLUENE	0.15	J	0.08	MDL	4.0	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE174 **Laboratory:** LL

EDD Filename: PrepDE174_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-022-SA5DN-SB-4.0-5.0 ***Collected:*** 6/6/2011 11:40:00 ***Analysis Type:*** RES ***Dilution:*** 0.9

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHLOROFORM	0.17	J	0.12	MDL	4.1	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	1.2	J	0.25	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: SL-053-SA5DN-SB-4.0-5.0 ***Collected:*** 6/6/2011 3:50:00 PM ***Analysis Type:*** RES ***Dilution:*** 1.02

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.9		8.0	MDL	9.6	PQL	ug/Kg	U	B
CHLOROFORM	0.19	J	0.14	MDL	4.8	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	1.3	J	0.29	MDL	4.8	PQL	ug/Kg	U	B
TOLUENE	0.15	J	0.1	MDL	4.8	PQL	ug/Kg	J	Z

Sample ID: SL-079-SA8N-SB-4.0-5.0 ***Collected:*** 6/6/2011 12:05:00 ***Analysis Type:*** RES ***Dilution:*** 0.86

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.0		6.6	MDL	7.9	PQL	ug/Kg	U	B
CHLOROFORM	0.16	J	0.12	MDL	4.0	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.99	J	0.24	MDL	4.0	PQL	ug/Kg	U	B
TOLUENE	0.22	J	0.08	MDL	4.0	PQL	ug/Kg	J	Z

Sample ID: SL-079-SA8N-SB-9.0-10.0 ***Collected:*** 6/6/2011 11:55:00 ***Analysis Type:*** RES ***Dilution:*** 0.92

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.9		7.3	MDL	8.7	PQL	ug/Kg	U	B
CHLOROFORM	0.19	J	0.13	MDL	4.3	PQL	ug/Kg	J	Z
TOLUENE	0.40	J	0.09	MDL	4.3	PQL	ug/Kg	J	Z

Sample ID: SL-133-SA8N-SB-4.0-5.0 ***Collected:*** 6/6/2011 4:15:00 PM ***Analysis Type:*** RES ***Dilution:*** 0.88

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.5		6.9	MDL	8.3	PQL	ug/Kg	U	B
CHLOROFORM	0.16	J	0.12	MDL	4.1	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	1.2	J	0.25	MDL	4.1	PQL	ug/Kg	U	B
TOLUENE	0.17	J	0.08	MDL	4.1	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE174 **Laboratory: LL**

EDD Filename: PrepDE174_v1 **eQAPP Name: CDM_SSFL_110509**

* denotes a non-reportable result

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Data Qualifier Summary

Lab Reporting Batch ID: DE174 **Laboratory: LL**

EDD Filename: PrepDE174_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

Data Qualifier Summary

Lab Reporting Batch ID: DE174 **Laboratory: LL**

EDD Filename: PrepDE174_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	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE174 **Laboratory: LL**

EDD Filename: PrepDE174_v1 **eQAPP Name: CDM_SSFL_110509**

Q	Matrix Spike Upper Rejection
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

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control
Outlier Reports

DE174

Method Blank Outlier Report

Lab Reporting Batch ID: DE174 **Laboratory: LL**

EDD Filename: DE174_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLB16B261008	6/28/2011 10:08:00 AM	N-NITROSODIMETHYLAMINE	18.9 ng/Kg	SL-022-SA5DN-SB-15.0-16.0 SL-022-SA5DN-SB-4.0-5.0 SL-079-SA8N-SB-4.0-5.0 SL-079-SA8N-SB-9.0-10.0 SL-133-SA8N-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-022-SA5DN-SB-15.0-16.0(RES)	N-NITROSODIMETHYLAMINE	53.1 ng/Kg	53.1U ng/Kg
SL-079-SA8N-SB-4.0-5.0(RES)	N-NITROSODIMETHYLAMINE	37.9 ng/Kg	38.3U ng/Kg
SL-079-SA8N-SB-9.0-10.0(RES)	N-NITROSODIMETHYLAMINE	52.8 ng/Kg	52.8U ng/Kg
SL-133-SA8N-SB-4.0-5.0(RES)	N-NITROSODIMETHYLAMINE	61.8 ng/Kg	61.8U ng/Kg

Method: 6010B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15808BB220530	6/8/2011 5:30:00 AM	PHOSPHORUS TIN	1.09 mg/Kg 1.28 mg/Kg	SL-022-SA5DN-SB-15.0-16.0 SL-022-SA5DN-SB-4.0-5.0 SL-053-SA5DN-SB-11.5-12.5 SL-053-SA5DN-SB-4.0-5.0 SL-079-SA8N-SB-4.0-5.0 SL-079-SA8N-SB-9.0-10.0 SL-133-SA8N-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-022-SA5DN-SB-15.0-16.0(RES)	TIN	2.94 mg/Kg	2.94U mg/Kg
SL-022-SA5DN-SB-4.0-5.0(RES)	TIN	3.09 mg/Kg	3.09U mg/Kg
SL-053-SA5DN-SB-11.5-12.5(RES)	TIN	2.95 mg/Kg	2.95U mg/Kg
SL-053-SA5DN-SB-4.0-5.0(RES)	TIN	2.94 mg/Kg	2.94U mg/Kg
SL-079-SA8N-SB-4.0-5.0(RES)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-079-SA8N-SB-9.0-10.0(RES)	TIN	3.06 mg/Kg	3.06U mg/Kg
SL-133-SA8N-SB-4.0-5.0(RES)	TIN	3.09 mg/Kg	3.09U mg/Kg

Method: 6020
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P15826DB220423A	6/11/2011 4:23:00 AM	COPPER LEAD	0.152 mg/Kg 0.0660 mg/Kg	SL-022-SA5DN-SB-15.0-16.0 SL-022-SA5DN-SB-4.0-5.0 SL-053-SA5DN-SB-11.5-12.5 SL-053-SA5DN-SB-4.0-5.0 SL-079-SA8N-SB-4.0-5.0 SL-079-SA8N-SB-9.0-10.0 SL-133-SA8N-SB-4.0-5.0

Method Blank Outlier Report

Lab Reporting Batch ID: DE174 Laboratory: LL

EDD Filename: DE174_v1 eQAPP Name: CDM_SSFL_110509

Method: 8015M
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P61613AB321415A	6/11/2011 2:15:00 PM	EFH (C21-C30) EFH (C30-C40)	0.43 mg/Kg 0.90 mg/Kg	SL-022-SA5DN-SB-15.0-16.0 SL-022-SA5DN-SB-4.0-5.0 SL-079-SA8N-SB-4.0-5.0 SL-079-SA8N-SB-9.0-10.0 SL-133-SA8N-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-022-SA5DN-SB-4.0-5.0(REA2)	EFH (C30-C40)	0.78 mg/Kg	1.4U mg/Kg
SL-079-SA8N-SB-4.0-5.0(REA2)	EFH (C21-C30)	0.85 mg/Kg	1.4U mg/Kg
SL-079-SA8N-SB-4.0-5.0(REA2)	EFH (C30-C40)	2.0 mg/Kg	2.0U mg/Kg
SL-079-SA8N-SB-9.0-10.0(REA2)	EFH (C21-C30)	1.7 mg/Kg	1.7U mg/Kg
SL-079-SA8N-SB-9.0-10.0(REA2)	EFH (C30-C40)	4.2 mg/Kg	4.2U mg/Kg
SL-133-SA8N-SB-4.0-5.0(REA2)	EFH (C30-C40)	0.80 mg/Kg	1.4U mg/Kg

Method: 8260B
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB78B211215A	6/8/2011 12:15:00 PM	ACETONE METHYLENE CHLORIDE	8.7 ug/Kg 1.0 ug/Kg	SL-022-SA5DN-SB-15.0-16.0 SL-022-SA5DN-SB-4.0-5.0 SL-053-SA5DN-SB-4.0-5.0 SL-079-SA8N-SB-4.0-5.0 SL-079-SA8N-SB-9.0-10.0 SL-133-SA8N-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-022-SA5DN-SB-15.0-16.0(RES)	ACETONE	8.4 ug/Kg	8.4U ug/Kg
SL-022-SA5DN-SB-15.0-16.0(RES)	METHYLENE CHLORIDE	1.1 ug/Kg	4.0U ug/Kg
SL-022-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.2 ug/Kg	4.1U ug/Kg
SL-053-SA5DN-SB-4.0-5.0(RES)	ACETONE	9.9 ug/Kg	9.9U ug/Kg
SL-053-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.3 ug/Kg	4.8U ug/Kg
SL-079-SA8N-SB-4.0-5.0(RES)	ACETONE	8.0 ug/Kg	8.0U ug/Kg
SL-079-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	0.99 ug/Kg	4.0U ug/Kg
SL-079-SA8N-SB-9.0-10.0(RES)	ACETONE	9.9 ug/Kg	9.9U ug/Kg
SL-133-SA8N-SB-4.0-5.0(RES)	ACETONE	8.5 ug/Kg	8.5U ug/Kg
SL-133-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.2 ug/Kg	4.1U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE174 **Laboratory: LL**

EDD Filename: DE174_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-022-SA5DN-SB-4.0-5.0MS (SL-022-SA5DN-SB-15.0-16.0 SL-022-SA5DN-SB-4.0-5.0 SL-053-SA5DN-SB-11.5-12.5 SL-053-SA5DN-SB-4.0-5.0 SL-079-SA8N-SB-4.0-5.0 SL-079-SA8N-SB-9.0-10.0 SL-133-SA8N-SB-4.0-5.0)	FLUORIDE	33	-	80.00-120.00	-	FLUORIDE	J (all detects) UJ (all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE174 **Laboratory: LL**

EDD Filename: DE174_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-022-SA5DN-SB-4.0-5.0DUP (SL-022-SA5DN-SB-15.0-16.0 SL-022-SA5DN-SB-4.0-5.0 SL-053-SA5DN-SB-11.5-12.5 SL-053-SA5DN-SB-4.0-5.0 SL-079-SA8N-SB-4.0-5.0 SL-079-SA8N-SB-9.0-10.0 SL-133-SA8N-SB-4.0-5.0)	FLUORIDE	22	20.00	J (all detects) UJ (all non-detects)
	Nitrate-NO3	21	20.00	NO3, No Qual, OK by Difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE174 **Laboratory: LL**

EDD Filename: PrepDE174_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
P11611AQ241711A P11611AY241652A (SL-022-SA5DN-SB-15.0-16.0 SL-022-SA5DN-SB-4.0-5.0 SL-053-SA5DN-SB-11.5-12.5 SL-053-SA5DN-SB-4.0-5.0 SL-079-SA8N-SB-9.0-10.0 SL-133-SA8N-SB-4.0-5.0)	Aroclor 5442	148	-	36.00-106.00	38 (30.00)	Aroclor 5432 Aroclor 5442 Aroclor 5460	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
P15826DQ220426A (SL-022-SA5DN-SB-15.0-16.0 SL-022-SA5DN-SB-4.0-5.0 SL-053-SA5DN-SB-11.5-12.5 SL-053-SA5DN-SB-4.0-5.0 SL-079-SA8N-SB-4.0-5.0 SL-079-SA8N-SB-9.0-10.0 SL-133-SA8N-SB-4.0-5.0)	ANTIMONY	132	-	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
P0LFLCSQ260127 (SL-022-SA5DN-SB-15.0-16.0 SL-022-SA5DN-SB-4.0-5.0 SL-053-SA5DN-SB-11.5-12.5 SL-053-SA5DN-SB-4.0-5.0 SL-079-SA8N-SB-4.0-5.0 SL-079-SA8N-SB-9.0-10.0 SL-133-SA8N-SB-4.0-5.0)	1,2-DICHLOROBENZENE	77	-	79.00-102.00	-	1,2-DICHLOROBENZENE	J(all detects) UJ(all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE174 **Laboratory: LL**

EDD Filename: DE174_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-079-SA8N-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	37.9	38.3	PQL	ng/Kg	J (all detects)

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-133-SA8N-SB-4.0-5.0	Nitrate-NO3	J	1.5	1.8	PQL	mg/Kg	J (all detects)

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-022-SA5DN-SB-15.0-16.0	TIN Zirconium	J J	2.94 1.31	10.8 5.41	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-022-SA5DN-SB-4.0-5.0	TIN Zirconium	J J	3.09 2.53	11.4 5.71	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-053-SA5DN-SB-11.5-12.5	TIN Zirconium	J J	2.95 1.80	11.1 5.53	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-053-SA5DN-SB-4.0-5.0	TIN Zirconium	J J	2.94 1.98	11.7 5.85	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-079-SA8N-SB-4.0-5.0	TIN Zirconium	J J	3.00 2.88	11.4 5.68	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-079-SA8N-SB-9.0-10.0	TIN Zirconium	J J	3.06 2.62	11.4 5.70	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-133-SA8N-SB-4.0-5.0	TIN Zirconium	J J	3.09 4.96	11.3 5.66	PQL PQL	mg/Kg mg/Kg	J (all detects)

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-022-SA5DN-SB-15.0-16.0	ANTIMONY SILVER	J J	0.0885 0.0549	0.210 0.105	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-022-SA5DN-SB-4.0-5.0	SELENIUM SILVER	J J	0.0978 0.0501	0.443 0.111	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-053-SA5DN-SB-11.5-12.5	ANTIMONY CADMIUM SELENIUM SILVER	J J J J	0.160 0.0887 0.0697 0.0286	0.221 0.111 0.442 0.111	PQL PQL PQL PQL	mg/Kg mg/Kg mg/Kg mg/Kg	J (all detects)
SL-053-SA5DN-SB-4.0-5.0	CADMIUM SILVER	J J	0.0861 0.0428	0.117 0.117	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-079-SA8N-SB-4.0-5.0	ANTIMONY CADMIUM SELENIUM SILVER	J J J J	0.155 0.0801 0.0560 0.0579	0.225 0.113 0.450 0.113	PQL PQL PQL PQL	mg/Kg mg/Kg mg/Kg 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: DE174 **Laboratory: LL**

EDD Filename: DE174_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-079-SA8N-SB-9.0-10.0	ANTIMONY	J	0.135	0.230	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0621	0.460	PQL	mg/Kg	
	SILVER	J	0.0280	0.115	PQL	mg/Kg	
SL-133-SA8N-SB-4.0-5.0	ANTIMONY	J	0.209	0.233	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.106	0.117	PQL	mg/Kg	
	SELENIUM	J	0.0498	0.466	PQL	mg/Kg	
	SILVER	J	0.0337	0.117	PQL	mg/Kg	

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-022-SA5DN-SB-15.0-16.0	HEXAVALENT CHROMIUM	J	0.58	1.1	PQL	mg/Kg	J (all detects)
SL-022-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.35	1.1	PQL	mg/Kg	J (all detects)
SL-053-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.35	1.2	PQL	mg/Kg	J (all detects)
SL-079-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.40	1.1	PQL	mg/Kg	J (all detects)
SL-079-SA8N-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	1.0	1.2	PQL	mg/Kg	J (all detects)
SL-133-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.39	1.2	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-022-SA5DN-SB-4.0-5.0	MERCURY	J	0.0106	0.111	PQL	mg/Kg	J (all detects)
SL-053-SA5DN-SB-4.0-5.0	MERCURY	J	0.0035	0.109	PQL	mg/Kg	J (all detects)
SL-133-SA8N-SB-4.0-5.0	MERCURY	J	0.0159	0.111	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-022-SA5DN-SB-4.0-5.0	EFH (C30-C40)	J	0.78	1.4	PQL	mg/Kg	J (all detects)
SL-079-SA8N-SB-4.0-5.0	EFH (C21-C30)	J	0.85	1.4	PQL	mg/Kg	J (all detects)
SL-133-SA8N-SB-4.0-5.0	EFH (C30-C40)	J	0.80	1.4	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE174 **Laboratory: LL**

EDD Filename: DE174_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-133-SA8N-SB-4.0-5.0	AROCLOR 1248	J	1.9	2.0	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-022-SA5DN-SB-15.0-16.0	CHLOROFORM	J	0.17	4.0	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	1.1	4.0	PQL	ug/Kg	
	TOLUENE	J	0.15	4.0	PQL	ug/Kg	
SL-022-SA5DN-SB-4.0-5.0	CHLOROFORM	J	0.17	4.1	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	1.2	4.1	PQL	ug/Kg	
SL-053-SA5DN-SB-4.0-5.0	CHLOROFORM	J	0.19	4.8	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	1.3	4.8	PQL	ug/Kg	
	TOLUENE	J	0.15	4.8	PQL	ug/Kg	
SL-079-SA8N-SB-4.0-5.0	CHLOROFORM	J	0.16	4.0	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	0.99	4.0	PQL	ug/Kg	
	TOLUENE	J	0.22	4.0	PQL	ug/Kg	
SL-079-SA8N-SB-9.0-10.0	CHLOROFORM	J	0.19	4.3	PQL	ug/Kg	J (all detects)
	TOLUENE	J	0.40	4.3	PQL	ug/Kg	
SL-133-SA8N-SB-4.0-5.0	CHLOROFORM	J	0.16	4.1	PQL	ug/Kg	J (all detects)
	METHYLENE CHLORIDE	J	1.2	4.1	PQL	ug/Kg	
	TOLUENE	J	0.17	4.1	PQL	ug/Kg	

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-053-SA5DN-SB-11.5-12.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	19	370	PQL	ug/Kg	J (all detects)
SL-053-SA5DN-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	22	390	PQL	ug/Kg	J (all detects)

LDC #: 26277E4 **VALIDATION COMPLETENESS WORKSHEET** Date: 9/30/14

SDG #: DE174 ADR Page: 1 of 1

Laboratory: Lancaster Laboratories Reviewer: MM

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	N	
III.	Calibration	N	
IV.	Blanks	A	Na, Fe
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	3 DE168
VII.	Duplicate Sample Analysis	SW	
VIII.	Laboratory Control Samples (LCS)	NA	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Cr, V.
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-022-SA5DN-SB-4.0-5.0	11		21		31	
2	SL-022-SA5DN-SB-15.0-16.0	12		22		32	
3	SL-053-SA5DN-SB-4.0-5.0	13		23		33	
4	SL-053-SA5DN-SB-11.5-12.5	14		24		34	
5	SL-079-SA8N-SB-4.0-5.0	15		25		35	
6	SL-079-SA8N-SB-9.0-10.0	16		26		36	
7	SL-133-SA8N-SB-4.0-5.0	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

SAMPLE DELIVERY GROUP

DE175

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-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	3050B	6010B	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	3050B	6020	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	3060A	7199	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	3546	1625C	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	3550B	8015B	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	3550B	8015M	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	3550B	8082	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	3550B	8270C	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	3550B	8270C SIM	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	5035	8015M	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	5035	8260B	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	5035	8260B SIM	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	8330	8330A	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	METHOD	300.0	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	METHOD	314.0	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	METHOD	7471A	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	METHOD	8015B	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	METHOD	8015M	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	METHOD	8315A	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0	6309746	N	METHOD	9012B	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0DUP	P309746D271425B	DUP	METHOD	300.0	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0DUP	P309746D271635B	DUP	METHOD	314.0	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0MS	P309746R271439B	MS	METHOD	300.0	III
06-Jun-2011	SL-133-SA8N-SB-7.0-8.0MS	P309746R271658B	MS	METHOD	314.0	III
07-Jun-2011	TB-060711	6309747	TB	5030B	8015M	III
07-Jun-2011	TB-060711	6309747	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
07-Jun-2011	TB-060711	6309747	TB	5030B	8260B SIM	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	3050B	6010B	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	3050B	6020	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	3060A	7199	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	3546	1625C	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	3550B	8015B	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	3550B	8015M	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	3550B	8082	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	3550B	8270C	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	3550B	8270C SIM	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	5035	8015M	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	5035	8260B	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	5035	8260B SIM	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	8330	8330A	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	METHOD	300.0	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	METHOD	314.0	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	METHOD	7471A	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	METHOD	8015B	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	METHOD	8015M	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	METHOD	8315A	III
07-Jun-2011	SL-071-SA8N-SB-2.0-3.0	6309743	N	METHOD	9012B	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	3050B	6010B	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	3050B	6020	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	3060A	7199	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	3546	1625C	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	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
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	3550B	8015M	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	3550B	8082	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	3550B	8270C	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	3550B	8270C SIM	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	5035	8015M	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	5035	8260B	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	5035	8260B SIM	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	8330	8330A	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	METHOD	300.0	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	METHOD	314.0	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	METHOD	7471A	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	METHOD	8015B	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	METHOD	8015M	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	METHOD	8315A	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0	6309733	N	METHOD	9012B	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	3050B	6010B	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	3050B	6020	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	3060A	7199	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	3546	1625C	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	3550B	8015B	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	3550B	8015M	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	3550B	8082	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	3550B	8270C	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	3550B	8270C SIM	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	5035	8015M	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	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
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	5035	8260B SIM	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	8330	8330A	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	METHOD	300.0	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	METHOD	314.0	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	METHOD	7471A	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	METHOD	8015B	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	METHOD	8015M	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	METHOD	8315A	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0MS	6309734	MS	METHOD	9012B	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0DU	6309736	DUP	3050B	6010B	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0DU	6309736	DUP	3050B	6020	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0DU	6309736	DUP	3060A	7199	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0DU	6309736	DUP	METHOD	300.0	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0DU	6309736	DUP	METHOD	314.0	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0DU	6309736	DUP	METHOD	7471A	III
07-Jun-2011	SL-024-SA5DN-SB-4.0-5.0DU	6309736	DUP	METHOD	9012B	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	3050B	6010B	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	3050B	6020	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	3060A	7199	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	3546	1625C	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	3550B	8015B	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	3550B	8015M	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	3550B	8082	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	3550B	8270C	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	3550B	8270C SIM	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	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
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	5035	8260B	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	5035	8260B SIM	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	8330	8330A	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	METHOD	300.0	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	METHOD	314.0	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	METHOD	7471A	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	METHOD	8015B	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	METHOD	8015M	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	METHOD	8315A	III
07-Jun-2011	DUP13-SA5DN-QC-060711	6309742	FD	METHOD	9012B	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	3050B	6010B	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	3050B	6020	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	3060A	7199	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	3546	1625C	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	3550B	8015B	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	3550B	8015M	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	3550B	8082	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	3550B	8270C	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	3550B	8270C SIM	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	5035	8015M	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	5035	8260B	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	5035	8260B SIM	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	8330	8330A	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	METHOD	300.0	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	METHOD	314.0	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	METHOD	6850	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-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	METHOD	7471A	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	METHOD	8015B	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	METHOD	8015M	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	METHOD	8315A	III
07-Jun-2011	SL-024-SA5DN-SB-19.0-20.0	6309737	N	METHOD	9012B	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	3050B	6010B	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	3050B	6020	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	3060A	7199	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	3546	1625C	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	3550B	8015B	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	3550B	8015M	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	3550B	8082	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	3550B	8270C	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	3550B	8270C SIM	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	5035	8015M	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	5035	8260B	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	5035	8260B SIM	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	8330	8330A	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	METHOD	300.0	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	METHOD	314.0	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	METHOD	7471A	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	METHOD	8015B	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	METHOD	8015M	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	METHOD	8315A	III
07-Jun-2011	SL-026-SA5DN-SB-4.0-5.0	6309738	N	METHOD	9012B	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	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-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	3050B	6020	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	3060A	7199	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	3546	1625C	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	3550B	8015B	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	3550B	8015M	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	3550B	8082	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	3550B	8270C	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	3550B	8270C SIM	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	5035	8015M	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	5035	8260B	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	5035	8260B SIM	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	8330	8330A	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	METHOD	300.0	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	METHOD	314.0	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	METHOD	7471A	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	METHOD	8015B	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	METHOD	8015M	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	METHOD	8315A	III
07-Jun-2011	SL-026-SA5DN-SB-17.0-18.0	6309739	N	METHOD	9012B	III
07-Jun-2011	EB15-SA5DN-SB-060711	6309748	EB	3510C	8015B	III
07-Jun-2011	EB15-SA5DN-SB-060711	6309748	EB	3510C	8015M	III
07-Jun-2011	EB15-SA5DN-SB-060711	6309748	EB	3520C	1625C	III
07-Jun-2011	EB15-SA5DN-SB-060711	6309748	EB	5030B	8015M	III
07-Jun-2011	EB15-SA5DN-SB-060711	6309748	EB	8330	8330A	III
07-Jun-2011	EB15-SA5DN-SB-060711	6309748	EB	Gen Prep	300.0	III
07-Jun-2011	EB15-SA5DN-SB-060711	6309748	EB	Gen Prep	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
07-Jun-2011	EB15-SA5DN-SB-060711	6309748	EB	Gen Prep	8015M	III
07-Jun-2011	EB15-SA5DN-SB-060711	6309748	EB	METHOD	8315A	III
07-Jun-2011	EB15-SA5DN-SB-060711	6309748	EB	METHOD	9012B	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	3050B	6010B	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	3050B	6020	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	3060A	7199	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	3546	1625C	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	3550B	8015B	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	3550B	8015M	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	3550B	8082	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	3550B	8270C	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	3550B	8270C SIM	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	5035	8015M	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	5035	8260B	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	5035	8260B SIM	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	8330	8330A	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	METHOD	300.0	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	METHOD	314.0	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	METHOD	7471A	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	METHOD	8015B	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	METHOD	8015M	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	METHOD	8315A	III
07-Jun-2011	SL-122-SA8N-SB-2.0-3.0	6309744	N	METHOD	9012B	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	3050B	6010B	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	3050B	6020	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	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
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	3546	1625C	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	3550B	8015B	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	3550B	8015M	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	3550B	8082	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	3550B	8270C	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	3550B	8270C SIM	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	5035	8015M	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	5035	8260B	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	5035	8260B SIM	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	8330	8330A	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	METHOD	300.0	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	METHOD	314.0	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	METHOD	6850	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	METHOD	7471A	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	METHOD	8015B	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	METHOD	8015M	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	METHOD	8315A	III
07-Jun-2011	SL-036-SA5DN-SB-4.0-5.0	6309740	N	METHOD	9012B	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	3050B	6010B	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	3050B	6020	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	3060A	7199	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	3546	1625C	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	3550B	8015B	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	3550B	8015M	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	3550B	8082	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	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
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	3550B	8270C SIM	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	5035	8015M	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	5035	8260B	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	5035	8260B SIM	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	8330	8330A	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	METHOD	300.0	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	METHOD	314.0	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	METHOD	7471A	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	METHOD	8015B	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	METHOD	8015M	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	METHOD	8315A	III
07-Jun-2011	SL-036-SA5DN-SB-9.0-10.0	6309741	N	METHOD	9012B	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	3050B	6010B	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	3050B	6020	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	3060A	7199	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	3546	1625C	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	3550B	8015B	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	3550B	8015M	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	3550B	8082	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	3550B	8270C	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	3550B	8270C SIM	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	5035	8015M	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	5035	8260B	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	5035	8260B SIM	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	8330	8330A	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	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-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	METHOD	314.0	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	METHOD	7471A	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	METHOD	8015B	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	METHOD	8015M	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	N	METHOD	8315A	III
07-Jun-2011	SL-140-SA8N-SB-3.0-4.0	6309745	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: DE175 **Laboratory:** LL

EDD Filename: PrepDE175_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: DUP13-SA5DN-QC-060711 ***Collected:*** 6/7/2011 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	17.2		0.92	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-024-SA5DN-SB-19.0-20.0 ***Collected:*** 6/7/2011 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	4.4		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-024-SA5DN-SB-4.0-5.0 ***Collected:*** 6/7/2011 9:10:00 AM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	15.6		0.91	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.5	J	0.91	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-026-SA5DN-SB-17.0-18.0 ***Collected:*** 6/7/2011 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
FLUORIDE	2.6		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-026-SA5DN-SB-4.0-5.0 ***Collected:*** 6/7/2011 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
FLUORIDE	4.5		0.96	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.5	J	0.96	MDL	1.8	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA5DN-SB-4.0-5.0 ***Collected:*** 6/7/2011 2:35:00 PM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	13.1		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-036-SA5DN-SB-9.0-10.0 ***Collected:*** 6/7/2011 2:45:00 PM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	8.7		0.92	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.2	J	0.92	MDL	1.7	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: DE175 **Laboratory: LL**

EDD Filename: PrepDE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: GENCHEM

Method: 300.0 **Matrix: SO**

Sample ID: SL-071-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 9:05:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.86	U	0.86	MDL	1.1	PQL	mg/Kg	UJ	Q
Nitrate-NO3	1.2	J	0.86	MDL	1.6	PQL	mg/Kg	J	Z

Sample ID: SL-122-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 2:00:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-133-SA8N-SB-7.0-8.0 *Collected:* 6/6/2011 5:15:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.4		0.92	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.4	J	0.92	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA8N-SB-3.0-4.0 *Collected:* 6/7/2011 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	2.8		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: DUP13-SA5DN-QC-060711 *Collected:* 6/7/2011 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
CALCIUM	8480		6.88	MDL	22.4	PQL	mg/Kg	J	E, E
MANGANESE	567		0.0875	MDL	0.561	PQL	mg/Kg	J	E, E
POTASSIUM	2930		20.2	MDL	56.1	PQL	mg/Kg	J	Q
TIN	2.80	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	4.86	J	0.942	MDL	5.61	PQL	mg/Kg	J	Z

Sample ID: SL-024-SA5DN-SB-19.0-20.0 *Collected:* 6/7/2011 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
CALCIUM	16200		6.68	MDL	21.8	PQL	mg/Kg	J	E, 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: DE175 **Laboratory:** LL

EDD Filename: PrepDE175_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-024-SA5DN-SB-19.0-20.0 *Collected:* 6/7/2011 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
MANGANESE	135		0.0851	MDL	0.545	PQL	mg/Kg	J	E, E
POTASSIUM	2520		19.6	MDL	54.5	PQL	mg/Kg	J	Q
TIN	2.30	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	2.69	J	0.916	MDL	5.45	PQL	mg/Kg	J	Z

Sample ID: SL-024-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 9:10:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	13800		6.84	MDL	22.3	PQL	mg/Kg	J	E, E
MANGANESE	365		0.0871	MDL	0.558	PQL	mg/Kg	J	E, E
POTASSIUM	3130		20.1	MDL	55.8	PQL	mg/Kg	J	Q
TIN	2.60	J	1.12	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	3.58	J	0.938	MDL	5.58	PQL	mg/Kg	J	Z

Sample ID: SL-026-SA5DN-SB-17.0-18.0 *Collected:* 6/7/2011 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
CALCIUM	3540		6.55	MDL	21.4	PQL	mg/Kg	J	E, E
MANGANESE	615		0.0834	MDL	0.535	PQL	mg/Kg	J	E, E
POTASSIUM	2080		19.2	MDL	53.5	PQL	mg/Kg	J	Q
TIN	2.75	J	1.07	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	2.26	J	0.898	MDL	5.35	PQL	mg/Kg	J	Z

Sample ID: SL-026-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 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
CALCIUM	6520		7.27	MDL	23.7	PQL	mg/Kg	J	E, E
MANGANESE	491		0.0925	MDL	0.593	PQL	mg/Kg	J	E, E
POTASSIUM	3920		21.3	MDL	59.3	PQL	mg/Kg	J	Q
TIN	2.75	J	1.19	MDL	11.9	PQL	mg/Kg	U	B
Zirconium	2.93	J	0.996	MDL	5.93	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: PrepDE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-036-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 2:35:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	19500		7.01	MDL	22.9	PQL	mg/Kg	J	E, E
MANGANESE	364		0.0892	MDL	0.572	PQL	mg/Kg	J	E, E
POTASSIUM	2900		20.6	MDL	57.2	PQL	mg/Kg	J	Q
TIN	2.56	J	1.14	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	3.20	J	0.961	MDL	5.72	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA5DN-SB-9.0-10.0 *Collected:* 6/7/2011 2:45:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	19600		6.94	MDL	22.6	PQL	mg/Kg	J	E, E
MANGANESE	220		0.0883	MDL	0.566	PQL	mg/Kg	J	E, E
POTASSIUM	3090		20.4	MDL	56.6	PQL	mg/Kg	J	Q
TIN	2.70	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	3.62	J	0.951	MDL	5.66	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 9:05:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	1420		6.55	MDL	21.4	PQL	mg/Kg	J	E, E
MANGANESE	267		0.0834	MDL	0.535	PQL	mg/Kg	J	E, E
POTASSIUM	3050		19.2	MDL	53.5	PQL	mg/Kg	J	Q
SODIUM	69.6	J	39.9	MDL	107	PQL	mg/Kg	J	Z
TIN	2.53	J	1.07	MDL	10.7	PQL	mg/Kg	U	B

Sample ID: SL-122-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 2:00:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	2890		6.34	MDL	20.7	PQL	mg/Kg	J	E, E
MANGANESE	298		0.0807	MDL	0.518	PQL	mg/Kg	J	E, E
POTASSIUM	3520		18.6	MDL	51.8	PQL	mg/Kg	J	Q
SODIUM	61.0	J	38.6	MDL	104	PQL	mg/Kg	J	Z
TIN	2.41	J	1.04	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	2.16	J	0.869	MDL	5.18	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: PrepDE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6010B **Matrix: SO**

Sample ID: SL-133-SA8N-SB-7.0-8.0 *Collected:* 6/6/2011 5:15:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	5510		6.93	MDL	22.6	PQL	mg/Kg	J	E, E
MANGANESE	254		0.0882	MDL	0.565	PQL	mg/Kg	J	E, E
POTASSIUM	1960		20.4	MDL	56.5	PQL	mg/Kg	J	Q
TIN	2.87	J	1.13	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	2.76	J	0.950	MDL	5.65	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA8N-SB-3.0-4.0 *Collected:* 6/7/2011 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
CALCIUM	2690		6.69	MDL	21.8	PQL	mg/Kg	J	E, E
MANGANESE	275		0.0851	MDL	0.546	PQL	mg/Kg	J	E, E
POTASSIUM	2680		19.6	MDL	54.6	PQL	mg/Kg	J	Q
SODIUM	75.3	J	40.7	MDL	109	PQL	mg/Kg	J	Z
TIN	2.42	J	1.09	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	2.19	J	0.917	MDL	5.46	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: DUP13-SA5DN-QC-060711 *Collected:* 6/7/2011 9:20:00 AM *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0730	J	0.0444	MDL	0.444	PQL	mg/Kg	J	Z

Sample ID: DUP13-SA5DN-QC-060711 *Collected:* 6/7/2011 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
MOLYBDENUM	0.333		0.0555	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: DUP13-SA5DN-QC-060711 *Collected:* 6/7/2011 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	0.271		0.0667	MDL	0.222	PQL	mg/Kg	J	Q
ARSENIC	7.52		0.0889	MDL	0.444	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.931		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: DE175 **Laboratory:** LL

EDD Filename: PrepDE175_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP13-SA5DN-QC-060711 ***Collected:*** 6/7/2011 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
CADMIUM	0.344		0.0444	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	32.9		0.133	MDL	0.444	PQL	mg/Kg	J	Q, A
COBALT	12.6		0.0222	MDL	0.111	PQL	mg/Kg	J	Q, E
COPPER	17.7		0.0733	MDL	0.444	PQL	mg/Kg	J	Q
LEAD	13.2		0.0116	MDL	0.222	PQL	mg/Kg	J	Q
NICKEL	28.5		0.111	MDL	0.444	PQL	mg/Kg	J	Q, Q, E
SILVER	0.0599	J	0.0133	MDL	0.111	PQL	mg/Kg	J	Z, Q
THALLIUM	0.386		0.0333	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	57.6		0.0244	MDL	0.111	PQL	mg/Kg	J	E, A

Sample ID: SL-024-SA5DN-SB-19.0-20.0 ***Collected:*** 6/7/2011 9:30:00 AM ***Analysis Type:*** REA2 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0758	J	0.0436	MDL	0.436	PQL	mg/Kg	J	Z

Sample ID: SL-024-SA5DN-SB-19.0-20.0 ***Collected:*** 6/7/2011 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
MOLYBDENUM	0.948		0.0545	MDL	0.109	PQL	mg/Kg	J	Q

Sample ID: SL-024-SA5DN-SB-19.0-20.0 ***Collected:*** 6/7/2011 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	0.252		0.0654	MDL	0.218	PQL	mg/Kg	J	Q
ARSENIC	10.5		0.0872	MDL	0.436	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.847		0.0174	MDL	0.109	PQL	mg/Kg	J	Q
CADMIUM	0.368		0.0436	MDL	0.109	PQL	mg/Kg	J	Q
CHROMIUM	28.6		0.131	MDL	0.436	PQL	mg/Kg	J	Q, A
COBALT	29.0		0.0218	MDL	0.109	PQL	mg/Kg	J	Q, E
COPPER	16.3		0.0720	MDL	0.436	PQL	mg/Kg	J	Q
LEAD	14.1		0.0113	MDL	0.218	PQL	mg/Kg	J	Q
NICKEL	35.8		0.109	MDL	0.436	PQL	mg/Kg	J	Q, Q, E
SILVER	0.0212	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z, Q
THALLIUM	0.449		0.0327	MDL	0.109	PQL	mg/Kg	J	Q
VANADIUM	62.9		0.0240	MDL	0.109	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: DE175 **Laboratory:** LL

EDD Filename: PrepDE175_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-024-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 9:10:00 AM *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.119	J	0.0451	MDL	0.451	PQL	mg/Kg	J	Z

Sample ID: SL-024-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 9:10:00 AM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.361		0.0564	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: SL-024-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 9:10:00 AM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.255		0.0677	MDL	0.226	PQL	mg/Kg	J	Q
ARSENIC	7.61		0.0902	MDL	0.451	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.987		0.0180	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.429		0.0451	MDL	0.113	PQL	mg/Kg	J	Q
CHROMIUM	34.4		0.135	MDL	0.451	PQL	mg/Kg	J	Q, A
COBALT	16.7		0.0226	MDL	0.113	PQL	mg/Kg	J	Q, E
COPPER	19.5		0.0744	MDL	0.451	PQL	mg/Kg	J	Q
LEAD	13.5		0.0117	MDL	0.226	PQL	mg/Kg	J	Q
NICKEL	35.0		0.113	MDL	0.451	PQL	mg/Kg	J	Q, Q, E
SILVER	0.0547	J	0.0135	MDL	0.113	PQL	mg/Kg	J	Z, Q
THALLIUM	0.424		0.0338	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	56.6		0.0248	MDL	0.113	PQL	mg/Kg	J	E, A

Sample ID: SL-026-SA5DN-SB-17.0-18.0 *Collected:* 6/7/2011 11:45:00 *Analysis Type:* REA *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.288		0.0419	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-026-SA5DN-SB-17.0-18.0 *Collected:* 6/7/2011 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	0.0577	J	0.0419	MDL	0.419	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE175 **Laboratory:** LL

EDD Filename: PrepDE175_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-026-SA5DN-SB-17.0-18.0 ***Collected:*** 6/7/2011 11:45:00 ***Analysis Type:*** REA3 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.411		0.0524	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-026-SA5DN-SB-17.0-18.0 ***Collected:*** 6/7/2011 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	0.110	J	0.0629	MDL	0.210	PQL	mg/Kg	J	Z, Q
ARSENIC	8.49		0.0839	MDL	0.419	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.700		0.0168	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	19.2		0.126	MDL	0.419	PQL	mg/Kg	J	Q, A
COBALT	10.3		0.0210	MDL	0.105	PQL	mg/Kg	J	Q, E
COPPER	11.1		0.0692	MDL	0.419	PQL	mg/Kg	J	Q
LEAD	8.35		0.0109	MDL	0.210	PQL	mg/Kg	J	Q
NICKEL	23.1		0.105	MDL	0.419	PQL	mg/Kg	J	Q, Q, E
SILVER	0.0167	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z, Q
THALLIUM	0.323		0.0315	MDL	0.105	PQL	mg/Kg	J	Q
VANADIUM	41.6		0.0231	MDL	0.105	PQL	mg/Kg	J	E, A

Sample ID: SL-026-SA5DN-SB-4.0-5.0 ***Collected:*** 6/7/2011 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
SELENIUM	0.199	J	0.0470	MDL	0.470	PQL	mg/Kg	J	Z

Sample ID: SL-026-SA5DN-SB-4.0-5.0 ***Collected:*** 6/7/2011 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
MOLYBDENUM	0.524		0.0587	MDL	0.117	PQL	mg/Kg	J	Q

Sample ID: SL-026-SA5DN-SB-4.0-5.0 ***Collected:*** 6/7/2011 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	0.229	J	0.0704	MDL	0.235	PQL	mg/Kg	J	Z, Q
ARSENIC	6.42		0.0939	MDL	0.470	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.987		0.0188	MDL	0.117	PQL	mg/Kg	J	Q
CADMIUM	0.333		0.0470	MDL	0.117	PQL	mg/Kg	J	Q
CHROMIUM	30.6		0.141	MDL	0.470	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: DE175 **Laboratory: LL**

EDD Filename: PrepDE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: METALS

Method: 6020 **Matrix: SO**

Sample ID: SL-026-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 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
COBALT	10.7		0.0235	MDL	0.117	PQL	mg/Kg	J	Q, E
COPPER	16.3		0.0775	MDL	0.470	PQL	mg/Kg	J	Q
LEAD	11.5		0.0122	MDL	0.235	PQL	mg/Kg	J	Q
NICKEL	24.5		0.117	MDL	0.470	PQL	mg/Kg	J	Q, Q, E
SILVER	0.0595	J	0.0141	MDL	0.117	PQL	mg/Kg	J	Z, Q
THALLIUM	0.430		0.0352	MDL	0.117	PQL	mg/Kg	J	Q
VANADIUM	48.2		0.0258	MDL	0.117	PQL	mg/Kg	J	E, A

Sample ID: SL-036-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 2:35:00 PM *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0464	J	0.0453	MDL	0.453	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 2:35:00 PM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.246		0.0566	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: SL-036-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 2:35:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.185	J	0.0680	MDL	0.227	PQL	mg/Kg	J	Z, Q
ARSENIC	5.64		0.0906	MDL	0.453	PQL	mg/Kg	J	Q, E
BERYLLIUM	1.21		0.0181	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.255		0.0453	MDL	0.113	PQL	mg/Kg	J	Q
CHROMIUM	27.5		0.136	MDL	0.453	PQL	mg/Kg	J	Q, A
COBALT	7.89		0.0227	MDL	0.113	PQL	mg/Kg	J	Q, E
COPPER	12.2		0.0747	MDL	0.453	PQL	mg/Kg	J	Q
LEAD	10.7		0.0118	MDL	0.227	PQL	mg/Kg	J	Q
NICKEL	21.6		0.113	MDL	0.453	PQL	mg/Kg	J	Q, Q, E
SILVER	0.0368	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z, Q
THALLIUM	0.345		0.0340	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	43.6		0.0249	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: DE175 Laboratory: LL

EDD Filename: PrepDE175_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-036-SA5DN-SB-9.0-10.0 *Collected:* 6/7/2011 2:45:00 PM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.336		0.0566	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: SL-036-SA5DN-SB-9.0-10.0 *Collected:* 6/7/2011 2:45:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.270		0.0679	MDL	0.226	PQL	mg/Kg	J	Q
ARSENIC	6.92		0.0906	MDL	0.453	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.959		0.0181	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.128		0.0453	MDL	0.113	PQL	mg/Kg	J	Q
CHROMIUM	32.3		0.136	MDL	0.453	PQL	mg/Kg	J	Q, A
COBALT	8.54		0.0226	MDL	0.113	PQL	mg/Kg	J	Q, E
COPPER	15.9		0.0747	MDL	0.453	PQL	mg/Kg	J	Q
LEAD	8.54		0.0118	MDL	0.226	PQL	mg/Kg	J	Q
NICKEL	22.2		0.113	MDL	0.453	PQL	mg/Kg	J	Q, Q, E
SILVER	0.0712	J	0.0136	MDL	0.113	PQL	mg/Kg	J	Z, Q
THALLIUM	0.362		0.0340	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	50.7		0.0249	MDL	0.113	PQL	mg/Kg	J	E, A

Sample ID: SL-071-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 9:05:00 AM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.962		0.0524	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-071-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 9:05:00 AM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.135	J	0.0629	MDL	0.210	PQL	mg/Kg	J	Z, Q
ARSENIC	6.79		0.0839	MDL	0.419	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.786		0.0168	MDL	0.105	PQL	mg/Kg	J	Q
CADMIUM	0.168		0.0419	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	19.6		0.126	MDL	0.419	PQL	mg/Kg	J	Q, A
COBALT	7.01		0.0210	MDL	0.105	PQL	mg/Kg	J	Q, E
COPPER	8.79		0.0692	MDL	0.419	PQL	mg/Kg	J	Q
LEAD	9.46		0.0109	MDL	0.210	PQL	mg/Kg	J	Q
NICKEL	14.4		0.105	MDL	0.419	PQL	mg/Kg	J	Q, Q, E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE175 **Laboratory:** LL

EDD Filename: PrepDE175_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-071-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 9:05:00 AM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0615	J	0.0126	MDL	0.105	PQL	mg/Kg	J	Z, Q
THALLIUM	0.386		0.0315	MDL	0.105	PQL	mg/Kg	J	Q
VANADIUM	41.7		0.0231	MDL	0.105	PQL	mg/Kg	J	E, A

Sample ID: SL-122-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 2:00:00 PM *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.159	J	0.0422	MDL	0.422	PQL	mg/Kg	J	Z

Sample ID: SL-122-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 2:00:00 PM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.426		0.0528	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-122-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 2:00:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0967	J	0.0633	MDL	0.211	PQL	mg/Kg	J	Z, Q
ARSENIC	6.03		0.0844	MDL	0.422	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.655		0.0169	MDL	0.106	PQL	mg/Kg	J	Q
CADMIUM	0.191		0.0422	MDL	0.106	PQL	mg/Kg	J	Q
CHROMIUM	18.9		0.127	MDL	0.422	PQL	mg/Kg	J	Q, A
COBALT	7.05		0.0211	MDL	0.106	PQL	mg/Kg	J	Q, E
COPPER	10.4		0.0697	MDL	0.422	PQL	mg/Kg	J	Q
LEAD	9.15		0.0110	MDL	0.211	PQL	mg/Kg	J	Q
NICKEL	15.3		0.106	MDL	0.422	PQL	mg/Kg	J	Q, Q, E
SILVER	0.0650	J	0.0127	MDL	0.106	PQL	mg/Kg	J	Z, Q
THALLIUM	0.336		0.0317	MDL	0.106	PQL	mg/Kg	J	Q
VANADIUM	37.6		0.0232	MDL	0.106	PQL	mg/Kg	J	E, A

Sample ID: SL-133-SA8N-SB-7.0-8.0 *Collected:* 6/6/2011 5:15:00 PM *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0507	J	0.0448	MDL	0.448	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: DE175 **Laboratory:** LL

EDD Filename: PrepDE175_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-133-SA8N-SB-7.0-8.0 *Collected:* 6/6/2011 5:15:00 PM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.238		0.0560	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: SL-133-SA8N-SB-7.0-8.0 *Collected:* 6/6/2011 5:15:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.198	J	0.0672	MDL	0.224	PQL	mg/Kg	J	Z, Q
ARSENIC	7.56		0.0896	MDL	0.448	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.873		0.0179	MDL	0.112	PQL	mg/Kg	J	Q
CADMIUM	0.0793	J	0.0448	MDL	0.112	PQL	mg/Kg	J	Z, Q
CHROMIUM	21.6		0.134	MDL	0.448	PQL	mg/Kg	J	Q, A
COBALT	6.64		0.0224	MDL	0.112	PQL	mg/Kg	J	Q, E
COPPER	10.6		0.0739	MDL	0.448	PQL	mg/Kg	J	Q
LEAD	10.0		0.0116	MDL	0.224	PQL	mg/Kg	J	Q
NICKEL	15.4		0.112	MDL	0.448	PQL	mg/Kg	J	Q, Q, E
SILVER	0.130		0.0134	MDL	0.112	PQL	mg/Kg	J	Q
THALLIUM	0.346		0.0336	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	45.9		0.0246	MDL	0.112	PQL	mg/Kg	J	E, A

Sample ID: SL-140-SA8N-SB-3.0-4.0 *Collected:* 6/7/2011 3:20:00 PM *Analysis Type:* REA2 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.295	J	0.0437	MDL	0.437	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA8N-SB-3.0-4.0 *Collected:* 6/7/2011 3:20:00 PM *Analysis Type:* REA3 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.803		0.0546	MDL	0.109	PQL	mg/Kg	J	Q

Sample ID: SL-140-SA8N-SB-3.0-4.0 *Collected:* 6/7/2011 3:20:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.146	J	0.0655	MDL	0.218	PQL	mg/Kg	J	Z, Q
ARSENIC	6.96		0.0873	MDL	0.437	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.669		0.0175	MDL	0.109	PQL	mg/Kg	J	Q
CADMIUM	0.133		0.0437	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: DE175 Laboratory: LL

EDD Filename: PrepDE175_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 6020 **Matrix:** SO

Sample ID: SL-140-SA8N-SB-3.0-4.0 *Collected:* 6/7/2011 3:20:00 PM *Analysis Type:* RES *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	21.1		0.131	MDL	0.437	PQL	mg/Kg	J	Q, A
COBALT	7.26		0.0218	MDL	0.109	PQL	mg/Kg	J	Q, E
COPPER	7.98		0.0720	MDL	0.437	PQL	mg/Kg	J	Q
LEAD	7.61		0.0114	MDL	0.218	PQL	mg/Kg	J	Q
NICKEL	14.8		0.109	MDL	0.437	PQL	mg/Kg	J	Q, Q, E
SILVER	0.0370	J	0.0131	MDL	0.109	PQL	mg/Kg	J	Z, Q
THALLIUM	0.328		0.0327	MDL	0.109	PQL	mg/Kg	J	Q
VANADIUM	42.8		0.0240	MDL	0.109	PQL	mg/Kg	J	E, A

Method Category: METALS **Method:** 7199 **Matrix:** SO

Sample ID: DUP13-SA5DN-QC-060711 *Collected:* 6/7/2011 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	0.23	U	0.23	MDL	1.1	PQL	mg/Kg	UJ	FD

Sample ID: SL-024-SA5DN-SB-19.0-20.0 *Collected:* 6/7/2011 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	0.30	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-024-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 9:10:00 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	0.23	MDL	1.1	PQL	mg/Kg	J	Z, FD

Sample ID: SL-026-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 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
HEXAVALENT CHROMIUM	0.41	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE175 Laboratory: LL

EDD Filename: PrepDE175_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS **Method:** 7199 **Matrix:** SO

Sample ID: SL-036-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 2:35:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.60	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 9:05:00 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	0.30	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA8N-SB-7.0-8.0 *Collected:* 6/6/2011 5:15:00 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	0.33	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA8N-SB-3.0-4.0 *Collected:* 6/7/2011 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	0.54	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Method Category: METALS **Method:** 7471A **Matrix:** SO

Sample ID: DUP13-SA5DN-QC-060711 *Collected:* 6/7/2011 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
MERCURY	0.0033	U	0.0033	MDL	0.114	PQL	mg/Kg	UJ	FD

Sample ID: SL-024-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 9:10:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0048	J	0.0031	MDL	0.108	PQL	mg/Kg	J	Z, FD

Sample ID: SL-026-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 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	0.0278	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: DE175 Laboratory: LL

EDD Filename: PrepDE175_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS
Method: 7471A **Matrix:** SO

Sample ID: SL-036-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 2:35:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0044	J	0.0032	MDL	0.111	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 9:05:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0117	J	0.0031	MDL	0.106	PQL	mg/Kg	J	Z

Sample ID: SL-122-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 2:00:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0070	J	0.0030	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA8N-SB-7.0-8.0 *Collected:* 6/6/2011 5:15:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0108	J	0.0031	MDL	0.107	PQL	mg/Kg	J	Z

Method Category: SVOA
Method: 1625C **Matrix:** AQ

Sample ID: EB15-SA5DN-SB-060711 *Collected:* 6/7/2011 1:00:00 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	1.71		0.526	MDL	1.05	PQL	ng/L	UJ	B, S

Method Category: SVOA
Method: 1625C **Matrix:** SO

Sample ID: DUP13-SA5DN-QC-060711 *Collected:* 6/7/2011 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	65.1		19.0	MDL	38.0	PQL	ng/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: DE175 **Laboratory:** LL

EDD Filename: PrepDE175_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 1625C **Matrix:** SO

Sample ID: SL-024-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 9:10:00 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	18.9	U	18.9	MDL	37.8	PQL	ng/Kg	UJ	FD

Sample ID: SL-026-SA5DN-SB-17.0-18.0 *Collected:* 6/7/2011 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
N-NITROSODIMETHYLAMINE	27.1	J	18.1	MDL	36.2	PQL	ng/Kg	J	Z

Sample ID: SL-026-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 11:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
N-NITROSODIMETHYLAMINE	20.4	J	19.8	MDL	39.5	PQL	ng/Kg	J	Z

Sample ID: SL-036-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 2:35:00 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
N-NITROSODIMETHYLAMINE	29.3	J	19.4	MDL	38.9	PQL	ng/Kg	J	Z

Sample ID: SL-036-SA5DN-SB-9.0-10.0 *Collected:* 6/7/2011 2:45:00 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
N-NITROSODIMETHYLAMINE	23.9	J	19.1	MDL	38.2	PQL	ng/Kg	J	Z

Sample ID: SL-071-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 9:05:00 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	33.0	J	17.8	MDL	35.5	PQL	ng/Kg	J	Z

Sample ID: SL-122-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 2:00:00 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	26.6	J	17.7	MDL	35.3	PQL	ng/Kg	J	Z

Sample ID: SL-140-SA8N-SB-3.0-4.0 *Collected:* 6/7/2011 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
N-NITROSODIMETHYLAMINE	24.7	J	18.6	MDL	37.2	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: DE175 **Laboratory: LL**

EDD Filename: PrepDE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 1625C **Matrix: SO**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: DUP13-SA5DN-QC-060711 *Collected:* 6/7/2011 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 (C30-C40)	1.0	J	0.46	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-024-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 9:10:00 AM *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	11	PQL	mg/Kg	UJ	Q
ETHYLENE GLYCOL	5.7	U	5.7	MDL	11	PQL	mg/Kg	UJ	Q
Propylene glycol	5.7	U	5.7	MDL	11	PQL	mg/Kg	UJ	Q

Sample ID: SL-024-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 9:10:00 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)	0.68	J	0.45	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-026-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 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
EFH (C15-C20)	1.2	J	0.95	MDL	2.9	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 2:35:00 PM *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)	0.51	J	0.47	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-036-SA5DN-SB-9.0-10.0 *Collected:* 6/7/2011 2:45:00 PM *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)	0.50	J	0.46	MDL	1.4	PQL	mg/Kg	U	B
EFH (C30-C40)	0.85	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: DE175 **Laboratory:** LL

EDD Filename: PrepDE175_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8015M **Matrix:** SO

Sample ID: SL-071-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 9:05:00 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)	0.51	J	0.43	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-122-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 2:00:00 PM *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	0.43	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-133-SA8N-SB-7.0-8.0 *Collected:* 6/6/2011 5:15:00 PM *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)	0.87	J	0.46	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-140-SA8N-SB-3.0-4.0 *Collected:* 6/7/2011 3:20:00 PM *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	0.45	MDL	1.4	PQL	mg/Kg	U	B

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-026-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 11:35:00 *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	0.54	J	0.47	MDL	2.0	PQL	ug/Kg	J	Z

Sample ID: SL-133-SA8N-SB-7.0-8.0 *Collected:* 6/6/2011 5:15:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	1.4	J	1.1	MDL	3.8	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: DE175 Laboratory: LL

EDD Filename: PrepDE175_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: DUP13-SA5DN-QC-060711 *Collected:* 6/7/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-024-SA5DN-SB-19.0-20.0 *Collected:* 6/7/2011 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
1,2-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: SL-024-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 9:10:00 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	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q, L
1,3-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
1,4-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
2,4,5-TRICHLOROPHENOL	38	U	38	MDL	190	PQL	ug/Kg	UJ	Q
2,4,6-TRICHLOROPHENOL	38	U	38	MDL	190	PQL	ug/Kg	UJ	Q
2,4-DICHLOROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
2,4-DIMETHYLPHENOL	38	U	38	MDL	190	PQL	ug/Kg	UJ	Q
2,4-DINITROPHENOL	380	U	380	MDL	1100	PQL	ug/Kg	R	Q
2,4-DINITROTOLUENE	38	U	38	MDL	190	PQL	ug/Kg	UJ	Q
2-CHLOROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
2-METHYLPHENOL	38	U	38	MDL	190	PQL	ug/Kg	UJ	Q
2-NITROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
4,6-DINITRO-2-METHYLPHENOL	190	U	190	MDL	570	PQL	ug/Kg	R	Q
4-BROMOPHENYL-PHENYLETHER	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
4-CHLORO-3-METHYLPHENOL	38	U	38	MDL	190	PQL	ug/Kg	UJ	Q
4-CHLOROPHENYL-PHENYLETHER	38	U	38	MDL	190	PQL	ug/Kg	UJ	Q
4-METHYLPHENOL	38	U	38	MDL	190	PQL	ug/Kg	UJ	Q
BENZIDINE	1300	U	1300	MDL	3800	PQL	ug/Kg	UJ	Q
BIS(2-CHLOROETHOXY)METHANE	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
DIBENZOFURAN	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
HEXACHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
HEXACHLOROBUTADIENE	76	U	76	MDL	190	PQL	ug/Kg	UJ	Q
HEXACHLOROETHANE	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
ISOPHORONE	19	U	19	MDL	190	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: DE175 **Laboratory:** LL

EDD Filename: PrepDE175_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-024-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 9:10:00 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
NITROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
N-NITROSODIPHENYLAMINE	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q

Sample ID: SL-026-SA5DN-SB-17.0-18.0 *Collected:* 6/7/2011 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
1,2-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: SL-026-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 11:35:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DICHLOROBENZENE	20	U	20	MDL	200	PQL	ug/Kg	UJ	L

Sample ID: SL-036-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 2:35:00 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
1,2-DICHLOROBENZENE	20	U	20	MDL	200	PQL	ug/Kg	UJ	L

Sample ID: SL-036-SA5DN-SB-9.0-10.0 *Collected:* 6/7/2011 2:45:00 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-071-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 9:05:00 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-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

Sample ID: SL-122-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 2:00:00 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
1,2-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: PrepDE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-133-SA8N-SB-7.0-8.0 *Collected:* 6/6/2011 5:15:00 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-140-SA8N-SB-3.0-4.0 *Collected:* 6/7/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Method Category: SVOA

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

Sample ID: SL-024-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 9:10:00 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
ACENAPHTHYLENE	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	Q
Dimethylphthalate	6.7	U	6.7	MDL	20	PQL	ug/Kg	UJ	Q

Sample ID: SL-026-SA5DN-SB-17.0-18.0 *Collected:* 6/7/2011 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
CHRYSENE	0.74	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-122-SA8N-SB-2.0-3.0 *Collected:* 6/7/2011 2:00:00 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	0.90	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-133-SA8N-SB-7.0-8.0 *Collected:* 6/6/2011 5:15:00 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
ANTHRACENE	0.42	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	0.82	J	0.76	MDL	1.9	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE175 **Laboratory:** LL

EDD Filename: PrepDE175_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

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

Sample ID: SL-140-SA8N-SB-3.0-4.0 *Collected:* 6/7/2011 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
BENZO(B)FLUORANTHENE	0.76	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.96	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	0.53	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
FLUORANTHENE	1.0	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	1.0	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	0.87	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Method Category: VOA

Method: 8015B **Matrix:** AQ

Sample ID: EB15-SA5DN-SB-060711 *Collected:* 6/7/2011 1:00:00 PM *Analysis Type:* REA4 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	230	J	200	MDL	1000	PQL	ug/L	J	Z

Method Category: VOA

Method: 8015B **Matrix:** SO

Sample ID: SL-024-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 9:10:00 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	1.7	U	1.7	MDL	4.0	PQL	mg/Kg	UJ	Q

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: DUP13-SA5DN-QC-060711 *Collected:* 6/7/2011 9:20:00 AM *Analysis Type:* RES *Dilution:* 0.88

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.0		6.7	MDL	8.0	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.4	J	0.24	MDL	4.0	PQL	ug/Kg	U	B
TOLUENE	0.16	J	0.08	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: DE175 **Laboratory: LL**

EDD Filename: PrepDE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: VOA

Method: 8260B **Matrix: SO**

Sample ID: SL-024-SA5DN-SB-19.0-20.0 *Collected:* 6/7/2011 9:30:00 AM *Analysis Type:* RES *Dilution:* 0.83

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.1		6.2	MDL	7.4	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.3	J	0.22	MDL	3.7	PQL	ug/Kg	U	B
TOLUENE	0.14	J	0.07	MDL	3.7	PQL	ug/Kg	U	B

Sample ID: SL-024-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 9:10:00 AM *Analysis Type:* RES *Dilution:* 0.88

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	11		6.7	MDL	8.0	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.7	J	0.24	MDL	4.0	PQL	ug/Kg	U	B
TOLUENE	0.20	J	0.08	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: SL-026-SA5DN-SB-17.0-18.0 *Collected:* 6/7/2011 11:45:00 *Analysis Type:* RES *Dilution:* 0.93

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.9		6.8	MDL	8.1	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.3	J	0.24	MDL	4.0	PQL	ug/Kg	U	B
TOLUENE	0.15	J	0.08	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: SL-026-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 11:35:00 *Analysis Type:* RES *Dilution:* 0.86

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.4		6.9	MDL	8.2	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.6	J	0.25	MDL	4.1	PQL	ug/Kg	U	B
TOLUENE	0.17	J	0.08	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: SL-036-SA5DN-SB-4.0-5.0 *Collected:* 6/7/2011 2:35:00 PM *Analysis Type:* RES *Dilution:* 0.87

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.5		6.9	MDL	8.2	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.1	J	0.25	MDL	4.1	PQL	ug/Kg	U	B
TOLUENE	0.11	J	0.08	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: DE175 **Laboratory:** LL

EDD Filename: PrepDE175_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-036-SA5DN-SB-9.0-10.0 ***Collected:*** 6/7/2011 2:45:00 PM ***Analysis Type:*** RES ***Dilution:*** 0.93

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.4		7.2	MDL	8.6	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.6	J	0.26	MDL	4.3	PQL	ug/Kg	U	B
TOLUENE	0.14	J	0.09	MDL	4.3	PQL	ug/Kg	U	B

Sample ID: SL-071-SA8N-SB-2.0-3.0 ***Collected:*** 6/7/2011 9:05:00 AM ***Analysis Type:*** RES ***Dilution:*** 0.98

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	12		7.1	MDL	8.5	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.5	J	0.25	MDL	4.2	PQL	ug/Kg	U	B
TOLUENE	0.13	J	0.08	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: SL-122-SA8N-SB-2.0-3.0 ***Collected:*** 6/7/2011 2:00:00 PM ***Analysis Type:*** RES ***Dilution:*** 0.96

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.3		6.9	MDL	8.2	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.6	J	0.25	MDL	4.1	PQL	ug/Kg	U	B
TOLUENE	0.24	J	0.08	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: SL-133-SA8N-SB-7.0-8.0 ***Collected:*** 6/6/2011 5:15:00 PM ***Analysis Type:*** RES ***Dilution:*** 0.91

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.7		7.0	MDL	8.4	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.7	J	0.25	MDL	4.2	PQL	ug/Kg	U	B
TOLUENE	0.19	J	0.08	MDL	4.2	PQL	ug/Kg	U	B

Sample ID: SL-140-SA8N-SB-3.0-4.0 ***Collected:*** 6/7/2011 3:20:00 PM ***Analysis Type:*** RES ***Dilution:*** 0.83

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	7.7		6.3	MDL	7.6	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.5	J	0.23	MDL	3.8	PQL	ug/Kg	U	B
TOLUENE	0.22	J	0.08	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: DE175 **Laboratory: LL**

EDD Filename: PrepDE175_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

Data Qualifier Summary

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: PrepDE175_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	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper 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: DE175 **Laboratory: LL**

EDD Filename: PrepDE175_v1 **eQAPP Name: CDM_SSFL_110509**

Q	Matrix Spike Upper Rejection
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

DE175

Method Blank Outlier Report

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: DE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1625C**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWB15B261608	6/21/2011 4:08:00 PM	N-NITROSODIMETHYLAMINE	1.84 ng/L	EB15-SA5DN-SB-060711

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
EB15-SA5DN-SB-060711(RES)	N-NITROSODIMETHYLAMINE	1.71 ng/L	1.71U ng/L

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P16008CB221116	6/14/2011 11:16:00 AM	PHOSPHORUS TIN	1.82 mg/Kg 1.75 mg/Kg	DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-SB-3.0-4.0
P16008CB221207	6/15/2011 12:07:00 PM	BORON	0.406 mg/Kg	DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-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
DUP13-SA5DN-QC-060711(RES)	TIN	2.80 mg/Kg	2.80U mg/Kg
SL-024-SA5DN-SB-19.0-20.0(RES)	TIN	2.30 mg/Kg	2.30U mg/Kg
SL-024-SA5DN-SB-4.0-5.0(RES)	TIN	2.60 mg/Kg	2.60U mg/Kg
SL-026-SA5DN-SB-17.0-18.0(RES)	TIN	2.75 mg/Kg	2.75U mg/Kg
SL-026-SA5DN-SB-4.0-5.0(RES)	TIN	2.75 mg/Kg	2.75U mg/Kg
SL-036-SA5DN-SB-4.0-5.0(RES)	TIN	2.56 mg/Kg	2.56U mg/Kg
SL-036-SA5DN-SB-9.0-10.0(RES)	TIN	2.70 mg/Kg	2.70U mg/Kg
SL-071-SA8N-SB-2.0-3.0(RES)	TIN	2.53 mg/Kg	2.53U mg/Kg
SL-122-SA8N-SB-2.0-3.0(RES)	TIN	2.41 mg/Kg	2.41U mg/Kg
SL-133-SA8N-SB-7.0-8.0(RES)	TIN	2.87 mg/Kg	2.87U mg/Kg
SL-140-SA8N-SB-3.0-4.0(RES)	TIN	2.42 mg/Kg	2.42U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: DE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P16026CB220837A	6/11/2011 8:37:00 AM	LEAD VANADIUM	0.0160 mg/Kg 0.0337 mg/Kg	DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-SB-3.0-4.0

Method: **8015M**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P61613AB321415A	6/11/2011 2:15:00 PM	EFH (C21-C30) EFH (C30-C40)	0.43 mg/Kg 0.90 mg/Kg	DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-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
DUP13-SA5DN-QC-060711(REA2)	EFH (C30-C40)	1.0 mg/Kg	1.4U mg/Kg
SL-024-SA5DN-SB-4.0-5.0(REA2)	EFH (C30-C40)	0.68 mg/Kg	1.4U mg/Kg
SL-036-SA5DN-SB-4.0-5.0(REA2)	EFH (C30-C40)	0.51 mg/Kg	1.4U mg/Kg
SL-036-SA5DN-SB-9.0-10.0(REA2)	EFH (C21-C30)	0.50 mg/Kg	1.4U mg/Kg
SL-036-SA5DN-SB-9.0-10.0(REA2)	EFH (C30-C40)	0.85 mg/Kg	1.4U mg/Kg
SL-133-SA8N-SB-7.0-8.0(REA2)	EFH (C30-C40)	0.87 mg/Kg	1.4U mg/Kg
SL-140-SA8N-SB-3.0-4.0(REA2)	EFH (C30-C40)	0.73 mg/Kg	1.4U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: DE175_v1 **eQAPP Name: CDM_SSFL_110509**

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB80B211220A	6/13/2011 12:20:00 PM	ACETONE METHYLENE CHLORIDE TOLUENE	9.9 ug/Kg 2.8 ug/Kg 0.10 ug/Kg	DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-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
DUP13-SA5DN-QC-060711(RES)	ACETONE	9.0 ug/Kg	9.0U ug/Kg
DUP13-SA5DN-QC-060711(RES)	METHYLENE CHLORIDE	1.4 ug/Kg	4.0U ug/Kg
DUP13-SA5DN-QC-060711(RES)	TOLUENE	0.16 ug/Kg	4.0U ug/Kg
SL-024-SA5DN-SB-19.0-20.0(RES)	ACETONE	8.1 ug/Kg	8.1U ug/Kg
SL-024-SA5DN-SB-19.0-20.0(RES)	METHYLENE CHLORIDE	1.3 ug/Kg	3.7U ug/Kg
SL-024-SA5DN-SB-19.0-20.0(RES)	TOLUENE	0.14 ug/Kg	3.7U ug/Kg
SL-024-SA5DN-SB-4.0-5.0(RES)	ACETONE	11 ug/Kg	11U ug/Kg
SL-024-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.7 ug/Kg	4.0U ug/Kg
SL-024-SA5DN-SB-4.0-5.0(RES)	TOLUENE	0.20 ug/Kg	4.0U ug/Kg
SL-026-SA5DN-SB-17.0-18.0(RES)	ACETONE	8.9 ug/Kg	8.9U ug/Kg
SL-026-SA5DN-SB-17.0-18.0(RES)	METHYLENE CHLORIDE	1.3 ug/Kg	4.0U ug/Kg
SL-026-SA5DN-SB-17.0-18.0(RES)	TOLUENE	0.15 ug/Kg	4.0U ug/Kg
SL-026-SA5DN-SB-4.0-5.0(RES)	ACETONE	8.4 ug/Kg	8.4U ug/Kg
SL-026-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.6 ug/Kg	4.1U ug/Kg
SL-026-SA5DN-SB-4.0-5.0(RES)	TOLUENE	0.17 ug/Kg	4.1U ug/Kg
SL-036-SA5DN-SB-4.0-5.0(RES)	ACETONE	8.5 ug/Kg	8.5U ug/Kg
SL-036-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.1 ug/Kg	4.1U ug/Kg
SL-036-SA5DN-SB-4.0-5.0(RES)	TOLUENE	0.11 ug/Kg	4.1U ug/Kg
SL-036-SA5DN-SB-9.0-10.0(RES)	ACETONE	9.4 ug/Kg	9.4U ug/Kg
SL-036-SA5DN-SB-9.0-10.0(RES)	METHYLENE CHLORIDE	1.6 ug/Kg	4.3U ug/Kg
SL-036-SA5DN-SB-9.0-10.0(RES)	TOLUENE	0.14 ug/Kg	4.3U ug/Kg
SL-071-SA8N-SB-2.0-3.0(RES)	ACETONE	12 ug/Kg	12U ug/Kg
SL-071-SA8N-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	1.5 ug/Kg	4.2U ug/Kg
SL-071-SA8N-SB-2.0-3.0(RES)	TOLUENE	0.13 ug/Kg	4.2U ug/Kg
SL-122-SA8N-SB-2.0-3.0(RES)	ACETONE	8.3 ug/Kg	8.3U ug/Kg
SL-122-SA8N-SB-2.0-3.0(RES)	METHYLENE CHLORIDE	1.6 ug/Kg	4.1U ug/Kg
SL-122-SA8N-SB-2.0-3.0(RES)	TOLUENE	0.24 ug/Kg	4.1U ug/Kg
SL-133-SA8N-SB-7.0-8.0(RES)	ACETONE	8.7 ug/Kg	8.7U ug/Kg
SL-133-SA8N-SB-7.0-8.0(RES)	METHYLENE CHLORIDE	1.7 ug/Kg	4.2U ug/Kg
SL-133-SA8N-SB-7.0-8.0(RES)	TOLUENE	0.19 ug/Kg	4.2U ug/Kg
SL-140-SA8N-SB-3.0-4.0(RES)	ACETONE	7.7 ug/Kg	7.7U ug/Kg
SL-140-SA8N-SB-3.0-4.0(RES)	METHYLENE CHLORIDE	1.5 ug/Kg	3.8U ug/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE175 Laboratory: LL

EDD Filename: DE175_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-140-SA8N-SB-3.0-4.0(RES)	TOLUENE	0.22 ug/Kg	3.8U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: DE175_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-024-SA5DN -SB-4.0-5.0MS SL-024-SA5DN -SB-4.0-5.0MSD (SL-024-SA5DN -SB-4.0-5.0)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	45 - -	27 48 53	59.00-109.00 63.00-107.00 63.00-107.00	49 (20.00) 34 (20.00) 33 (20.00)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	J (all detects) UJ (all non-detects)
SL-024-SA5DN -SB-4.0-5.0MSD (SL-024-SA5DN -SB-4.0-5.0)	EFH (C21-C30)	-	-	49.00-123.00	25 (20.00)	EFH (C21-C30)	J(all detects)

Method: 8330A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-024-SA5DN -SB-4.0-5.0MSD (SL-024-SA5DN -SB-4.0-5.0)	PETN	-	128	80.00-121.00	-	PETN	J(all detects)

Method: 8015B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-024-SA5DN -SB-4.0-5.0MS SL-024-SA5DN -SB-4.0-5.0MSD (SL-024-SA5DN -SB-4.0-5.0)	m-Terphenyl	68	66	75.00-125.00	-	m-Terphenyl	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-024-SA5DN -SB-4.0-5.0MSD (DUP13 -SA5DN -QC-060711 SL -024-SA5DN -SB-19.0-20.0 SL -024-SA5DN -SB-4.0-5.0 SL -026-SA5DN -SB-17.0-18.0 SL -026-SA5DN -SB-4.0-5.0 SL -036-SA5DN -SB-4.0-5.0 SL -036-SA5DN -SB-9.0-10.0 SL -071-SA8N -SB-2.0-3.0 SL -122-SA8N -SB-2.0-3.0 SL -133-SA8N -SB-7.0-8.0 SL -140-SA8N -SB-3.0-4.0)	BERYLLIUM CADMIUM CHROMIUM COBALT COPPER LEAD SILVER THALLIUM	- - - - - - - -	133 140 160 128 136 215 141 143	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	- - - - - - - -	BERYLLIUM CADMIUM CHROMIUM COBALT COPPER LEAD SILVER THALLIUM	J(all detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: DE175_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-SA5DN-SB-4.0-5.0MS SL-024-SA5DN-SB-4.0-5.0MSD (DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-SB-3.0-4.0)	ANTIMONY ARSENIC NICKEL VANADIUM ZINC	61 - 54 61 51	- 214 160 223 190	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- 21 (20.00) 24 (20.00) 24 (20.00) -	ANTIMONY ARSENIC NICKEL VANADIUM ZINC	J(all detects) UJ(all non-detects) V, Zn, No Qual %R, >4x
SL-024-SA5DN-SB-4.0-5.0MSD (DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-SB-3.0-4.0)	MOLYBDENUM	-	135	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-024-SA5DN-SB-4.0-5.0MS SL-024-SA5DN-SB-4.0-5.0MSD (DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-SB-3.0-4.0)	BARIUM	-65	-249	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-024-SA5DN-SB-4.0-5.0MS SL-024-SA5DN-SB-4.0-5.0MSD (DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-SB-3.0-4.0)	ALUMINUM IRON MAGNESIUM POTASSIUM	5628 2370 616 167	5203 2376 442 156	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINUM IRON MAGNESIUM POTASSIUM	J(all detects) Al, Fe, Mg, 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: DE175 **Laboratory: LL**

EDD Filename: DE175_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-SA5DN-SB-4.0-5.0MS **SL-024-SA5DN-SB-4.0-5.0MSD** (DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-SB-3.0-4.0)	CALCIUM	-586	-1127	75.00-125.00	24 (20.00)	CALCIUM	J(all detects) UJ(all non-detects) No Qual %R, >4x
SL-024-SA5DN-SB-4.0-5.0MS **SL-024-SA5DN-SB-4.0-5.0MSD** (DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-SB-3.0-4.0)	MANGANESE	231	539	75.00-125.00	29 (20.00)	MANGANESE	J(all detects) UJ(all non-detects) No Qual %R, >4x

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-024-SA5DN-SB-4.0-5.0MS **SL-024-SA5DN-SB-4.0-5.0MSD** (SL-024-SA5DN-SB-4.0-5.0)	2,4-DINITROPHENOL 4,6-DINITRO-2-METHYLPHENOL	0 0	0 0	20.00-143.00 24.00-116.00	- -	2,4-DINITROPHENOL 4,6-DINITRO-2-METHYLPHEN	J(all detects) R(all non-detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: DE175_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-024-SA5DN-SB-4.0-5.0MS SL-024-SA5DN-SB-4.0-5.0MSD (SL-024-SA5DN-SB-4.0-5.0)	1,2,4-TRICHLOROBENZENE	61	58	72.00-115.00	-	1,2,4-TRICHLOROBENZENE	J(all detects) UJ(all non-detects)
	1,2-DICHLOROBENZENE	55	52	66.00-108.00	-	1,2-DICHLOROBENZENE	
	1,3-DICHLOROBENZENE	52	50	63.00-109.00	-	1,3-DICHLOROBENZENE	
	1,4-DICHLOROBENZENE	52	50	70.00-100.00	-	1,4-DICHLOROBENZENE	
	1-METHYLNAPHTHALENE	67	68	73.00-112.00	-	1-METHYLNAPHTHALENE	
	2,4,5-TRICHLOROPHENOL	71	71	78.00-109.00	-	2,4,5-TRICHLOROPHENOL	
	2,4,6-TRICHLOROPHENOL	72	74	77.00-115.00	-	2,4,6-TRICHLOROPHENOL	
	2,4-DICHLOROPHENOL	72	73	78.00-117.00	-	2,4-DICHLOROPHENOL	
	2,4-DIMETHYLPHENOL	70	69	78.00-110.00	-	2,4-DIMETHYLPHENOL	
	2,4-DINITROTOLUENE	69	72	73.00-113.00	-	2,4-DINITROTOLUENE	
	2-CHLOROPHENOL	-	71	73.00-121.00	-	2-CHLOROPHENOL	
	2-METHYLNAPHTHALENE	63	63	76.00-114.00	-	2-METHYLNAPHTHALENE	
	2-METHYLPHENOL	70	69	75.00-111.00	-	2-METHYLPHENOL	
	2-NITROPHENOL	53	55	74.00-115.00	-	2-NITROPHENOL	
	4-BROMOPHENYL-PHENYLETH	66	-	67.00-129.00	-	4-BROMOPHENYL-PHENYLET	
	4-CHLORO-3-METHYLPHENOL	73	74	76.00-110.00	-	4-CHLORO-3-METHYLPHENOL	
	4-CHLOROPHENYL-PHENYLET	67	69	80.00-109.00	-	4-CHLOROPHENYL-PHENYLE	
	4-METHYLPHENOL	65	64	71.00-111.00	-	4-METHYLPHENOL	
	ACENAPHTHENE	70	72	75.00-115.00	-	ACENAPHTHENE	
	ACENAPHTHYLENE	72	73	81.00-110.00	-	ACENAPHTHYLENE	
	ANTHRACENE	71	74	75.00-115.00	-	ANTHRACENE	
	BENZIDINE	18	22	35.00-141.00	-	BENZIDINE	
	BIS(2-CHLOROETHOXY)METHA	65	67	75.00-104.00	-	BIS(2-CHLOROETHOXY)METH	
	DIBENZOFURAN	70	-	71.00-112.00	-	DIBENZOFURAN	
	FLUORANTHENE	69	72	73.00-112.00	-	FLUORANTHENE	
	FLUORENE	72	74	77.00-111.00	-	FLUORENE	
	HEXACHLOROBENZENE	70	73	77.00-114.00	-	HEXACHLOROBENZENE	
	HEXACHLOROBUTADIENE	56	55	62.00-120.00	-	HEXACHLOROBUTADIENE	
	HEXACHLOROETHANE	49	46	57.00-109.00	-	HEXACHLOROETHANE	
	ISOPHORONE	68	69	73.00-102.00	-	ISOPHORONE	
	NAPHTHALENE	62	62	72.00-116.00	-	NAPHTHALENE	
	NITROBENZENE	68	67	72.00-106.00	-	NITROBENZENE	
	N-NITROSODIPHENYLAMINE	69	70	86.00-145.00	-	N-NITROSODIPHENYLAMINE	

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-024-SA5DN-SB-4.0-5.0MS SL-024-SA5DN-SB-4.0-5.0MSD (DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-SB-3.0-4.0)	TITANIUM	173	355	75.00-125.00	-	TITANIUM	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE175 Laboratory: LL

EDD Filename: DE175_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-024-SA5DN-SB-4.0-5.0MSD (SL-024-SA5DN-SB-4.0-5.0)	ACENAPHTHYLENE Dimethylphthalate	- -	63 73	67.00-114.00 74.00-118.00	- -	ACENAPHTHYLENE Dimethylphthalate	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-024-SA5DN-SB-4.0-5.0MS (DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-140-SA8N-SB-3.0-4.0)	FLUORIDE	52	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-133-SA8N-SB-7.0-8.0MS (SL-133-SA8N-SB-7.0-8.0)	FLUORIDE	69	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: DE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 300.0
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-133-SA8N-SB-7.0-8.0DUP (SL-133-SA8N-SB-7.0-8.0)	FLUORIDE	22	20.00	No Qual, OK by Difference

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-024-SA5DN-SB-4.0-5.0DUP (DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-SB-3.0-4.0)	CALCIUM	51	20.00	J(all detects) UJ(all non-detects)
	MANGANESE	37	20.00	
	Zirconium	48	20.00	Zr, No Qual, OK by Difference

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-024-SA5DN-SB-4.0-5.0DUP (DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-SB-3.0-4.0)	COBALT	24	20.00	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: DE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-024-SA5DN-SB-4.0-5.0DUP (DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-SB-3.0-4.0)	MERCURY	73	20.00	No Qual, OK by Difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: PrepDE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015M
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11601AQ321314A (EB15-SA5DN-SB-060711)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	135 130 130	- - -	78.00-126.00 80.00-124.00 80.00-120.00	- - -	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	J (all detects)

Method: 8082
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11626AQ240817A P11626AY240758A (DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-SB-3.0-4.0)	Aroclor 5442	109	113	36.00-106.00	-	Aroclor 5432 Aroclor 5442 Aroclor 5460	J(all detects)

Method: 6010B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P16008CQ221119 (DUP13-SA5DN-QC-060711 SL-024-SA5DN-SB-19.0-20.0 SL-024-SA5DN-SB-4.0-5.0 SL-026-SA5DN-SB-17.0-18.0 SL-026-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-4.0-5.0 SL-036-SA5DN-SB-9.0-10.0 SL-071-SA8N-SB-2.0-3.0 SL-122-SA8N-SB-2.0-3.0 SL-133-SA8N-SB-7.0-8.0 SL-140-SA8N-SB-3.0-4.0)	ALUMINUM	79	-	80.00-120.00	-	ALUMINUM	No Qual, SRM within QC Limits

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: PrepDE175_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*
P0LFLCSQ260127 (DUP13 -SA5DN -QC-060711 SL -024-SA5DN -SB-19.0-20.0 SL -024-SA5DN -SB-4.0-5.0 SL -026-SA5DN -SB-17.0-18.0 SL -026-SA5DN -SB-4.0-5.0 SL -036-SA5DN -SB-4.0-5.0 SL -036-SA5DN -SB-9.0-10.0 SL -071-SA8N -SB-2.0-3.0 SL -122-SA8N -SB-2.0-3.0 SL -133-SA8N -SB-7.0-8.0 SL -140-SA8N -SB-3.0-4.0)	1,2-DICHLOROBENZENE	77	-	79.00-102.00	-	1,2-DICHLOROBENZENE	J(all detects) UJ(all non-detects)

Surrogate Outlier Report

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: DE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **1625C**
Matrix: **AQ**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
EB15-SA5DN-SB-060711	N-Nitrosodimethylamine-d6	162	50.00-150.00	All Target Analytes	J (all detects)

Method: **8315A**
Matrix: **SO**

Sample ID	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-026-SA5DN-SB-4.0-5.0	Butyraldehyde	149	64.00-126.00	All Target Analytes	J(all detects)
SL-071-SA8N-SB-2.0-3.0	Butyraldehyde	147	64.00-126.00	All Target Analytes	J(all detects)
SL-122-SA8N-SB-2.0-3.0	Butyraldehyde	135	64.00-126.00	All Target Analytes	J(all detects)
SL-140-SA8N-SB-3.0-4.0	Butyraldehyde	131	64.00-126.00	All Target Analytes	J(all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: DE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-024-SA5DN-SB-4.0-5.0	DUP13-SA5DN-QC-060711			
MOISTURE	12.2	12.6	3		No Qualifiers Applied

Method: 1625C
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-024-SA5DN-SB-4.0-5.0	DUP13-SA5DN-QC-060711			
N-NITROSODIMETHYLAMINE	37.8 U	65.1	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-024-SA5DN-SB-4.0-5.0	DUP13-SA5DN-QC-060711			
FLUORIDE	15.6	17.2	10	50.00	No Qualifiers Applied
Nitrate-NO3	1.5	1.9	24	50.00	

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-024-SA5DN-SB-4.0-5.0	DUP13-SA5DN-QC-060711			
ALUMINUM	25300	27800	9	50.00	No Qualifiers Applied
BORON	12.7	15.1	17	50.00	
CALCIUM	13800	8480	48	50.00	
IRON	34600	36000	4	50.00	
LITHIUM	24.8	26.2	5	50.00	
MAGNESIUM	7490	7090	5	50.00	
MANGANESE	365	567	43	50.00	
PHOSPHORUS	357	413	15	50.00	
POTASSIUM	3130	2930	7	50.00	
SODIUM	438	476	8	50.00	
STRONTIUM	45.3	43.6	4	50.00	
TIN	2.60	2.80	7	50.00	
TITANIUM	1410	1250	12	50.00	
Zirconium	3.58	4.86	30	50.00	

Field Duplicate RPD Report

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: DE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-024-SA5DN-SB-4.0-5.0	DUP13-SA5DN-QC-060711			
ANTIMONY	0.255	0.271	6	50.00	No Qualifiers Applied
ARSENIC	7.61	7.52	1	50.00	
BARIUM	201	180	11	50.00	
BERYLLIUM	0.987	0.931	6	50.00	
CADMIUM	0.429	0.344	22	50.00	
CHROMIUM	34.4	32.9	4	50.00	
COBALT	16.7	12.6	28	50.00	
COPPER	19.5	17.7	10	50.00	
LEAD	13.5	13.2	2	50.00	
MOLYBDENUM	0.361	0.333	8	50.00	
NICKEL	35.0	28.5	20	50.00	
SELENIUM	0.119	0.0730	48	50.00	
SILVER	0.0547	0.0599	9	50.00	
THALLIUM	0.424	0.386	9	50.00	
VANADIUM	56.6	57.6	2	50.00	
ZINC	86.6	80.0	8	50.00	

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-024-SA5DN-SB-4.0-5.0	DUP13-SA5DN-QC-060711			
HEXAVALENT CHROMIUM	0.44	1.1 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-024-SA5DN-SB-4.0-5.0	DUP13-SA5DN-QC-060711			
MERCURY	0.0048	0.114 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 8015M
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-024-SA5DN-SB-4.0-5.0	DUP13-SA5DN-QC-060711			
EFH (C30-C40)	0.68	1.0	38	50.00	No Qualifiers Applied

Method: 8260B
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-024-SA5DN-SB-4.0-5.0	DUP13-SA5DN-QC-060711			
ACETONE	11	9.0	20	50.00	No Qualifiers Applied
METHYLENE CHLORIDE	1.7	1.4	19	50.00	
TOLUENE	0.20	0.16	22	50.00	

Project Name and Number: 1203-004-008-AL - SSFL Area IV Collocated Soil Sampling

Field Duplicate RPD Report

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: DE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 9045M
Matrix: SO

Analyte	*Concentration (pH unit)*		*Sample RPD*	*eQAPP RPD*	*Flag*
	SL-024-SA5DN-SB-4.0-5.0	DUP13-SA5DN-QC-060711			
PH	8.81	8.43	4	50.00	No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: DE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8015B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB15-SA5DN-SB-060711	METHANOL	J	230	1000	PQL	ug/L	J (all detects)

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-026-SA5DN-SB-17.0-18.0	N-NITROSODIMETHYLAMINE	J	27.1	36.2	PQL	ng/Kg	J (all detects)
SL-026-SA5DN-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	20.4	39.5	PQL	ng/Kg	J (all detects)
SL-036-SA5DN-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	29.3	38.9	PQL	ng/Kg	J (all detects)
SL-036-SA5DN-SB-9.0-10.0	N-NITROSODIMETHYLAMINE	J	23.9	38.2	PQL	ng/Kg	J (all detects)
SL-071-SA8N-SB-2.0-3.0	N-NITROSODIMETHYLAMINE	J	33.0	35.5	PQL	ng/Kg	J (all detects)
SL-122-SA8N-SB-2.0-3.0	N-NITROSODIMETHYLAMINE	J	26.6	35.3	PQL	ng/Kg	J (all detects)
SL-140-SA8N-SB-3.0-4.0	N-NITROSODIMETHYLAMINE	J	24.7	37.2	PQL	ng/Kg	J (all detects)

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA5DN-SB-4.0-5.0	Nitrate-NO3	J	1.5	1.7	PQL	mg/Kg	J (all detects)
SL-026-SA5DN-SB-4.0-5.0	Nitrate-NO3	J	1.5	1.8	PQL	mg/Kg	J (all detects)
SL-036-SA5DN-SB-9.0-10.0	Nitrate-NO3	J	1.2	1.7	PQL	mg/Kg	J (all detects)
SL-071-SA8N-SB-2.0-3.0	Nitrate-NO3	J	1.2	1.6	PQL	mg/Kg	J (all detects)
SL-133-SA8N-SB-7.0-8.0	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
DUP13-SA5DN-QC-060711	TIN Zirconium	J J	2.80 4.86	11.2 5.61	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-024-SA5DN-SB-19.0-20.0	TIN Zirconium	J J	2.30 2.69	10.9 5.45	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-024-SA5DN-SB-4.0-5.0	TIN Zirconium	J J	2.60 3.58	11.2 5.58	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-026-SA5DN-SB-17.0-18.0	TIN Zirconium	J J	2.75 2.26	10.7 5.35	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-026-SA5DN-SB-4.0-5.0	TIN Zirconium	J J	2.75 2.93	11.9 5.93	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-036-SA5DN-SB-4.0-5.0	TIN Zirconium	J J	2.56 3.20	11.4 5.72	PQL PQL	mg/Kg mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: DE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA5DN-SB-9.0-10.0	TIN	J	2.70	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.62	5.66	PQL	mg/Kg	
SL-071-SA8N-SB-2.0-3.0	SODIUM	J	69.6	107	PQL	mg/Kg	J (all detects)
	TIN	J	2.53	10.7	PQL	mg/Kg	
SL-122-SA8N-SB-2.0-3.0	SODIUM	J	61.0	104	PQL	mg/Kg	J (all detects)
	TIN	J	2.41	10.4	PQL	mg/Kg	
	Zirconium	J	2.16	5.18	PQL	mg/Kg	
SL-133-SA8N-SB-7.0-8.0	TIN	J	2.87	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.76	5.65	PQL	mg/Kg	
SL-140-SA8N-SB-3.0-4.0	SODIUM	J	75.3	109	PQL	mg/Kg	J (all detects)
	TIN	J	2.42	10.9	PQL	mg/Kg	
	Zirconium	J	2.19	5.46	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP13-SA5DN-QC-060711	SELENIUM	J	0.0730	0.444	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0599	0.111	PQL	mg/Kg	
SL-024-SA5DN-SB-19.0-20.0	SELENIUM	J	0.0758	0.436	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0212	0.109	PQL	mg/Kg	
SL-024-SA5DN-SB-4.0-5.0	SELENIUM	J	0.119	0.451	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0547	0.113	PQL	mg/Kg	
SL-026-SA5DN-SB-17.0-18.0	ANTIMONY	J	0.110	0.210	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0577	0.419	PQL	mg/Kg	
	SILVER	J	0.0167	0.105	PQL	mg/Kg	
SL-026-SA5DN-SB-4.0-5.0	ANTIMONY	J	0.229	0.235	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.199	0.470	PQL	mg/Kg	
	SILVER	J	0.0595	0.117	PQL	mg/Kg	
SL-036-SA5DN-SB-4.0-5.0	ANTIMONY	J	0.185	0.227	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0464	0.453	PQL	mg/Kg	
	SILVER	J	0.0368	0.113	PQL	mg/Kg	
SL-036-SA5DN-SB-9.0-10.0	SILVER	J	0.0712	0.113	PQL	mg/Kg	J (all detects)
SL-071-SA8N-SB-2.0-3.0	ANTIMONY	J	0.135	0.210	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0615	0.105	PQL	mg/Kg	
SL-122-SA8N-SB-2.0-3.0	ANTIMONY	J	0.0967	0.211	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.159	0.422	PQL	mg/Kg	
	SILVER	J	0.0650	0.106	PQL	mg/Kg	
SL-133-SA8N-SB-7.0-8.0	ANTIMONY	J	0.198	0.224	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0793	0.112	PQL	mg/Kg	
	SELENIUM	J	0.0507	0.448	PQL	mg/Kg	
SL-140-SA8N-SB-3.0-4.0	ANTIMONY	J	0.146	0.218	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.295	0.437	PQL	mg/Kg	
	SILVER	J	0.0370	0.109	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: DE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA5DN-SB-19.0-20.0	HEXAVALENT CHROMIUM	J	0.30	1.1	PQL	mg/Kg	J (all detects)
SL-024-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.44	1.1	PQL	mg/Kg	J (all detects)
SL-026-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.41	1.2	PQL	mg/Kg	J (all detects)
SL-036-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.60	1.2	PQL	mg/Kg	J (all detects)
SL-071-SA8N-SB-2.0-3.0	HEXAVALENT CHROMIUM	J	0.30	1.1	PQL	mg/Kg	J (all detects)
SL-133-SA8N-SB-7.0-8.0	HEXAVALENT CHROMIUM	J	0.33	1.2	PQL	mg/Kg	J (all detects)
SL-140-SA8N-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.54	1.1	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA5DN-SB-4.0-5.0	MERCURY	J	0.0048	0.108	PQL	mg/Kg	J (all detects)
SL-026-SA5DN-SB-4.0-5.0	MERCURY	J	0.0278	0.117	PQL	mg/Kg	J (all detects)
SL-036-SA5DN-SB-4.0-5.0	MERCURY	J	0.0044	0.111	PQL	mg/Kg	J (all detects)
SL-071-SA8N-SB-2.0-3.0	MERCURY	J	0.0117	0.106	PQL	mg/Kg	J (all detects)
SL-122-SA8N-SB-2.0-3.0	MERCURY	J	0.0070	0.105	PQL	mg/Kg	J (all detects)
SL-133-SA8N-SB-7.0-8.0	MERCURY	J	0.0108	0.107	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP13-SA5DN-QC-060711	EFH (C30-C40)	J	1.0	1.4	PQL	mg/Kg	J (all detects)
SL-024-SA5DN-SB-4.0-5.0	EFH (C30-C40)	J	0.68	1.4	PQL	mg/Kg	J (all detects)
SL-026-SA5DN-SB-4.0-5.0	EFH (C15-C20)	J	1.2	2.9	PQL	mg/Kg	J (all detects)
SL-036-SA5DN-SB-4.0-5.0	EFH (C30-C40)	J	0.51	1.4	PQL	mg/Kg	J (all detects)
SL-036-SA5DN-SB-9.0-10.0	EFH (C21-C30) EFH (C30-C40)	J J	0.50 0.85	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-071-SA8N-SB-2.0-3.0	EFH (C15-C20)	J	0.51	1.3	PQL	mg/Kg	J (all detects)
SL-122-SA8N-SB-2.0-3.0	EFH (C15-C20)	J	0.54	1.3	PQL	mg/Kg	J (all detects)
SL-133-SA8N-SB-7.0-8.0	EFH (C30-C40)	J	0.87	1.4	PQL	mg/Kg	J (all detects)
SL-140-SA8N-SB-3.0-4.0	EFH (C30-C40)	J	0.73	1.4	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE175 **Laboratory: LL**

EDD Filename: DE175_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-026-SA5DN-SB-4.0-5.0	AROCLOR 1260	J	0.54	2.0	PQL	ug/Kg	J (all detects)
SL-133-SA8N-SB-7.0-8.0	Aroclor 5460	J	1.4	3.8	PQL	ug/Kg	J (all detects)

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP13-SA5DN-QC-060711	METHYLENE CHLORIDE TOLUENE	J J	1.4 0.16	4.0 4.0	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-024-SA5DN-SB-19.0-20.0	METHYLENE CHLORIDE TOLUENE	J J	1.3 0.14	3.7 3.7	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-024-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE TOLUENE	J J	1.7 0.20	4.0 4.0	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-026-SA5DN-SB-17.0-18.0	METHYLENE CHLORIDE TOLUENE	J J	1.3 0.15	4.0 4.0	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-026-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE TOLUENE	J J	1.6 0.17	4.1 4.1	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-036-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE TOLUENE	J J	1.1 0.11	4.1 4.1	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-036-SA5DN-SB-9.0-10.0	METHYLENE CHLORIDE TOLUENE	J J	1.6 0.14	4.3 4.3	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-071-SA8N-SB-2.0-3.0	METHYLENE CHLORIDE TOLUENE	J J	1.5 0.13	4.2 4.2	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-122-SA8N-SB-2.0-3.0	METHYLENE CHLORIDE TOLUENE	J J	1.6 0.24	4.1 4.1	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-133-SA8N-SB-7.0-8.0	METHYLENE CHLORIDE TOLUENE	J J	1.7 0.19	4.2 4.2	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-140-SA8N-SB-3.0-4.0	METHYLENE CHLORIDE TOLUENE	J J	1.5 0.22	3.8 3.8	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-026-SA5DN-SB-17.0-18.0	CHRYSENE	J	0.74	1.8	PQL	ug/Kg	J (all detects)
SL-122-SA8N-SB-2.0-3.0	NAPHTHALENE	J	0.90	1.8	PQL	ug/Kg	J (all detects)
SL-133-SA8N-SB-7.0-8.0	ANTHRACENE NAPHTHALENE	J J	0.42 0.82	1.9 1.9	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-140-SA8N-SB-3.0-4.0	BENZO(B)FLUORANTHENE BENZO(K)FLUORANTHENE CHRYSENE FLUORANTHENE NAPHTHALENE PYRENE	J J J J J J	0.76 0.96 0.53 1.0 1.0 0.87	1.9 1.9 1.9 1.9 1.9 1.9	PQL PQL PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)

LDC #: 26277F4 **VALIDATION COMPLETENESS WORKSHEET** Date: 9/30/11
SDG #: DE175 ADR Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: MY
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	~~A~~ N	
III.	Calibration	N	
IV.	Blanks	A	M fuel
V.	ICP Interference Check Sample (ICS) Analysis	N	RPD out RPD out RPD out.
VI.	Matrix Spike Analysis	N	Al, Ba, Ca, Fe, Mg, Mn, Ti, V, Zn 75, Na fuel 5R
VII.	Duplicate Sample Analysis	N	Hg, Zn <5X
VIII.	Laboratory Control Samples (LCS)	N A	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Cr, V
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
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-024-SA5DN-SB4.0-5.0	11	SL-133-SA8N-SB-7.0-8.0	21		31	
2	SL-024-SA5DN-SB19.0-20.0	12	SL-024-SA5DN-SB4.0-5.0MS	22		32	
3	SL-026-SA5DN-SB4.0-5.0	13	SL-024-SA5DN-SB4.0-5.0MSD	23		33	
4	SL-026-SA5DN-SB17.0-18.0	14	SL-024-SA5DN-SB4.0-5.0DUP	24		34	
5	SL-036-SA5DN-SB4.0-5.0	15		25		35	
6	SL-036-SA5DN-SB9.0-10.0	16		26		36	
7	DUP13-SA5DN-QC-060711	17		27		37	
8	SL-071-SA8N-SB-2.0-3.0	18		28		38	
9	SL-122-SA8N-SB-2.0-3.0	19		29		39	
10	SL-140-SA8N-SB-3.0-4.0	20		30		40	

Notes:

Lancaster Laboratories

QUALITY ASSURANCE SUMMARY
FORM 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: DE175
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6309733BKG Matrix Spike Lab Sample ID: 6309734MS Matrix Spike Duplicate Lab Sample ID: 6309735MSD
% Solids for Sample: 87.8
Batch Id(s): P16008C, P16026C, P15911F, P16608A

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		25340.2675		38034.1641		36959.0167		225.5351	223.3240	MG/KG	5628		5203		3			20	P
Antimony	121	0.2549		1.0828		1.3159		1.3532	1.3142	MG/KG	61	N	81		19		75 - 125	20	MS
Arsenic	75	7.6118		9.9596		12.3051		2.2554	2.1903	MG/KG	104		214	N	21	*	75 - 125	20	MS
Barium	137	201.2450		193.9602		173.9640		11.2768	10.9515	MG/KG	-65		-249		11			20	MS
Beryllium	9	0.9872		1.9315		2.1546		0.9021	0.8761	MG/KG	105		133	N	11		75 - 125	20	MS
Boron		12.7183		234.0400		228.4638		225.5351	223.3240	MG/KG	98		97		2		84 - 115	20	P
Cadmium	111	0.4294		1.7368		1.9660		1.1277	1.0951	MG/KG	116		140	N	12		75 - 125	20	MS
Calcium		13806.7254		11165.0714		8775.0190		451.0702	446.6479	MG/KG	-586		-1127		24	*		20	P
Chromium	52	34.3715		43.4381		51.9099		11.2768	10.9515	MG/KG	80		160	N	18		75 - 125	20	MS
Cobalt	59	16.6873		70.8631		86.6261		56.3838	54.7573	MG/KG	96		128	N	20		75 - 125	20	MS
Copper	63	19.5201		28.6430		34.4095		11.2768	10.9515	MG/KG	81		136	N	18		75 - 125	20	MS
Iron		34636.6966		37309.4285		37289.7126		112.7675	111.6620	MG/KG	2370		2376		0			20	P
Lead	208	13.4915		16.8655		20.5559		3.3830	3.2854	MG/KG	100		215		20		75 - 125		MS
Lithium		24.7834		145.0698		142.5030		112.7675	111.6620	MG/KG	107		105		2		82 - 114	20	P
Magnesium		7488.8025		8878.6644		8474.8314		225.5351	223.3240	MG/KG	616		442		5			20	P
Manganese		365.2028		495.4397		666.0536		56.3838	55.8310	MG/KG	231		539		29	*		20	P
Mercury		0.0048	B	0.1720		0.1868		0.1760	0.1850	MG/KG	95		98		8		65 - 135	20	CV
Molybdenum	98	0.3613		13.8050		15.1809		11.2768	10.9515	MG/KG	119		135	N	9		75 - 125	20	MS
Nickel	60	34.9579		41.0248		52.4575		11.2768	10.9515	MG/KG	54	N	160	N	24	*	75 - 125	20	MS
Phosphorus		356.5345		494.7507		493.7335		112.7675	111.6620	MG/KG	123		123		0		75 - 125	20	P
Potassium		3131.8583		5011.7109		4872.8862		1127.6754	1116.6198	MG/KG	167	N	156	N	3		75 - 125	20	P
Selenium	78	0.1193	B	2.5440		2.6393		2.2554	2.1903	MG/KG	108		115		4		75 - 125	20	MS
Silver	107	0.0547	B	14.0734		15.4832		11.2768	10.9515	MG/KG	124		141	N	10		75 - 125	20	MS
Sodium		437.5341		1544.6706		1525.7895		1127.6754	1116.6198	MG/KG	98		97		1		75 - 125	20	P
Strontium		45.3124		155.0757		150.0357		112.7675	111.6620	MG/KG	97		94		3		75 - 115	20	P
Thallium	203	0.4236		0.9400		1.0507		0.4511	0.4381	MG/KG	114		143	N	11		75 - 125	20	MS
Tin		2.6040	B	391.6428		385.7899		451.0702	446.6479	MG/KG	86		86		2		80 - 110	20	P
Titanium		1412.3677		1605.7807		1817.1344		111.6620	113.8952	MG/KG	173		355		12			20	P
Vanadium	51	56.5642		63.3979		80.9970		11.2768	10.9515	MG/KG	61		223		24	*		20	MS
Zinc	66	86.5829		92.3792		107.3681		11.2768	10.9515	MG/KG	51		190		15			20	MS
Zirconium		3.5776	B	117.9797		115.6840		112.7675	111.6620	MG/KG	101		100		2		75 - 125	20	P

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

SAMPLE DELIVERY GROUP

DE176

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-Jun-2011	TB-060811	6310784	TB	5030B	8015M	IV
08-Jun-2011	TB-060811	6310784	TB	5030B	8260B	IV
08-Jun-2011	TB-060811	6310784	TB	5030B	8260B SIM	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	3050B	6010B	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	3050B	6020	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	3060A	7199	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	3546	1625C	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	3550B	8015B	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	3550B	8015M	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	3550B	8082	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	3550B	8270C	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	3550B	8270C SIM	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	5035	8015M	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	5035	8260B	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	5035	8260B SIM	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	8330	8330A	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	METHOD	300.0	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	METHOD	314.0	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	METHOD	7471A	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	METHOD	8015B	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	METHOD	8015M	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	METHOD	8315A	IV
08-Jun-2011	SL-025-SA5DN-SB-4.0-5.0	6310769	N	METHOD	9012B	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	3050B	6010B	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	3050B	6020	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	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
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	3546	1625C	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	3550B	8015B	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	3550B	8015M	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	3550B	8082	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	3550B	8270C	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	3550B	8270C SIM	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	5035	8015M	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	5035	8260B	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	5035	8260B SIM	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	8330	8330A	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	METHOD	300.0	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	METHOD	314.0	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	METHOD	7471A	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	METHOD	8015B	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	METHOD	8015M	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	METHOD	8315A	IV
08-Jun-2011	SL-025-SA5DN-SB-23.0-24.0	6310770	N	METHOD	9012B	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	3050B	6010B	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	3050B	6020	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	3060A	7199	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	3546	1625C	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	3550B	8015B	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	3550B	8015M	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	3550B	8082	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	3550B	8270C	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	3550B	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
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	5035	8015M	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	5035	8260B	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	5035	8260B SIM	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	8330	8330A	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	METHOD	300.0	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	METHOD	314.0	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	METHOD	7471A	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	METHOD	8015B	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	METHOD	8015M	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	METHOD	8315A	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0	6310775	N	METHOD	9012B	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	3050B	6010B	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	3050B	6020	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	3060A	7199	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	3546	1625C	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	3550B	8015B	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	3550B	8015M	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	3550B	8082	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	3550B	8270C	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	3550B	8270C SIM	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	5035	8015M	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	5035	8260B	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	5035	8260B SIM	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	8330	8330A	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	METHOD	300.0	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	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*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	METHOD	7471A	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	METHOD	8015B	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	METHOD	8015M	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	METHOD	8315A	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MS	6310776	MS	METHOD	9012B	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MSD	6310777	MSD	3050B	6010B	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MSD	6310777	MSD	3050B	6020	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MSD	6310777	MSD	3546	1625C	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MSD	6310777	MSD	3550B	8015B	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MSD	6310777	MSD	3550B	8015M	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MSD	6310777	MSD	3550B	8082	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MSD	6310777	MSD	3550B	8270C	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MSD	6310777	MSD	3550B	8270C SIM	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MSD	6310777	MSD	5035	8015M	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MSD	6310777	MSD	5035	8260B	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MSD	6310777	MSD	5035	8260B SIM	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MSD	6310777	MSD	8330	8330A	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MSD	6310777	MSD	METHOD	7471A	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MSD	6310777	MSD	METHOD	8015B	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MSD	6310777	MSD	METHOD	8015M	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0MSD	6310777	MSD	METHOD	8315A	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0DUP	6310778	DUP	3050B	6010B	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0DUP	6310778	DUP	3050B	6020	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0DUP	6310778	DUP	3060A	7199	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0DUP	6310778	DUP	METHOD	300.0	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0DUP	6310778	DUP	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
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0DUP	6310778	DUP	METHOD	7471A	IV
08-Jun-2011	SL-076-SA8N-SB-4.0-5.0DUP	6310778	DUP	METHOD	9012B	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	3050B	6010B	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	3050B	6020	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	3060A	7199	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	3546	1625C	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	3550B	8015B	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	3550B	8015M	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	3550B	8082	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	3550B	8270C	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	3550B	8270C SIM	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	5035	8015M	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	5035	8260B	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	5035	8260B SIM	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	8330	8330A	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	METHOD	300.0	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	METHOD	314.0	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	METHOD	7471A	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	METHOD	8015B	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	METHOD	8015M	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	METHOD	8315A	IV
08-Jun-2011	DUP10-SA8N-QC-060811	6310783	FD	METHOD	9012B	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	3050B	6010B	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	3050B	6020	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	3060A	7199	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	3546	1625C	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
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	3550B	8015B	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	3550B	8015M	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	3550B	8082	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	3550B	8270C	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	3550B	8270C SIM	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	5035	8015M	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	5035	8260B	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	5035	8260B SIM	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	8330	8330A	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	METHOD	300.0	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	METHOD	314.0	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	METHOD	7471A	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	METHOD	8015B	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	METHOD	8015M	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	METHOD	8315A	IV
08-Jun-2011	SL-023-SA5DN-SB-4.0-5.0	6310767	N	METHOD	9012B	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	3050B	6010B	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	3050B	6020	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	3060A	7199	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	3546	1625C	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	3550B	8015B	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	3550B	8015M	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	3550B	8082	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	3550B	8270C	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	3550B	8270C SIM	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	5035	8015M	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
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	5035	8260B	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	5035	8260B SIM	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	8330	8330A	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	METHOD	300.0	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	METHOD	314.0	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	METHOD	6850	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	METHOD	7471A	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	METHOD	8015B	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	METHOD	8015M	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	METHOD	8315A	IV
08-Jun-2011	SL-023-SA5DN-SB-20.0-21.0	6310768	N	METHOD	9012B	IV
08-Jun-2011	EB16-SA8N-SB-060811	6310785	EB	3005A	6010B	IV
08-Jun-2011	EB16-SA8N-SB-060811	6310785	EB	3020A	6020	IV
08-Jun-2011	EB16-SA8N-SB-060811	6310785	EB	3510C	8082	IV
08-Jun-2011	EB16-SA8N-SB-060811	6310785	EB	3510C	8270C	IV
08-Jun-2011	EB16-SA8N-SB-060811	6310785	EB	3510C	8270C SIM	IV
08-Jun-2011	EB16-SA8N-SB-060811	6310785	EB	5030B	8260B	IV
08-Jun-2011	EB16-SA8N-SB-060811	6310785	EB	5030B	8260B SIM	IV
08-Jun-2011	EB16-SA8N-SB-060811	6310785	EB	Gen Prep	300.0	IV
08-Jun-2011	EB16-SA8N-SB-060811	6310785	EB	Gen Prep	314.0	IV
08-Jun-2011	EB16-SA8N-SB-060811	6310785	EB	Gen Prep	7199	IV
08-Jun-2011	EB16-SA8N-SB-060811	6310785	EB	METHOD	7470A	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	3050B	6010B	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	3050B	6020	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	3060A	7199	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	3546	1625C	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
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	3550B	8015B	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	3550B	8015M	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	3550B	8082	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	3550B	8270C	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	3550B	8270C SIM	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	5035	8015M	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	5035	8260B	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	5035	8260B SIM	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	8330	8330A	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	METHOD	300.0	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	METHOD	314.0	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	METHOD	7471A	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	METHOD	8015B	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	METHOD	8015M	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	METHOD	8315A	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5	6310779	N	METHOD	9012B	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5DUP	P310779D270824A	DUP	METHOD	9012B	IV
08-Jun-2011	SL-076-SA8N-SB-7.5-8.5MS	P310779R270825A	MS	METHOD	9012B	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	3050B	6010B	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	3050B	6020	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	3060A	7199	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	3546	1625C	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	3550B	8015B	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	3550B	8015M	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	3550B	8082	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	3550B	8270C	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
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	3550B	8270C SIM	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	5035	8015M	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	5035	8260B	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	5035	8260B SIM	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	8330	8330A	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	METHOD	300.0	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	METHOD	314.0	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	METHOD	6850	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	METHOD	7471A	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	METHOD	8015B	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	METHOD	8015M	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	METHOD	8315A	IV
08-Jun-2011	SL-028-SA5DN-SB-4.0-5.0	6310771	N	METHOD	9012B	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	3050B	6010B	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	3050B	6020	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	3060A	7199	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	3546	1625C	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	3550B	8015B	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	3550B	8015M	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	3550B	8082	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	3550B	8270C	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	3550B	8270C SIM	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	5035	8015M	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	5035	8260B	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	5035	8260B SIM	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	8330	8330A	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
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	METHOD	300.0	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	METHOD	314.0	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	METHOD	7471A	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	METHOD	8015B	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	METHOD	8015M	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	METHOD	8315A	IV
08-Jun-2011	SL-028-SA5DN-SB-11.5-12.5	6310772	N	METHOD	9012B	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	3050B	6010B	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	3050B	6020	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	3060A	7199	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	3546	1625C	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	3550B	8015B	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	3550B	8015M	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	3550B	8082	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	3550B	8270C	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	3550B	8270C SIM	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	5035	8015M	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	5035	8260B	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	5035	8260B SIM	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	8330	8330A	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	METHOD	300.0	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	METHOD	314.0	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	METHOD	7471A	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	METHOD	8015B	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	METHOD	8015M	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	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
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5	6310780	N	METHOD	9012B	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	3050B	6010B	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	3050B	6020	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	3060A	7199	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	3546	1625C	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	3550B	8015B	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	3550B	8015M	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	3550B	8082	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	3550B	8270C	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	3550B	8270C SIM	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	5035	8015M	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	5035	8260B	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	5035	8260B SIM	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	8330	8330A	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	METHOD	300.0	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	METHOD	314.0	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	METHOD	7471A	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	METHOD	8015B	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	METHOD	8015M	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	METHOD	8315A	IV
08-Jun-2011	SL-109-SA8N-SB-4.0-5.0	6310781	N	METHOD	9012B	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5DUP	P310780D271933B	DUP	METHOD	300.0	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5DUP	P310780D272103B	DUP	METHOD	314.0	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5MS	P310780R271948B	MS	METHOD	300.0	IV
08-Jun-2011	SL-106-SA8N-SB-2.5-3.5MS	P310780R272150B	MS	METHOD	314.0	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	3050B	6010B	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
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	3050B	6020	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	3060A	7199	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	3546	1625C	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	3550B	8015B	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	3550B	8015M	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	3550B	8082	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	3550B	8270C	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	3550B	8270C SIM	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	5035	8015M	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	5035	8260B	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	5035	8260B SIM	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	8330	8330A	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	METHOD	300.0	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	METHOD	314.0	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	METHOD	7471A	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	METHOD	8015B	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	METHOD	8015M	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	METHOD	8315A	IV
08-Jun-2011	SL-051-SA5DN-SB-4.0-5.0	6310773	N	METHOD	9012B	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	3050B	6010B	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	3050B	6020	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	3060A	7199	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	3546	1625C	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	3550B	8015B	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	3550B	8015M	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	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
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	3550B	8270C	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	3550B	8270C SIM	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	5035	8015M	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	5035	8260B	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	5035	8260B SIM	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	8330	8330A	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	METHOD	300.0	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	METHOD	314.0	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	METHOD	7471A	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	METHOD	8015B	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	METHOD	8015M	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	METHOD	8315A	IV
08-Jun-2011	SL-051-SA5DN-SB-14.0-15.0	6310774	N	METHOD	9012B	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	3050B	6010B	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	3050B	6020	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	3060A	7199	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	3546	1625C	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	3550B	8015B	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	3550B	8015M	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	3550B	8082	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	3550B	8270C	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	3550B	8270C SIM	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	5035	8015M	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	5035	8260B	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	5035	8260B SIM	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	8330	8330A	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
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	METHOD	300.0	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	METHOD	314.0	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	METHOD	7471A	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	METHOD	8015B	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	METHOD	8015M	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	N	METHOD	8315A	IV
08-Jun-2011	SL-109-SA8N-SB-9.0-10.0	6310782	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: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: DUP10-SA8N-QC-060811 *Collected:* 6/8/2011 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	2.6		0.90	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	2.0		0.90	MDL	1.7	PQL	mg/Kg	J	Q

Sample ID: SL-023-SA5DN-SB-20.0-21.0 *Collected:* 6/8/2011 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	3.0		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-023-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 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	7.1		0.91	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.6	J	0.91	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-025-SA5DN-SB-23.0-24.0 *Collected:* 6/8/2011 9:40:00 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		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-025-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 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	18.9		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-028-SA5DN-SB-11.5-12.5 *Collected:* 6/8/2011 2:20:00 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		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-028-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 2:10:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.1		0.94	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.5	J	0.94	MDL	1.8	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: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Sample ID: SL-051-SA5DN-SB-14.0-15.0 ***Collected:*** 6/8/2011 3:35:00 PM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.6		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-051-SA5DN-SB-4.0-5.0 ***Collected:*** 6/8/2011 3:25:00 PM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	18.4		0.91	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-076-SA8N-SB-4.0-5.0 ***Collected:*** 6/8/2011 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	2.5		0.90	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.5	J	0.90	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA8N-SB-7.5-8.5 ***Collected:*** 6/8/2011 2:00:00 PM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.5		0.92	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.5	J	0.92	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA8N-SB-2.5-3.5 ***Collected:*** 6/8/2011 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	5.1		0.92	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	3.9		0.92	MDL	1.7	PQL	mg/Kg	J	Q

Sample ID: SL-109-SA8N-SB-4.0-5.0 ***Collected:*** 6/8/2011 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	3.1		0.92	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.3	J	0.92	MDL	1.7	PQL	mg/Kg	J	Z, Q

Sample ID: SL-109-SA8N-SB-9.0-10.0 ***Collected:*** 6/8/2011 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	6.0		0.92	MDL	1.2	PQL	mg/Kg	J	Q
Nitrate-NO3	1.3	J	0.92	MDL	1.7	PQL	mg/Kg	J	Z, 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: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: GENCHEM

Method: 300.0 **Matrix:** SO

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: DUP10-SA8N-QC-060811 ***Collected:*** 6/8/2011 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	4.54	J	0.395	MDL	5.49	PQL	mg/Kg	J	Z
MANGANESE	230		0.0395	MDL	0.549	PQL	mg/Kg	J	E
TIN	2.82	J	0.351	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.14	J	0.505	MDL	5.49	PQL	mg/Kg	J	Z

Sample ID: SL-023-SA5DN-SB-20.0-21.0 ***Collected:*** 6/8/2011 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
MANGANESE	259		0.0384	MDL	0.533	PQL	mg/Kg	J	E
TIN	2.48	J	0.341	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	3.18	J	0.491	MDL	5.33	PQL	mg/Kg	J	Z

Sample ID: SL-023-SA5DN-SB-4.0-5.0 ***Collected:*** 6/8/2011 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
MANGANESE	362		0.0408	MDL	0.567	PQL	mg/Kg	J	E
TIN	2.71	J	0.363	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	4.26	J	0.522	MDL	5.67	PQL	mg/Kg	J	Z

Sample ID: SL-025-SA5DN-SB-23.0-24.0 ***Collected:*** 6/8/2011 9:40:00 AM ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.75	J	0.384	MDL	5.34	PQL	mg/Kg	J	Z
MANGANESE	128		0.0384	MDL	0.534	PQL	mg/Kg	J	E
TIN	2.51	J	0.342	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	2.32	J	0.491	MDL	5.34	PQL	mg/Kg	J	Z

Sample ID: SL-025-SA5DN-SB-4.0-5.0 ***Collected:*** 6/8/2011 9:30:00 AM ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	660		0.0403	MDL	0.559	PQL	mg/Kg	J	E
TIN	2.59	J	0.358	MDL	11.2	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: DE176 **Laboratory: LL**

EDD Filename: PrepDE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: **METALS**

Method: **6010B** ***Matrix:*** **SO**

Sample ID: SL-025-SA5DN-SB-4.0-5.0 ***Collected:*** 6/8/2011 9:30:00 AM ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	3.61	J	0.515	MDL	5.59	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA5DN-SB-11.5-12.5 ***Collected:*** 6/8/2011 2:20:00 PM ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	330		0.0391	MDL	0.544	PQL	mg/Kg	J	E
TIN	2.45	J	0.348	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	3.69	J	0.500	MDL	5.44	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA5DN-SB-4.0-5.0 ***Collected:*** 6/8/2011 2:10:00 PM ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	434		0.0413	MDL	0.573	PQL	mg/Kg	J	E
TIN	2.84	J	0.367	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	2.07	J	0.527	MDL	5.73	PQL	mg/Kg	J	Z

Sample ID: SL-051-SA5DN-SB-14.0-15.0 ***Collected:*** 6/8/2011 3:35:00 PM ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	203		0.0399	MDL	0.554	PQL	mg/Kg	J	E
TIN	2.50	J	0.355	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	3.85	J	0.510	MDL	5.54	PQL	mg/Kg	J	Z

Sample ID: SL-051-SA5DN-SB-4.0-5.0 ***Collected:*** 6/8/2011 3:25:00 PM ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	592		0.0408	MDL	0.567	PQL	mg/Kg	J	E
TIN	2.66	J	0.363	MDL	11.3	PQL	mg/Kg	U	B
Zirconium	3.18	J	0.522	MDL	5.67	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA8N-SB-4.0-5.0 ***Collected:*** 6/8/2011 10:05:00 ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.48	J	0.398	MDL	5.53	PQL	mg/Kg	J	Z
MANGANESE	280		0.0398	MDL	0.553	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: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6010B **Matrix:** SO

Sample ID: SL-076-SA8N-SB-4.0-5.0 ***Collected:*** 6/8/2011 10:05:00 ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.85	J	0.354	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	3.47	J	0.509	MDL	5.53	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA8N-SB-7.5-8.5 ***Collected:*** 6/8/2011 2:00:00 PM ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.81	J	0.402	MDL	5.59	PQL	mg/Kg	J	Z
MANGANESE	156		0.0402	MDL	0.559	PQL	mg/Kg	J	E
TIN	3.00	J	0.358	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	3.24	J	0.514	MDL	5.59	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA8N-SB-2.5-3.5 ***Collected:*** 6/8/2011 3:20:00 PM ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.39	J	0.404	MDL	5.61	PQL	mg/Kg	J	Z
MANGANESE	137		0.0404	MDL	0.561	PQL	mg/Kg	J	E
TIN	3.19	J	0.359	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	2.94	J	0.516	MDL	5.61	PQL	mg/Kg	J	Z

Sample ID: SL-109-SA8N-SB-4.0-5.0 ***Collected:*** 6/8/2011 3:20:00 PM ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.38	J	0.413	MDL	5.73	PQL	mg/Kg	J	Z
MANGANESE	276		0.0413	MDL	0.573	PQL	mg/Kg	J	E
SODIUM	85.2	J	6.82	MDL	115	PQL	mg/Kg	J	Z
TIN	3.03	J	0.367	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	3.42	J	0.528	MDL	5.73	PQL	mg/Kg	J	Z

Sample ID: SL-109-SA8N-SB-9.0-10.0 ***Collected:*** 6/8/2011 3:55:00 PM ***Analysis Type:*** REA2 ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.53	J	0.412	MDL	5.72	PQL	mg/Kg	J	Z
MANGANESE	298		0.0412	MDL	0.572	PQL	mg/Kg	J	E
TIN	2.76	J	0.366	MDL	11.4	PQL	mg/Kg	U	B
Zirconium	3.38	J	0.527	MDL	5.72	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: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** AQ

Sample ID: EB16-SA8N-SB-060811 *Collected:* 6/8/2011 1:45:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	0.000066	J	0.000052	MDL	0.0010	PQL	mg/L	J	Z

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: DUP10-SA8N-QC-060811 *Collected:* 6/8/2011 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	0.201	J	0.0821	MDL	0.222	PQL	mg/Kg	J	Z, Q
ARSENIC	11.5		0.0887	MDL	0.444	PQL	mg/Kg	J	E
BERYLLIUM	1.07		0.0177	MDL	0.111	PQL	mg/Kg	J	Q
CADMIUM	0.113		0.0488	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	22.3		0.133	MDL	0.444	PQL	mg/Kg	J	Q, A
COBALT	8.70		0.0222	MDL	0.111	PQL	mg/Kg	J	Q
COPPER	12.6		0.0887	MDL	0.444	PQL	mg/Kg	J	Q, A
LEAD	9.71		0.0113	MDL	0.222	PQL	mg/Kg	J	Q, E
NICKEL	20.0		0.111	MDL	0.444	PQL	mg/Kg	J	Q
SILVER	0.0883	J	0.0157	MDL	0.111	PQL	mg/Kg	J	Z, Q
THALLIUM	0.406		0.0333	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	49.0		0.0244	MDL	0.111	PQL	mg/Kg	J	Q, A

Sample ID: DUP10-SA8N-QC-060811 *Collected:* 6/8/2011 10:10:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.128	J	0.0643	MDL	0.444	PQL	mg/Kg	J	Z, Q

Sample ID: DUP10-SA8N-QC-060811 *Collected:* 6/8/2011 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
MOLYBDENUM	1.45		0.0555	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: SL-023-SA5DN-SB-20.0-21.0 *Collected:* 6/8/2011 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
ANTIMONY	0.323		0.0790	MDL	0.213	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: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-023-SA5DN-SB-20.0-21.0 ***Collected:*** 6/8/2011 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
ARSENIC	9.43		0.0854	MDL	0.427	PQL	mg/Kg	J	E
BERYLLIUM	1.06		0.0171	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	34.5		0.128	MDL	0.427	PQL	mg/Kg	J	Q, A
COBALT	17.3		0.0213	MDL	0.107	PQL	mg/Kg	J	Q
COPPER	21.8		0.0854	MDL	0.427	PQL	mg/Kg	J	Q, A
LEAD	11.1		0.0109	MDL	0.213	PQL	mg/Kg	J	Q, E
NICKEL	31.2		0.107	MDL	0.427	PQL	mg/Kg	J	Q
SILVER	0.104	J	0.0151	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.480		0.0320	MDL	0.107	PQL	mg/Kg	J	Q
VANADIUM	59.0		0.0235	MDL	0.107	PQL	mg/Kg	J	Q, A

Sample ID: SL-023-SA5DN-SB-20.0-21.0 ***Collected:*** 6/8/2011 11:30:00 ***Analysis Type:*** REA5 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.135		0.0469	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-023-SA5DN-SB-20.0-21.0 ***Collected:*** 6/8/2011 11:30:00 ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.763		0.0533	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-023-SA5DN-SB-4.0-5.0 ***Collected:*** 6/8/2011 11:15:00 ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.361		0.0815	MDL	0.220	PQL	mg/Kg	J	Q
ARSENIC	9.03		0.0881	MDL	0.440	PQL	mg/Kg	J	E
BERYLLIUM	1.06		0.0176	MDL	0.110	PQL	mg/Kg	J	Q
CADMIUM	0.320		0.0484	MDL	0.110	PQL	mg/Kg	J	Q
CHROMIUM	35.4		0.132	MDL	0.440	PQL	mg/Kg	J	Q, A
COBALT	12.6		0.0220	MDL	0.110	PQL	mg/Kg	J	Q
COPPER	20.5		0.0881	MDL	0.440	PQL	mg/Kg	J	Q, A
LEAD	12.6		0.0112	MDL	0.220	PQL	mg/Kg	J	Q, E
NICKEL	26.7		0.110	MDL	0.440	PQL	mg/Kg	J	Q
SILVER	0.0545	J	0.0156	MDL	0.110	PQL	mg/Kg	J	Z, Q
THALLIUM	0.400		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: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-023-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 11:15:00 *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	64.2		0.0242	MDL	0.110	PQL	mg/Kg	J	Q, A

Sample ID: SL-023-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 11:15:00 *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.119	J	0.0638	MDL	0.440	PQL	mg/Kg	J	Z, Q

Sample ID: SL-023-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 11:15:00 *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.592		0.0550	MDL	0.110	PQL	mg/Kg	J	Q

Sample ID: SL-025-SA5DN-SB-23.0-24.0 *Collected:* 6/8/2011 9:40:00 AM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.140	J	0.0805	MDL	0.218	PQL	mg/Kg	J	Z, Q
ARSENIC	5.77		0.0870	MDL	0.435	PQL	mg/Kg	J	E
BERYLLIUM	0.590		0.0174	MDL	0.109	PQL	mg/Kg	J	Q
CADMIUM	0.0864	J	0.0479	MDL	0.109	PQL	mg/Kg	J	Z, Q
CHROMIUM	20.8		0.131	MDL	0.435	PQL	mg/Kg	J	Q, A
COBALT	4.17		0.0218	MDL	0.109	PQL	mg/Kg	J	Q
COPPER	13.3		0.0870	MDL	0.435	PQL	mg/Kg	J	Q, A
LEAD	5.61		0.0111	MDL	0.218	PQL	mg/Kg	J	Q, E
NICKEL	13.6		0.109	MDL	0.435	PQL	mg/Kg	J	Q
SILVER	0.0450	J	0.0155	MDL	0.109	PQL	mg/Kg	J	Z, Q
THALLIUM	0.288		0.0326	MDL	0.109	PQL	mg/Kg	J	Q
VANADIUM	38.1		0.0239	MDL	0.109	PQL	mg/Kg	J	Q, A

Sample ID: SL-025-SA5DN-SB-23.0-24.0 *Collected:* 6/8/2011 9:40:00 AM *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.245		0.0544	MDL	0.109	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-025-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 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
ANTIMONY	0.465		0.0828	MDL	0.224	PQL	mg/Kg	J	Q
ARSENIC	10.5		0.0895	MDL	0.448	PQL	mg/Kg	J	E
BERYLLIUM	1.57		0.0179	MDL	0.112	PQL	mg/Kg	J	Q
CADMIUM	0.324		0.0492	MDL	0.112	PQL	mg/Kg	J	Q
CHROMIUM	42.5		0.134	MDL	0.448	PQL	mg/Kg	J	Q, A
COBALT	23.6		0.0224	MDL	0.112	PQL	mg/Kg	J	Q
COPPER	24.3		0.0895	MDL	0.448	PQL	mg/Kg	J	Q, A
LEAD	14.8		0.0114	MDL	0.224	PQL	mg/Kg	J	Q, E
NICKEL	45.0		0.112	MDL	0.448	PQL	mg/Kg	J	Q
SILVER	0.0468	J	0.0159	MDL	0.112	PQL	mg/Kg	J	Z, Q
THALLIUM	0.468		0.0336	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	75.0		0.0246	MDL	0.112	PQL	mg/Kg	J	Q, A

Sample ID: SL-025-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 9:30:00 AM *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0811	J	0.0649	MDL	0.448	PQL	mg/Kg	J	Z, Q

Sample ID: SL-025-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 9:30:00 AM *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.559		0.0559	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: SL-028-SA5DN-SB-11.5-12.5 *Collected:* 6/8/2011 2:20:00 PM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.405		0.0797	MDL	0.215	PQL	mg/Kg	J	Q
ARSENIC	7.50		0.0861	MDL	0.431	PQL	mg/Kg	J	E
BERYLLIUM	0.714		0.0172	MDL	0.108	PQL	mg/Kg	J	Q
CADMIUM	0.207		0.0474	MDL	0.108	PQL	mg/Kg	J	Q
CHROMIUM	32.2		0.129	MDL	0.431	PQL	mg/Kg	J	Q, A
COBALT	8.61		0.0215	MDL	0.108	PQL	mg/Kg	J	Q
COPPER	20.7		0.0861	MDL	0.431	PQL	mg/Kg	J	Q, A
LEAD	8.14		0.0110	MDL	0.215	PQL	mg/Kg	J	Q, E
NICKEL	21.6		0.108	MDL	0.431	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: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-028-SA5DN-SB-11.5-12.5 ***Collected:*** 6/8/2011 2:20:00 PM ***Analysis Type:*** REA4 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0501	J	0.0153	MDL	0.108	PQL	mg/Kg	J	Z, Q
THALLIUM	0.317		0.0323	MDL	0.108	PQL	mg/Kg	J	Q
VANADIUM	79.6		0.0237	MDL	0.108	PQL	mg/Kg	J	Q, A

Sample ID: SL-028-SA5DN-SB-11.5-12.5 ***Collected:*** 6/8/2011 2:20:00 PM ***Analysis Type:*** REA6 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.130	J	0.0625	MDL	0.431	PQL	mg/Kg	J	Z, Q

Sample ID: SL-028-SA5DN-SB-11.5-12.5 ***Collected:*** 6/8/2011 2:20:00 PM ***Analysis Type:*** REA7 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.11		0.0538	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-028-SA5DN-SB-4.0-5.0 ***Collected:*** 6/8/2011 2:10:00 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		0.0865	MDL	0.234	PQL	mg/Kg	J	Q
ARSENIC	8.54		0.0936	MDL	0.468	PQL	mg/Kg	J	E
BERYLLIUM	1.06		0.0187	MDL	0.117	PQL	mg/Kg	J	Q
CADMIUM	0.414		0.0515	MDL	0.117	PQL	mg/Kg	J	Q
CHROMIUM	48.2		0.140	MDL	0.468	PQL	mg/Kg	J	Q, A
COBALT	14.9		0.0234	MDL	0.117	PQL	mg/Kg	J	Q
COPPER	53.1		0.0936	MDL	0.468	PQL	mg/Kg	J	Q, A
LEAD	13.4		0.0119	MDL	0.234	PQL	mg/Kg	J	Q, E
NICKEL	38.9		0.117	MDL	0.468	PQL	mg/Kg	J	Q
SILVER	0.108	J	0.0166	MDL	0.117	PQL	mg/Kg	J	Z, Q
THALLIUM	0.483		0.0351	MDL	0.117	PQL	mg/Kg	J	Q
VANADIUM	65.6		0.0257	MDL	0.117	PQL	mg/Kg	J	Q, A

Sample ID: SL-028-SA5DN-SB-4.0-5.0 ***Collected:*** 6/8/2011 2:10:00 PM ***Analysis Type:*** REA6 ***Dilution:*** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.247	J	0.0678	MDL	0.468	PQL	mg/Kg	J	Z, Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-028-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 2:10:00 PM *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	2.30		0.0585	MDL	0.117	PQL	mg/Kg	J	Q

Sample ID: SL-051-SA5DN-SB-14.0-15.0 *Collected:* 6/8/2011 3:35:00 PM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.316		0.0828	MDL	0.224	PQL	mg/Kg	J	Q
ARSENIC	7.26		0.0895	MDL	0.448	PQL	mg/Kg	J	E
BERYLLIUM	0.883		0.0179	MDL	0.112	PQL	mg/Kg	J	Q
CADMIUM	0.335		0.0492	MDL	0.112	PQL	mg/Kg	J	Q
CHROMIUM	31.9		0.134	MDL	0.448	PQL	mg/Kg	J	Q, A
COBALT	12.5		0.0224	MDL	0.112	PQL	mg/Kg	J	Q
COPPER	17.6		0.0895	MDL	0.448	PQL	mg/Kg	J	Q, A
LEAD	9.94		0.0114	MDL	0.224	PQL	mg/Kg	J	Q, E
NICKEL	28.8		0.112	MDL	0.448	PQL	mg/Kg	J	Q
SILVER	0.0477	J	0.0159	MDL	0.112	PQL	mg/Kg	J	Z, Q
THALLIUM	0.425		0.0336	MDL	0.112	PQL	mg/Kg	J	Q
VANADIUM	56.7		0.0246	MDL	0.112	PQL	mg/Kg	J	Q, A

Sample ID: SL-051-SA5DN-SB-14.0-15.0 *Collected:* 6/8/2011 3:35:00 PM *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.606		0.0560	MDL	0.112	PQL	mg/Kg	J	Q

Sample ID: SL-051-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 3:25:00 PM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.442		0.0839	MDL	0.227	PQL	mg/Kg	J	Q
ARSENIC	10.6		0.0907	MDL	0.454	PQL	mg/Kg	J	E
BERYLLIUM	1.82		0.0181	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.427		0.0499	MDL	0.113	PQL	mg/Kg	J	Q
CHROMIUM	42.9		0.136	MDL	0.454	PQL	mg/Kg	J	Q, A
COBALT	17.8		0.0227	MDL	0.113	PQL	mg/Kg	J	Q
COPPER	22.4		0.0907	MDL	0.454	PQL	mg/Kg	J	Q, A
LEAD	15.2		0.0116	MDL	0.227	PQL	mg/Kg	J	Q, E
NICKEL	40.2		0.113	MDL	0.454	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: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-051-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 3:25:00 PM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0596	J	0.0161	MDL	0.113	PQL	mg/Kg	J	Z, Q
THALLIUM	0.500		0.0340	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	75.3		0.0249	MDL	0.113	PQL	mg/Kg	J	Q, A

Sample ID: SL-051-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 3:25:00 PM *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.119	J	0.0658	MDL	0.454	PQL	mg/Kg	J	Z, Q

Sample ID: SL-051-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 3:25:00 PM *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.488		0.0567	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: SL-076-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 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
ANTIMONY	0.275		0.0835	MDL	0.226	PQL	mg/Kg	J	Q
ARSENIC	9.52		0.0903	MDL	0.451	PQL	mg/Kg	J	E
BERYLLIUM	0.872		0.0181	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.0781	J	0.0497	MDL	0.113	PQL	mg/Kg	J	Z, Q
CHROMIUM	18.8		0.135	MDL	0.451	PQL	mg/Kg	J	Q, A
COBALT	6.63		0.0226	MDL	0.113	PQL	mg/Kg	J	Q
COPPER	10.2		0.0903	MDL	0.451	PQL	mg/Kg	J	Q, A
LEAD	7.66		0.0115	MDL	0.226	PQL	mg/Kg	J	Q, E
NICKEL	16.0		0.113	MDL	0.451	PQL	mg/Kg	J	Q
SILVER	0.0697	J	0.0160	MDL	0.113	PQL	mg/Kg	J	Z, Q
THALLIUM	0.333		0.0339	MDL	0.113	PQL	mg/Kg	J	Q
VANADIUM	40.1		0.0248	MDL	0.113	PQL	mg/Kg	J	Q, A

Sample ID: SL-076-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 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
SELENIUM	0.127	J	0.0655	MDL	0.451	PQL	mg/Kg	J	Z, 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: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-076-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 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
MOLYBDENUM	1.18		0.0564	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: SL-076-SA8N-SB-7.5-8.5 *Collected:* 6/8/2011 2:00:00 PM *Analysis Type:* REA4 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.169	J	0.0843	MDL	0.228	PQL	mg/Kg	J	Z, Q
ARSENIC	11.6		0.0911	MDL	0.456	PQL	mg/Kg	J	E
BERYLLIUM	0.791		0.0182	MDL	0.114	PQL	mg/Kg	J	Q
CADMIUM	0.0512	J	0.0501	MDL	0.114	PQL	mg/Kg	J	Z, Q
CHROMIUM	20.0		0.137	MDL	0.456	PQL	mg/Kg	J	Q, A
COBALT	7.48		0.0228	MDL	0.114	PQL	mg/Kg	J	Q
COPPER	8.54		0.0911	MDL	0.456	PQL	mg/Kg	J	Q, A
LEAD	8.54		0.0116	MDL	0.228	PQL	mg/Kg	J	Q, E
NICKEL	15.0		0.114	MDL	0.456	PQL	mg/Kg	J	Q
SILVER	0.130		0.0162	MDL	0.114	PQL	mg/Kg	J	Q
THALLIUM	0.295		0.0342	MDL	0.114	PQL	mg/Kg	J	Q
VANADIUM	42.8		0.0251	MDL	0.114	PQL	mg/Kg	J	Q, A

Sample ID: SL-076-SA8N-SB-7.5-8.5 *Collected:* 6/8/2011 2:00:00 PM *Analysis Type:* REA6 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.273	J	0.0661	MDL	0.456	PQL	mg/Kg	J	Z, Q

Sample ID: SL-076-SA8N-SB-7.5-8.5 *Collected:* 6/8/2011 2:00:00 PM *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.18		0.0570	MDL	0.114	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA8N-SB-2.5-3.5 *Collected:* 6/8/2011 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	0.177	J	0.0855	MDL	0.231	PQL	mg/Kg	J	Z, Q
ARSENIC	5.72		0.0924	MDL	0.462	PQL	mg/Kg	J	E
BERYLLIUM	0.690		0.0185	MDL	0.115	PQL	mg/Kg	J	Q
CADMIUM	0.0653	J	0.0508	MDL	0.115	PQL	mg/Kg	J	Z, 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: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-106-SA8N-SB-2.5-3.5 *Collected:* 6/8/2011 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
CHROMIUM	21.6		0.139	MDL	0.462	PQL	mg/Kg	J	Q, A
COBALT	5.25		0.0231	MDL	0.115	PQL	mg/Kg	J	Q
COPPER	10.5		0.0924	MDL	0.462	PQL	mg/Kg	J	Q, A
LEAD	7.72		0.0118	MDL	0.231	PQL	mg/Kg	J	Q, E
NICKEL	12.0		0.115	MDL	0.462	PQL	mg/Kg	J	Q
SILVER	0.0210	J	0.0164	MDL	0.115	PQL	mg/Kg	J	Z, Q
THALLIUM	0.288		0.0346	MDL	0.115	PQL	mg/Kg	J	Q
VANADIUM	36.0		0.0254	MDL	0.115	PQL	mg/Kg	J	Q, A

Sample ID: SL-106-SA8N-SB-2.5-3.5 *Collected:* 6/8/2011 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
MOLYBDENUM	0.436		0.0577	MDL	0.115	PQL	mg/Kg	J	Q

Sample ID: SL-109-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 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	0.214	J	0.0849	MDL	0.229	PQL	mg/Kg	J	Z, Q
ARSENIC	7.38		0.0917	MDL	0.459	PQL	mg/Kg	J	E
BERYLLIUM	0.765		0.0183	MDL	0.115	PQL	mg/Kg	J	Q
CADMIUM	0.161		0.0505	MDL	0.115	PQL	mg/Kg	J	Q
CHROMIUM	23.3		0.138	MDL	0.459	PQL	mg/Kg	J	Q, A
COBALT	8.83		0.0229	MDL	0.115	PQL	mg/Kg	J	Q
COPPER	14.5		0.0917	MDL	0.459	PQL	mg/Kg	J	Q, A
LEAD	7.63		0.0117	MDL	0.229	PQL	mg/Kg	J	Q, E
NICKEL	19.3		0.115	MDL	0.459	PQL	mg/Kg	J	Q
SILVER	0.0258	J	0.0163	MDL	0.115	PQL	mg/Kg	J	Z, Q
THALLIUM	0.336		0.0344	MDL	0.115	PQL	mg/Kg	J	Q
VANADIUM	45.3		0.0252	MDL	0.115	PQL	mg/Kg	J	Q, A

Sample ID: SL-109-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 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
MOLYBDENUM	0.409		0.0573	MDL	0.115	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS

Method: 6020 **Matrix:** SO

Sample ID: SL-109-SA8N-SB-9.0-10.0 *Collected:* 6/8/2011 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	0.216	J	0.0823	MDL	0.222	PQL	mg/Kg	J	Z, Q
ARSENIC	9.47		0.0889	MDL	0.445	PQL	mg/Kg	J	E
BERYLLIUM	0.870		0.0178	MDL	0.111	PQL	mg/Kg	J	Q
CADMIUM	0.175		0.0489	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	26.1		0.133	MDL	0.445	PQL	mg/Kg	J	Q, A
COBALT	10.7		0.0222	MDL	0.111	PQL	mg/Kg	J	Q
COPPER	16.3		0.0889	MDL	0.445	PQL	mg/Kg	J	Q, A
LEAD	11.2		0.0113	MDL	0.222	PQL	mg/Kg	J	Q, E
NICKEL	21.8		0.111	MDL	0.445	PQL	mg/Kg	J	Q
SILVER	0.0633	J	0.0158	MDL	0.111	PQL	mg/Kg	J	Z, Q
THALLIUM	0.386		0.0333	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	50.8		0.0245	MDL	0.111	PQL	mg/Kg	J	Q, A

Sample ID: SL-109-SA8N-SB-9.0-10.0 *Collected:* 6/8/2011 3:55:00 PM *Analysis Type:* REA7 *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.476		0.0556	MDL	0.111	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 7199 **Matrix:** AQ

Sample ID: EB16-SA8N-SB-060811 *Collected:* 6/8/2011 1:45:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	5.0	U	5.0	MDL	10.0	PQL	ug/L	UJ	H

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: DUP10-SA8N-QC-060811 *Collected:* 6/8/2011 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	0.48	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: DE176 Laboratory: LL

EDD Filename: PrepDE176_v1 eQAPP Name: CDM_SSFL_110509

Method Category: METALS

Method: 7199 **Matrix:** SO

Sample ID: SL-023-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 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
HEXAVALENT CHROMIUM	0.48	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-025-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 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	0.48	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 2:10:00 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	0.62	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-051-SA5DN-SB-14.0-15.0 *Collected:* 6/8/2011 3:35:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.63	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-051-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 3:25:00 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	0.35	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 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
HEXAVALENT CHROMIUM	0.51	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA8N-SB-2.5-3.5 *Collected:* 6/8/2011 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	0.73	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-109-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 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	0.54	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: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: METALS **Method:** 7199 **Matrix:** SO

Sample ID: SL-109-SA8N-SB-9.0-10.0 *Collected:* 6/8/2011 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
HEXAVALENT CHROMIUM	0.77	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Method Category: METALS **Method:** 7470A **Matrix:** AQ

Sample ID: EB16-SA8N-SB-060811 *Collected:* 6/8/2011 1:45:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.000060	J	0.000046	MDL	0.00020	PQL	mg/L	U	B

Method Category: METALS **Method:** 7471A **Matrix:** SO

Sample ID: DUP10-SA8N-QC-060811 *Collected:* 6/8/2011 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	0.0320	J	0.0077	MDL	0.110	PQL	mg/Kg	U	F

Sample ID: SL-023-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 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
MERCURY	0.0194	J	0.0077	MDL	0.110	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 2:10:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0085	J	0.0080	MDL	0.114	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 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	0.0242	J	0.0075	MDL	0.107	PQL	mg/Kg	U	F

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE176 Laboratory: LL

EDD Filename: PrepDE176_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA

Method: 1625C **Matrix:** SO

Sample ID: DUP10-SA8N-QC-060811 *Collected:* 6/8/2011 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
N-NITROSODIMETHYLAMINE	19.3	J	18.7	MDL	37.5	PQL	ng/Kg	J	Z, FD

Sample ID: SL-023-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 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	34.3	J	18.7	MDL	37.4	PQL	ng/Kg	J	Z

Sample ID: SL-051-SA5DN-SB-14.0-15.0 *Collected:* 6/8/2011 3:35:00 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
N-NITROSODIMETHYLAMINE	30.4	J	18.8	MDL	37.6	PQL	ng/Kg	J	Z

Sample ID: SL-051-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 3:25:00 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
N-NITROSODIMETHYLAMINE	29.0	J	18.8	MDL	37.5	PQL	ng/Kg	J	Z

Sample ID: SL-076-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 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
N-NITROSODIMETHYLAMINE	18.7	U	18.7	MDL	37.4	PQL	ng/Kg	UJ	Q, FD

Sample ID: SL-076-SA8N-SB-7.5-8.5 *Collected:* 6/8/2011 2:00:00 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	22.5	J	19.1	MDL	38.2	PQL	ng/Kg	J	Z, S

Sample ID: SL-106-SA8N-SB-2.5-3.5 *Collected:* 6/8/2011 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
N-NITROSODIMETHYLAMINE	31.0	J	19.1	MDL	38.1	PQL	ng/Kg	J	Z

Sample ID: SL-109-SA8N-SB-9.0-10.0 *Collected:* 6/8/2011 3:55:00 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
N-NITROSODIMETHYLAMINE	190	U	190	MDL	380	PQL	ng/Kg	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: DE176 Laboratory: LL

EDD Filename: PrepDE176_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 1625C **Matrix:** SO

Method Category: SVOA **Method:** 8015M **Matrix:** SO

Sample ID: DUP10-SA8N-QC-060811 *Collected:* 6/8/2011 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
EFH (C15-C20)	0.54	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z, FD
EFH (C8-C11)	0.99	J	0.45	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-023-SA5DN-SB-20.0-21.0 *Collected:* 6/8/2011 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)	0.70	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z
EFH (C8-C11)	1.2	J	0.44	MDL	1.3	PQL	mg/Kg	U	B

Sample ID: SL-023-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 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)	0.47	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C8-C11)	1.3	J	0.45	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-025-SA5DN-SB-23.0-24.0 *Collected:* 6/8/2011 9:40:00 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)	0.49	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z
EFH (C8-C11)	1.4		0.44	MDL	1.3	PQL	mg/Kg	U	B

Sample ID: SL-025-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 9:30:00 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)	1.2	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C8-C11)	1.1	J	0.45	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-028-SA5DN-SB-11.5-12.5 *Collected:* 6/8/2011 2:20:00 PM *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)	1.1	J	0.45	MDL	1.3	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: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8015M **Matrix:** SO

Sample ID: SL-028-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 2:10:00 PM *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)	0.57	J	0.47	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C8-C11)	0.99	J	0.47	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-051-SA5DN-SB-14.0-15.0 *Collected:* 6/8/2011 3:35:00 PM *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)	0.50	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C8-C11)	1.1	J	0.46	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-051-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 3:25:00 PM *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)	0.55	J	0.45	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C8-C11)	1.1	J	0.45	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-076-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 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
DIETHYLENE GLYCOL	5.6	U	5.6	MDL	11	PQL	mg/Kg	UJ	Q
ETHYLENE GLYCOL	5.6	U	5.6	MDL	11	PQL	mg/Kg	UJ	Q
Propylene glycol	5.6	U	5.6	MDL	11	PQL	mg/Kg	UJ	Q

Sample ID: SL-076-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 10:05:00 *Analysis Type:* REA2 *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.45	U	0.45	MDL	1.4	PQL	mg/Kg	UJ	FD
EFH (C21-C30)	2.1		0.45	MDL	1.4	PQL	mg/Kg	J	Q
EFH (C30-C40)	4.8		0.45	MDL	1.4	PQL	mg/Kg	J	Q, Q
EFH (C8-C11)	1.2	J	0.45	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-076-SA8N-SB-7.5-8.5 *Collected:* 6/8/2011 2:00:00 PM *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)	0.49	J	0.46	MDL	1.4	PQL	mg/Kg	J	Z
EFH (C8-C11)	1.1	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: DE176 Laboratory: LL

EDD Filename: PrepDE176_v1 eQAPP Name: CDM_SSFL_110509

Method Category: SVOA **Method:** 8015M **Matrix:** SO

Sample ID: SL-106-SA8N-SB-2.5-3.5 *Collected:* 6/8/2011 3:20:00 PM *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)	1.2	J	0.46	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-109-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 3:20:00 PM *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)	1.2	J	0.46	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-109-SA8N-SB-9.0-10.0 *Collected:* 6/8/2011 3:55:00 PM *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)	0.95	J	0.46	MDL	1.4	PQL	mg/Kg	U	B

Method Category: SVOA **Method:** 8082 **Matrix:** SO

Sample ID: DUP10-SA8N-QC-060811 *Collected:* 6/8/2011 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 1016	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	C
AROCLOR 1221	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	C
AROCLOR 1232	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	C
Aroclor 5460	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	C

Sample ID: SL-023-SA5DN-SB-20.0-21.0 *Collected:* 6/8/2011 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
Aroclor 5432	1.1	U	1.1	MDL	3.6	PQL	ug/Kg	UJ	C

Sample ID: SL-023-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 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
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	C

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8082 **Matrix:** SO

Sample ID: SL-025-SA5DN-SB-23.0-24.0 ***Collected:*** 6/8/2011 9:40:00 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	3.7	PQL	ug/Kg	UJ	C

Sample ID: SL-025-SA5DN-SB-4.0-5.0 ***Collected:*** 6/8/2011 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
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	C

Sample ID: SL-028-SA5DN-SB-11.5-12.5 ***Collected:*** 6/8/2011 2:20:00 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
AROCLOR 1248	120		1.8	MDL	9.4	PQL	ug/Kg	J	*#
AROCLOR 1254	77		1.8	MDL	9.4	PQL	ug/Kg	J	*#
Aroclor 5432	5.6	U	5.6	MDL	18	PQL	ug/Kg	UJ	C

Sample ID: SL-028-SA5DN-SB-4.0-5.0 ***Collected:*** 6/8/2011 2:10:00 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	0.58	J	0.38	MDL	2.0	PQL	ug/Kg	J	Z, *XIII
AROCLOR 1260	0.54	J	0.45	MDL	2.0	PQL	ug/Kg	J	Z
Aroclor 5432	1.2	U	1.2	MDL	3.8	PQL	ug/Kg	UJ	C

Sample ID: SL-051-SA5DN-SB-14.0-15.0 ***Collected:*** 6/8/2011 3:35:00 PM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	C

Sample ID: SL-051-SA5DN-SB-4.0-5.0 ***Collected:*** 6/8/2011 3:25:00 PM ***Analysis Type:*** RES ***Dilution:*** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	C

Sample ID: SL-076-SA8N-SB-4.0-5.0 ***Collected:*** 6/8/2011 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
AROCLOR 1016	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	C
AROCLOR 1221	0.37	U	0.37	MDL	1.9	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: DE176 **Laboratory: LL**

EDD Filename: PrepDE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8082 **Matrix: SO**

Sample ID: SL-076-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 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
AROCLOR 1232	0.37	U	0.37	MDL	1.9	PQL	ug/Kg	UJ	C
AROCLOR 1260	3.4		0.44	MDL	1.9	PQL	ug/Kg	J	* XIII
Aroclor 5460	1.1	U	1.1	MDL	3.7	PQL	ug/Kg	UJ	C

Sample ID: SL-076-SA8N-SB-7.5-8.5 *Collected:* 6/8/2011 2:00:00 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	0.38	U	0.38	MDL	1.9	PQL	ug/Kg	UJ	C
AROCLOR 1221	0.38	U	0.38	MDL	1.9	PQL	ug/Kg	UJ	C
AROCLOR 1232	0.38	U	0.38	MDL	1.9	PQL	ug/Kg	UJ	C
Aroclor 5460	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	C

Sample ID: SL-106-SA8N-SB-2.5-3.5 *Collected:* 6/8/2011 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	0.38	U	0.38	MDL	2.0	PQL	ug/Kg	UJ	C
AROCLOR 1221	0.38	U	0.38	MDL	2.0	PQL	ug/Kg	UJ	C
AROCLOR 1232	0.38	U	0.38	MDL	2.0	PQL	ug/Kg	UJ	C
Aroclor 5460	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	C

Sample ID: SL-109-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 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	0.38	U	0.38	MDL	1.9	PQL	ug/Kg	UJ	C
AROCLOR 1221	0.38	U	0.38	MDL	1.9	PQL	ug/Kg	UJ	C
AROCLOR 1232	0.38	U	0.38	MDL	1.9	PQL	ug/Kg	UJ	C
Aroclor 5460	1.1	U	1.1	MDL	3.8	PQL	ug/Kg	UJ	C

Sample ID: SL-109-SA8N-SB-9.0-10.0 *Collected:* 6/8/2011 3:55:00 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	0.38	U	0.38	MDL	2.0	PQL	ug/Kg	UJ	C
AROCLOR 1221	0.38	U	0.38	MDL	2.0	PQL	ug/Kg	UJ	C
AROCLOR 1232	0.38	U	0.38	MDL	2.0	PQL	ug/Kg	UJ	C
Aroclor 5460	1.1	U	1.1	MDL	3.8	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: DE176 **Laboratory: LL**

EDD Filename: PrepDE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: AQ**

Sample ID: EB16-SA8N-SB-060811 *Collected:* 6/8/2011 1:45:00 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
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

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: DUP10-SA8N-QC-060811 *Collected:* 6/8/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
2-NITROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	49	J	19	MDL	380	PQL	ug/Kg	UJ	B, FD

Sample ID: SL-023-SA5DN-SB-20.0-21.0 *Collected:* 6/8/2011 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
1,2-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-NITROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	24	J	18	MDL	370	PQL	ug/Kg	U	B

Sample ID: SL-023-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
2-NITROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	25	J	19	MDL	380	PQL	ug/Kg	U	B

Sample ID: SL-025-SA5DN-SB-23.0-24.0 *Collected:* 6/8/2011 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
1,2-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-NITROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: PrepDE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-025-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
2-NITROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-028-SA5DN-SB-11.5-12.5 *Collected:* 6/8/2011 2:20:00 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
1,2-DICHLOROBENZENE	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
2-NITROPHENOL	18	U	18	MDL	180	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	25	J	18	MDL	370	PQL	ug/Kg	U	B

Sample ID: SL-028-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 2:10:00 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
2-NITROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-051-SA5DN-SB-14.0-15.0 *Collected:* 6/8/2011 3:35:00 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
2-NITROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-051-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 3:25:00 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
2-NITROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	24	J	19	MDL	370	PQL	ug/Kg	U	B

Sample ID: SL-076-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
1,4-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
2,4,5-TRICHLOROPHENOL	37	U	37	MDL	190	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: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: SVOA

Method: 8270C **Matrix:** SO

Sample ID: SL-076-SA8N-SB-4.0-5.0 ***Collected:*** 6/8/2011 10:05:00 ***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-DICHLOROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
2,4-DIMETHYLPHENOL	37	U	37	MDL	190	PQL	ug/Kg	UJ	Q
2,4-DINITROTOLUENE	37	U	37	MDL	190	PQL	ug/Kg	UJ	Q
2-CHLOROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
2-METHYLPHENOL	37	U	37	MDL	190	PQL	ug/Kg	UJ	Q
2-NITROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
4-CHLORO-3-METHYLPHENOL	37	U	37	MDL	190	PQL	ug/Kg	UJ	Q
4-CHLOROPHENYL-PHENYLETHER	37	U	37	MDL	190	PQL	ug/Kg	UJ	Q
4-METHYLPHENOL	37	U	37	MDL	190	PQL	ug/Kg	UJ	Q
BENZIDINE	1300	U	1300	MDL	3700	PQL	ug/Kg	R	Q
BENZYL ALCOHOL	190	U	190	MDL	560	PQL	ug/Kg	UJ	Q
BIS(2-CHLOROETHOXY)METHANE	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
BIS(2-ETHYLHEXYL)PHTHALATE	22	J	19	MDL	370	PQL	ug/Kg	UJ	B, FD
HEXACHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q
N-NITROSODIPHENYLAMINE	19	U	19	MDL	190	PQL	ug/Kg	UJ	Q

Sample ID: SL-076-SA8N-SB-7.5-8.5 ***Collected:*** 6/8/2011 2:00:00 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
2-NITROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	21	J	19	MDL	380	PQL	ug/Kg	U	B

Sample ID: SL-106-SA8N-SB-2.5-3.5 ***Collected:*** 6/8/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
2-NITROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	L

Sample ID: SL-109-SA8N-SB-4.0-5.0 ***Collected:*** 6/8/2011 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
2-NITROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	19	J	19	MDL	380	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: DE176 **Laboratory: LL**

EDD Filename: PrepDE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method Category: SVOA

Method: 8270C **Matrix: SO**

Sample ID: SL-109-SA8N-SB-9.0-10.0 *Collected:* 6/8/2011 3:55:00 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
1,2-DICHLOROBENZENE	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
2-NITROPHENOL	19	U	19	MDL	190	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	25	J	19	MDL	380	PQL	ug/Kg	U	B

Method Category: SVOA

Method: 8270C SIM **Matrix: AQ**

Sample ID: EB16-SA8N-SB-060811 *Collected:* 6/8/2011 1:45:00 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
BIS(2-ETHYLHEXYL)PHTHALATE	0.069	J	0.052	MDL	1.0	PQL	ug/L	U	B
Diethylphthalate	0.30	J	0.052	MDL	1.0	PQL	ug/L	J	Z, L
Di-n-butylphthalate	0.71	J	0.052	MDL	1.0	PQL	ug/L	J	Z, L
NAPHTHALENE	0.060		0.031	MDL	0.052	PQL	ug/L	J	L

Method Category: SVOA

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

Sample ID: DUP10-SA8N-QC-060811 *Collected:* 6/8/2011 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
NAPHTHALENE	1.2	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-023-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 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
Butylbenzylphthalate	10	J	6.8	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-028-SA5DN-SB-11.5-12.5 *Collected:* 6/8/2011 2:20:00 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
BENZO(A)ANTHRACENE	0.79	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.79	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.80	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	12	J	6.6	MDL	20	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: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

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

Sample ID: SL-028-SA5DN-SB-11.5-12.5 *Collected:* 6/8/2011 2:20:00 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
PYRENE	1.4	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-076-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 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
NAPHTHALENE	0.94	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-076-SA8N-SB-7.5-8.5 *Collected:* 6/8/2011 2:00:00 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	1.1	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-106-SA8N-SB-2.5-3.5 *Collected:* 6/8/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	10	J	6.9	MDL	21	PQL	ug/Kg	J	Z

Method Category: SVOA **Method:** 8330A **Matrix:** SO

Sample ID: SL-076-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 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
1,3,5-TRINITROBENZENE	44	U	44	MDL	130	PQL	ug/Kg	UJ	Q

Method Category: VOA **Method:** 8015B **Matrix:** SO

Sample ID: SL-076-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 10:05:00 *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

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: DUP10-SA8N-QC-060811 *Collected:* 6/8/2011 10:10:00 *Analysis Type:* RES *Dilution:* 0.86

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.0		6.5	MDL	7.8	PQL	ug/Kg	UJ	B, FD
METHYLENE CHLORIDE	1.6	J	0.23	MDL	3.9	PQL	ug/Kg	UJ	L, B
TOLUENE	0.30	J	0.08	MDL	3.9	PQL	ug/Kg	U	B

Sample ID: SL-023-SA5DN-SB-20.0-21.0 *Collected:* 6/8/2011 11:30:00 *Analysis Type:* RES *Dilution:* 0.89

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.3		6.5	MDL	7.8	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.5	J	0.24	MDL	3.9	PQL	ug/Kg	UJ	L, B
TOLUENE	0.15	J	0.08	MDL	3.9	PQL	ug/Kg	U	B

Sample ID: SL-023-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 11:15:00 *Analysis Type:* RES *Dilution:* 0.87

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.3		6.6	MDL	7.9	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.3	J	0.24	MDL	4.0	PQL	ug/Kg	UJ	L, B
TOLUENE	0.12	J	0.08	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: SL-025-SA5DN-SB-23.0-24.0 *Collected:* 6/8/2011 9:40:00 AM *Analysis Type:* RES *Dilution:* 0.97

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.5		7.2	MDL	8.6	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.8	J	0.26	MDL	4.3	PQL	ug/Kg	UJ	L, B
TOLUENE	0.19	J	0.09	MDL	4.3	PQL	ug/Kg	U	B

Sample ID: SL-025-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 9:30:00 AM *Analysis Type:* RES *Dilution:* 0.87

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.4		6.6	MDL	7.9	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.5	J	0.24	MDL	3.9	PQL	ug/Kg	UJ	L, B
TOLUENE	0.16	J	0.08	MDL	3.9	PQL	ug/Kg	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-028-SA5DN-SB-11.5-12.5 *Collected:* 6/8/2011 2:20:00 PM *Analysis Type:* RES *Dilution:* 1.01

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.5		7.6	MDL	9.1	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.7	J	0.27	MDL	4.5	PQL	ug/Kg	UJ	L, B
TOLUENE	0.14	J	0.09	MDL	4.5	PQL	ug/Kg	U	B

Sample ID: SL-028-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 2:10:00 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	1.5	J	0.24	MDL	4.0	PQL	ug/Kg	UJ	L, B
TOLUENE	0.14	J	0.08	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: SL-051-SA5DN-SB-14.0-15.0 *Collected:* 6/8/2011 3:35:00 PM *Analysis Type:* RES *Dilution:* 0.87

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.8		6.6	MDL	7.9	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.6	J	0.24	MDL	4.0	PQL	ug/Kg	UJ	L, B
TOLUENE	0.14	J	0.08	MDL	4.0	PQL	ug/Kg	U	B

Sample ID: SL-051-SA5DN-SB-4.0-5.0 *Collected:* 6/8/2011 3:25:00 PM *Analysis Type:* RES *Dilution:* 0.96

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.1		7.3	MDL	8.7	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.4	J	0.26	MDL	4.4	PQL	ug/Kg	UJ	L, B
TOLUENE	0.15	J	0.09	MDL	4.4	PQL	ug/Kg	U	B

Sample ID: SL-076-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 10:05:00 *Analysis Type:* RES *Dilution:* 0.83

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	6.3	U	6.3	MDL	7.5	PQL	ug/Kg	UJ	FD
METHYLENE CHLORIDE	1.3	J	0.22	MDL	3.7	PQL	ug/Kg	UJ	L, B
TOLUENE	0.28	J	0.07	MDL	3.7	PQL	ug/Kg	U	B

Sample ID: SL-076-SA8N-SB-7.5-8.5 *Collected:* 6/8/2011 2:00:00 PM *Analysis Type:* RES *Dilution:* 0.89

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	11		6.8	MDL	8.2	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: DE176 **Laboratory:** LL

EDD Filename: PrepDE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method Category: VOA

Method: 8260B **Matrix:** SO

Sample ID: SL-076-SA8N-SB-7.5-8.5 *Collected:* 6/8/2011 2:00:00 PM *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	1.4	J	0.25	MDL	4.1	PQL	ug/Kg	UJ	L, B
TOLUENE	0.20	J	0.08	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: SL-106-SA8N-SB-2.5-3.5 *Collected:* 6/8/2011 3:20:00 PM *Analysis Type:* RES *Dilution:* 0.82

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	8.2		6.4	MDL	7.6	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.6	J	0.23	MDL	3.8	PQL	ug/Kg	UJ	L, B
TOLUENE	0.19	J	0.08	MDL	3.8	PQL	ug/Kg	U	B

Sample ID: SL-109-SA8N-SB-4.0-5.0 *Collected:* 6/8/2011 3:20:00 PM *Analysis Type:* RES *Dilution:* 0.88

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE (MEK)	2.5	J	1.2	MDL	8.1	PQL	ug/Kg	J	Z
ACETONE	27		6.8	MDL	8.1	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.0	J	0.24	MDL	4.1	PQL	ug/Kg	UJ	L, B
TOLUENE	0.12	J	0.08	MDL	4.1	PQL	ug/Kg	U	B

Sample ID: SL-109-SA8N-SB-9.0-10.0 *Collected:* 6/8/2011 3:55:00 PM *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)	2.5	J	1.2	MDL	8.1	PQL	ug/Kg	J	Z
ACETONE	32		6.8	MDL	8.1	PQL	ug/Kg	U	B
METHYLENE CHLORIDE	1.7	J	0.24	MDL	4.0	PQL	ug/Kg	UJ	L, B
TOLUENE	0.16	J	0.08	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: DE176 **Laboratory: LL**

EDD Filename: PrepDE176_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
*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
C	Initial Calibration Verification Percent Recovery Upper Rejection
E	Laboratory Control Precision
E	Laboratory Duplicate Precision

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: PrepDE176_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	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: PrepDE176_v1 **eQAPP Name: CDM_SSFL_110509**

Q	Matrix Spike Upper Rejection
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

DE176

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE176 **Laboratory: LL**
EDD Filename: DE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7199 **Preparation Method: 3546**
Matrix: AQ

Sample ID	Type	Actual	Criteria	Units	Flag
EB16-SA8N-SB-060811 (RES)	Sampling To Analysis	24.50	24.00	HOURS	J(all detects) UJ(all non-detects)

Method: 1625C **Preparation Method: 3546**
Matrix: SO

Sample ID	Type	Actual	Criteria	Units	Flag
SL-109-SA8N-SB-9.0-10.0 (RES)	Sampling To Extraction	21.00	14.00	DAYS	J (all detects) UJ (all non-detects)

Method Blank Outlier Report

Lab Reporting Batch ID: DE176 **Laboratory:** LL

EDD Filename: DE176_v1 **eQAPP Name:** CDM_SSFL_110509

Method: **6010B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P16048CB221243	6/10/2011 12:43:00 PM	MAGNESIUM	0.0195 mg/L	EB16-SA8N-SB-060811

Method: **6010B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P16708BB220702	6/18/2011 7:02:00 AM	CALCIUM	4.40 mg/Kg	DUP10-SA8N-QC-060811
		IRON	4.74 mg/Kg	SL-023-SA5DN-SB-20.0-21.0
		MAGNESIUM	1.04 mg/Kg	SL-023-SA5DN-SB-4.0-5.0
		PHOSPHORUS	1.62 mg/Kg	SL-025-SA5DN-SB-23.0-24.0
		TIN	1.79 mg/Kg	SL-025-SA5DN-SB-4.0-5.0
				SL-028-SA5DN-SB-11.5-12.5
				SL-028-SA5DN-SB-4.0-5.0
				SL-051-SA5DN-SB-14.0-15.0
				SL-051-SA5DN-SB-4.0-5.0
				SL-076-SA8N-SB-4.0-5.0
				SL-076-SA8N-SB-7.5-8.5
				SL-106-SA8N-SB-2.5-3.5
				SL-109-SA8N-SB-4.0-5.0
				SL-109-SA8N-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
DUP10-SA8N-QC-060811(REA2)	TIN	2.82 mg/Kg	2.82U mg/Kg
SL-023-SA5DN-SB-20.0-21.0(REA2)	TIN	2.48 mg/Kg	2.48U mg/Kg
SL-023-SA5DN-SB-4.0-5.0(REA2)	TIN	2.71 mg/Kg	2.71U mg/Kg
SL-025-SA5DN-SB-23.0-24.0(REA2)	TIN	2.51 mg/Kg	2.51U mg/Kg
SL-025-SA5DN-SB-4.0-5.0(REA2)	TIN	2.59 mg/Kg	2.59U mg/Kg
SL-028-SA5DN-SB-11.5-12.5(REA2)	TIN	2.45 mg/Kg	2.45U mg/Kg
SL-028-SA5DN-SB-4.0-5.0(REA2)	TIN	2.84 mg/Kg	2.84U mg/Kg
SL-051-SA5DN-SB-14.0-15.0(REA2)	TIN	2.50 mg/Kg	2.50U mg/Kg
SL-051-SA5DN-SB-4.0-5.0(REA2)	TIN	2.66 mg/Kg	2.66U mg/Kg
SL-076-SA8N-SB-4.0-5.0(REA2)	TIN	2.85 mg/Kg	2.85U mg/Kg
SL-076-SA8N-SB-7.5-8.5(REA2)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-106-SA8N-SB-2.5-3.5(REA2)	TIN	3.19 mg/Kg	3.19U mg/Kg
SL-109-SA8N-SB-4.0-5.0(REA2)	TIN	3.03 mg/Kg	3.03U mg/Kg
SL-109-SA8N-SB-9.0-10.0(REA2)	TIN	2.76 mg/Kg	2.76U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: DE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **6020**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P16726AB220905A	6/17/2011 9:05:00 AM	LEAD	0.0152 mg/Kg	DUP10-SA8N-QC-060811 SL-023-SA5DN-SB-20.0-21.0 SL-023-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-025-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0

Method: **7470A**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P16013BB221002	6/11/2011 10:02:00 AM	MERCURY	0.00012 mg/L	EB16-SA8N-SB-060811

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
EB16-SA8N-SB-060811(RES)	MERCURY	0.000060 mg/L	0.000060U mg/L

Method: **8015M**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P67671AB320809A	6/18/2011 8:09:00 AM	EFH (C8-C11)	1.1 mg/Kg	DUP10-SA8N-QC-060811 SL-023-SA5DN-SB-20.0-21.0 SL-023-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-025-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-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
DUP10-SA8N-QC-060811(REA2)	EFH (C8-C11)	0.99 mg/Kg	1.4U mg/Kg
SL-023-SA5DN-SB-20.0-21.0(REA2)	EFH (C8-C11)	1.2 mg/Kg	1.3U mg/Kg
SL-023-SA5DN-SB-4.0-5.0(REA2)	EFH (C8-C11)	1.3 mg/Kg	1.4U mg/Kg
SL-025-SA5DN-SB-23.0-24.0(REA2)	EFH (C8-C11)	1.4 mg/Kg	1.4U mg/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: DE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8015M**
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-025-SA5DN-SB-4.0-5.0(REA2)	EFH (C8-C11)	1.1 mg/Kg	1.4U mg/Kg
SL-028-SA5DN-SB-11.5-12.5(REA2)	EFH (C8-C11)	1.1 mg/Kg	1.3U mg/Kg
SL-028-SA5DN-SB-4.0-5.0(REA2)	EFH (C8-C11)	0.99 mg/Kg	1.4U mg/Kg
SL-051-SA5DN-SB-14.0-15.0(REA2)	EFH (C8-C11)	1.1 mg/Kg	1.4U mg/Kg
SL-051-SA5DN-SB-4.0-5.0(REA2)	EFH (C8-C11)	1.1 mg/Kg	1.4U mg/Kg
SL-076-SA8N-SB-4.0-5.0(REA2)	EFH (C8-C11)	1.2 mg/Kg	1.4U mg/Kg
SL-076-SA8N-SB-7.5-8.5(REA2)	EFH (C8-C11)	1.1 mg/Kg	1.4U mg/Kg
SL-106-SA8N-SB-2.5-3.5(REA2)	EFH (C8-C11)	1.2 mg/Kg	1.4U mg/Kg
SL-109-SA8N-SB-4.0-5.0(REA2)	EFH (C8-C11)	1.2 mg/Kg	1.4U mg/Kg
SL-109-SA8N-SB-9.0-10.0(REA2)	EFH (C8-C11)	0.95 mg/Kg	1.4U mg/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB83B211315A	6/14/2011 1:15:00 PM	ACETONE METHYLENE CHLORIDE TOLUENE	8.3 ug/Kg 1.7 ug/Kg 0.14 ug/Kg	DUP10-SA8N-QC-060811 SL-023-SA5DN-SB-20.0-21.0 SL-023-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-025-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-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
DUP10-SA8N-QC-060811(RES)	ACETONE	8.0 ug/Kg	8.0U ug/Kg
DUP10-SA8N-QC-060811(RES)	METHYLENE CHLORIDE	1.6 ug/Kg	3.9U ug/Kg
DUP10-SA8N-QC-060811(RES)	TOLUENE	0.30 ug/Kg	3.9U ug/Kg
SL-023-SA5DN-SB-20.0-21.0(RES)	ACETONE	8.3 ug/Kg	8.3U ug/Kg
SL-023-SA5DN-SB-20.0-21.0(RES)	METHYLENE CHLORIDE	1.5 ug/Kg	3.9U ug/Kg
SL-023-SA5DN-SB-20.0-21.0(RES)	TOLUENE	0.15 ug/Kg	3.9U ug/Kg
SL-023-SA5DN-SB-4.0-5.0(RES)	ACETONE	9.3 ug/Kg	9.3U ug/Kg
SL-023-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.3 ug/Kg	4.0U ug/Kg
SL-023-SA5DN-SB-4.0-5.0(RES)	TOLUENE	0.12 ug/Kg	4.0U ug/Kg
SL-025-SA5DN-SB-23.0-24.0(RES)	ACETONE	9.5 ug/Kg	9.5U ug/Kg
SL-025-SA5DN-SB-23.0-24.0(RES)	METHYLENE CHLORIDE	1.8 ug/Kg	4.3U ug/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE176 | Laboratory: LL

EDD Filename: DE176_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-025-SA5DN-SB-23.0-24.0(RES)	TOLUENE	0.19 ug/Kg	4.3U ug/Kg
SL-025-SA5DN-SB-4.0-5.0(RES)	ACETONE	8.4 ug/Kg	8.4U ug/Kg
SL-025-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.5 ug/Kg	3.9U ug/Kg
SL-025-SA5DN-SB-4.0-5.0(RES)	TOLUENE	0.16 ug/Kg	3.9U ug/Kg
SL-028-SA5DN-SB-11.5-12.5(RES)	ACETONE	9.5 ug/Kg	9.5U ug/Kg
SL-028-SA5DN-SB-11.5-12.5(RES)	METHYLENE CHLORIDE	1.7 ug/Kg	4.5U ug/Kg
SL-028-SA5DN-SB-11.5-12.5(RES)	TOLUENE	0.14 ug/Kg	4.5U ug/Kg
SL-028-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.5 ug/Kg	4.0U ug/Kg
SL-028-SA5DN-SB-4.0-5.0(RES)	TOLUENE	0.14 ug/Kg	4.0U ug/Kg
SL-051-SA5DN-SB-14.0-15.0(RES)	ACETONE	8.8 ug/Kg	8.8U ug/Kg
SL-051-SA5DN-SB-14.0-15.0(RES)	METHYLENE CHLORIDE	1.6 ug/Kg	4.0U ug/Kg
SL-051-SA5DN-SB-14.0-15.0(RES)	TOLUENE	0.14 ug/Kg	4.0U ug/Kg
SL-051-SA5DN-SB-4.0-5.0(RES)	ACETONE	9.1 ug/Kg	9.1U ug/Kg
SL-051-SA5DN-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.4 ug/Kg	4.4U ug/Kg
SL-051-SA5DN-SB-4.0-5.0(RES)	TOLUENE	0.15 ug/Kg	4.4U ug/Kg
SL-076-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.3 ug/Kg	3.7U ug/Kg
SL-076-SA8N-SB-4.0-5.0(RES)	TOLUENE	0.28 ug/Kg	3.7U ug/Kg
SL-076-SA8N-SB-7.5-8.5(RES)	ACETONE	11 ug/Kg	11U ug/Kg
SL-076-SA8N-SB-7.5-8.5(RES)	METHYLENE CHLORIDE	1.4 ug/Kg	4.1U ug/Kg
SL-076-SA8N-SB-7.5-8.5(RES)	TOLUENE	0.20 ug/Kg	4.1U ug/Kg
SL-106-SA8N-SB-2.5-3.5(RES)	ACETONE	8.2 ug/Kg	8.2U ug/Kg
SL-106-SA8N-SB-2.5-3.5(RES)	METHYLENE CHLORIDE	1.6 ug/Kg	3.8U ug/Kg
SL-106-SA8N-SB-2.5-3.5(RES)	TOLUENE	0.19 ug/Kg	3.8U ug/Kg
SL-109-SA8N-SB-4.0-5.0(RES)	ACETONE	27 ug/Kg	27U ug/Kg
SL-109-SA8N-SB-4.0-5.0(RES)	METHYLENE CHLORIDE	1.0 ug/Kg	4.1U ug/Kg
SL-109-SA8N-SB-4.0-5.0(RES)	TOLUENE	0.12 ug/Kg	4.1U ug/Kg
SL-109-SA8N-SB-9.0-10.0(RES)	ACETONE	32 ug/Kg	32U ug/Kg
SL-109-SA8N-SB-9.0-10.0(RES)	METHYLENE CHLORIDE	1.7 ug/Kg	4.0U ug/Kg
SL-109-SA8N-SB-9.0-10.0(RES)	TOLUENE	0.16 ug/Kg	4.0U ug/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: DE176_v1 **eQAPP Name: CDM_SSFL_110509**

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLB16B261536	6/23/2011 3:36:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	19 ug/Kg	DUP10-SA8N-QC-060811 SL-023-SA5DN-SB-20.0-21.0 SL-023-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-025-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-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
DUP10-SA8N-QC-060811(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	49 ug/Kg	380U ug/Kg
SL-023-SA5DN-SB-20.0-21.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	24 ug/Kg	370U ug/Kg
SL-023-SA5DN-SB-4.0-5.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	25 ug/Kg	380U ug/Kg
SL-028-SA5DN-SB-11.5-12.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	25 ug/Kg	370U ug/Kg
SL-051-SA5DN-SB-4.0-5.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	24 ug/Kg	370U ug/Kg
SL-076-SA8N-SB-4.0-5.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	22 ug/Kg	370U ug/Kg
SL-076-SA8N-SB-7.5-8.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	21 ug/Kg	380U ug/Kg
SL-109-SA8N-SB-4.0-5.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	19 ug/Kg	380U ug/Kg
SL-109-SA8N-SB-9.0-10.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	25 ug/Kg	380U ug/Kg

Method: **8270C SIM**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWK16B262329	6/16/2011 11:29:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE Di-n-octylphthalate	0.061 ug/L 0.065 ug/L	EB16-SA8N-SB-060811

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
EB16-SA8N-SB-060811(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.069 ug/L	1.0U ug/L

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: DE176_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-076-SA8N-SB-4.0-5.0MS	DIETHYLENE GLYCOL	54	44	59.00-109.00	-	DIETHYLENE GLYCOL	J (all detects) UJ (all non-detects)
SL-076-SA8N-SB-4.0-5.0MSD	ETHYLENE GLYCOL	-	56	63.00-107.00	22 (20.00)	ETHYLENE GLYCOL	
(SL-076-SA8N-SB-4.0-5.0)	Propylene glycol	-	59	63.00-107.00	23 (20.00)	Propylene glycol	

Method: 8330A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-076-SA8N-SB-4.0-5.0MSD	1,3,5-TRINITROBENZENE	-	76	82.00-126.00	-	1,3,5-TRINITROBENZENE	J(all detects) UJ(all non-detects)
(SL-076-SA8N-SB-4.0-5.0)							

Method: 8015B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-076-SA8N-SB-4.0-5.0MS	m-Terphenyl	74	-	75.00-125.00	-	m-Terphenyl	J(all detects) UJ(all non-detects)
(SL-076-SA8N-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-076-SA8N-SB-4.0-5.0MS	EFH (C15-C20)	125	150	49.00-123.00	-	EFH (C15-C20)	J(all detects)
SL-076-SA8N-SB-4.0-5.0MSD	EFH (C21-C30)	-	158	49.00-123.00	-	EFH (C21-C30)	
(SL-076-SA8N-SB-4.0-5.0)	EFH (C30-C40)	-	240	49.00-123.00	51 (20.00)	EFH (C30-C40)	

Method: 1625C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-076-SA8N-SB-4.0-5.0MS	N-NITROSODIMETHYLAMINE	69	-	70.00-130.00	-	N-NITROSODIMETHYLAMINE	J(all detects) UJ(all non-detects)
(SL-076-SA8N-SB-4.0-5.0)							

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: DE176_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-076-SA8N-SB-4.0-5.0MSD (SL-076-SA8N-SB-4.0-5.0)	2,4-DINITROPHENOL	-	-	20.00-143.00	31 (30.00)	2,4-DINITROPHENOL	J(all detects)
SL-076-SA8N-SB-4.0-5.0MS SL-076-SA8N-SB-4.0-5.0MSD (SL-076-SA8N-SB-4.0-5.0)	BENZIDINE	0	0	35.00-141.00	-	BENZIDINE	J(all detects) R(all non-detects)
SL-076-SA8N-SB-4.0-5.0MS SL-076-SA8N-SB-4.0-5.0MSD (SL-076-SA8N-SB-4.0-5.0)	1,4-DICHLOROBENZENE	68	68	70.00-100.00	-	1,4-DICHLOROBENZENE	J(all detects) UJ(all non-detects)
	2,4,5-TRICHLOROPHENOL	76	76	78.00-109.00	-	2,4,5-TRICHLOROPHENOL	
	2,4-DICHLOROPHENOL	74	72	78.00-117.00	-	2,4-DICHLOROPHENOL	
	2,4-DIMETHYLPHENOL	77	77	78.00-110.00	-	2,4-DIMETHYLPHENOL	
	2,4-DINITROTOLUENE	71	-	73.00-113.00	-	2,4-DINITROTOLUENE	
	2-CHLOROPHENOL	71	71	73.00-121.00	-	2-CHLOROPHENOL	
	2-METHYLNAPHTHALENE	68	68	76.00-114.00	-	2-METHYLNAPHTHALENE	
	2-METHYLPHENOL	68	68	75.00-111.00	-	2-METHYLPHENOL	
	4-CHLORO-3-METHYLPHENOL	72	71	76.00-110.00	-	4-CHLORO-3-METHYLPHENOL	
	4-CHLOROPHENYL-PHENYLET	75	76	80.00-109.00	-	4-CHLOROPHENYL-PHENYLE	
	4-METHYLPHENOL	65	63	71.00-111.00	-	4-METHYLPHENOL	
	ACENAPHTHYLENE	79	80	81.00-110.00	-	ACENAPHTHYLENE	
	BENZYL ALCOHOL	-	66	67.00-115.00	-	BENZYL ALCOHOL	
	BIS(2-CHLOROETHOXY)METHA	-	74	75.00-104.00	-	BIS(2-CHLOROETHOXY)METH	
	FLUORENE	76	-	77.00-111.00	-	FLUORENE	
	HEXACHLOROBENZENE	-	76	77.00-114.00	-	HEXACHLOROBENZENE	
	N-NITROSODIPHENYLAMINE	80	79	86.00-145.00	-	N-NITROSODIPHENYLAMINE	

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-076-SA8N-SB-4.0-5.0MS SL-076-SA8N-SB-4.0-5.0MSD (DUP10-SA8N-QC-060811 SL-023-SA5DN-SB-20.0-21.0 SL-023-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-025-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0)	ARSENIC	243	198	75.00-125.00	-	ARSENIC	J(all detects) As, Zn, No Qual, >4x
	BERYLLIUM	126	144	75.00-125.00	-	BERYLLIUM	
	CADMIUM	151	141	75.00-125.00	-	CADMIUM	
	CHROMIUM	160	145	75.00-125.00	-	CHROMIUM	
	COBALT	147	138	75.00-125.00	-	COBALT	
	COPPER	160	153	75.00-125.00	-	COPPER	
	LEAD	205	179	75.00-125.00	-	LEAD	
	NICKEL	183	173	75.00-125.00	-	NICKEL	
	SILVER	150	137	75.00-125.00	-	SILVER	
	THALLIUM	162	155	75.00-125.00	-	THALLIUM	
	VANADIUM	204	189	75.00-125.00	-	VANADIUM	
	ZINC	260	240	75.00-125.00	-	ZINC	
SL-076-SA8N-SB-4.0-5.0MS SL-076-SA8N-SB-4.0-5.0MSD (DUP10-SA8N-QC-060811 SL-023-SA5DN-SB-20.0-21.0 SL-023-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-025-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0)	ANTIMONY	64	62	75.00-125.00	-	ANTIMONY	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: DE176 **Laboratory: LL**

EDD Filename: DE176_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-076-SA8N-SB-4.0-5.0MS (DUP10-SA8N-QC-060811 SL-023-SA5DN-SB-20.0-21.0 SL-023-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-025-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0)	SELENIUM	136	-	75.00-125.00	-	SELENIUM	J(all detects)
SL-076-SA8N-SB-4.0-5.0MS **SL-076-SA8N-SB-4.0-5.0MSD** (DUP10-SA8N-QC-060811 SL-023-SA5DN-SB-20.0-21.0 SL-023-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-025-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0)	MOLYBDENUM	153	141	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-076-SA8N-SB-4.0-5.0MS **SL-076-SA8N-SB-4.0-5.0MSD** (DUP10-SA8N-QC-060811 SL-023-SA5DN-SB-20.0-21.0 SL-023-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-025-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0)	BARIUM	433	423	75.00-125.00	-	BARIUM	No Qual, >4x

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: DE176_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-076-SA8N-SB-4.0-5.0MS **SL-076-SA8N-SB-4.0-5.0MSD** (DUP10-SA8N-QC-060811 SL-023-SA5DN-SB-20.0-21.0 SL-023-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-025-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0)	ALUMINUM CALCIUM IRON MAGNESIUM TITANIUM	2284 142 1221 257 207	2490 165 1275 256 303	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-076-SA8N-SB-4.0-5.0MS **SL-076-SA8N-SB-4.0-5.0MSD** (DUP10-SA8N-QC-060811 SL-023-SA5DN-SB-20.0-21.0 SL-023-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-025-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0)	MANGANESE	32	12	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-076-SA8N-SB-4.0-5.0MS (SL-023-SA5DN-SB-20.0-21.0 SL-023-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-025-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5)	FLUORIDE	29	-	80.00-120.00	-	FLUORIDE	J(all detects) R(all non-detects)
SL-106-SA8N-SB-2.5-3.5MS (DUP10-SA8N-QC-060811 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0)	FLUORIDE Nitrate-NO3	47 74	- -	80.00-120.00 80.00-120.00	- -	FLUORIDE Nitrate-NO3	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: DE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-076-SA8N-SB-4.0-5.0DUP	MANGANESE	92	20.00	
(DUP10-SA8N-QC-060811	Zirconium	49	20.00	
SL-023-SA5DN-SB-20.0-21.0				
SL-023-SA5DN-SB-4.0-5.0				
SL-025-SA5DN-SB-23.0-24.0				J (all detects)
SL-025-SA5DN-SB-4.0-5.0				UJ (all non-detects)
SL-028-SA5DN-SB-11.5-12.5				
SL-028-SA5DN-SB-4.0-5.0				
SL-051-SA5DN-SB-14.0-15.0				
SL-051-SA5DN-SB-4.0-5.0				
SL-076-SA8N-SB-4.0-5.0				Zr, No Qual,
SL-076-SA8N-SB-7.5-8.5				OK by Difference
SL-106-SA8N-SB-2.5-3.5				
SL-109-SA8N-SB-4.0-5.0				
SL-109-SA8N-SB-9.0-10.0)				

Method: 6020
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-076-SA8N-SB-4.0-5.0DUP	ANTIMONY	69	20.00	
(DUP10-SA8N-QC-060811	ARSENIC	23	20.00	
SL-023-SA5DN-SB-20.0-21.0	LEAD	21	20.00	
SL-023-SA5DN-SB-4.0-5.0				
SL-025-SA5DN-SB-23.0-24.0				
SL-025-SA5DN-SB-4.0-5.0				J(all detects)
SL-028-SA5DN-SB-11.5-12.5				UJ(all non-detects)
SL-028-SA5DN-SB-4.0-5.0				
SL-051-SA5DN-SB-14.0-15.0				
SL-051-SA5DN-SB-4.0-5.0				Sb, No Qual,
SL-076-SA8N-SB-4.0-5.0				OK by Difference
SL-076-SA8N-SB-7.5-8.5				
SL-106-SA8N-SB-2.5-3.5				
SL-109-SA8N-SB-4.0-5.0				
SL-109-SA8N-SB-9.0-10.0)				

Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: DE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A
Matrix: SO

QC Sample ID (Associated Sample ID)	*Analyte*	*Sample RPD*	*eQAPP RPD*	*Flag*
SL-076-SA8N-SB-4.0-5.0DUP (DUP10-SA8N-QC-060811 SL-023-SA5DN-SB-20.0-21.0 SL-023-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-025-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0)	MERCURY	200	20.00	No Qual OK by Difference

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE176 Laboratory: LL

EDD Filename: DE176_v1 eQAPP Name: CDM_SSFL_110509

Method: 8082
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11655AQ241808A P11655AY241750A (EB16-SA8N-SB-060811)	Aroclor 5442	86	88	35.00-84.00	-	Aroclor 5432 Aroclor 5442 Aroclor 5460	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
P0WKLCSQ260002 P0WKLCSY260034 (EB16-SA8N-SB-060811)	1-METHYLNAPHTHALENE	134	119	71.00-117.00	-	1-METHYLNAPHTHALENE	J(all detects)
	2-METHYLNAPHTHALENE	118	-	75.00-115.00	-	2-METHYLNAPHTHALENE	
	ACENAPHTHENE	129	132	74.00-109.00	-	ACENAPHTHENE	
	ACENAPHTHYLENE	132	124	70.00-110.00	-	ACENAPHTHYLENE	
	ANTHRACENE	140	130	66.00-111.00	-	ANTHRACENE	
	BENZO(A)ANTHRACENE	129	129	72.00-114.00	-	BENZO(A)ANTHRACENE	
	BENZO(A)PYRENE	130	148	60.00-127.00	-	BENZO(A)PYRENE	
	BENZO(B)FLUORANTHENE	127	125	69.00-123.00	-	BENZO(B)FLUORANTHENE	
	BENZO(G,H,I)PERYLENE	-	136	57.00-131.00	-	BENZO(G,H,I)PERYLENE	
	BENZO(K)FLUORANTHENE	135	138	59.00-130.00	-	BENZO(K)FLUORANTHENE	
	CHRYSENE	131	129	76.00-116.00	-	CHRYSENE	
	DIBENZO(A,H)ANTHRACENE	149	172	55.00-134.00	-	DIBENZO(A,H)ANTHRACENE	
	Diethylphthalate	137	-	57.00-134.00	-	Diethylphthalate	
	Di-n-butylphthalate	133	149	74.00-131.00	-	Di-n-butylphthalate	
	FLUORANTHENE	138	158	75.00-116.00	-	FLUORANTHENE	
	FLUORENE	157	128	75.00-114.00	-	FLUORENE	
	INDENO(1,2,3-CD)PYRENE	145	162	69.00-124.00	-	INDENO(1,2,3-CD)PYRENE	
	NAPHTHALENE	128	126	72.00-109.00	-	NAPHTHALENE	
	PHENANTHRENE	130	127	76.00-111.00	-	PHENANTHRENE	
	PYRENE	146	130	69.00-118.00	-	PYRENE	

Method: 8270C
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P0WLLCSQ261332 P0WLLCSY261358 (EB16-SA8N-SB-060811)	3,3'-DICHLOROBENZIDINE	127	121	49.00-111.00	-	3,3'-DICHLOROBENZIDINE	J(all detects)
	4-CHLOROANILINE	146	-	42.00-124.00	-	4-CHLOROANILINE	
	ANILINE	112	104	49.00-101.00	-	ANILINE	
	BENZIDINE	137	116	20.00-109.00	-	BENZIDINE	
P0WLLCSY261358 (EB16-SA8N-SB-060811)	2,6-DINITROTOLUENE	-	80	85.00-115.00	-	2,6-DINITROTOLUENE	J(all detects) UJ(all non-detects)
	2-NITROANILINE	-	81	83.00-116.00	-	2-NITROANILINE	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: DE176_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
P11627AQ242055A P11627AY242037A (DUP10-SA8N-QC-060811 SL-023-SA5DN-SB-20.0-21.0 SL-023-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-025-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0)	Aroclor 5442	144	120	36.00-106.00	-	Aroclor 5432 Aroclor 5442 Aroclor 5460	J (all detects)

Method: 8330A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P11648AQ242114A (DUP10-SA8N-QC-060811 SL-023-SA5DN-SB-20.0-21.0 SL-023-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-025-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0)	PETN	123	-	80.00-120.00	-	PETN	J(all detects)

Method: 8270C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P2LBLCSQ261602	3,3'-DICHLOROBENZIDINE	126	-	24.00-101.00	-	3,3'-DICHLOROBENZIDINE	
(DUP10-SA8N-QC-060811	4-CHLOROANILINE	114	-	10.00-110.00	-	4-CHLOROANILINE	
SL-023-SA5DN-SB-20.0-21.0	INDENO(1,2,3-CD)PYRENE	123	-	64.00-119.00	-	INDENO(1,2,3-CD)PYRENE	
SL-023-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-025-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0)							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: DE176 **Laboratory: LL**

EDD Filename: DE176_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
P2LBLCSQ261602	1,2-DICHLOROBENZENE	77	-	79.00-102.00	-	1,2-DICHLOROBENZENE	J(all detects) UJ(all non-detects)
(DUP10 -SA8N -QC-060811 SL -023-SA5DN -SB-20.0-21.0 SL -023-SA5DN -SB-4.0-5.0 SL -025-SA5DN -SB-23.0-24.0 SL -025-SA5DN -SB-4.0-5.0 SL -028-SA5DN -SB-11.5-12.5 SL -028-SA5DN -SB-4.0-5.0 SL -051-SA5DN -SB-14.0-15.0 SL -051-SA5DN -SB-4.0-5.0 SL -076-SA8N -SB-4.0-5.0 SL -076-SA8N -SB-7.5-8.5 SL -106-SA8N -SB-2.5-3.5 SL -109-SA8N -SB-4.0-5.0 SL -109-SA8N -SB-9.0-10.0)	2-NITROPHENOL	80	-	81.00-114.00	-	2-NITROPHENOL	

Method: 6020
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P16726AQ220908A (DUP10 -SA8N -QC-060811 SL -023-SA5DN -SB-20.0-21.0 SL -023-SA5DN -SB-4.0-5.0 SL -025-SA5DN -SB-23.0-24.0 SL -025-SA5DN -SB-4.0-5.0 SL -028-SA5DN -SB-11.5-12.5 SL -028-SA5DN -SB-4.0-5.0 SL -051-SA5DN -SB-14.0-15.0 SL -051-SA5DN -SB-4.0-5.0 SL -076-SA8N -SB-4.0-5.0 SL -076-SA8N -SB-7.5-8.5 SL -106-SA8N -SB-2.5-3.5 SL -109-SA8N -SB-4.0-5.0 SL -109-SA8N -SB-9.0-10.0)	ANTIMONY	143	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC Limits

Method: 8260B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
LCSB83Q211403A	1,2-DIBROMO-3-CHLOROPROP	129	-	58.00-120.00	-	1,2-DIBROMO-3-CHLOROPRO	J(all detects)
(DUP10 -SA8N -QC-060811 SL -023-SA5DN -SB-20.0-21.0 SL -023-SA5DN -SB-4.0-5.0 SL -025-SA5DN -SB-23.0-24.0 SL -025-SA5DN -SB-4.0-5.0 SL -028-SA5DN -SB-11.5-12.5 SL -028-SA5DN -SB-4.0-5.0 SL -051-SA5DN -SB-14.0-15.0 SL -051-SA5DN -SB-4.0-5.0 SL -076-SA8N -SB-4.0-5.0 SL -076-SA8N -SB-7.5-8.5 SL -106-SA8N -SB-2.5-3.5 SL -109-SA8N -SB-4.0-5.0 SL -109-SA8N -SB-9.0-10.0)	METHYLENE CHLORIDE	125	-	76.00-124.00	-	METHYLENE CHLORIDE	

Surrogate Outlier Report

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: DE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 1625C
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-028-SA5DN-SB-11.5-12.5	N-Nitrosodimethylamine-d6	1044	50.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-028-SA5DN-SB-4.0-5.0	N-Nitrosodimethylamine-d6	1071	50.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-076-SA8N-SB-7.5-8.5	N-Nitrosodimethylamine-d6	151	50.00-150.00	All Target Analytes	J(all detects)

Method: 8015B
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-028-SA5DN-SB-4.0-5.0	n-Triacontane-d62	151	50.00-150.00	All Target Analytes	J(all detects)

Method: 8270C SIM
Matrix: AQ

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
EB16-SA8N-SB-060811	Nitrobenzene-d5	138	40.00-130.00	No Affected Compounds	J (all detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: PrepDE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
MOISTURE	11.4	11.6	2		No Qualifiers Applied

Method: 1625C
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
N-NITROSODIMETHYLAMINE	37.4 U	19.3	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-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
FLUORIDE	2.5	2.6	4	50.00	No Qualifiers Applied
Nitrate-NO3	1.5	2.0	29	50.00	

Method: 6010B
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
ALUMINUM	24500	24700	1	50.00	No Qualifiers Applied
BORON	4.48	4.54	1	50.00	
CALCIUM	2430	2430	0	50.00	
IRON	23200	23100	0	50.00	
LITHIUM	31.3	31.4	0	50.00	
MAGNESIUM	4360	4370	0	50.00	
MANGANESE	280	230	20	50.00	
PHOSPHORUS	238	240	1	50.00	
POTASSIUM	2160	2150	0	50.00	
SODIUM	122	134	9	50.00	
STRONTIUM	16.8	16.9	1	50.00	
TIN	2.85	2.82	1	50.00	
TITANIUM	1210	1190	2	50.00	
Zirconium	3.47	3.14	10	50.00	

Field Duplicate RPD Report

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: PrepDE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020
Matrix: SO

Analyte	Concentration (mg/Kg) SL-076-SA8N-SB-4.0-5.0	Concentration (mg/Kg) DUP10-SA8N-QC-060811	Sample RPD	eQAPP RPD	Flag
ANTIMONY	0.275	0.201	31	50.00	No Qualifiers Applied
ARSENIC	9.52	11.5	19	50.00	
BARIUM	119	165	32	50.00	
BERYLLIUM	0.872	1.07	20	50.00	
CADMIUM	0.0781	0.113	37	50.00	
CHROMIUM	18.8	22.3	17	50.00	
COBALT	6.63	8.70	27	50.00	
COPPER	10.2	12.6	21	50.00	
LEAD	7.66	9.71	24	50.00	
MOLYBDENUM	1.18	1.45	21	50.00	
NICKEL	16.0	20.0	22	50.00	
SELENIUM	0.127	0.128	1	50.00	
SILVER	0.0697	0.0883	24	50.00	
THALLIUM	0.333	0.406	20	50.00	
VANADIUM	40.1	49.0	20	50.00	
ZINC	62.6	85.1	30	50.00	

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg) SL-076-SA8N-SB-4.0-5.0	Concentration (mg/Kg) DUP10-SA8N-QC-060811	Sample RPD	eQAPP RPD	Flag
HEXAVALENT CHROMIUM	0.51	0.48	6	50.00	No Qualifiers Applied

Method: 7471A
Matrix: SO

Analyte	Concentration (mg/Kg) SL-076-SA8N-SB-4.0-5.0	Concentration (mg/Kg) DUP10-SA8N-QC-060811	Sample RPD	eQAPP RPD	Flag
MERCURY	0.0242	0.0320	28	50.00	No Qualifiers Applied

Method: 8015M
Matrix: SO

Analyte	Concentration (mg/Kg) SL-076-SA8N-SB-4.0-5.0	Concentration (mg/Kg) DUP10-SA8N-QC-060811	Sample RPD	eQAPP RPD	Flag
EFH (C21-C30)	2.1	2.5	17	50.00	No Qualifiers Applied
EFH (C30-C40)	4.8	5.4	12	50.00	
EFH (C8-C11)	1.2	0.99	19	50.00	
EFH (C15-C20)	1.4 U	0.54	200	50.00	J(all detects) UJ(all non-detects)

Method: 8082
Matrix: SO

Analyte	Concentration (ug/Kg) SL-076-SA8N-SB-4.0-5.0	Concentration (ug/Kg) DUP10-SA8N-QC-060811	Sample RPD	eQAPP RPD	Flag
AROCLOR 1260	3.4	2.4	34	50.00	No Qualifiers Applied

Field Duplicate RPD Report

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: PrepDE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
METHYLENE CHLORIDE	1.3	1.6	21	50.00	No Qualifiers Applied
TOLUENE	0.28	0.30	7	50.00	
ACETONE	7.5 U	8.0	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-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
NAPHTHALENE	0.94	1.2	24	50.00	No Qualifiers Applied

Method: 8270C
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
BIS(2-ETHYLHEXYL)PHTHALATE	22	49	76	50.00	J(all detects)

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
PH	6.90	6.87	0	50.00	No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: DE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB16-SA8N-SB-060811	LEAD	J	0.000066	0.0010	PQL	mg/L	J (all detects)

Method: 7470A

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB16-SA8N-SB-060811	MERCURY	J	0.000060	0.00020	PQL	mg/L	J (all detects)

Method: 8270C SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB16-SA8N-SB-060811	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.069	1.0	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.30	1.0	PQL	ug/L	
	Di-n-butylphthalate	J	0.71	1.0	PQL	ug/L	

Method: 1625C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA8N-QC-060811	N-NITROSODIMETHYLAMINE	J	19.3	37.5	PQL	ng/Kg	J (all detects)
SL-023-SA5DN-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	34.3	37.4	PQL	ng/Kg	J (all detects)
SL-051-SA5DN-SB-14.0-15.0	N-NITROSODIMETHYLAMINE	J	30.4	37.6	PQL	ng/Kg	J (all detects)
SL-051-SA5DN-SB-4.0-5.0	N-NITROSODIMETHYLAMINE	J	29.0	37.5	PQL	ng/Kg	J (all detects)
SL-076-SA8N-SB-7.5-8.5	N-NITROSODIMETHYLAMINE	J	22.5	38.2	PQL	ng/Kg	J (all detects)
SL-106-SA8N-SB-2.5-3.5	N-NITROSODIMETHYLAMINE	J	31.0	38.1	PQL	ng/Kg	J (all detects)

Method: 300.0

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-023-SA5DN-SB-4.0-5.0	Nitrate-NO3	J	1.6	1.7	PQL	mg/Kg	J (all detects)
SL-028-SA5DN-SB-4.0-5.0	Nitrate-NO3	J	1.5	1.8	PQL	mg/Kg	J (all detects)
SL-076-SA8N-SB-4.0-5.0	Nitrate-NO3	J	1.5	1.7	PQL	mg/Kg	J (all detects)
SL-076-SA8N-SB-7.5-8.5	Nitrate-NO3	J	1.5	1.7	PQL	mg/Kg	J (all detects)
SL-109-SA8N-SB-4.0-5.0	Nitrate-NO3	J	1.3	1.7	PQL	mg/Kg	J (all detects)
SL-109-SA8N-SB-9.0-10.0	Nitrate-NO3	J	1.3	1.7	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: DE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6010B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA8N-QC-060811	BORON	J	4.54	5.49	PQL	mg/Kg	J (all detects)
	TIN	J	2.82	11.0	PQL	mg/Kg	
	Zirconium	J	3.14	5.49	PQL	mg/Kg	
SL-023-SA5DN-SB-20.0-21.0	TIN	J	2.48	10.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.18	5.33	PQL	mg/Kg	
SL-023-SA5DN-SB-4.0-5.0	TIN	J	2.71	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.26	5.67	PQL	mg/Kg	
SL-025-SA5DN-SB-23.0-24.0	BORON	J	3.75	5.34	PQL	mg/Kg	J (all detects)
	TIN	J	2.51	10.7	PQL	mg/Kg	
	Zirconium	J	2.32	5.34	PQL	mg/Kg	
SL-025-SA5DN-SB-4.0-5.0	TIN	J	2.59	11.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.61	5.59	PQL	mg/Kg	
SL-028-SA5DN-SB-11.5-12.5	TIN	J	2.45	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.69	5.44	PQL	mg/Kg	
SL-028-SA5DN-SB-4.0-5.0	TIN	J	2.84	11.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.07	5.73	PQL	mg/Kg	
SL-051-SA5DN-SB-14.0-15.0	TIN	J	2.50	11.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.85	5.54	PQL	mg/Kg	
SL-051-SA5DN-SB-4.0-5.0	TIN	J	2.66	11.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.18	5.67	PQL	mg/Kg	
SL-076-SA8N-SB-4.0-5.0	BORON	J	4.48	5.53	PQL	mg/Kg	J (all detects)
	TIN	J	2.85	11.1	PQL	mg/Kg	
	Zirconium	J	3.47	5.53	PQL	mg/Kg	
SL-076-SA8N-SB-7.5-8.5	BORON	J	3.81	5.59	PQL	mg/Kg	J (all detects)
	TIN	J	3.00	11.2	PQL	mg/Kg	
	Zirconium	J	3.24	5.59	PQL	mg/Kg	
SL-106-SA8N-SB-2.5-3.5	BORON	J	4.39	5.61	PQL	mg/Kg	J (all detects)
	TIN	J	3.19	11.2	PQL	mg/Kg	
	Zirconium	J	2.94	5.61	PQL	mg/Kg	
SL-109-SA8N-SB-4.0-5.0	BORON	J	5.38	5.73	PQL	mg/Kg	J (all detects)
	SODIUM	J	85.2	115	PQL	mg/Kg	
	TIN	J	3.03	11.5	PQL	mg/Kg	
	Zirconium	J	3.42	5.73	PQL	mg/Kg	
SL-109-SA8N-SB-9.0-10.0	BORON	J	5.53	5.72	PQL	mg/Kg	J (all detects)
	TIN	J	2.76	11.4	PQL	mg/Kg	
	Zirconium	J	3.38	5.72	PQL	mg/Kg	

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA8N-QC-060811	ANTIMONY	J	0.201	0.222	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.128	0.444	PQL	mg/Kg	
	SILVER	J	0.0883	0.111	PQL	mg/Kg	
SL-023-SA5DN-SB-20.0-21.0	SILVER	J	0.104	0.107	PQL	mg/Kg	J (all detects)
SL-023-SA5DN-SB-4.0-5.0	SELENIUM	J	0.119	0.440	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0545	0.110	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: DE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 6020

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-025-SA5DN-SB-23.0-24.0	ANTIMONY CADMIUM SILVER	J J J	0.140 0.0864 0.0450	0.218 0.109 0.109	PQL PQL PQL	mg/Kg mg/Kg mg/Kg	J (all detects)
SL-025-SA5DN-SB-4.0-5.0	SELENIUM SILVER	J J	0.0811 0.0468	0.448 0.112	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-028-SA5DN-SB-11.5-12.5	SELENIUM SILVER	J J	0.130 0.0501	0.431 0.108	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-028-SA5DN-SB-4.0-5.0	SELENIUM SILVER	J J	0.247 0.108	0.468 0.117	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-051-SA5DN-SB-14.0-15.0	SILVER	J	0.0477	0.112	PQL	mg/Kg	J (all detects)
SL-051-SA5DN-SB-4.0-5.0	SELENIUM SILVER	J J	0.119 0.0596	0.454 0.113	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-076-SA8N-SB-4.0-5.0	CADMIUM SELENIUM SILVER	J J J	0.0781 0.127 0.0697	0.113 0.451 0.113	PQL PQL PQL	mg/Kg mg/Kg mg/Kg	J (all detects)
SL-076-SA8N-SB-7.5-8.5	ANTIMONY CADMIUM SELENIUM	J J J	0.169 0.0512 0.273	0.228 0.114 0.456	PQL PQL PQL	mg/Kg mg/Kg mg/Kg	J (all detects)
SL-106-SA8N-SB-2.5-3.5	ANTIMONY CADMIUM SILVER	J J J	0.177 0.0653 0.0210	0.231 0.115 0.115	PQL PQL PQL	mg/Kg mg/Kg mg/Kg	J (all detects)
SL-109-SA8N-SB-4.0-5.0	ANTIMONY SILVER	J J	0.214 0.0258	0.229 0.115	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-109-SA8N-SB-9.0-10.0	ANTIMONY SILVER	J J	0.216 0.0633	0.222 0.111	PQL PQL	mg/Kg mg/Kg	J (all detects)

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA8N-QC-060811	HEXAVALENT CHROMIUM	J	0.48	1.1	PQL	mg/Kg	J (all detects)
SL-023-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.48	1.1	PQL	mg/Kg	J (all detects)
SL-025-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.48	1.1	PQL	mg/Kg	J (all detects)
SL-028-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.62	1.2	PQL	mg/Kg	J (all detects)
SL-051-SA5DN-SB-14.0-15.0	HEXAVALENT CHROMIUM	J	0.63	1.1	PQL	mg/Kg	J (all detects)
SL-051-SA5DN-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.35	1.1	PQL	mg/Kg	J (all detects)
SL-076-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.51	1.1	PQL	mg/Kg	J (all detects)
SL-106-SA8N-SB-2.5-3.5	HEXAVALENT CHROMIUM	J	0.73	1.2	PQL	mg/Kg	J (all detects)
SL-109-SA8N-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.54	1.1	PQL	mg/Kg	J (all detects)
SL-109-SA8N-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.77	1.2	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: DE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA8N-QC-060811	MERCURY	J	0.0320	0.110	PQL	mg/Kg	J (all detects)
SL-023-SA5DN-SB-4.0-5.0	MERCURY	J	0.0194	0.110	PQL	mg/Kg	J (all detects)
SL-028-SA5DN-SB-4.0-5.0	MERCURY	J	0.0085	0.114	PQL	mg/Kg	J (all detects)
SL-076-SA8N-SB-4.0-5.0	MERCURY	J	0.0242	0.107	PQL	mg/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA8N-QC-060811	EFH (C15-C20) EFH (C8-C11)	J J	0.54 0.99	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-023-SA5DN-SB-20.0-21.0	EFH (C30-C40) EFH (C8-C11)	J J	0.70 1.2	1.3 1.3	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-023-SA5DN-SB-4.0-5.0	EFH (C21-C30) EFH (C8-C11)	J J	0.47 1.3	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-025-SA5DN-SB-23.0-24.0	EFH (C30-C40)	J	0.49	1.3	PQL	mg/Kg	J (all detects)
SL-025-SA5DN-SB-4.0-5.0	EFH (C30-C40) EFH (C8-C11)	J J	1.2 1.1	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-028-SA5DN-SB-11.5-12.5	EFH (C8-C11)	J	1.1	1.3	PQL	mg/Kg	J (all detects)
SL-028-SA5DN-SB-4.0-5.0	EFH (C15-C20) EFH (C8-C11)	J J	0.57 0.99	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-051-SA5DN-SB-14.0-15.0	EFH (C15-C20) EFH (C8-C11)	J J	0.50 1.1	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-051-SA5DN-SB-4.0-5.0	EFH (C15-C20) EFH (C8-C11)	J J	0.55 1.1	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-076-SA8N-SB-4.0-5.0	EFH (C8-C11)	J	1.2	1.4	PQL	mg/Kg	J (all detects)
SL-076-SA8N-SB-7.5-8.5	EFH (C15-C20) EFH (C8-C11)	J J	0.49 1.1	1.4 1.4	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-106-SA8N-SB-2.5-3.5	EFH (C8-C11)	J	1.2	1.4	PQL	mg/Kg	J (all detects)
SL-109-SA8N-SB-4.0-5.0	EFH (C8-C11)	J	1.2	1.4	PQL	mg/Kg	J (all detects)
SL-109-SA8N-SB-9.0-10.0	EFH (C8-C11)	J	0.95	1.4	PQL	mg/Kg	J (all detects)

Method: 8082

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-028-SA5DN-SB-4.0-5.0	AROCLOR 1254 AROCLOR 1260	J J	0.58 0.54	2.0 2.0	PQL PQL	ug/Kg ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: DE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method: 8260B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA8N-QC-060811	METHYLENE CHLORIDE TOLUENE	J J	1.6 0.30	3.9 3.9	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-023-SA5DN-SB-20.0-21.0	METHYLENE CHLORIDE TOLUENE	J J	1.5 0.15	3.9 3.9	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-023-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE TOLUENE	J J	1.3 0.12	4.0 4.0	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-025-SA5DN-SB-23.0-24.0	METHYLENE CHLORIDE TOLUENE	J J	1.8 0.19	4.3 4.3	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-025-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE TOLUENE	J J	1.5 0.16	3.9 3.9	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-028-SA5DN-SB-11.5-12.5	METHYLENE CHLORIDE TOLUENE	J J	1.7 0.14	4.5 4.5	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-028-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE TOLUENE	J J	1.5 0.14	4.0 4.0	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-051-SA5DN-SB-14.0-15.0	METHYLENE CHLORIDE TOLUENE	J J	1.6 0.14	4.0 4.0	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-051-SA5DN-SB-4.0-5.0	METHYLENE CHLORIDE TOLUENE	J J	1.4 0.15	4.4 4.4	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-076-SA8N-SB-4.0-5.0	METHYLENE CHLORIDE TOLUENE	J J	1.3 0.28	3.7 3.7	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-076-SA8N-SB-7.5-8.5	METHYLENE CHLORIDE TOLUENE	J J	1.4 0.20	4.1 4.1	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-106-SA8N-SB-2.5-3.5	METHYLENE CHLORIDE TOLUENE	J J	1.6 0.19	3.8 3.8	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-109-SA8N-SB-4.0-5.0	2-BUTANONE (MEK) METHYLENE CHLORIDE TOLUENE	J J J	2.5 1.0 0.12	8.1 4.1 4.1	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-109-SA8N-SB-9.0-10.0	2-BUTANONE (MEK) METHYLENE CHLORIDE TOLUENE	J J J	2.5 1.7 0.16	8.1 4.0 4.0	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP10-SA8N-QC-060811	BIS(2-ETHYLHEXYL)PHTHALATE	J	49	380	PQL	ug/Kg	J (all detects)
SL-023-SA5DN-SB-20.0-21.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	370	PQL	ug/Kg	J (all detects)
SL-023-SA5DN-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	380	PQL	ug/Kg	J (all detects)
SL-028-SA5DN-SB-11.5-12.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	370	PQL	ug/Kg	J (all detects)
SL-051-SA5DN-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	370	PQL	ug/Kg	J (all detects)
SL-076-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	22	370	PQL	ug/Kg	J (all detects)
SL-076-SA8N-SB-7.5-8.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	21	380	PQL	ug/Kg	J (all detects)
SL-109-SA8N-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	19	380	PQL	ug/Kg	J (all detects)
SL-109-SA8N-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	25	380	PQL	ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: DE176 **Laboratory: LL**

EDD Filename: DE176_v1 **eQAPP Name: CDM_SSFL_110509**

Method: **8270C SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
DUP10-SA8N-QC-060811	NAPHTHALENE	J	1.2	1.9	PQL	ug/Kg	J (all detects)
SL-023-SA5DN-SB-4.0-5.0	Butylbenzylphthalate	J	10	20	PQL	ug/Kg	J (all detects)
SL-028-SA5DN-SB-11.5-12.5	BENZO(A)ANTHRACENE	J	0.79	1.8	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.79	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.80	1.8	PQL	ug/Kg	
	Butylbenzylphthalate	J	12	20	PQL	ug/Kg	
	PYRENE	J	1.4	1.8	PQL	ug/Kg	
SL-076-SA8N-SB-4.0-5.0	NAPHTHALENE	J	0.94	1.9	PQL	ug/Kg	J (all detects)
SL-076-SA8N-SB-7.5-8.5	NAPHTHALENE	J	1.1	1.9	PQL	ug/Kg	J (all detects)
SL-106-SA8N-SB-2.5-3.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	10	21	PQL	ug/Kg	J (all detects)

Enclosure II

Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	June 8, 2011
LDC Report Date:	October 11, 2011
Matrix:	Soil/Water
Parameters:	Volatiles
Validation Level:	Level IV
Laboratory:	Lancaster Laboratories
Sample Delivery Group (SDG):	DE176

Sample Identification

SL-023-SA5DN-SB-4.0-5.0
SL-023-SA5DN-SB-20.0-21.0
SL-025-SA5DN-SB-4.0-5.0
SL-025-SA5DN-SB-23.0-24.0
SL-028-SA5DN-SB-4.0-5.0
SL-028-SA5DN-SB-11.5-12.5
SL-051-SA5DN-SB-4.0-5.0
SL-051-SA5DN-SB-14.0-15.0
SL-076-SA8N-SB-4.0-5.0
SL-076-SA8N-SB-7.5-8.5
SL-106-SA8N-SB-2.5-3.5
SL-109-SA8N-SB-4.0-5.0
SL-109-SA8N-SB-9.0-10.0
DUP10-SA8N-QC-060811
TB-060811
EB16-SA8N-SB-060811
SL-076-SA8N-SB-4.0-5.0MS
SL-076-SA8N-SB-4.0-5.0MSD

Introduction

This data review covers 16 soil samples and 2 water samples 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.

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 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
VBLKB83	6/14/11	Acetone Methylene chloride Toluene	8.3 ug/Kg 1.7 ug/Kg 0.14 ug/Kg	All soil samples in SDG DE176

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-023-SA5DN-SB-4.0-5.0	Acetone Methylene chloride Toluene	9.3 ug/Kg 1.3 ug/Kg 0.12 ug/Kg	9.3U ug/Kg 4.0U ug/Kg 4.0U ug/Kg
SL-023-SA5DN-SB-20.0-21.0	Acetone Methylene chloride Toluene	8.3 ug/Kg 1.5 ug/Kg 0.15 ug/Kg	8.3U ug/Kg 3.9U ug/Kg 3.9U ug/Kg
SL-025-SA5DN-SB-4.0-5.0	Acetone Methylene chloride Toluene	8.4 ug/Kg 1.5 ug/Kg 0.16 ug/Kg	8.4U ug/Kg 3.9U ug/Kg 3.9U ug/Kg
SL-025-SA5DN-SB-23.0-24.0	Acetone Methylene chloride Toluene	9.5 ug/Kg 1.8 ug/Kg 0.19 ug/Kg	9.5U ug/Kg 4.3U ug/Kg 4.3U ug/Kg
SL-028-SA5DN-SB-4.0-5.0	Methylene chloride Toluene	1.5 ug/Kg 0.14 ug/Kg	4.0U ug/Kg 4.0U ug/Kg
SL-028-SA5DN-SB-11.5-12.5	Acetone Methylene chloride Toluene	9.5 ug/Kg 1.7 ug/Kg 0.14 ug/Kg	9.5U ug/Kg 4.5U ug/Kg 4.5U ug/Kg
SL-051-SA5DN-SB-4.0-5.0	Acetone Methylene chloride Toluene	9.1 ug/Kg 1.4 ug/Kg 0.15 ug/Kg	9.1U ug/Kg 4.4U ug/Kg 4.4U ug/Kg
SL-051-SA5DN-SB-14.0-15.0	Acetone Methylene chloride Toluene	8.8 ug/Kg 1.6 ug/Kg 0.14 ug/Kg	8.8U ug/Kg 4.0U ug/Kg 4.0U ug/Kg
SL-076-SA8N-SB-4.0-5.0	Methylene chloride Toluene	1.3 ug/Kg 0.28 ug/Kg	3.7U ug/Kg 3.7U ug/Kg
SL-076-SA8N-SB-7.5-8.5	Acetone Methylene chloride Toluene	11 ug/Kg 1.4 ug/Kg 0.20 ug/Kg	11U ug/Kg 4.1U ug/Kg 4.1U ug/Kg

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
SL-106-SA8N-SB-2.5-3.5	Acetone Methylene chloride Toluene	8.2 ug/Kg 1.6 ug/Kg 0.19 ug/Kg	8.2U ug/Kg 3.8U ug/Kg 3.8U ug/Kg
SL-109-SA8N-SB-4.0-5.0	Acetone Methylene chloride Toluene	27 ug/Kg 1.0 ug/Kg 0.12 ug/Kg	27U ug/Kg 4.1U ug/Kg 4.1U ug/Kg
SL-109-SA8N-SB-9.0-10.0	Acetone Methylene chloride Toluene	32 ug/Kg 1.7 ug/Kg 0.16 ug/Kg	32U ug/Kg 4.0U ug/Kg 4.0U ug/Kg
DUP10-SA8N-QC-060811	Acetone Methylene chloride Toluene	8.0 ug/Kg 1.6 ug/Kg 0.30 ug/Kg	8.0U ug/Kg 3.9U ug/Kg 3.9U ug/Kg

Sample TB-060811 was identified as a trip blank. No volatile contaminants were found.

Sample EB16-SA8N-SB-060811 was identified as an equipment 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.

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
LCS B83 (All soil samples in SDG DE176)	Methylene chloride 1,2-Dibromo-3-chloropropane	125 (76-124) 129 (58-120)	- -	- -	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 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 DE176	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-076-SA8N-SB-4.0-5.0 and DUP10-SA8N-QC-060811 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-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
Methylene chloride	1.3	1.6	21 (≤50)	-	-
Toluene	0.28	0.30	7 (≤50)	-	-

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
Acetone	7.5U	8.0	200 (≤50)	J (all detects) UJ (all non-detects)	A

Santa Susana Field Laboratory
Volatiles - Data Qualification Summary - SDG DE176

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE176	SL-023-SA5DN-SB-4.0-5.0 SL-023-SA5DN-SB-20.0-21.0 SL-025-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-028-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-051-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811	Methylene chloride 1,2-Dibromo-3-chloropropane	J (all detects) J (all detects)	P	Laboratory control samples (%R) (L)
DE176	SL-023-SA5DN-SB-4.0-5.0 SL-023-SA5DN-SB-20.0-21.0 SL-025-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-028-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-051-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811 TB-060811 EB16-SA8N-SB-060811	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and CRQLs (Z)
DE176	SL-076-SA8N-SB-4.0-5.0 DUP10-SA8N-QC-060811	Acetone	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Volatiles - Laboratory Blank Data Qualification Summary - SDG DE176

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE176	SL-023-SA5DN-SB-4.0-5.0	Acetone Methylene chloride Toluene	9.3U ug/Kg 4.0U ug/Kg 4.0U ug/Kg	A	B
DE176	SL-023-SA5DN-SB-20.0-21.0	Acetone Methylene chloride Toluene	8.3U ug/Kg 3.9U ug/Kg 3.9U ug/Kg	A	B
DE176	SL-025-SA5DN-SB-4.0-5.0	Acetone Methylene chloride Toluene	8.4U ug/Kg 3.9U ug/Kg 3.9U ug/Kg	A	B

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE176	SL-025-SA5DN-SB-23.0-24.0	Acetone Methylene chloride Toluene	9.5U ug/Kg 4.3U ug/Kg 4.3U ug/Kg	A	B
DE176	SL-028-SA5DN-SB-4.0-5.0	Methylene chloride Toluene	4.0U ug/Kg 4.0U ug/Kg	A	B
DE176	SL-028-SA5DN-SB-11.5-12.5	Acetone Methylene chloride Toluene	9.5U ug/Kg 4.5U ug/Kg 4.5U ug/Kg	A	B
DE176	SL-051-SA5DN-SB-4.0-5.0	Acetone Methylene chloride Toluene	9.1U ug/Kg 4.4U ug/Kg 4.4U ug/Kg	A	B
DE176	SL-051-SA5DN-SB-14.0-15.0	Acetone Methylene chloride Toluene	8.8U ug/Kg 4.0U ug/Kg 4.0U ug/Kg	A	B
DE176	SL-076-SA8N-SB-4.0-5.0	Methylene chloride Toluene	3.7U ug/Kg 3.7U ug/Kg	A	B
DE176	SL-076-SA8N-SB-7.5-8.5	Acetone Methylene chloride Toluene	11U ug/Kg 4.1U ug/Kg 4.1U ug/Kg	A	B
DE176	SL-106-SA8N-SB-2.5-3.5	Acetone Methylene chloride Toluene	8.2U ug/Kg 3.8U ug/Kg 3.8U ug/Kg	A	B
DE176	SL-109-SA8N-SB-4.0-5.0	Acetone Methylene chloride Toluene	27U ug/Kg 4.1U ug/Kg 4.1U ug/Kg	A	B
DE176	SL-109-SA8N-SB-9.0-10.0	Acetone Methylene chloride Toluene	32U ug/Kg 4.0U ug/Kg 4.0U ug/Kg	A	B
DE176	DUP10-SA8N-QC-060811	Acetone Methylene chloride Toluene	8.0U ug/Kg 3.9U ug/Kg 3.9U ug/Kg	A	B

Santa Susana Field Laboratory
Volatiles - Field Blank Data Qualification Summary - SDG DE176

No Sample Data Qualified in this SDG

LDC #: 26277G1a **VALIDATION COMPLETENESS WORKSHEET** Date: 10/11/11
SDG #: DE176 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: 6/8/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%RSD ≤30, r^2
IV.	Continuing calibration/ICV	A	ICV/CCV ≥ 75
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
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/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 9 + 14
XVII.	Field blanks	ND	TB = 15 EB = 16

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-023-SA5DN-SB-4.0-5.0	11	SL-106-SA8N-SB-2.5-3.5	21	VBLKB83	31	
2	SL-023-SA5DN-SB-20.0-21.0	12	SL-109-SA8N-SB-4.0-5.0	22	VBLK107	32	
3	SL-025-SA5DN-SB-4.0-5.0	13	SL-109-SA8N-SB-9.0-10.0	23		33	
4	SL-025-SA5DN-SB-23.0-24.0	14	DUP10-SA8N-QC-060811	24		34	
5	SL-028-SA5DN-SB-4.0-5.0	15	TB-060811 W	25		35	
6	SL-028-SA5DN-SB-11.5-12.5	16	EB16-SA8N-SB-060811 W	26		36	
7	SL-051-SA5DN-SB-4.0-5.0	17	SL-076-SA8N-SB-4.0-5.0MS	27		37	
8	SL-051-SA5DN-SB-14.0-15.0	18	SL-076-SA8N-SB-4.0-5.0MSD	28		38	
9	SL-076-SA8N-SB-4.0-5.0	19		29		39	
10	SL-076-SA8N-SB-7.5-8.5	20		30		40	

DC #: 202776/a

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 $\geq$ 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 #: 26277G1a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer:

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 fiald 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 #: 26277G/a

VALIDATION FINDINGS WORKSHEET
Blanks

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 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: 6/14/11
Conc. units: ug/kg
Associated Samples: All Soils

Compound	Blank ID	Sample Identification								
	VBLKB83	10x/5x	1	2	3	4	5	6	7	8
F	8.3	83	9.3/4	8.3/4	8.4/4	9.5/4	-	9.5/4	9.1/4	8.8/4
E	1.7	17	1.3/4.0U	1.5/3.9U	1.5/3.9U	1.8/4.3U	1.5/4.0U	1.7/4.5U	1.4/4.4U	1.6/4.0U
CC	0.14	0.70	0.12/4.0U	0.15/3.9U	0.16/3.9U	0.19/4.3U	0.14/4.0U	0.14/4.5U	0.15/4.4U	0.14/4.0U
CRQL										

Blank analysis date:
Conc. units:
Associated Samples:

Compound	Blank ID	Sample Identification								
		9	10	11	12	13	14			
		-	11/4	8.2/4	27/4	32/4	8.0/4			
		1.3/3.7U	1.4/4.1U	1.6/3.8U	1.0/4.1U	1.7/4.0U	1.6/3.9U			
		0.28/3.7U	0.20/4.1U	0.19/3.8U	0.12/4.1U	0.16/4.0U	0.30/3.9U			
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 #: 26277G1a

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
		LCS B83	E	125 (76-124)	( )	( )	All soils	J/Pdet (L)
			MM	129 (58-120	( )	( )	↓	L ↓
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

LDC #: 26277G1a

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT
2nd reviewer: [illegible]

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)

Compound	Concentration (ug/kg)		%RPD Limit ≤50	Qualification Parent only / All Samples
	9	14		
E	1.3	1.6	21	
CC	0.28	0.30	7	
F	7.54	8.0	200	J/UJ/A

Compound	Concentration ( )		%RPD Limit _____	Qualification Parent only / All Samples

LDC #: 26277G1a

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [signature]

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	5/24/11	C (1st internal standard)	0.3589	0.3589	0.3517	0.3517	7	7
			EE (2nd internal standard)	1.7255	1.7255	1.5871	1.5871	8	8
			JJJ (3rd internal standard)	1.4546	1.4546	1.3695	1.3695	6	6
			(4th internal standard)						
2	ICV2	4/21/11	C (1st internal standard)	0.3956	0.3956	0.4093	0.4093	4	4
			EE (2nd internal standard)	1.9473	1.9473	1.9438	1.9438	2	2
			JJJ (3rd internal standard)	1.6715	1.6715	1.6569	1.6569	3	3
			(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 #: 26277G1a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: A

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 12:08	6/14/11	C (1st internal standard)	0.3517	0.3242	0.3242	8	8
			EE (2nd internal standard)	1.5871	1.6998	1.6998	7	7
			JJJ (3rd internal standard)	1.3695	1.4229	1.4229	4	4
			(4th internal standard)					
2	CCV 07:24	6/14/11	C (1st internal standard)	0.4093	0.4022	0.4022	2	2
			EE (2nd internal standard)	1.9438	2.0373	2.0373	5	5
			JJJ (3rd internal standard)	1.6569	1.6867	1.6867	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 #: 26277G1a

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	50.0	52.446	105	105	0
1,2-Dichloroethane-d4	↓	55.675	111	111	↓
Toluene-d8		49.233	98	98	
Bromofluorobenzene		47-80 U	96	96	

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 #: 26277G1a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT
2nd Reviewer:

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: 17 + 18

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	16.89	16.89	ND	19.2	19.3	114	114	115	115	1	1
Trichloroethene	↓	↓	↓	16.76	16.64	99	99	99	99	1	1
Benzene	↓	↓	↓	17.64	17.65	104	104	105	105	0	0
Toluene	↓	↓	0.25	16.76	16.95	98	98	100	100	1	1
Chlorobenzene	↓	↓	ND	16.16	16.22	96	96	97	97	0	0

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 #: 20217G7c

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: lcs 1B83

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	22.59	NA	113	113				
Trichloroethene	↓	↓	21.12	↓	106	106				
Benzene			21.94		110	110				
Toluene			21.42		107	107				
Chlorobenzene			21.26		106	106	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 #: 26277G/a

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, CC:

Conc. = $\frac{(1608)(50)(5)}{(75238)(0.8572)(5.74)(0.88)}$

=

0.123 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: June 8, 2011

LDC Report Date: October 7, 2011

Matrix: Soil/Water

Parameters: 1,4-Dioxane

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE176

Sample Identification

SL-023-SA5DN-SB-4.0-5.0
SL-023-SA5DN-SB-20.0-21.0
SL-025-SA5DN-SB-4.0-5.0
SL-025-SA5DN-SB-23.0-24.0
SL-028-SA5DN-SB-4.0-5.0
SL-028-SA5DN-SB-11.5-12.5
SL-051-SA5DN-SB-4.0-5.0
SL-051-SA5DN-SB-14.0-15.0
SL-076-SA8N-SB-4.0-5.0
SL-076-SA8N-SB-7.5-8.5
SL-106-SA8N-SB-2.5-3.5
SL-109-SA8N-SB-4.0-5.0
SL-109-SA8N-SB-9.0-10.0
DUP10-SA8N-QC-060811
TB-060811
EB16-SA8N-SB-060811
SL-076-SA8N-SB-4.0-5.0MS
SL-076-SA8N-SB-4.0-5.0MSD

Introduction

This data review covers 16 soil samples and 2 water samples 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-060811 was identified as a trip blank. No 1,4-dioxane was found.

Sample EB16-SA8N-SB-060811 was identified as an equipment 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 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 DE176	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-076-SA8N-SB-4.0-5.0 and DUP10-SA8N-QC-060811 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 DE176

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE176	SL-023-SA5DN-SB-4.0-5.0 SL-023-SA5DN-SB-20.0-21.0 SL-025-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-028-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-051-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811 TB-060811 EB16-SA8N-SB-060811	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
1,4-Dioxane - Laboratory Blank Data Qualification Summary - SDG DE176

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
1,4-Dioxane - Field Blank Data Qualification Summary - SDG DE176

No Sample Data Qualified in this SDG

LDC #: 26277G1b **VALIDATION COMPLETENESS WORKSHEET** Date: 10/7/11
SDG #: DE176 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: EF
2nd Reviewer: CF

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: 6/8/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	%D ≤ 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/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	D = 9 a 14
XVII.	Field blanks	ND	TB = 15 EB = 16

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-023-SA5DN-SB-4.0-5.0	11	SL-106-SA8N-SB-2.5-3.5	21	VBLKE52	31	
2	SL-023-SA5DN-SB-20.0-21.0	12	SL-109-SA8N-SB-4.0-5.0	22	VBLKE54	32	
3	SL-025-SA5DN-SB-4.0-5.0	13	SL-109-SA8N-SB-9.0-10.0	23	VBLKE50	33	
4	SL-025-SA5DN-SB-23.0-24.0	14	DUP10-SA8N-QC-060811	24		34	
5	SL-028-SA5DN-SB-4.0-5.0	15	TB-060811 W	25		35	
6	SL-028-SA5DN-SB-11.5-12.5	16	EB16-SA8N-SB-060811 W	26		36	
7	SL-051-SA5DN-SB-4.0-5.0	17	SL-076-SA8N-SB-4.0-5.0MS	27		37	
8	SL-051-SA5DN-SB-14.0-15.0	18	SL-076-SA8N-SB-4.0-5.0MSD	28		38	
9	SL-076-SA8N-SB-4.0-5.0	19		29		39	
10	SL-076-SA8N-SB-7.5-8.5	20		30		40	

LDC #: 26277G1b

VALIDATION FINDINGS CHECKLIST

Page: 1 of 1
Reviewer: FT
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 ≥ 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. Trichlorofluoromethana	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-chloropropene	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 #: 26277G1b

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: FT
2nd Reviewer: A

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	11/7/10	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	11/1/10	1,4-Dioxane (1st internal standard)	1.3359	1.3359	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 #: 26277G1b

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
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 7:04	6/11/11	1,4-Dioxane (1st internal standard)	1.3396	1.4220	1.4220	6	6
			(2nd internal standard)					
			(3rd internal standard)					
	CCV 13:30	6/13/11	↓ (4th internal standard)	↓	1.4330	1.4330	7	7
2			(1st internal standard)					
	CCV 8:12	6/09/11	↓ (2nd internal standard)	↓	1.2253	1.2253	7	7
			(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 #: 26776b

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					
1,2-Dichloroethane-d4					
Toluene-d8	10	9.539	95	95	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 #: 26277G1b

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: 17 + 18

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~~ 1,4 Dioxane	102.46	102.46	NR	97.93	106.41	96	96	100	100	8	8
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

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: LCS E52 Lab ID

Compound	Spike Added (ng/kg)		Spiked Sample Concentration (ng/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,4-Dioxane										
~~1,1-Dichloroethene~~	125	125	133.52	135.23	107	107	108	108	1	1
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 #: 26277G1b

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd reviewer: C

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. = $\frac{(\quad)(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)}$

=

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: June 8, 2011

LDC Report Date: October 11, 2011

Matrix: Soil/Water

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE176

Sample Identification

SL-023-SA5DN-SB-4.0-5.0
SL-023-SA5DN-SB-20.0-21.0
SL-025-SA5DN-SB-4.0-5.0
SL-025-SA5DN-SB-23.0-24.0
SL-028-SA5DN-SB-4.0-5.0
SL-028-SA5DN-SB-11.5-12.5
SL-051-SA5DN-SB-4.0-5.0
SL-051-SA5DN-SB-14.0-15.0
SL-076-SA8N-SB-4.0-5.0
SL-076-SA8N-SB-7.5-8.5
SL-106-SA8N-SB-2.5-3.5
SL-109-SA8N-SB-4.0-5.0
SL-109-SA8N-SB-9.0-10.0
DUP10-SA8N-QC-060811
EB16-SA8N-SB-060811
SL-076-SA8N-SB-4.0-5.0MS
SL-076-SA8N-SB-4.0-5.0MSD

Introduction

This data review covers 16 soil samples and one water 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.

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.

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
SBLKB162	6/13/11	Bis(2-ethylhexyl)phthalate	19 ug/Kg	SL-023-SA5DN-SB-4.0-5.0 SL-023-SA5DN-SB-20.0-21.0 SL-028-SA5DN-SB-11.5-12.5 SL-051-SA5DN-SB-4.0-5.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811

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-023-SA5DN-SB-4.0-5.0	Bis(2-ethylhexyl)phthalate	25 ug/Kg	380U ug/Kg
SL-023-SA5DN-SB-20.0-21.0	Bis(2-ethylhexyl)phthalate	24 ug/Kg	370U ug/Kg
SL-028-SA5DN-SB-11.5-12.5	Bis(2-ethylhexyl)phthalate	25 ug/Kg	370U ug/Kg
SL-051-SA5DN-SB-4.0-5.0	Bis(2-ethylhexyl)phthalate	24 ug/Kg	370U ug/Kg
SL-076-SA8N-SB-4.0-5.0	Bis(2-ethylhexyl)phthalate	22 ug/Kg	370U ug/Kg
SL-076-SA8N-SB-7.5-8.5	Bis(2-ethylhexyl)phthalate	21 ug/Kg	380U ug/Kg
SL-109-SA8N-SB-4.0-5.0	Bis(2-ethylhexyl)phthalate	19 ug/Kg	380U ug/Kg
SL-109-SA8N-SB-9.0-10.0	Bis(2-ethylhexyl)phthalate	25 ug/Kg	380U ug/Kg
DUP10-SA8N-QC-060811	Bis(2-ethylhexyl)phthalate	49 ug/Kg	380U ug/Kg

Sample EB16-SA8N-SB-060811 was identified as an equipment blank. No semivolatile 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-076-SA8N-SB-4.0-5.0MS/MSD (SL-076-SA8N-SB-4.0-5.0)	2-Chlorophenol	71 (73-121)	71 (73-121)	-	J (all detects)	A
	1,4-Dichlorobenzene	68 (70-100)	68 (70-100)	-	UJ (all non-detects)	
	Benzyl alcohol	-	66 (67-115)	-		
	2-Methylphenol	68 (75-111)	68 (75-111)	-		
	4-Methylphenol	65 (71-111)	63 (71-111)	-		
	2,4-Dimethylphenol	77 (78-110)	77 (78-110)	-		
	bis(2-Chloroethoxy)methane	-	74 (75-104)	-		
	2,4-Dichlorophenol	74 (78-117)	72 (78-117)	-		
	4-Chloro-3-methylphenol	72 (76-110)	71 (76-110)	-		
	2-Methylnaphthalene	68 (76-114)	68 (76-114)	-		
	2,4,5-Trichlorophenol	76 (78-109)	76 (78-109)	-		
	Acenaphthylene	79 (81-110)	80 (81-110)	-		
	2,4-Dinitrotoluene	71 (73-113)	-	-		
	Fluorene	76 (77-111)	-	-		
	4-Chlorophenyl-phenylether	75 (80-109)	76 (80-109)	-		
	N-Nitrosodiphenylamine	80 (86-145)	79 (86-145)	-		
	Hexachlorobenzene	-	76 (77-114)	-		
SL-076-SA8N-SB-4.0-5.0MS/MSD (SL-076-SA8N-SB-4.0-5.0)	2,4-Dinitrophenol	-	-	31 (≤30)	J (all detects)	A
SL-076-SA8N-SB-4.0-5.0MS/MSD (SL-076-SA8N-SB-4.0-5.0)	Benzidine	0 (35-141)	0 (35-141)	-	J (all detects) R (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
160WLLCS/D (All water samples in SDG DE176)	Aniline	112 (49-101)	104 (49-101)	-	J (all detects)	P
	4-Chloroaniline	146 (42-124)	-	-	J (all detects)	
	3,3'-Dichlorobenzidine	127 (49-111)	121 (49-111)	-	J (all detects)	
	Benzidine	137 (34-117)	-	-	J (all detects)	
160WLLCS/D (All water samples in SDG DE176)	2-Nitroaniline	-	81 (83-116)	-	J (all detects)	P
				-	UJ (all non-detects)	
	2,6-Dinitrotoluene	-	80 (85-115)		J (all detects) UJ (all non-detects)	

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
162LBLCS (All soil samples in SDG DE176)	1,2-Dichlorobenzene	77 (79-102)	-	-	J (all detects) UJ (all non-detects)	P
	2-Nitrophenol	80 (81-114)	-	-	J (all detects) UJ (all non-detects)	
162LBLCS (All soil samples in SDG DE176)	4-Chloroaniline	114 (10-110)	-	-	J (all detects)	P
	3,3'-Dichlorobenzidine	126 (24-101)	-	-	J (all detects)	
	Indeno(1,2,3-cd)pyrene	123 (64-119)	-	-	J (all 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 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 DE176	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-076-SA8N-SB-4.0-5.0 and DUP10-SA8N-QC-060811 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-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
Bis(2-ethylhexyl)phthalate	22	49	76 (≤50)	J (all detects)	A

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG DE176

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE176	SL-076-SA8N-SB-4.0-5.0	2-Chlorophenol 1,4-Dichlorobenzene Benzyl alcohol 2-Methylphenol 4-Methylphenol 2,4-Dimethylphenol bis(2-Chloroethoxy)methane 2,4-Dichlorophenol 4-Chloro-3-methylphenol 2-Methylnaphthalene 2,4,5-Trichlorophenol Acenaphthylene 2,4-Dinitrotoluene Fluorene 4-Chlorophenyl-phenylether N-Nitrosodiphenylamine Hexachlorobenzene	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE176	SL-076-SA8N-SB-4.0-5.0	2,4-Dinitrophenol	J (all detects)	A	Matrix spike/Matrix spike duplicate (RPD) (Q)
DE176	SL-076-SA8N-SB-4.0-5.0	Benzidine	J (all detects) R (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE176	EB16-SA8N-SB-060811	Aniline 4-Chloroaniline 3,3'-Dichlorobenzidine Benzidine	J (all detects) J (all detects) J (all detects) J (all detects)	P	Laboratory control samples (%R) (L)
DE176	EB16-SA8N-SB-060811	2-Nitroaniline 2,6-Dinitrotoluene	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L)
DE176	SL-023-SA5DN-SB-4.0-5.0 SL-023-SA5DN-SB-20.0-21.0 SL-025-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-028-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-051-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811	1,2-Dichlorobenzene 2-Nitrophenol	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L)

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE176	SL-023-SA5DN-SB-4.0-5.0 SL-023-SA5DN-SB-20.0-21.0 SL-025-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-028-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-051-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811	4-Chloroaniline 3,3'-Dichlorobenzidine Indeno(1,2,3-cd)pyrene	J (all detects) J (all detects) J (all detects)	P	Laboratory control samples (%R) (L)
DE176	SL-023-SA5DN-SB-4.0-5.0 SL-023-SA5DN-SB-20.0-21.0 SL-025-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-028-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-051-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811 EB16-SA8N-SB-060811	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
DE176	SL-076-SA8N-SB-4.0-5.0 DUP10-SA8N-QC-060811	Bis(2-ethylhexyl)phthalate	J (all detects)	A	Field duplicates (RPD) (FD)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG DE176

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE176	SL-023-SA5DN-SB-4.0-5.0	Bis(2-ethylhexyl)phthalate	380U ug/Kg	A	B
DE176	SL-023-SA5DN-SB-20.0-21.0	Bis(2-ethylhexyl)phthalate	370U ug/Kg	A	B
DE176	SL-028-SA5DN-SB-11.5-12.5	Bis(2-ethylhexyl)phthalate	370U ug/Kg	A	B
DE176	SL-051-SA5DN-SB-4.0-5.0	Bis(2-ethylhexyl)phthalate	370U ug/Kg	A	B
DE176	SL-076-SA8N-SB-4.0-5.0	Bis(2-ethylhexyl)phthalate	370U ug/Kg	A	B
DE176	SL-076-SA8N-SB-7.5-8.5	Bis(2-ethylhexyl)phthalate	380U ug/Kg	A	B
DE176	SL-109-SA8N-SB-4.0-5.0	Bis(2-ethylhexyl)phthalate	380U ug/Kg	A	B

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE176	SL-109-SA8N-SB-9.0-10.0	Bis(2-ethylhexyl)phthalate	380U ug/Kg	A	B
DE176	DUP10-SA8N-QC-060811	Bis(2-ethylhexyl)phthalate	380U ug/Kg	A	B

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG DE176

No Sample Data Qualified in this SDG

LDC #: 26277G2a **VALIDATION COMPLETENESS WORKSHEET** Date: 10/11/11
SDG #: DE176 Level IV Page: 1 of 1
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: 6/8/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤ 30, r²
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 RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 9, 14
XVII.	Field blanks	ND	EB = 15

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-023-SA5DN-SB-4.0-5.0	11	SL-106-SA8N-SB-2.5-3.5	21	SBLKLB162	31	
2	SL-023-SA5DN-SB-20.0-21.0	12	SL-109-SA8N-SB-4.0-5.0	22	SBLKWL160	32	
3	SL-025-SA5DN-SB-4.0-5.0	13	SL-109-SA8N-SB-9.0-10.0	23		33	
4	SL-025-SA5DN-SB-23.0-24.0	14	DUP10-SA8N-QC-060811	24		34	
5	SL-028-SA5DN-SB-4.0-5.0	15	EB16-SA8N-SB-060811 W	25		35	
6	SL-028-SA5DN-SB-11.5-12.5	16	SL-076-SA8N-SB-4.0-5.0MS	26		36	
7	SL-051-SA5DN-SB-4.0-5.0	17	SL-076-SA8N-SB-4.0-5.0MSD	27		37	
8	SL-051-SA5DN-SB-14.0-15.0	18		28		38	
9	SL-076-SA8N-SB-4.0-5.0	19		29		39	
10	SL-076-SA8N-SB-7.5-8.5	20		30		40	

LDC #: 20277G2a

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 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 #: 2027G2a

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 #: 27762a

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: 6/13/11 **Blank analysis date:** 6/23/11
Conc. units: ug/kg Associated Samples: 1, 2, 6, 7, 9, 10, 12 → 14

Compound	Blank ID	Sample Identification							
[redacted]	SBLKBI62	1	2	6	7	9	10	12	13
EEE	19	25/380U	24/370U	25/370U	24/370U	22/370U	21/380U	19/380U	25/380U
			14						
↓	↓		49/380U						

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 #: 26277G2c

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

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
		16 + 17	per following pages	( )	( )	( )	9	all J/UJ/A
				( )	( )	( )	except	HH = J/Adet
				( )	( )	( )		SSS = J/R/A
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )	

Lancaster Laboratories

Quality Control Summary
Matrix Spike/Matrix Spike Duplicate

SDG: DE176
Matrix: SOLID

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

16 of 17

UNSPK: 6310775 MS: 6310776 MSD: 6310777 Analyte	Batch: 11162SLB026 (Sample number(s): 6310767-6310777, 6310779-6310783)								
	Spike Added ug/kg	Unspiked Conc ug/kg	MS Conc ug/kg	MSD Conc ug/kg	MS %Rec	MSD %Rec	%Rec Limits	%RPD	%RPD Limits
N-Nitrosodimethylamine	1661.13	N.D.	1149.66	1151.3	69	70	47-116	0	30
Phenol	1661.13	N.D.	1123.1	1153.15	68	70	58-126	3	30
Aniline	1661.13	N.D.	867.62	806.55	52	49	35-95	7	30
bis(2-Chloroethyl)ether	1661.13	N.D.	1137.89	1140.13	69	69	60-116	0	30
2-Chlorophenol	1661.13	N.D.	1172.62	1171.57	71 *	71 *	73-121	0	30
1,3-Dichlorobenzene	1661.13	N.D.	1117.01	1144.8	67	69	63-109	2	30
1,4-Dichlorobenzene	1661.13	N.D.	1121.59	1118.24	68 *	68 *	70-100	0	30
Benzyl alcohol	1661.13	N.D.	1118.48	1086.	67	66 *	67-115	3	30
1,2-Dichlorobenzene	1661.13	N.D.	1121.69	1167.07	68	71	66-108	4	30
2-Methylphenol	1661.13	N.D.	1136.94	1117.51	68 *	68 *	75-111	2	30
bis(2-Chloroisopropyl)ether	1661.13	N.D.	1158.91	1137.88	70	69	55-142	2	30
4-Methylphenol	1661.13	N.D.	1086.49	1040.03	65 *	63 *	71-111	4	30
N-Nitroso-di-n-propylamine	1661.13	N.D.	1105.67	1098.6	67	67	60-116	1	30
Hexachloroethane	1661.13	N.D.	1147.26	1154.66	69	70	57-109	1	30
Nitrobenzene	1661.13	N.D.	1299.85	1301.89	78	79	72-106	0	30
Isophorone	1661.13	N.D.	1233.22	1232.95	74	75	73-102	0	30
2-Nitrophenol	1661.13	N.D.	1255.18	1234.9	76	75	74-115	2	30
2,4-Dimethylphenol	1661.13	N.D.	1275.77	1268.95	77 *	77 *	78-110	1	30
Benzoic acid	1661.13	N.D.	1098.4	1104.49	66	67	10-173	1	30
3,5-Dimethylphenol	1661.13	N.D.	1657.75	1627.54	100	99.	70-130	2	30
bis(2-Chloroethoxy)methane	1661.13	N.D.	1243.05	1217.93	75	74 *	75-104	2	30
2,4-Dichlorophenol	1661.13	N.D.	1224.21	1181.61	74 *	72 *	78-117	4	30
1,2,4-Trichlorobenzene	1661.13	N.D.	1260.82	1270.08	76	77	72-115	1	30
Naphthalene	1661.13	N.D.	1268.19	1251.04	76	76	72-116	1	30
4-Chloroaniline	1661.13	N.D.	838.09	834.99	50	51	23-95	0	30
Hexachlorobutadiene	1661.13	N.D.	1278.62	1265.5	77	77	62-120	1	30
4-Chloro-3-methylphenol	1661.13	N.D.	1202.48	1179.35	72 *	71 *	76-110	2	30
2-Methylnaphthalene	1661.13	N.D.	1136.38	1127.62	68 *	68 *	76-114	1	30
1-Methylnaphthalene	1661.13	N.D.	1240.09	1202.72	75	73	73-112	3	30
Hexachlorocyclopentadiene	3322.26	N.D.	2380.51	2306.53	72	70	10-153	3	30
2,4,6-Trichlorophenol	1661.13	N.D.	1294.81	1294.07	78	78	77-115	0	30
2,4,5-Trichlorophenol	1661.13	N.D.	1266.99	1262.37	76 *	76 *	78-109	0	30
2-Chloronaphthalene	1661.13	N.D.	1026.71	1045.42	62	63	50-141	2	30
2-Nitroaniline	1661.13	N.D.	1284.22	1294.47	77	78	67-125	1	30
Dimethylphthalate	1661.13	N.D.	1238.51	1239.43	75	75	64-118	0	30
2,6-Dinitrotoluene	1661.13	N.D.	1236.5	1289.36	74	78	69-123	4	30
Acenaphthylene	1661.13	N.D.	1318.86	1324.23	79 *	80 *	81-110	0	30
3-Nitroaniline	1661.13	N.D.	1133.64	1155.23	68	70	59-122	2	30
Acenaphthene	1661.13	N.D.	1285.45	1287.35	77	78	75-115	0	30
2,4-Dinitrophenol	3322.26	N.D.	1581.18	1157.47	48	35	20-143	31 *	30
4-Nitrophenol	1661.13	N.D.	1084.01	1208.46	65	73	54-113	11	30
2,4-Dinitrotoluene	1661.13	N.D.	1172.85	1264.89	71 *	77	73-113	8	30

Results are being reported on an as received basis.

Lancaster Laboratories

Quality Control Summary
Matrix Spike/Matrix Spike Duplicate

SDG: DE176
Matrix: SOLID

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

UNSPK: 6310775 MS: 6310776 MSD: 6310777 Analyte	Batch: **11162SLB026** (Sample number(s): 6310767-6310777, 6310779-6310783)								
	Spike Added ug/kg	Unspiked Conc ug/kg	MS Conc ug/kg	MSD Conc ug/kg	MS %Rec	MSD %Rec	%Rec Limits	%RPD	%RPD Limits
Dibenzofuran	1661.13	N.D.	1278.65	1273.66	77	77	71-112	0	30
Diethylphthalate	1661.13	N.D.	1247.2	1176.16	75	71	66-118	6	30
Fluorene	1661.13	N.D.	1254.98	1268.09	76 *	77	77-111	1	30
4-Chlorophenyl-phenylether	1661.13	N.D.	1237.55	1251.14	75 *	76 *	80-109	1	30
4-Nitroaniline	1661.13	N.D.	897.75	893.99	54	54	52-112	0	30
4,6-Dinitro-2-methylphenol	1661.13	N.D.	982.31	820.7	59	50	24-116	18	30
N-Nitrosodiphenylamine	1661.13	N.D.	1327.26	1309.6	80 *	79 *	86-145	1	30
1,2-Diphenylhydrazine	1661.13	N.D.	1393.81	1352.97	84	82	71-129	3	30
4-Bromophenyl-phenylether	1661.13	N.D.	1244.39	1222.96	75	74	67-129	2	30
Hexachlorobenzene	1661.13	N.D.	1275.25	1253.86	77	76 *	77-114	2	30
Pentachlorophenol	1661.13	N.D.	1101.94	1163.69	66	71	28-127	5	30
Phenanthrene	1661.13	N.D.	1255.88	1258.2	76	76	65-125	0	30
Anthracene	1661.13	N.D.	1282.43	1276.75	77	77	75-115	0	30
Carbazole	1661.13	N.D.	1235.03	1284.87	74	78	64-120	4	30
Di-n-butylphthalate	1661.13	N.D.	1265.72	1192.51	76	72	67-123	6	30
Fluoranthene	1661.13	N.D.	1207.58	1274.06	73	77	73-112	5	30
Benzidine	8305.65	N.D.	N.D.	N.D.	0 *	0 *	35-141	0	30
Pyrene	1661.13	N.D.	1306.62	1289.65	79	78	74-126	1	30
Butylbenzylphthalate	1661.13	N.D.	1417.95	1320.65	85	80	73-134	7	30
bis(2-Ethylhexyl)phthalate	1661.13	19.32	1493.06	1347.33	89	80	63-122	10	30
3,3'-Dichlorobenzidine	1661.13	N.D.	980.35	949.9	59	58	16-119	3	30
Benzo(a)anthracene	1661.13	N.D.	1298.74	1285.18	78	78	65-122	1	30
Chrysene	1661.13	N.D.	1339.89	1336.14	81	81	62-128	0	30
Di-n-octylphthalate	1661.13	N.D.	1200.74	1125.2	72	68	56-126	6	30
Benzo(b)fluoranthene	1661.13	N.D.	1131.52	1113.05	68	67	59-125	2	30
Benzo(k)fluoranthene	1661.13	N.D.	1128.13	1107.11	68	67	56-132	2	30
Benzo(a)pyrene	1661.13	N.D.	1172.5	1151.01	71	70	57-126	2	30
Indeno(1,2,3-cd)pyrene	1661.13	N.D.	1301.55	1328.19	78	80	61-126	2	30
Dibenz(a,h)anthracene	1661.13	N.D.	1324.36	1315.03	80	80	65-125	1	30
Benzo(g,h,i)perylene	1661.13	N.D.	1264.31	1314.87	76	80	59-127	4	30

Results are being reported on an as received basis.

LDC #: 26277G29

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
		160WLLCS/D	NNN	112 (49-101)	104 (49-101)	( )	All waters	J/Pdet (L)
			T	146 (42-124)	( )	( )		J/UJ/P
			BB	( )	81 (83-116)	( )		J/Pdet
			SSS	137 (34-117)	( )	( )		J/UJ/P
			BBB	127 (49-111)	121 (49-111)	( )		
			EE	( )	80 (85-115)	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
		162LBLCS	F	77 (79-102)	( )	( )	All soils	J/UJ/P (L)
			N	80 (81-114)	( )	( )		J/Pdet
			T	114 (10-110)	( )	( )		
			BBB	126 (24-101)	( )	( )		
			JJJ	123 (64-119)	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

LDC #: 26277G2c

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT
2nd reviewer: A

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?

(FB)

Compound	Concentration (ug/kg)		≤ 50 RPD
	9	14	
EEE	22	49	76 J/Adot

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

LDC #: 26277G05

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 6 of 7
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	6/20/11	Phenol (1st internal standard)	2.878	2.878	2.803	2.803	7	7
			Nitrobenzene (2nd internal standard)	0.520	0.520	0.518	0.518	3	3
			2-Nitroaniline (3rd internal standard)	0.423	0.423	0.401	0.401	8	8
			Pentachlorophenol (4th internal standard)	0.148	0.148	0.144	0.144	7	7
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.833	0.833	0.777	0.777	9	9
			Di-n-octylphthalate Benzo(a)pyrene (6th internal standard)	1.845	1.845	1.572	1.572	21	21
2	ICAL	6/22/11	Phenol (1st internal standard)	2.410	2.40	2.405	2.405	6	6
			Nitrobenzene (2nd internal standard)	0.381	0.381	0.385	0.385	4	4
			2-Nitroaniline (3rd internal standard)	0.424	0.424	0.416	0.416	6	6
			Pentachlorophenol (4th internal standard)	0.147	0.147	0.146	0.146	1	1
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.935	0.935	0.919	0.910	6	6
			Di-n-octylphthalate Benzo(a)pyrene (6th internal standard)	1.632	1.632	1.607	1.607	8	8
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 #: 26277G2s

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

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	FF093I	6/23/11	Phenol (1st internal standard)	2.803	2.801	2.801	0	0
			Nitrobenzene (2nd internal standard)	0.518	0.531	0.531	2	2
			2-Nitrophenol (3rd internal standard)	0.401	0.422	0.422	5	5
			Pentachlorophenol (4th internal standard)	0.144	0.398	0.398	1	1
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.777	0.846	0.846	9	9
			Benzo(a)pyrene (6th internal standard)	1.572	1.654	1.654	9	9
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 #: 26277G29
SDG #: see Cover

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	84.598	85	85	0
2-Fluorobiphenyl	↓	86.782	87	87	
Terphenyl-d14	↓	81.147	81	81	↓
Phenol-d5	200	153.785	77	77	
2-Fluorophenol	↓	159.443	80	80	
2,4,6-Tribromophenol	↓	162.808	81	81	
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 #: 26277Q29

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: 16 + 17

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	1661.13	1661.13	ND	1123.1	1153.15	68	68	70	70	3	3
N-Nitroso-di-n-propylamine				1105.67	1098.6	67	67	67	67	1	1
4-Chloro-3-methylphenol				1202.48	1179.35	72	72	71	71	2	2
Acenaphthene				1285.45	1287.35	77	77	78	78	0	0
Pentachlorophenol				1101.94	1163.69	66	66	71	71	5	5
Pyrene				1306.62	1289.65	79	79	78	78	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 #: 26277929

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: 162 LBLCS

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	1433.33	NA	1153.14	NA	80	80				
N-Nitroso-di-n-propylamine	1666.67		1116.71		67	67				
4-Chloro-3-methylphenol	1466.67		1201.12		82	82				
Acenaphthene	↓		1245.03		85	85				
Pentachlorophenol	1366.67		1114.69		82	82				
Pyrene	1566.67	↓	1294.66	↓	83	83	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 #: 26277G29

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
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, EEE:

Conc. = $\frac{(6402)(40)(1000)(\quad)(\quad)}{(492163)(0.777)(30)(0.88)(\quad)}$

= 25 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: June 8, 2011

LDC Report Date: October 11, 2011

Matrix: Soil/Water

Parameters: Semivolatiles

Validation Level: Level IV

Laboratory: Lancaster laboratories

Sample Delivery Group (SDG): DE176

Sample Identification

SL-023-SA5DN-SB-4.0-5.0
SL-023-SA5DN-SB-20.0-21.0
SL-025-SA5DN-SB-4.0-5.0
SL-025-SA5DN-SB-23.0-24.0
SL-028-SA5DN-SB-4.0-5.0
SL-028-SA5DN-SB-11.5-12.5
SL-051-SA5DN-SB-4.0-5.0
SL-051-SA5DN-SB-14.0-15.0
SL-076-SA8N-SB-4.0-5.0
SL-076-SA8N-SB-7.5-8.5
SL-106-SA8N-SB-2.5-3.5
SL-109-SA8N-SB-4.0-5.0
SL-109-SA8N-SB-9.0-10.0
DUP10-SA8N-QC-060811
EB16-SA8N-SB-060811
SL-076-SA8N-SB-4.0-5.0MS
SL-076-SA8N-SB-4.0-5.0MSD

Introduction

This data review covers 16 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 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.

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 semivolatiles were found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
SBLKWK160	6/9/11	Bis(2-ethylhexyl)phthalate Di-n-octylphthalate	0.061 ug/L 0.065 ug/L	All water samples in SDG DE176

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
EB16-SA8N-SB-060811	Bis(2-ethylhexyl)phthalate	0.069 ug/L	1.0U ug/L

Sample EB16-SA8N-SB-060811 was identified as an equipment blank. No semivolatiles were found with the following exceptions:

Equipment Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB16-SA8N-SB-060811	6/8/11	Di-n-butylphthalate Diethylphthalate Naphthalene	0.71 ug/L 0.30 ug/L 0.060 ug/L	All soil samples in SDG DE176
EB16-SA8N-SB-060811	6/8/11	Bis(2-ethylhexyl)phthalate	0.069 ug/L	SL-025-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-028-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-106-SA8N-SB-2.5-3.5

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.

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
160WKLCS/D (All water samples in SDG DE176)	1-Methylnaphthalene	134 (71-117)	119 (71-117)	-	J (all detects)	P
	Naphthalene	128 (72-109)	126 (72-109)	-	J (all detects)	
	2-Methylnaphthalene	118 (75-115)	-	-	J (all detects)	
	Acenaphthylene	132 (70-110)	124 (70-110)	-	J (all detects)	
	Acenaphthene	129 (74-109)	132 (74-109)	-	J (all detects)	
	Diethylphthalate	137 (57-134)	-	-	J (all detects)	
	Fluorene	157 (75-114)	128 (75-114)	-	J (all detects)	
	Phenanthrene	130 (76-111)	127 (76-111)	-	J (all detects)	
	Anthracene	140 (66-111)	130 (66-111)	-	J (all detects)	
	Di-n-butylphthalate	133 (74-131)	149 (74-131)	-	J (all detects)	
	Fluoranthene	138 (75-116)	158 (75-116)	-	J (all detects)	
	Pyrene	146 (69-118)	130 (69-118)	-	J (all detects)	
	Benzo(a)anthracene	129 (72-114)	129 (72-114)	-	J (all detects)	
	Chrysene	131 (76-116)	129 (76-116)	-	J (all detects)	
	Benzo(b)fluoranthene	127 (69-123)	125 (69-123)	-	J (all detects)	
	Benzo(k)fluoranthene	135 (59-130)	138 (59-130)	-	J (all detects)	
	Benzo(a)pyrene	130 (60-127)	148 (60-127)	-	J (all detects)	
	Indeno(1,2,3-cd)pyrene	145 (69-124)	162 (69-124)	-	J (all detects)	
	Dibenz(a,h)anthracene	149 (55-134)	172 (55-134)	-	J (all detects)	
	Benzo(g,h,i)perylene	-	136 (57-131)	-	J (all 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 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 DE176	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

Samples SL-076-SA8N-SB-4.0-5.0 and DUP10-SA8N-QC-060811 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-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
Naphthalene	0.94	1.2	24 (≤50)	-	-

Santa Susana Field Laboratory
Semivolatiles - Data Qualification Summary - SDG DE176

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE176	EB16-SA8N-SB-060811	1-Methylnaphthalene Naphthalene 2-Methylnaphthalene Acenaphthylene Acenaphthene Diethylphthalate Fluorene Phenanthrene Anthracene Di-n-butylphthalate Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene Benzo(g,h,i)perylene	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	P	Laboratory control samples (%R) (L)
DE176	SL-023-SA5DN-SB-4.0-5.0 SL-023-SA5DN-SB-20.0-21.0 SL-025-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-028-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-051-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811 EB16-SA8N-SB-060811	All TCL compounds	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG DE176

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P	Code
DE176	EB16-SA8N-SB-060811	Bis(2-ethylhexyl)phthalate	1.0U ug/L	A	B

Santa Susana Field Laboratory
Semivolatiles - Field Blank Data Qualification Summary - SDG DE176

No Sample Data Qualified in this SDG

LDC #: 26277G2b **VALIDATION COMPLETENESS WORKSHEET** Date: 10/11/11

SDG #: DE176 Level IV Page: 1 of 1

Laboratory: Lancaster Laboratories SW 01A Reviewer: F

2nd Reviewer: A

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: 6/8/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤ 30
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 25
V.	Blanks	SW	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	SW	LCS 1/1
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 9, 14
XVII.	Field blanks	SW	EB = 15

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-023-SA5DN-SB-4.0-5.0	11	SL-106-SA8N-SB-2.5-3.5	21	SBLKLJ167	31	
2	SL-023-SA5DN-SB-20.0-21.0	12	SL-109-SA8N-SB-4.0-5.0	22	SBLKWK160	32	
3	SL-025-SA5DN-SB-4.0-5.0	13	SL-109-SA8N-SB-9.0-10.0	23		33	
4	SL-025-SA5DN-SB-23.0-24.0	14	DUP10-SA8N-QC-060811	24		34	
5	SL-028-SA5DN-SB-4.0-5.0	15	EB16-SA8N-SB-060811 W	25		35	
6	SL-028-SA5DN-SB-11.5-12.5	16	SL-076-SA8N-SB-4.0-5.0MS	26		36	
7	SL-051-SA5DN-SB-4.0-5.0	17	SL-076-SA8N-SB-4.0-5.0MSD	27		37	
8	SL-051-SA5DN-SB-14.0-15.0	18		28		38	
9	SL-076-SA8N-SB-4.0-5.0	19		29		39	
10	SL-076-SA8N-SB-7.5-8.5	20		30		40	

LDC #: 26277G26

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. 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 #: 26277G36

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 #: 26277G2b

VALIDATION FINDINGS WORKSHEET
Blanks

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: 6/9/11 **Blank analysis date:** 6/16/11
Conc. units: ug/L Associated Samples: all water

Compound	Blank ID	Sample Identification							
[redacted]	SBLKWK160	15							
EEE	0.061		0.069 /1.04						
FFF	0.065		-						

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 #: 26277G25

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?

(F)

Blank units: ug/L **Associated sample units:** ug/kg
Sampling date: 6/8/11
Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: All SOILS ND + > 5X, 10X

Compound	Blank ID	Sample Identification								
	15	5X/10X								
XX	0.71	7.1								
LL	0.30	3.0								
~~EEE~~	~~0.069~~	~~0.69~~								
S	0.060	0.3								
CRQL										

(F)

Blank units: ug/L **Associated sample units:** ug/kg
Sampling date: 6/8/11
Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: 3, 4, 5, 8, 11 (ND + > ~~10X~~)

Compound	Blank ID	Sample Identification								
	15									
EEE	0.069									
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 #: 26277G2b

VALIDATION FINDINGS WORKSHEET
Surrogate Recovery

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualification below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were percent recoveries (%R) for surrogates within QC limits?
Y N N/A If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?
Y N N/A If any %R was less than 10 percent, was a reanalysis performed to confirm %R?

#	Date	Sample ID	Surrogate	%R (Limits)	Qualifications
		15	NBZ	138 (40-130)	no qual
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

* QC limits are advisory	QC Limits (Soil)	QC Limits (Water)		QC Limits (Soil)	QC Limits (Water)
S1 (NBZ) = Nitrobenzene-d5	23-120	35-114	S5 (2FP)= 2-Fluorophenol	25-121	21-100
S2 (FBP) = 2-Fluorobiphenyl	30-115	43-116	S6 (TBP) = 2,4,6-Tribromophenol	19-122	10-123
S3 (TPH) = Terphenyl-d14	18-137	33-141	S7 (2CP) = 2-Chlorophenol-d4	20-130*	33-110*
S4 (PHL) = Phenol-d5	24-113	10-94	S8 (DCB) = 1,2-Dichlorobenzene-d4	20-130*	16-110*

LDC #: 27763b

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
		160WK LCS/D	all	next page	( )	( )	All water	all J/Pdet (L)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

Lancaster Laboratories

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: DE176
Matrix: LIQUID

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS-SIM

160WK LCS ID
all J/Polet

LCS: 160WKLCS LCSD: 160WKLCSD Analyte	Batch: 11160WAK026 (Sample number(s): 6310785)							
	Spike Added ug/l	LCS Conc ug/l	LCSD Conc ug/l	LCS %Rec	LCSD %Rec	%Rec Limits	%RPD	%RPD Limits
N-Nitrosodimethylamine	1	.8	.62	80	62	36-89	26	30
1-Methylnaphthalene	1	1.34	1.19	134 *	119 *	71-117	12	30
Naphthalene	1	1.28	1.26	128 *	126 *	72-109	2	30
2-Methylnaphthalene	1	1.18	1	118 *	100	75-115	17	30
Acenaphthylene	1	1.32	1.24	132 *	124 *	70-110	6	30
Dimethylphthalate ✓	1	1.1	1.16	110	116	40-119	5	30
Acenaphthene	1	1.29	1.32	129 *	132 *	74-109	2	30
Diethylphthalate ✓	1	1.37	1.24	137 *	124	57-134	11	30
Fluorene	1	1.57	1.28	157 *	128 *	75-114	21	30
Phenanthrene	1	1.3	1.27	130 *	127 *	76-111	2	30
Anthracene	1	1.4	1.3	140 *	130 *	66-111	7	30
Di-n-butylphthalate ✓	1	1.33	1.49	133 *	149 *	74-131	12	30
Fluoranthene	1	1.38	1.58	138 *	158 *	75-116	14	30
Pyrene	1	1.46	1.3	146 *	130 *	69-118	12	30
Butylbenzylphthalate ✓	1	1.25	1.26	125	126	40-138	1	30
Bis(2-Ethylhexyl)phthalate ✓	1	1.26	1.24	126	124	57-154	2	30
Benzo(a)anthracene	1	1.29	1.29	129 *	129 *	72-114	0	30
Chrysene	1	1.31	1.29	131 *	129 *	76-116	2	30
Di-n-octylphthalate	1	1.36	1.25	136	125	57-145	8	30
Benzo(b)fluoranthene	1	1.27	1.25	127 *	125 *	69-123	2	30
Benzo(k)fluoranthene	1	1.35	1.38	135 *	138 *	59-130	3	30
Benzo(a)pyrene	1	1.3	1.48	130 *	148 *	60-127	12	30
Indeno(1,2,3-cd)pyrene	1	1.45	1.62	145 *	162 *	69-124	11	30
Dibenz(a,h)anthracene	1	1.49	1.72	149 *	172 *	55-134	14	30
Benzo(g,h,i)perylene	1	1.24	1.36	124	136 *	57-131	9	30

DE176 2149

LDC #: 26277G2b

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT
2nd reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

(FD)

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?

Compound	Concentration (ug/kg)		± SD RPD
	9	14	
S	0.94	1.2	24

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

LDC #: 26277026

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

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,
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	6/9/11	~~Phenol (1st internal standard)~~						
			Naphthalene (2nd internal standard)	1.101	1.01	1.101	1.101	3	3
			Fluorene (3rd internal standard)	1.573	1.573	1.558	1.558	5	5
			~~Pentachlorophenol~~ Anthracene (4th internal standard)	1.376	1.376	1.342	1.342	7	7
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)	1.554	1.554	1.530	1.530	3	3
			Benzo(a)pyrene (6th internal standard)	1.393	1.393	1.370	1.370	5	5
2	ICAL	6/16/11	~~Phenol (1st internal standard)~~						
			Naphthalene (2nd internal standard)	1.067	1.067	1.071	1.071	3	3
			Fluorene (3rd internal standard)	1.304	1.304	1.253	1.253	5	5
			~~Pentachlorophenol~~ Anthracene (4th internal standard)	1.125	1.125	1.118	1.118	7	7
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)	1.200	1.200	1.206	1.206	3	3
			Benzo(a)pyrene (6th internal standard)	1.083	1.083	1.076	1.076	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 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 #: 26277G26

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	CF0571.d	6/24/11	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)	1.101	1.060	1.060	4	4
			Fluorene (3rd internal standard)	1.558	1.461	1.461	6	6
			~~Pentachlorophenol~~ Anthracene (4th internal standard)	1.342	1.328	1.328	1	1
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)	1.530	1.499	1.499	2	2
			Benzo(a)pyrene (6th internal standard)	1.370	1.455	1.455	6	6
2	CF0591	6/26/11	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)		1.051	1.051	5	5
			Fluorene (3rd internal standard)		1.453	1.453	7	7
			~~Pentachlorophenol~~ Anthracen (4th internal standard)		1.329	1.329	1	1
			~~Bis(2-ethylhexyl)phthalate~~ Chrysene (5th internal standard)		1.529	1.529	0	0
			Benzo(a)pyrene (6th internal standard)		1.446	1.446	6	6
3	CF0609	6/27/11	~~Phenol (1st internal standard)~~					
			Naphthalene (2nd internal standard)		1.075	1.075	2	2
			Fluorene (3rd internal standard)		1.478	1.478	5	5
			~~Pentachlorophenol~~ Anthracen (4th internal standard)		1.333	1.333	1	1
			~~Bis(2-ethylhexyl)phthalate~~ Chrysen (5th internal standard)		1.541	1.541	1	1
			Benzo(a)pyrene (6th internal standard)		1.471	1.471	7	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 #: 26277g2b

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	1.053	105	105	0
2-Fluorobiphenyl	1.0	0.861	86	86	
Terphenyl-d14	1.0	1.005	100	101	↓
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 #: 26271A4D

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: 16 + 17

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	33.22	33.22	ND	28.57	28.95	86	86	87	87	1	1
Pentachlorophenol											
Pyrene	↓	↓	ND	28.51	27.74	86	86	83	83	3	3

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 #: 26277G2D

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: 167LJLCS

Compound	Spike Added (ug/kg)		Spike Concentration (ug/g)		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	30.47	NA	91	91				
Pentachlorophenol										
Pyrene	33.33	↓	31.99	↓	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 #: 26277926

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_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 . Butylbenzylphthalati

Conc. = $\frac{(47538)(1.0)(1000)(\quad)(\quad)}{(229437)(0.760)(30)(0.88)(\quad)}$

=

10.3 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: June 8, 2011

LDC Report Date: October 11, 2011

Matrix: Soil

Parameters: N-Nitrosodimethylamine

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE176

Sample Identification

SL-023-SA5DN-SB-4.0-5.0
SL-023-SA5DN-SB-20.0-21.0
SL-025-SA5DN-SB-4.0-5.0
SL-025-SA5DN-SB-23.0-24.0
SL-028-SA5DN-SB-4.0-5.0
SL-028-SA5DN-SB-11.5-12.5
SL-051-SA5DN-SB-4.0-5.0
SL-051-SA5DN-SB-14.0-15.0
SL-076-SA8N-SB-4.0-5.0
SL-076-SA8N-SB-7.5-8.5
SL-106-SA8N-SB-2.5-3.5
SL-109-SA8N-SB-4.0-5.0
SL-109-SA8N-SB-9.0-10.0
DUP10-SA8N-QC-060811
SL-076-SA8N-SB-4.0-5.0MS
SL-076-SA8N-SB-4.0-5.0MSD

Introduction

This data review covers 16 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 with the following exceptions:

Sample	Compound	Total Days From Sample Collection Until Extraction	Required Holding Time (in Days) From Sample Collection Until Extraction	Flag	A or P
SL-109-SA8N-SB-9.0-10.0	N-Nitrosodimethylamine	21	14	J (all detects) UJ (all non-detects)	A

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 differences (%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 with the following exceptions:

Sample	Surrogate	%R (Limits)	Compound	Flag	A or P
SL-076-SA8N-SB-7.5-8.5	N-Nitrosodimethylamine-d6	151 (50-150)	N-Nitrosodimethylamine	J (all detects)	P

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-076-SA8N-SB-4.0-5.0MS/MSD (SL-076-SA8N-SB-4.0-5.0)	N-Nitrosodimethylamine	69 (70-130)	-	-	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. 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 DE176	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-076-SA8N-SB-4.0-5.0 and DUP10-SA8N-QC-060811 were identified as field duplicates. No N-nitrosodimethylamine was detected in any of the samples with the following exceptions:

Compound	Concentration (ng/Kg)		RPD (Limits)	Flags	A or P
	SL-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
N-Nitrosodimethylamine	37.4U	19.3	200 (≤50)	J (all detects) UJ (all non-detects)	A

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Data Qualification Summary - SDG DE176

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE176	SL-109-SA8N-SB-9.0-10.0	N-Nitrosodimethylamine	J (all detects) UJ (all non-detects)	A	Technical holding time (H)
DE176	SL-076-SA8N-SB-7.5-8.5	N-Nitrosodimethylamine	J (all detects)	P	Surrogate spikes (%R) (S)
DE176	SL-076-SA8N-SB-4.0-5.0	N-Nitrosodimethylamine	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE176	SL-023-SA5DN-SB-4.0-5.0 SL-023-SA5DN-SB-20.0-21.0 SL-025-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-028-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-051-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
DE176	SL-076-SA8N-SB-4.0-5.0 DUP10-SA8N-QC-060811	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 DE176

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
N-Nitrosodimethylamine - Field Blank Data Qualification Summary - SDG DE176

No Sample Data Qualified in this SDG

LDC #: 26277G2c **VALIDATION COMPLETENESS WORKSHEET** Date: 10/10/11
SDG #: DE176 Level IV Page: 1 of 1
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	SW	Sampling dates: 6/8/11
II.	GC/MS Instrument performance check	N	Not Required
III.	Initial calibration	A	%D ≤ 30
IV.	Continuing calibration/ICV	A	ICV ≤ 30 CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	SW	
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/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 9 & 14
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-023-SA5DN-SB-4.0-5.0	11	SL-106-SA8N-SB-2.5-3.5	21	SBLKLF16	31	
2	SL-023-SA5DN-SB-20.0-21.0	12	SL-109-SA8N-SB-4.0-5.0	22	SBLKLC179	32	
3	SL-025-SA5DN-SB-4.0-5.0	13	SL-109-SA8N-SB-9.0-10.0	23		33	
4	SL-025-SA5DN-SB-23.0-24.0	14	DUP10-SA8N-QC-060811	24		34	
5	SL-028-SA5DN-SB-4.0-5.0	15	SL-076-SA8N-SB-4.0-5.0MS	25		35	
6	SL-028-SA5DN-SB-11.5-12.5	16	SL-076-SA8N-SB-4.0-5.0MSD	26		36	
7	SL-051-SA5DN-SB-4.0-5.0	17		27		37	
8	SL-051-SA5DN-SB-14.0-15.0	18		28		38	
9	SL-076-SA8N-SB-4.0-5.0	19		29		39	
10	SL-076-SA8N-SB-7.5-8.5	20		30		40	

LDC #: 26277G2C

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%~~ 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 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 #: 26277G2C

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				
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 #: 26277G2C

VALIDATION FINDINGS WORKSHEET
Technical Holding Times

Reviewer: FT
2nd Reviewer: A

All circled dates have exceeded the technical holding times.
Y N N/A Were all cooler temperatures within validation criteria?

METHOD : GC/MS BNA (EPA SW 846 Method 8270)

Sample ID	Matrix	Preserved	Sampling Date	Extraction date	Analysis date	Total # of Days	Qualifier
13	SOIL	~~X~~	6/8/11	6/29/11	7/2/11	21	J/UJ/R (H)

TECHNICAL HOLDING TIME CRITERIA

Water: Extracted within 7 days, analyzed within 40 days.
Soil: Extracted within 14 days, analyzed within 40 days.

LDC #: 26277G2C

VALIDATION FINDINGS WORKSHEET
Surrogate Recovery

Reviewer: FT
2nd Reviewer: A

METHOD: GC/MS ~~BNA (EPA SW 846 Method 8270)~~ 1625C

Please see qualification below for all questions answered "N". Not applicable questions are identified as "N/A".

Y (N) N/A Were percent recoveries (%R) for surrogates within QC limits?
Y (N) N/A If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?
Y N (N/A) If any %R was less than 10 percent, was a reanalysis performed to confirm %R?

#	Date	Sample ID	Surrogate	%R (Limits)	Qualifications
		5, 6	surrogate	out side limit ( )	no qual 10X DL
				( )	
				( )	
				( )	
				( )	
				( )	
		10	*	157 (20-150)	J/Pdet (5)
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
		* N-Nitrosodimethylamine-d6		( )	

* QC limits are advisory	QC Limits (Soil)	QC Limits (Water)		QC Limits (Soil)	QC Limits (Water)
S1 (NBZ) = Nitrobenzene-d5	23-120	35-114	S5 (2FP)= 2-Fluorophenol	25-121	21-100
S2 (FBP) = 2-Fluorobiphenyl	30-115	43-116	S6 (TBP) = 2,4,6-Tribromophenol	19-122	10-123
S3 (TPH) = Terphenyl-d14	18-137	33-141	S7 (2CP) = 2-Chlorophenol-d4	20-130*	33-110*
S4 (PHL) = Phenol-d5	24-113	10-94	S8 (DCB) = 1,2-Dichlorobenzene-d4	20-130*	16-110*

LDC #: 26277G2C

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: FT
2nd Reviewer:

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 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
		15 + 16	000	69 (70-130)	( )	( )	9	J/UJ/A (Q)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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LDC #: 26277Q2C

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT
2nd reviewer:

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)
	9	14	
000	37.44	19.3	200 J/UJ/A

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

LDC #: 26277G2C

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 (10 std)	Recalculated RRF (10 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	6/09/11	~~Phenol (1st internal standard)~~ NDMA	1.142	1.142	1.176	1.176	10	10
			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 #: 26277G2C

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

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 14:54	6/29/11	~~Phenol (1st internal standard)~~ NDMA	1.17602	1.09173	1.09173	7.16703	7.167
			Naphthalene (2nd internal standard)					
	CCV 18:17	6/29/11	Fluorene (3rd internal standard) ↓	↓	1.00833	1.00833	14.25861	14.258
			Pentachlorophenol (4th internal standard)					
	CCV 21:38	6/29/11	Bis(2-ethylhexyl)phthalate (5th internal standard) ↓	↓	1.00055	1.00055	14.92058	14.921
			~~Benzo(a)pyrene (6th internal standard)~~					
2	CCV 19:40	7/01/11	~~Phenol (1st internal standard)~~ ↓	↓	1.01203	1.01203	13.94456	13.946
			Naphthalene (2nd internal standard)					
	CCV 23:01	7/01/11	Fluorene (3rd internal standard) ↓	↓	1.09263	1.09263	7.09027	7.09027
			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 #: 26277G2C

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
N-Nitrosodimethylamine-d6					
Nitrobenzene-d5	25	29.437	118	118	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 #: 26d1/92c

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: 15 + 16

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	827.81	827.81	ND	571.98	571.79	69	69	70	70	0	0

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 #: 26277G2C

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: 161 LFLCS

Compound	Spike Added (mg/kg)		Spike Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol NPMA	83333	NA	69111	NA	83	83	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 #: 26277G2C

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 , NDMA

Conc. = $\frac{(9044)(25)(1000)(\quad)(\quad)}{(209738)(1.176)(30)(28)(\quad)}$

=

34.7 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: June 8, 2011

LDC Report Date: October 11, 2011

Matrix: Soil/Water

Parameters: Polychlorinated Biphenyls

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE176

Sample Identification

SL-023-SA5DN-SB-4.0-5.0
SL-023-SA5DN-SB-20.0-21.0
SL-025-SA5DN-SB-4.0-5.0
SL-025-SA5DN-SB-23.0-24.0
SL-028-SA5DN-SB-4.0-5.0
SL-028-SA5DN-SB-11.5-12.5
SL-051-SA5DN-SB-4.0-5.0
SL-051-SA5DN-SB-14.0-15.0
SL-076-SA8N-SB-4.0-5.0
SL-076-SA8N-SB-7.5-8.5
SL-106-SA8N-SB-2.5-3.5
SL-109-SA8N-SB-4.0-5.0
SL-109-SA8N-SB-9.0-10.0
DUP10-SA8N-QC-060811
EB16-SA8N-SB-060811
SL-076-SA8N-SB-4.0-5.0MS
SL-076-SA8N-SB-4.0-5.0MSD

Introduction

This data review covers 16 soil samples 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
6/16/11	3P20164.42R	ZBMultiR1	Aroclor-1016	21.0	SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811 SL-076-SA8N-SB-4.0-5.0MS SL-076-SA8N-SB-4.0-5.0MSD	Aroclor-1016 Aroclor-1221 Aroclor-1232	J (all detects) UJ (all non-detects)	A
6/16/11	3P20164.43R	ZBMultiR1	Aroclor-5460	24.2	SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811 SL-076-SA8N-SB-4.0-5.0MS SL-076-SA8N-SB-4.0-5.0MSD	Aroclor-5460	J (all detects) UJ (all non-detects)	A

Date	Standard	Column	Compound	%D	Associated Samples	Affected Compound	Flag	A or P
6/16/11	3P20164.43R	ZBMultiR2	Aroclor-5460	30.2	SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811 SL-076-SA8N-SB-4.0-5.0MS SL-076-SA8N-SB-4.0-5.0MSD	Aroclor-5460	J (all detects) UJ (all non-detects)	A
6/16/11	4P20164.08R	ZBMultiR1	Aroclor-5432	24.6	SL-023-SA5DN-SB-4.0-5.0 SL-023-SA5DN-SB-20.0-21.0 SL-025-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-028-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-051-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 PBLK07162	Aroclor-5432	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.

Sample EB16-SA8N-SB-060811 was identified as an equipment blank. No polychlorinated biphenyl 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 with the following exceptions:

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
PBLK07162	Not specified	Decachlorobiphenyl	122 (45-120)	All TCL compounds	J (all detects)	P

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 with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Affected Compound	Flag	A or P
LCS/D07162 (All soil samples in SDG DE176)	Aroclor-5442	144 (36-106)	120 (36-106)	-	Aroclor-5442 Aroclor-5432 Aroclor-5460	J (all detects) J (all detects) J (all detects)	P
LCS/D15165 (All water samples in SDG DE176)	Aroclor-5442	86 (38-84)	88 (38-84)	-	Aroclor-5442 Aroclor-5432 Aroclor-5460	J (all detects) J (all detects) J (all 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 RLs

All compound quantitation and RLs were within validation criteria with the following exceptions:

Sample	Compound	Finding	Criteria	Flag	A or P
SL-028-SA5DN-SB-11.5-12.5	Aroclor-1248 Aroclor-1254	Sample result exceeded calibration range.	Reported result should be within calibration range.	J (all detects) J (all detects)	P

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-028-SA5DN-SB-4.0-5.0	Aroclor-1254	149.25	J (all detects)	A
SL-076-SA8N-SB-4.0-5.0	Aroclor-1260	50.52	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE176	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-076-SA8N-SB-4.0-5.0 and DUP10-SA8N-QC-060811 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-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
Aroclor-1260	3.4	2.4	34 (≤50)	-	-

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Data Qualification Summary - SDG DE176

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE176	SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811	Aroclor-1016 Aroclor-1221 Aroclor-1232 Aroclor-5460	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE176	SL-023-SA5DN-SB-4.0-5.0 SL-023-SA5DN-SB-20.0-21.0 SL-025-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-028-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-051-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0	Aroclor-5432	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE176	SL-023-SA5DN-SB-4.0-5.0 SL-023-SA5DN-SB-20.0-21.0 SL-025-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-028-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-051-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811 EB16-SA8N-SB-060811	Aroclor-5442 Aroclor-5432 Aroclor-5460	J (all detects) J (all detects) J (all detects)	P	Laboratory control samples (%R) (L)
DE176	SL-028-SA5DN-SB-11.5-12.5	Aroclor-1248 Aroclor-1254	J (all detects) J (all detects)	P	Compound quantitation and RLs (exceeded range) (*XIII)
DE176	SL-028-SA5DN-SB-4.0-5.0	Aroclor-1254	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE176	SL-076-SA8N-SB-4.0-5.0	Aroclor-1260	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE176	SL-023-SA5DN-SB-4.0-5.0 SL-023-SA5DN-SB-20.0-21.0 SL-025-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-028-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-051-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811 EB16-SA8N-SB-060811	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG DE176

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG DE176

No Sample Data Qualified in this SDG

LDC #: 26277G3b **VALIDATION COMPLETENESS WORKSHEET** Date: 10/11/12
SDG #: DE176 Level IV Page: 1 of 1
Laboratory: Lancaster Laboratories Reviewer: [illegible]
2nd Reviewer: [illegible]

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: 6/8/11
II.	GC/ECD Instrument Performance Check	NA	
III.	Initial calibration	A	%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	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/RL/LOQ/LODs	SW	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	SW	D = 9 + 14
XVI.	Field blanks	ND	EB = 15

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-023-SA5DN-SB-4.0-5.0	11	SL-106-SA8N-SB-2.5-3.5	21	PBLK071262	31	
2	SL-023-SA5DN-SB-20.0-21.0	12	SL-109-SA8N-SB-4.0-5.0	22	PBLK15165	32	
3	SL-025-SA5DN-SB-4.0-5.0	13	SL-109-SA8N-SB-9.0-10.0	23		33	
4	SL-025-SA5DN-SB-23.0-24.0	14	DUP10-SA8N-QC-060811	24		34	
5	SL-028-SA5DN-SB-4.0-5.0	15	EB16-SA8N-SB-060811 W	25		35	
6	SL-028-SA5DN-SB-11.5-12.5	16	SL-076-SA8N-SB-4.0-5.0MS	26		36	
7	SL-051-SA5DN-SB-4.0-5.0	17	SL-076-SA8N-SB-4.0-5.0MSD	27		37	
8	SL-051-SA5DN-SB-14.0-15.0	18		28		38	
9	SL-076-SA8N-SB-4.0-5.0	19		29		39	
10	SL-076-SA8N-SB-7.5-8.5	20		30		40	

Notes:

DC #: 26277693b
SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Reviewer: FJ
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?			✓	

.DC #: 26279G3b
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.		✓		

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 #: 26277G3b

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 / RPD (Limit ≤ 20.0)	RT (limit)	Associated Samples	Qualifications
	6/16/11	3P20164.42R	ZB Multi R1	Y	21.0	( )	9-14, 16, 17	J/UJ/A (C)
						( )		qual V, W, X
						( )		
	6/16/11	3P20164.43R	ZB Multi R1	Aroclor 5460	24.2	( )	↓	J/UJ/A (C)
			↓ R2	↓	30.2	( )		↓
						( )		qual 5460 only
						( )		
						( )		
	6/16/11	4P20164.08R	ZB Multi R1	Aroclor 5432	24.6	( )	1PBLK07162, 1-8	J/UJ/A (C)
						( )		qual 5432 only
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		

LDC #: 26277G3h

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
	PBLK07162	NS	o	122 (45-120)	J/Pdet (S)
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
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				( )	
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				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

	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 #: 26277G3b

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

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 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
	LCS/D 07162	Aroclor 5442	144 (36-106)	120 (36-106)	( )	All soils	J/pdet (L)
			( )	( )	( )		qual 5442 ~~only~~ 5432 5460
			( )	( )	( )		
			( )	( )	( )		
	LCS/D 15165	↓	86 (38-84)	88 (38-84)	( )	all water	↓ (L)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 26277036
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Reviewer: F7
2nd Reviewer: A

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	Finding	Associated Samples	Qualifications
	Z, AA	x'd cal Range	6	J/Pdet * XIII

Comments: See sample calculation verification worksheet for recalculations

LDC #: 26277G3b
SDG #: pu cover

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Reviewer: F7
2nd Reviewer: A

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	149.25	5	J/A det * XIII
	BB	50.52	9	J/A det * XIII

Comments: See sample calculation verification worksheet for recalculations

LDC #: 26277G3b

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 ≤ 52	Qualification Parent only / All Samples
	9	14		
BB	3.4	2.4	34	

Compound	Concentration ( )		%RPD Limit _____	Qualification Parent only / All Samples

LDC #: 26277G3b
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

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

#	Standard ID	Calibration Date	Compound	Reported CF (20 std)	Recalculated CF (20 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	6/13/11	1260 - 1 2Bmulti R1	37	37	37	37	2.9	2.9
			✓ 2Bmulti R2	206	206	204	204	8.5	8.5
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 #: 26277G3b
SDG #: fw 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	3P20164.42R	6/16/11	Aroclor-1260 ZB5MultiR1	200.00	234.61	234.61	17.3	17.3
			↓ R2	200.00	217.30	217.30	8.7	8.7
2	3P20164.65R	6/16/11	↓	↓	247.11	247.11	23.6	23.6
					208.21	208.21	4.1	4.1
3	3P20164.77R	6/16/11	↓	200	228.49	228.49	14.2	14.2
			↓	↓	215.10	215.10	7.5	7.5
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 #: [illegible]

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
TCMX	ZB-2	1.036	0.991772	96	96	0
PCB	ZB-1	1.036	~~0.958297~~	97	97	0
			1.010229			

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 #:_____ VALIDATION FINDINGS WORKSHEET Page:__of__

SDG #: [illegible] Matrix Spike/Matrix Spike Duplicates Results Verification Reviewer: FZ

2nd Reviewer:

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: 16 + 17

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)											
PCB-1260	16.56	16.56	3.05	20.01	21.85	102	102	113	113	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 #: 26277G3b
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: LCS07162

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	22.41	NA	134	134	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 #: 76377G3b
SDG #: [illegible]

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: ~~GC~~ 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. 5 Compound Name Aroclor 1254

Concentration = $\frac{0.49223}{0.855}$

0.58 ug/kg

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications
	1254-1 = $\frac{(6289.850586)(3)}{(188)(60.4)}$ = 1.10784			1254-1 = 1.10793	
				-2 = 0.15900	
				-3 = 0.21484	
				Av= 0.49223	

Comments: [illegible]

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Santa Susana Field Laboratory

Collection Date: June 8, 2011

LDC Report Date: October 6, 2011

Matrix: Soil/Water

Parameters: Metals

Validation Level: Level IV

Laboratory: Lancaster Laboratories

Sample Delivery Group (SDG): DE176

Sample Identification

SL-023-SA5DN-SB-4.0-5.0
SL-023-SA5DN-SB-20.0-21.0
SL-025-SA5DN-SB-4.0-5.0
SL-025-SA5DN-SB-23.0-24.0
SL-028-SA5DN-SB-4.0-5.0
SL-028-SA5DN-SB-11.5-12.5
SL-051-SA5DN-SB-4.0-5.0
SL-051-SA5DN-SB-14.0-15.0
SL-076-SA8N-SB-4.0-5.0
SL-076-SA8N-SB-7.5-8.5
SL-106-SA8N-SB-2.5-3.5
SL-109-SA8N-SB-4.0-5.0
SL-109-SA8N-SB-9.0-10.0
DUP10-SA8N-QC-060811
EB16-SA8N-SB-060811
SL-076-SA8N-SB-4.0-5.0MS
SL-076-SA8N-SB-4.0-5.0MSD
SL-076-SA8N-SB-4.0-5.0DUP

Introduction

This data review covers 17 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, 7470A, and 7471A for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Molybdenum, Mercury, 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.

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. 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)	Magnesium Mercury	19.500 ug/L 0.116 ug/L	All water samples in SDG DE176
ICB/CCB	Magnesium Titanium	41.2 ug/L 0.60 ug/L	All water samples in SDG DE176
PB (prep blank)	Calcium Iron Lead Magnesium Phosphorus Tin	4.395 mg/Kg 4.735 mg/Kg 0.015 mg/Kg 1.035 mg/Kg 1.618 mg/Kg 1.792 mg/Kg	All soil samples in SDG DE176
ICB/CCB	Titanium	0.39 ug/L	SL-023-SA5DN-SB-4.0-5.0 SL-023-SA5DN-SB-20.0-21.0 SL-076-SA8N-SB-4.0-5.0

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
ICB/CCB	Titanium	0.55 ug/L	SL-025-SA5DN-SB-4.0-5.0 SL-025-SA5DN-SB-23.0-24.0 SL-028-SA5DN-SB-4.0-5.0 SL-028-SA5DN-SB-11.5-12.5 SL-051-SA5DN-SB-4.0-5.0 SL-051-SA5DN-SB-14.0-15.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811

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-023-SA5DN-SB-4.0-5.0	Tin	2.7 mg/Kg	2.7U mg/Kg
SL-023-SA5DN-SB-20.0-21.0	Tin	2.5 mg/Kg	2.5U mg/Kg
SL-025-SA5DN-SB-4.0-5.0	Tin	2.6 mg/Kg	2.6U mg/Kg
SL-025-SA5DN-SB-23.0-24.0	Tin	2.5 mg/Kg	2.5U mg/Kg
SL-028-SA5DN-SB-4.0-5.0	Tin	2.8 mg/Kg	2.8U mg/Kg
SL-028-SA5DN-SB-11.5-12.5	Tin	2.4 mg/Kg	2.4U mg/Kg
SL-051-SA5DN-SB-4.0-5.0	Tin	2.7 mg/Kg	2.7U mg/Kg
SL-051-SA5DN-SB-14.0-15.0	Tin	2.5 mg/Kg	2.5U mg/Kg
SL-076-SA8N-SB-4.0-5.0	Tin	2.8 mg/Kg	2.8U mg/Kg
SL-076-SA8N-SB-7.5-8.5	Tin	3.0 mg/Kg	3.0U mg/Kg
SL-106-SA8N-SB-2.5-3.5	Tin	3.2 mg/Kg	3.2U mg/Kg
SL-109-SA8N-SB-4.0-5.0	Tin	3.0 mg/Kg	3.0U mg/Kg
SL-109-SA8N-SB-9.0-10.0	Tin	2.8 mg/Kg	2.8U mg/Kg

Sample	Analyte	Reported Concentration	Modified Final Concentration
DUP10-SA8N-QC-060811	Tin	2.8 mg/Kg	2.8U mg/Kg
EB16-SA8N-SB-060811	Mercury	0.060 ug/L	0.060U ug/L

Sample EB16-SA8N-SB-060811 was identified as an equipment blank. No metal contaminants were found with the following exceptions:

Equipment Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
EB16-SA8N-SB-060811	6/8/11	Lead Mercury	0.066 ug/L 0.060 ug/L	SL-076-SA8N-SB-4.0-5.0 SL-076-SA8N-SB-7.5-8.5 SL-106-SA8N-SB-2.5-3.5 SL-109-SA8N-SB-4.0-5.0 SL-109-SA8N-SB-9.0-10.0 DUP10-SA8N-QC-060811

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 with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-076-SA8N-SB-4.0-5.0	Mercury	0.024 mg/Kg	0.024U mg/Kg
DUP10-SA8N-QC-060811	Mercury	0.032 mg/Kg	0.032U mg/Kg

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-076-SA8N-SB-4.0-5.0MS/MSD (All soil samples in SDG DE176)	Antimony	64 (75-125)	62 (75-125)	-	J (all detects) UJ (all non-detects)	A
SL-076-SA8N-SB-4.0-5.0MS/MSD (All soil samples in SDG DE176)	Beryllium	126 (75-125)	144 (75-125)	-	J (all detects)	A
	Cadmium	151 (75-125)	141 (75-125)	-	J (all detects)	
	Chromium	160 (75-125)	145 (75-125)	-	J (all detects)	
	Cobalt	147 (75-125)	138 (75-125)	-	J (all detects)	
	Copper	160 (75-125)	153 (75-125)	-	J (all detects)	
	Lead	205 (75-125)	179 (75-125)	-	J (all detects)	
	Molybdenum	153 (75-125)	141 (75-125)	-	J (all detects)	
	Nickel	183 (75-125)	173 (75-125)	-	J (all detects)	
	Selenium	136 (75-125)	-	-	J (all detects)	
	Silver	150 (75-125)	137 (75-125)	-	J (all detects)	
	Thallium	162 (75-125)	155 (75-125)	-	J (all detects)	
	Vanadium	204 (75-125)	189 (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-076-SA8N-SB-4.0-5.0DUP (All soil samples in SDG DE176)	Arsenic	23 (≤20)	-	J (all detects) UJ (all non-detects)	A
	Lead	21 (≤20)	-		
	Manganese	92 (≤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-076-SA8N-SB-4.0-5.0	Chromium Copper Vanadium	15 (≤10) 13 (≤10) 15 (≤10)	All soil samples in SDG DE176	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 DE176	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-076-SA8N-SB-4.0-5.0 and DUP10-SA8N-QC-060811 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-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
Aluminum	24500	24700	1 (≤50)	-	-
Antimony	0.27	0.20	30 (≤50)	-	-
Arsenic	9.5	11.5	19 (≤50)	-	-
Barium	119	165	32 (≤50)	-	-
Beryllium	0.87	1.1	23 (≤50)	-	-
Boron	4.5	4.5	0 (≤50)	-	-
Cadmium	0.078	0.11	34 (≤50)	-	-
Calcium	2430	2430	0 (≤50)	-	-

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
Chromium	18.8	22.3	17 (≤50)	-	-
Cobalt	6.6	8.7	27 (≤50)	-	-
Copper	10.2	12.6	21 (≤50)	-	-
Iron	23200	23100	0 (≤50)	-	-
Lead	7.7	9.7	23 (≤50)	-	-
Lithium	31.3	31.4	0 (≤50)	-	-
Magnesium	4360	4370	0 (≤50)	-	-
Manganese	280	230	20 (≤50)	-	-
Mercury	0.024	0.032	29 (≤50)	-	-
Molybdenum	1.2	1.5	22 (≤50)	-	-
Nickel	16.0	20.0	22 (≤50)	-	-
Phosphorus	238	240	1 (≤50)	-	-
Potassium	2160	2150	0 (≤50)	-	-
Selenium	0.13	0.13	0 (≤50)	-	-
Silver	0.070	0.088	23 (≤50)	-	-
Sodium	122	134	9 (≤50)	-	-
Strontium	16.8	16.9	1 (≤50)	-	-
Thallium	0.33	0.41	22 (≤50)	-	-
Tin	2.8	2.8	0 (≤50)	-	-
Titanium	1210	1190	2 (≤50)	-	-
Vanadium	40.1	49.0	20 (≤50)	-	-
Zinc	62.6	85.1	30 (≤50)	-	-

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-076-SA8N-SB-4.0-5.0	DUP10-SA8N-QC-060811			
Zirconium	3.5	3.1	12 (≤50)	-	-

Santa Susana Field Laboratory
Metals - Data Qualification Summary - SDG DE176

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE176	SL-152-SA5DN-SS-0.0-0.5 SL-153-SA5DN-SS-0.0-0.5 SL-154-SA5DN-SS-0.0-0.5 SL-155-SA5DN-SS-0.0-0.5 SL-156-SA5DN-SS-0.0-0.5 SL-157-SA5DN-SS-0.0-0.5 SL-158-SA5DN-SS-0.0-0.5 SL-159-SA5DN-SS-0.0-0.5 SL-160-SA5DN-SS-0.0-0.5 SL-162-SA5DN-SS-0.0-0.5 SL-166-SA5DN-SS-0.0-0.5 SL-207-SA5DN-SS-0.0-0.5 DUP-13-SA5DN-QC-060311 EB14-SA5DN-SB-060311 EB13-SA5DN-SS-060311 SL-019-SA5DN-SB-4.0-5.0 SL-019-SA5DN-SB-9.0-10.0 SL-027-SA5DN-SB-4.0-5.0 SL-027-SA5DN-SB-14.0-15.0 SL-052-SA5DN-SB-4.0-5.0 SL-052-SA5DN-SB-9.0-10.0	Antimony	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE176	SL-152-SA5DN-SS-0.0-0.5 SL-153-SA5DN-SS-0.0-0.5 SL-154-SA5DN-SS-0.0-0.5 SL-155-SA5DN-SS-0.0-0.5 SL-156-SA5DN-SS-0.0-0.5 SL-157-SA5DN-SS-0.0-0.5 SL-158-SA5DN-SS-0.0-0.5 SL-159-SA5DN-SS-0.0-0.5 SL-160-SA5DN-SS-0.0-0.5 SL-162-SA5DN-SS-0.0-0.5 SL-166-SA5DN-SS-0.0-0.5 SL-207-SA5DN-SS-0.0-0.5 DUP-13-SA5DN-QC-060311 EB14-SA5DN-SB-060311 EB13-SA5DN-SS-060311 SL-019-SA5DN-SB-4.0-5.0 SL-019-SA5DN-SB-9.0-10.0 SL-027-SA5DN-SB-4.0-5.0 SL-027-SA5DN-SB-14.0-15.0 SL-052-SA5DN-SB-4.0-5.0 SL-052-SA5DN-SB-9.0-10.0	Beryllium Cadmium Chromium Cobalt Copper Lead Molybdenum Nickel Selenium Silver Thallium Vanadium	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE176	SL-152-SA5DN-SS-0.0-0.5 SL-153-SA5DN-SS-0.0-0.5 SL-154-SA5DN-SS-0.0-0.5 SL-155-SA5DN-SS-0.0-0.5 SL-156-SA5DN-SS-0.0-0.5 SL-157-SA5DN-SS-0.0-0.5 SL-158-SA5DN-SS-0.0-0.5 SL-159-SA5DN-SS-0.0-0.5 SL-160-SA5DN-SS-0.0-0.5 SL-162-SA5DN-SS-0.0-0.5 SL-166-SA5DN-SS-0.0-0.5 SL-207-SA5DN-SS-0.0-0.5 DUP-13-SA5DN-QC-060311 EB14-SA5DN-SB-060311 EB13-SA5DN-SS-060311 SL-019-SA5DN-SB-4.0-5.0 SL-019-SA5DN-SB-9.0-10.0 SL-027-SA5DN-SB-4.0-5.0 SL-027-SA5DN-SB-14.0-15.0 SL-052-SA5DN-SB-4.0-5.0 SL-052-SA5DN-SB-9.0-10.0	Arsenic Lead Manganese	J (all detects) UJ (all non-detects)	A	Duplicate sample analysis (RPD) (E)
DE176	SL-152-SA5DN-SS-0.0-0.5 SL-153-SA5DN-SS-0.0-0.5 SL-154-SA5DN-SS-0.0-0.5 SL-155-SA5DN-SS-0.0-0.5 SL-156-SA5DN-SS-0.0-0.5 SL-157-SA5DN-SS-0.0-0.5 SL-158-SA5DN-SS-0.0-0.5 SL-159-SA5DN-SS-0.0-0.5 SL-160-SA5DN-SS-0.0-0.5 SL-162-SA5DN-SS-0.0-0.5 SL-166-SA5DN-SS-0.0-0.5 SL-207-SA5DN-SS-0.0-0.5 DUP-13-SA5DN-QC-060311 EB14-SA5DN-SB-060311 EB13-SA5DN-SS-060311 SL-019-SA5DN-SB-4.0-5.0 SL-019-SA5DN-SB-9.0-10.0 SL-027-SA5DN-SB-4.0-5.0 SL-027-SA5DN-SB-14.0-15.0 SL-052-SA5DN-SB-4.0-5.0 SL-052-SA5DN-SB-9.0-10.0	Chromium Copper Vanadium	J (all detects) UJ (all non-detects)	A	ICP serial dilution (%D) (A)
DE176	SL-152-SA5DN-SS-0.0-0.5 SL-153-SA5DN-SS-0.0-0.5 SL-154-SA5DN-SS-0.0-0.5 SL-155-SA5DN-SS-0.0-0.5 SL-156-SA5DN-SS-0.0-0.5 SL-157-SA5DN-SS-0.0-0.5 SL-158-SA5DN-SS-0.0-0.5 SL-159-SA5DN-SS-0.0-0.5 SL-160-SA5DN-SS-0.0-0.5 SL-162-SA5DN-SS-0.0-0.5 SL-166-SA5DN-SS-0.0-0.5 SL-207-SA5DN-SS-0.0-0.5 DUP-13-SA5DN-QC-060311 EB14-SA5DN-SB-060311 EB13-SA5DN-SS-060311 SL-019-SA5DN-SB-4.0-5.0 SL-019-SA5DN-SB-9.0-10.0 SL-027-SA5DN-SB-4.0-5.0 SL-027-SA5DN-SB-14.0-15.0 SL-052-SA5DN-SB-4.0-5.0 SL-052-SA5DN-SB-9.0-10.0	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)