

**Appendix C**  
**Data Usability Assessment Report**  
(On CD)

# Appendix C

## Data Usability Assessment Report

The purposes of this data usability and assessment report (DUAR) are to 1) summarize the data validation performed on the data sets for the Historic Site Assessment (HSA) Subarea 7 samples collected, and 2) determine whether the sample results meet the Data Quality Objectives (DQOs) outlined in the *Master Work Plan/Field Sampling and Analysis Plan, Co-Located Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California* (CDM Federal Programs Corporation [CDM] 2011a) (WP/FSAP) and *Addendum No. 6 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 2011b).

### C.1 Usability Summary

For this data usability assessment, 58 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 7 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 7 sampling activities and are discussed in detail in Section 2.8 of the Subarea 7 TM.

The validated data for Subarea 7 samples are usable as reported, with the exception of three antimony results, three diethylene glycol results, three EFH (C12-C14) results, two EFH (C15-C20) results, four EFH (C18-C11) results, 34 pesticide results, 88 herbicide results, 27 SVOC results, 2 SVOC SIM results, and one cyanide result (0.38 percent of all analytes) that were rejected for Subarea 7 data. These rejected data do not impact 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 7 samples and which SDGs were validated as Level III or Level IV. Some SDGs contain samples from other subareas<sup>1</sup> 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 7 sample SDGs. The purpose of the review was to identify any quality control issues with the laboratory not identified by the validation firm or any discrepancies in validation procedures by the validation firm. No additional qualifiers were applied to the data based on CDM Smith's review.

### **C.3 Quality Assurance Objectives**

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

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

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

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

### **C.4 Summary of Field and Laboratory QA Activities**

CDM completed sampling activities in Subarea 7 in accordance with the approved WP/FSAP (CDM 2011a). A total of 266 soil samples were collected and analyzed from 116 drainage and surface locations, and 102 soil boring locations for Subarea 7. Tables

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<sup>1</sup> Some SDGS contain samples from other subareas, but all samples in an SDG were validated together.

2-1 and 2-2 in the Subarea 7 TM provide 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 7 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. MS/MSD and field duplicate samples were collected by CDM at 11 sample locations for Subarea 7. MS/MSD and field duplicate samples met the frequency requirements detailed in the WP/FSAP (CDM 2011a).

Nine equipment rinsate blank samples were collected for Subarea 7. The equipment rinsate blank results are presented in Table C-2.

Two field blanks were collected during sampling for Subarea 7. The field blanks associated with this ASTM decontamination water have been applied to the Subarea 7 samples accordingly. The results for these samples are presented in Table C-3.

Thirty-five trip blank samples were shipped with the Subarea 7 samples. The results for these samples are presented in Tables C-4. Data qualifications based on blank detections are discussed in Section C.7.3 and in the Appendix C validation reports.

Temperature blanks were to be included with each shipment of samples. Based on validation results, all temperature blanks for Subarea 7 met criteria.

The number of field QC samples collected satisfies the minimum requirements for the Subarea 7 sampling events specified in the WP/FSAP (CDM 2011a) and any implemented modifications. 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. Three antimony results, three diethylene glycol results, three EFH (C12-C14) results, two EFH (C15-C20) results, four EFH (C18-C11) results, 34 pesticide results, 88 herbicide results, 27 SVOC results, 2 SVOC SIM results,

and one cyanide result (0.38 percent of all analytes) were rejected for Subarea 7 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-5 show the field duplicate pairs and RPD results for Subarea 7. RPD results outside of criteria are highlighted.

The following individual analyte results were qualified as estimated "J/UJ" based on precision criteria for Subarea 7 samples:

- Six dioxin results, three alcohol and terphenyl results, 16 pesticide results, 11 PCB/PCT results and 16 herbicide results were qualified as estimated based on second column RPD results
- Twelve fluoride/nitrate results; 887 metal analyte results and 60 PCB/PCT results were qualified as estimated based on laboratory precision criteria
- Fifty-two dioxin results; 12 metal results; five hexavalent chromium results; five mercury results; two alcohol/terphenyl result; 12 TPH/glycol results; 11 pesticide results; 11 PCB/PCT results; 11 herbicide results; 159 SVOC result; 70 SVOC SIM and one cyanide result was qualified based on field duplicate criteria

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

- Three antimony results based on MSs

There is 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:

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

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

- Sampling procedure
- Field contamination

- Sample preservation and handling
- Sample matrix
- Sample preparation
- Analytical techniques

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

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

The following individual analyte results were qualified as nondetect "U" or nondetect estimated "UJ" based on accuracy criteria for Subarea 7 samples:

- Six hundred and twenty metal analyte results were qualified as estimated based on inductively coupled plasma serial dilution results
- Seven alcohol/terphenyl results, one hundred and sixty-five pesticide results, six PCB/PCT results and two energetic results were qualified as estimated based on calibration criteria
- Seventeen pesticide results; 14 PCB/PCT result; 81 herbicide results; and 65 SVOC results were qualified as estimated based on LCS percent recovery criteria
- Three dioxin results; 158 fluoride/nitrate results; 2,529 metal analyte results; 55 TPH/glycol results; 22 pesticide results; nine PCB/PCT results; 26 herbicide results; 41 SVOC results; 6 SVOC SIM results; and one cyanide result were qualified as estimated based on MS percent recovery criteria
- Two NDMA results; 11 alcohol/terphenyl results; 18 TPH/glycols results; 187 pesticide results; and 57 PCB/PCT 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 7 samples:

- Three antimony results based on MS
- Three diethylene glycol results, three EFH (C12-C14) results, two EFH (C15-C20) results and four EFH (C8-C11) results based on MSs and surrogates
- Thirty-four pesticide results based on MSs and surrogates
- Eighty-eight herbicide results based on LCSs and MSs
- Twenty-seven SVOC results based on MSs and LCSs

- Two SVOC SIM results (Di-n-octylphthalate and benzo(k) fluoranthene) based on internal standards and MSs
- One cyanide result based on MS

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 ten TPH and glycol results. 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 "R" 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 7 samples:

- One thousand, two hundred and fifty-three dioxin results (28%); 371 metal results (5%); 57 mercury results (23%); 15 TPH/glycol result (0.99%); 5 VOC results (2.4%); and 11 SVOC SIM results (0.2%) 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 5% for all these analyses except for the following analytes: 28 percent of the dioxins and 23 percent of the mercury results for Subarea 7.

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.

The other reported analytes that had blank qualifications greater than 5 percent do not indicate a laboratory blank contamination problem as the overall sample counts

for those analytes were low. For example, there were only 257 mercury samples analyzed and out of those samples 57 mercury results were qualified due to blank contamination.

Tables C-2 through C-4 provide a summary of chemicals observed in the equipment, field and trip blank samples. Most of the equipment blanks, field blanks and trip blanks detected compounds were below the RLs but above the MDLs. Compounds detected above the RL in equipment and trip blanks are highlighted yellow in the associated tables. ASTM Type II water is not typically certified “clean” to the low RLs established for the low level methods used for the co-located sampling program.

A review of the ASTM Type II field blanks for all Phase 1 sampling showed one detect of heptachlor, three detects of naphthalene, and one detect of RDX above their respective RL. One field blank had detects above the RLs for four metal analytes and one field blank had detects above the RLs for a variety of VOC analytes. ASTM Type II water field blanks will continue to be reviewed to monitor for detected concentrations of analytes throughout the sampling program. The associated sample results were qualified accordingly during the validation process.

A review of all Phase 1 equipment blanks was also performed. In general, a variety of analytes were detected above their respective RLs. The most frequently detected analytes were naphthalene, NDMA and RDX. Naphthalene was detected in 28 percent of the equipment blanks, NDMA in 27 percent of the equipment blanks and RDX in 26 percent of the equipment blanks. Other analytes were detected in the equipment blanks with methylene chloride being detected in eight percent of the equipment blanks. All other analytes were detected in less than five percent of the equipment blank samples.

Further review of the equipment blanks is being conducted and all Phase 3 equipment blanks collected to-date are being evaluated to determine if these low level detections are consistent indicating a possible deficiency in decontamination procedures and/or source water impacts that need to be addressed and corrected. Associated sample results were qualified accordingly during the validation process regarding field blank contamination. No sample results were rejected due to detected concentrations in field blanks or laboratory blanks.

#### **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. The sample analyses were performed by LLI and EMAX. 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 5D North samples:

- Method 1613B (Dioxins)
  - 1,998 individual analyte results
- Method 1625C (NDMA)
  - 3 individual analyte results
- Method 300 (Fluoride/Nitrate)

- 32 individual analyte results
- Methods 6010B/6020 (Metals)
  - 965 individual analyte results
- Method 6850 (Perchlorate)
  - 2 individual analyte results
- Method 7199 (Hexavalent Chromium)
  - 120 individual analyte results
- Method 7471A (Mercury)
  - 78 individual analyte results
- Method 8015B (Alcohols and terphenyls)
  - 49 individual analyte results
- Method 8015M (TPHs and glycols)
  - 95 individual analyte results
- Method 8081A (Pesticides)
  - 134 individual analyte results
- Method 8082 (PCBs)
  - 127 individual analyte results
- Method 8151A (Herbicides)
  - 31 individual analyte results
- Method 8260B (VOCs)
  - 6 individual analyte results
- Method 8270C (SVOCs)
  - 282 individual analyte results
- Method 8270C SIM (SVOCs)
  - 589 individual analyte results
- Method 8315A (Formaldehyde)
  - 8 individual analyte results
- Method 8330A (Energetics)
  - 11 individual analyte results
- Method 9012B (Cyanide)
  - 3 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.

RLs for the modified methods identified in Table 2-2 of the Subarea 7 TM are evaluated through the analysis of RL-LCS and RL-MS samples created by LLI. The evaluation of these QC samples is ongoing throughout all subareas and recommendations regarding program-wide sample qualification based on the RL-LCS and RL-MS QC results have not been finalized. Qualification of individual sample results for Subareas 5D North and 5D South, based on the current RL-LCS and RL-MS QC sample results, was not performed.

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

Where:

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

$$B. \quad \% \text{Completeness} = V \times \frac{100}{n'}$$

Where:

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

The overall completeness goal, as defined in the WP/FSAP (CDM 2011a), for these sampling events was 90 percent for all project data.

A total of 266 Subarea 7 soil samples including the field duplicates were collected and analyzed. As discussed in Section 2.8 of the TM, 185 locations were to be sampled in Subarea 7. 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. Of the locations to be sampled in Subarea 7, subsurface samples were not collected at 65 locations due to shallow refusal at less than 2.5 feet and one location was not sampled due to archeological concerns.

As discussed in Section 2.8 of the TM, the sampling deviations do not impact completeness objectives for this sampling event. Ninety-nine percent of the sample locations identified in the WP/FSAP Addendum were sampled 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 99.6 percent of the number of measurements judged to be valid versus the total number of measurements made for all Subarea 7 samples analyzed. Table C-6, Completeness Calculation Summary, show a summary of the results that were estimated or rejected.

The following Subarea 7 individual analyte results were rejected per analyses:

- Method 6020
  - Three out of 4,378 antimony results (0.068 percent)
- Method 8015M
  - Twelve out of 1,557 individual TPH and glycol results (0.77 percent)
- Method 8081A
  - Thirty-four out of 2,415 individual pesticide results (1.4 percent)

- Method 8151A
  - Eight-eight out of 1,150 individual herbicide results (7.6 percent)
- Method 8270C
  - Twenty-seven out of 13,501 individual SVOC results (0.199 percent)
- Method 8270C SIM
  - Two out of 5,832 individual SVOC SIM results (0.034 percent)
- Method 9012B
  - One out of 133 cyanide results (0.75 percent)

The completeness goals for both the locations sampled 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 2.8 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 7 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.

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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**Appendix C. Samples by SDG Subarea 7**

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
SA7	DUP-01-SA7-QC-110111	11K007	SO	11/1/2011	FIELD
SA7	DUP02-SA7-QC-110211	11K007	SO	11/2/2011	FIELD
SA7	EB-SA7-SB-110311S	11K007	WQ	11/3/2011	FIELD
SA7	FB-SA7-110111	11K007	AQ	11/1/2011	FIELD
SA7	SL-001-SA7-SB-4.0-5.0S	11K007	SO	10/31/2011	FIELD
SA7	SL-048-SA7-SB-4.0-5.0S	11K007	SO	11/2/2011	FIELD
SA7	SL-048-SA7-SB-4.5	11K007	SO	11/2/2011	FIELD
SA7	SL-048-SA7-SB-9.0-10.0S	11K007	SO	11/2/2011	FIELD
SA7	SL-048-SA7-SB-9.5	11K007	SO	11/2/2011	FIELD
SA7	SL-108-SA7-SB-2.9-3.9S	11K007	SO	11/3/2011	FIELD
SA7	SL-108-SA7-SB-3.3	11K007	SO	11/3/2011	FIELD
SA7	SL-120-SA7-SB-4.0-5.0S	11K007	SO	10/31/2011	FIELD
SA7	SL-120-SA7-SB-4.5	11K007	SO	10/31/2011	FIELD
SA7	SL-120-SA7-SB-9.0-10.0S	11K007	SO	10/31/2011	FIELD
SA7	SL-120-SA7-SB-9.5	11K007	SO	10/31/2011	FIELD
SA7	SL-121-SA7-SB-4.0-5.0S	11K007	SO	10/31/2011	FIELD
SA7	SL-121-SA7-SB-4.5	11K007	SO	10/31/2011	FIELD
SA7	SL-121-SA7-SB-9.0-10.0S	11K007	SO	10/31/2011	FIELD
SA7	SL-121-SA7-SB-9.5	11K007	SO	10/31/2011	FIELD
SA7	SL-123-SA7-SB-4.0-5.0S	11K007	SO	11/1/2011	FIELD
SA7	SL-123-SA7-SB-4.5	11K007	SO	11/1/2011	FIELD
SA7	SL-123-SA7-SB-9.0-10.0S	11K007	SO	11/1/2011	FIELD
SA7	SL-123-SA7-SB-9.5	11K007	SO	11/1/2011	FIELD
SA7	SL-128-SA7-SB-4.0-5.0S	11K007	SO	11/3/2011	FIELD
SA7	SL-128-SA7-SB-4.5	11K007	SO	11/3/2011	FIELD
SA7	SL-128-SA7-SB-9.0-10.0S	11K007	SO	11/3/2011	FIELD
SA7	SL-128-SA7-SB-9.5	11K007	SO	11/3/2011	FIELD
SA7	SL-160-SA7-SB-0.0-1.0S	11K007	SO	11/1/2011	FIELD
SA7	SL-161-SA7-SB-4.0-5.0S	11K007	SO	11/2/2011	FIELD
SA7	SL-171-SA7-SB-4.0-5.0S	11K007	SO	11/3/2011	FIELD
SA7	SL-171-SA7-SB-4.5	11K007	SO	11/3/2011	FIELD
SA7	SL-171-SA7-SB-9.0-10.0S	11K007	SO	11/3/2011	FIELD
SA7	SL-171-SA7-SB-9.5	11K007	SO	11/3/2011	FIELD
SA7	SL-175-SA7-SB-4.0-5.0S	11K007	SO	11/1/2011	FIELD
SA7	SL-175-SA7-SB-4.5	11K007	SO	11/1/2011	FIELD
SA7	SL-175-SA7-SB-9.0-10.0S	11K007	SO	11/1/2011	FIELD
SA7	SL-175-SA7-SB-9.5	11K007	SO	11/1/2011	FIELD
SA7	SL-185-SA7-SB-3.0-4.0S	11K007	SO	11/1/2011	FIELD
	TB-110111S	11K007	AQ	11/1/2011	FIELD
	TB-110211	11K007	AQ	11/2/2011	FIELD
	TB-110311S	11K007	AQ	11/3/2011	FIELD
SA7	SL-030-SA7-SS-0.0-0.5	DE242	SO	9/13/2011	FIELD
SA7	SL-034-SA7-SS-0.0-0.5	DE242	SO	9/13/2011	FIELD
SA7	SL-035-SA7-SS-0.0-0.5	DE242	SO	9/13/2011	FIELD
SA7	SL-037-SA7-SS-0.0-0.5	DE242	SO	9/13/2011	FIELD
SA7	SL-040-SA7-SS-0.0-0.5	DE242	SO	9/13/2011	FIELD
SA7	SL-041-SA7-SS-0.0-0.5	DE242	SO	9/13/2011	FIELD
SA7	SL-070-SA7-SS-0.0-0.5	DE242	SO	9/13/2011	FIELD
SA7	SL-071-SA7-SS-0.0-0.5	DE242	SO	9/13/2011	FIELD
SA7	SL-073-SA7-SS-0.0-0.5	DE242	SO	9/13/2011	FIELD
SA7	SL-146-SA7-SS-0.0-0.5	DE242	SO	9/13/2011	FIELD
	TB-091311	DE242	AQ	9/13/2011	FIELD

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
SA7	EB-SA7-SS-091411	DE243	WQ	9/14/2011	FIELD
SA7	SL-024-SA7-SS-0.0-0.5	DE243	SO	9/14/2011	FIELD
SA7	SL-028-SA7-SS-0.0-0.5	DE243	SO	9/14/2011	FIELD
SA7	SL-029-SA7-SS-0.0-0.5	DE243	SO	9/14/2011	FIELD
SA7	SL-032-SA7-SS-0.0-0.5	DE243	SO	9/14/2011	FIELD
SA7	SL-033-SA7-SS-0.0-0.5	DE243	SO	9/14/2011	FIELD
SA7	SL-036-SA7-SS-0.0-0.5	DE243	SO	9/14/2011	FIELD
SA7	SL-038-SA7-SS-0.0-0.5	DE243	SO	9/14/2011	FIELD
SA7	SL-039-SA7-SS-0.0-0.5	DE243	SO	9/14/2011	FIELD
SA7	SL-041-SA7-SB-4.0-5.0	DE243	SO	9/14/2011	FIELD
SA7	SL-071-SA7-SB-4.0-5.0	DE243	SO	9/14/2011	FIELD
SA7	SL-076-SA7-SS-0.0-0.5	DE243	SO	9/14/2011	FIELD
SA7	SL-077-SA7-SS-0.0-0.5	DE243	SO	9/14/2011	FIELD
SA7	SL-078-SA7-SS-0.0-0.5	DE243	SO	9/14/2011	FIELD
SA7	SL-099-SA7-SS-0.0-0.5	DE243	SO	9/14/2011	FIELD
SA7	SL-144-SA7-SS-0.0-0.5	DE243	SO	9/14/2011	FIELD
SA7	SL-145-SA7-SS-0.0-0.5	DE243	SO	9/14/2011	FIELD
SA7	SL-183-SA7-SS-0.0-0.5	DE243	SO	9/14/2011	FIELD
	TB-091411	DE243	AQ	9/14/2011	FIELD
SA7	EB-SA7-SB-091511	DE244	WQ	9/15/2011	FIELD
SA7	SL-010-SA7-SS-0.0-0.5	DE244	SO	9/15/2011	FIELD
SA7	SL-014-SA7-SS-0.0-0.5	DE244	SO	9/15/2011	FIELD
SA7	SL-018-SA7-SS-0.0-0.5	DE244	SO	9/15/2011	FIELD
SA7	SL-021-SA7-SS-0.0-0.5	DE244	SO	9/15/2011	FIELD
SA7	SL-037-SA7-SB-4.0-5.0	DE244	SO	9/15/2011	FIELD
SA7	SL-070-SA7-SB-3.0-4.0	DE244	SO	9/15/2011	FIELD
SA7	SL-081-SA7-SB-4.0-5.0	DE244	SO	9/15/2011	FIELD
SA7	SL-081-SA7-SB-9.0-10.0	DE244	SO	9/15/2011	FIELD
SA7	SL-091-SA7-SS-0.0-0.5	DE244	SO	9/15/2011	FIELD
SA7	SL-092-SA7-SS-0.0-0.5	DE244	SO	9/15/2011	FIELD
SA7	SL-096-SA7-SS-0.0-0.5	DE244	SO	9/15/2011	FIELD
SA7	SL-097-SA7-SS-0.0-0.5	DE244	SO	9/15/2011	FIELD
SA7	SL-183-SA7-SB-4.0-5.0	DE244	SO	9/15/2011	FIELD
SA7	SL-183-SA7-SB-9.0-10.0	DE244	SO	9/15/2011	FIELD
	TB-091511	DE244	AQ	9/15/2011	FIELD
SA7	DUP01-SA7-QC-091511	DE245	SO	9/15/2011	FIELD
SA7	SL-007-SA7-SS-0.0-0.5	DE245	SO	9/16/2011	FIELD
SA7	SL-008-SA7-SS-0.0-0.5	DE245	SO	9/15/2011	FIELD
SA7	SL-026-SA7-SS-0.0-0.5	DE245	SO	9/14/2011	FIELD
SA7	SL-034-SA7-SB-4.0-5.0	DE245	SO	9/16/2011	FIELD
SA7	SL-034-SA7-SB-9.0-10.0	DE245	SO	9/16/2011	FIELD
SA7	SL-035-SA7-SB-4.0-5.0	DE245	SO	9/16/2011	FIELD
SA7	SL-035-SA7-SB-9.0-10.0	DE245	SO	9/16/2011	FIELD
SA7	SL-045-SA7-SS-0.0-0.5	DE245	SO	9/15/2011	FIELD
SA7	SL-079-SA7-SB-2.0-3.0	DE245	SO	9/16/2011	FIELD
SA7	SL-080-SA7-SB-4.0-5.0	DE245	SO	9/16/2011	FIELD
SA7	SL-080-SA7-SB-9.0-10.0	DE245	SO	9/16/2011	FIELD
SA7	SL-086-SA7-SS-0.0-0.5	DE245	SO	9/16/2011	FIELD
SA7	SL-087-SA7-SS-0.0-0.5	DE245	SO	9/16/2011	FIELD
SA7	SL-090-SA7-SS-0.0-0.5	DE245	SO	9/15/2011	FIELD
SA7	SL-098-SA7-SS-0.0-0.5	DE245	SO	9/16/2011	FIELD
SA7	SL-146-SA7-SB-4.0-5.0	DE245	SO	9/16/2011	FIELD
SA7	SL-146-SA7-SB-9.0-10.0	DE245	SO	9/16/2011	FIELD
SA7	SL-157-SA7-SS-0.0-0.5	DE245	SO	9/16/2011	FIELD
SA7	SL-179-SA7-SS-0.0-0.5	DE245	SO	9/16/2011	FIELD

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
SA7	SL-009-SA7-SS-0.0-0.5	DE246	SO	9/16/2011	FIELD
SA7	SL-017-SA7-SS-0.0-0.5	DE246	SO	9/16/2011	FIELD
SA7	SL-022-SA7-SS-0.0-0.5	DE246	SO	9/16/2011	FIELD
SA7	SL-052-SA7-SS-0.0-0.5	DE246	SO	9/16/2011	FIELD
SA7	SL-053-SA7-SS-0.0-0.5	DE246	SO	9/16/2011	FIELD
SA7	SL-054-SA7-SS-0.0-0.5	DE246	SO	9/16/2011	FIELD
SA7	SL-083-SA7-SS-0.0-0.5	DE246	SO	9/16/2011	FIELD
SA7	SL-100-SA7-SS-0.0-0.5	DE246	SO	9/16/2011	FIELD
SA7	SL-165-SA7-SS-0.0-0.5	DE246	SO	9/16/2011	FIELD
SA7	SL-184-SA7-SS-0.0-0.5	DE246	SO	9/16/2011	FIELD
SA7	DUP02-SA7-QC-091911	DE247	SO	9/19/2011	FIELD
SA7	SL-002-SA7-SS-0.0-0.5	DE247	SO	9/19/2011	FIELD
SA7	SL-003-SA7-SS-0.0-0.5	DE247	SO	9/19/2011	FIELD
SA7	SL-004-SA7-SS-0.0-0.5	DE247	SO	9/19/2011	FIELD
SA7	SL-025-SA7-SB-4.0-5.0	DE247	SO	9/19/2011	FIELD
SA7	SL-025-SA7-SB-9.0-10.0	DE247	SO	9/19/2011	FIELD
SA7	SL-032-SA7-SB-4.0-5.0	DE247	SO	9/19/2011	FIELD
SA7	SL-032-SA7-SB-9.0-10.0	DE247	SO	9/19/2011	FIELD
SA7	SL-042-SA7-SS-0.0-0.5	DE247	SO	9/19/2011	FIELD
SA7	SL-048-SA7-SS-0.0-0.5	DE247	SO	9/19/2011	FIELD
SA7	SL-110-SA7-SS-0.0-0.5	DE247	SO	9/19/2011	FIELD
SA7	SL-111-SA7-SS-0.0-0.5	DE247	SO	9/19/2011	FIELD
SA7	SL-122-SA7-SS-0.0-0.5	DE247	SO	9/19/2011	FIELD
SA7	SL-130-SA7-SS-0.0-0.5	DE247	SO	9/19/2011	FIELD
SA7	SL-133-SA7-SS-0.0-0.5	DE247	SO	9/19/2011	FIELD
SA7	SL-144-SA7-SB-4.0-5.0	DE247	SO	9/19/2011	FIELD
SA7	SL-144-SA7-SB-9.0-10.0	DE247	SO	9/19/2011	FIELD
SA7	SL-145-SA7-SB-4.0-5.0	DE247	SO	9/19/2011	FIELD
SA7	SL-145-SA7-SB-9.0-10.0	DE247	SO	9/19/2011	FIELD
	TB-091911	DE247	AQ	9/19/2011	FIELD
SA7	DUP03-SA7-QC-092011	DE248	SO	9/20/2011	FIELD
SA7	SL-005-SA7-SS-0.0-0.5	DE248	SO	9/20/2011	FIELD
SA7	SL-006-SA7-SS-0.0-0.5	DE248	SO	9/20/2011	FIELD
SA7	SL-043-SA7-SS-0.0-0.5	DE248	SO	9/20/2011	FIELD
SA7	SL-046-SA7-SS-0.0-0.5	DE248	SO	9/20/2011	FIELD
SA7	SL-047-SA7-SS-0.0-0.5	DE248	SO	9/20/2011	FIELD
SA7	SL-049-SA7-SS-0.0-0.5	DE248	SO	9/20/2011	FIELD
SA7	SL-050-SA7-SS-0.0-0.5	DE248	SO	9/20/2011	FIELD
SA7	SL-051-SA7-SS-0.0-0.5	DE248	SO	9/20/2011	FIELD
SA7	SL-085-SA7-SS-0.0-0.5	DE248	SO	9/20/2011	FIELD
SA7	SL-125-SA7-SS-0.0-0.5	DE248	SO	9/20/2011	FIELD
SA7	SL-129-SA7-SS-0.0-0.5	DE248	SO	9/20/2011	FIELD
SA7	SL-131-SA7-SS-0.0-0.5	DE248	SO	9/19/2011	FIELD
SA7	SL-134-SA7-SS-0.0-0.5	DE248	SO	9/20/2011	FIELD
SA7	SL-135-SA7-SS-0.0-0.5	DE248	SO	9/20/2011	FIELD
SA7	SL-136-SA7-SS-0.0-0.5	DE248	SO	9/20/2011	FIELD
SA7	SL-137-SA7-SS-0.0-0.5	DE248	SO	9/19/2011	FIELD
SA7	SL-138-SA7-SS-0.0-0.5	DE248	SO	9/19/2011	FIELD
SA7	SL-173-SA7-SS-0.0-0.5	DE248	SO	9/20/2011	FIELD
SA7	SL-058-SA7-SB-0.5-1.5	DE249	SO	9/20/2011	FIELD
SA7	SL-059-SA7-SB-5.0-6.0	DE249	SO	9/20/2011	FIELD
SA7	SL-149-SA7-SB-0.0-1.0	DE249	SO	9/20/2011	FIELD
SA7	SL-150-SA7-SB-0.0-1.0	DE249	SO	9/20/2011	FIELD
SA7	SL-154-SA7-SB-0.0-1.0	DE249	SO	9/20/2011	FIELD
SA7	SL-174-SA7-SB-1.0-2.0	DE249	SO	9/20/2011	FIELD
	TB-092011	DE249	AQ	9/20/2011	FIELD

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
SA7	DUP04-SA7-QC-092111	DE250	SO	9/21/2011	FIELD
SA7	EB-SA7-SS-092111	DE250	WQ	9/21/2011	FIELD
SA7	SL-001-SA7-SS-0.0-0.5	DE250	SO	9/21/2011	FIELD
SA7	SL-056-SA7-SB-4.0-5.0	DE250	SO	9/21/2011	FIELD
SA7	SL-057-SA7-SB-3.0-4.0	DE250	SO	9/21/2011	FIELD
SA7	SL-061-SA7-SS-0.0-0.5	DE250	SO	9/21/2011	FIELD
SA7	SL-078-SA7-SB-4.0-5.0	DE250	SO	9/21/2011	FIELD
SA7	SL-078-SA7-SB-7.0-8.0	DE250	SO	9/21/2011	FIELD
SA7	SL-119-SA7-SS-0.0-0.5	DE250	SO	9/21/2011	FIELD
SA7	SL-120-SA7-SS-0.0-0.5	DE250	SO	9/21/2011	FIELD
SA7	SL-121-SA7-SS-0.0-0.5	DE250	SO	9/21/2011	FIELD
SA7	SL-123-SA7-SS-0.0-0.5	DE250	SO	9/21/2011	FIELD
SA7	SL-124-SA7-SS-0.0-0.5	DE250	SO	9/21/2011	FIELD
SA7	SL-156-SA7-SB-4.0-5.0	DE250	SO	9/21/2011	FIELD
SA7	SL-156-SA7-SB-7.5-8.5	DE250	SO	9/21/2011	FIELD
SA7	SL-158-SA7-SB-4.0-5.0	DE250	SO	9/21/2011	FIELD
SA7	SL-175-SA7-SS-0.0-0.5	DE250	SO	9/21/2011	FIELD
	TB-092111	DE250	AQ	9/21/2011	FIELD
SA7	EB-SA7-SB-092211	DE251	WQ	9/22/2011	FIELD
SA7	SL-011-SA7-SS-0.0-0.5	DE251	SO	9/22/2011	FIELD
SA7	SL-012-SA7-SS-0.0-0.5	DE251	SO	9/22/2011	FIELD
SA7	SL-013-SA7-SS-0.0-0.5	DE251	SO	9/22/2011	FIELD
SA7	SL-020-SA7-SS-0.0-0.5	DE251	SO	9/22/2011	FIELD
SA7	SL-023-SA7-SS-0.0-0.5	DE251	SO	9/21/2011	FIELD
SA7	SL-039-SA7-SB-4.0-5.0	DE251	SO	9/22/2011	FIELD
SA7	SL-055-SA7-SS-0.0-0.5	DE251	SO	9/22/2011	FIELD
SA7	SL-072-SA7-SB-4.0-5.0	DE251	SO	9/22/2011	FIELD
SA7	SL-072-SA7-SB-7.5-8.5	DE251	SO	9/22/2011	FIELD
SA7	SL-074-SA7-SB-4.0-5.0	DE251	SO	9/22/2011	FIELD
SA7	SL-075-SA7-SB-4.0-5.0	DE251	SO	9/22/2011	FIELD
SA7	SL-075-SA7-SB-9.0-10.0	DE251	SO	9/22/2011	FIELD
SA7	SL-077-SA7-SB-4.0-5.0	DE251	SO	9/22/2011	FIELD
SA7	SL-088-SA7-SS-0.0-0.5	DE251	SO	9/22/2011	FIELD
SA7	SL-101-SA7-SS-0.0-0.5	DE251	SO	9/22/2011	FIELD
SA7	SL-141-SA7-SS-0.0-0.5	DE251	SO	9/21/2011	FIELD
SA7	SL-142-SA7-SS-0.0-0.5	DE251	SO	9/21/2011	FIELD
SA7	SL-143-SA7-SS-0.0-0.5	DE251	SO	9/21/2011	FIELD
SA7	SL-151-SA7-SS-0.0-0.5	DE251	SO	9/22/2011	FIELD
	TB-092211	DE251	AQ	9/22/2011	FIELD

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
SA7	DUP05-SA7-QC-092211	DE252	SO	9/22/2011	FIELD
SA7	SL-015-SA7-SS-0.0-0.5	DE252	SO	9/22/2011	FIELD
SA7	SL-019-SA7-SS-0.0-0.5	DE252	SO	9/23/2011	FIELD
SA7	SL-025-SA7-SS-0.0-0.5	DE252	SO	9/23/2011	FIELD
SA7	SL-027-SA7-SS-0.0-0.5	DE252	SO	9/23/2011	FIELD
SA7	SL-028-SA7-SB-4.0-5.0	DE252	SO	9/23/2011	FIELD
SA7	SL-030-SA7-SB-4.0-5.0	DE252	SO	9/23/2011	FIELD
SA7	SL-062-SA7-SS-0.0-0.5	DE252	SO	9/23/2011	FIELD
SA7	SL-066-SA7-SS-0.0-0.5	DE252	SO	9/23/2011	FIELD
SA7	SL-067-SA7-SS-0.0-0.5	DE252	SO	9/23/2011	FIELD
SA7	SL-068-SA7-SS-0.0-0.5	DE252	SO	9/23/2011	FIELD
SA7	SL-069-SA7-SS-0.0-0.5	DE252	SO	9/23/2011	FIELD
SA7	SL-073-SA7-SB-4.0-5.0	DE252	SO	9/23/2011	FIELD
SA7	SL-076-SA7-SB-2.5-3.5	DE252	SO	9/23/2011	FIELD
SA7	SL-089-SA7-SS-0.0-0.5	DE252	SO	9/23/2011	FIELD
SA7	SL-139-SA7-SS-0.0-0.5	DE252	SO	9/22/2011	FIELD
SA7	SL-140-SA7-SS-0.0-0.5	DE252	SO	9/22/2011	FIELD
SA7	SL-152-SA7-SS-0.0-0.5	DE252	SO	9/23/2011	FIELD
SA7	SL-153-SA7-SS-0.0-0.5	DE252	SO	9/23/2011	FIELD
SA7	SL-181-SA7-SS-0.0-0.5	DE252	SO	9/23/2011	FIELD
	TB-092311	DE252	AQ	9/23/2011	FIELD
SA7	SL-028-SA7-SB-8.0-9.0	DE253	SO	9/23/2011	FIELD
SA7	SL-102-SA7-SB-4.0-5.0	DE254	SO	9/26/2011	FIELD
SA7	SL-102-SA7-SB-9.0-10.0	DE254	SO	9/26/2011	FIELD
SA7	SL-109-SA7-SB-4.0-5.0	DE254	SO	9/26/2011	FIELD
SA7	SL-109-SA7-SB-9.0-10.0	DE254	SO	9/26/2011	FIELD
SA7	DUP07-SA7-QC-092611	DE255	SO	9/26/2011	FIELD
SA7	DUP08-SA7-QC-092611	DE255	SO	9/26/2011	FIELD
SA7	SL-125-SA7-SB-4.0-5.0	DE255	SO	9/26/2011	FIELD
SA7	SL-170-SA7-SB-4.0-5.0	DE255	SO	9/26/2011	FIELD
SA7	SL-170-SA7-SB-9.0-10.0	DE255	SO	9/26/2011	FIELD
	TB-092611	DE255	AQ	9/26/2011	FIELD
SA7	DUP-09-SA7-QC-092711	DE256	SO	9/27/2011	FIELD
SA7	EB-SA7-SB-092711	DE256	AQ	9/27/2011	FIELD
SA7	SL-103-SA7-SB-4.0-5.0	DE256	SO	9/27/2011	FIELD
SA7	SL-103-SA7-SB-9.0-10.0	DE256	SO	9/27/2011	FIELD
SA7	SL-104-SA7-SB-4.0-5.0	DE256	SO	9/27/2011	FIELD
SA7	SL-104-SA7-SB-9.0-10.0	DE256	SO	9/27/2011	FIELD
SA7	SL-105-SA7-SB-4.0-5.0	DE256	SO	9/27/2011	FIELD
SA7	SL-172-SA7-SB-4.0-5.0	DE256	SO	9/27/2011	FIELD
SA7	SL-172-SA7-SB-9.0-10.0	DE256	SO	9/27/2011	FIELD
	TB-092711	DE256	AQ	9/27/2011	FIELD
SA7	SL-103-SA7-SB-18.0-19.0	DE257	SO	9/28/2011	FIELD
SA7	SL-106-SA7-SB-15.5	DE257	SO	9/28/2011	FIELD
SA7	SL-106-SA7-SB-16.5-17.5	DE257	SO	9/28/2011	FIELD
SA7	SL-106-SA7-SB-19.0-20.0	DE257	SO	9/28/2011	FIELD
SA7	SL-106-SA7-SB-4.0-5.0	DE257	SO	9/28/2011	FIELD
SA7	SL-106-SA7-SB-9.0-10.0	DE257	SO	9/28/2011	FIELD
	TB-092711	DE257	AQ	9/27/2011	FIELD
SA7	SL-126-SA7-SB-4.0-5.0	DE258	SO	9/29/2011	FIELD
SA7	SL-127-SA7-SB-4.0-5.0	DE258	SO	9/29/2011	FIELD
SA7	SL-177-SA7-SB-3.0-4.0	DE258	SO	9/29/2011	FIELD
	TB-092911	DE258	AQ	9/29/2011	FIELD

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
SA7	EB-SA7-SB-093011	DE259	AQ	9/30/2011	FIELD
SA7	FB-SA7-SB-093011	DE259	AQ	9/30/2011	FIELD
SA7	SL-084-SA7-SB-0.0-1.0	DE259	SO	9/30/2011	FIELD
SA7	SL-113-SA7-SB-0.0-1.0	DE259	SO	9/30/2011	FIELD
SA7	SL-115-SA7-SB-0.5-1.5	DE259	SO	9/30/2011	FIELD
SA7	SL-132-SA7-SB-4.0-5.0	DE259	SO	9/30/2011	FIELD
SA7	SL-132-SA7-SB-8.5-9.5	DE259	SO	9/30/2011	FIELD
SA7	SL-180-SA7-SB-2.0-3.0	DE259	SO	9/30/2011	FIELD
	TB-092911	DE259	AQ	9/29/2011	FIELD
SA7	EB-SA7-SB-100711	DE264	WQ	10/7/2011	FIELD
SA7	SL-046-SA7-SB-2.5-3.5	DE264	SO	10/7/2011	FIELD
SA7	SL-137-SA7-SB-0.0-1.0	DE264	SO	10/7/2011	FIELD
SA7	SL-138-SA7-SB-1.5-2.5	DE264	SO	10/7/2011	FIELD
	TB-100711-AQ	DE264	AQ	10/7/2011	FIELD
	TB-100711-SO	DE264	SO	10/7/2011	FIELD
SA7	EB-SA7-SB-101011	DE265	WQ	10/10/2011	FIELD
SA7	SL-112-SA7-SB-0.0-1.0	DE265	SO	10/10/2011	FIELD
SA7	SL-159-SA7-SB-3.0-4.0	DE265	SO	10/10/2011	FIELD
SA7	SL-169-SA7-SB-3.0-4.0	DE265	SO	10/10/2011	FIELD
	TB-101011-AQ	DE265	AQ	10/10/2011	FIELD
	TB-101011-SO	DE265	SO	10/10/2011	FIELD
SA7	EB-SA7-SB-101111	DE266	AQ	10/11/2011	FIELD
SA7	SL-049-SA7-SB-4.0-5.0	DE266	SO	10/11/2011	FIELD
SA7	SL-147-SA7-SB-1.0-2.0	DE266	SO	10/11/2011	FIELD
SA7	SL-155-SA7-SB-1.5-2.5	DE266	SO	10/11/2011	FIELD
SA7	SL-162-SA7-SB-0.0-1.0	DE266	SO	10/11/2011	FIELD
SA7	SL-166-SA7-SB-1.0-2.0	DE266	SO	10/11/2011	FIELD
SA7	SL-167-SA7-SB-0.5-1.5	DE266	SO	10/11/2011	FIELD
SA7	SL-168-SA7-SB-0.5-1.5	DE266	SO	10/11/2011	FIELD
	TB-101111	DE266	SO	10/11/2011	FIELD
SA7	SL-096-SA7-SB-2.0-3.0	DE267	SO	10/12/2011	FIELD
	TB-101211	DE267	SO	10/12/2011	FIELD
SA7	DUP09-SA7-QC-101311	DE268	SO	10/13/2011	FIELD
SA7	EB-SA7-SB-101311	DE268	AQ	10/13/2011	FIELD
SA7	EB-SA7-SB-NDMA-101311	DE268	WQ	10/13/2011	FIELD
SA7	SL-089-SA7-SB-3.5-4.5	DE268	SO	10/13/2011	FIELD
	TB-101311	DE268	SO	10/13/2011	FIELD
SA7	SL-164-SA7-SB-0.5-1.5	DE269	SO	10/14/2011	FIELD
	TB-101411	DE269	SO	10/14/2011	FIELD
SA7	SL-139-SA7-SB-2.0-3.0	DE270	SO	10/17/2011	FIELD
	TB-101711	DE270	SO	10/17/2011	FIELD
SA7	EB-SA7-SB-101811	DE271	AQ	10/18/2011	FIELD
SA7	SL-020-SA7-SB-4.0-5.0	DE271	SO	10/18/2011	FIELD
SA7	SL-020-SA7-SB-9.0-10.0	DE271	SO	10/18/2011	FIELD
SA7	SL-140-SA7-SB-3.0-4.0	DE271	SO	10/18/2011	FIELD
	TB-101811	DE271	SO	10/18/2011	FIELD
SA7	EB-SA7-SB-101911	DE272	AQ	10/19/2011	FIELD
SA7	SL-142-SA7-SB-2.0-3.0	DE272	SO	10/19/2011	FIELD
SA7	SL-142-SA7-SB-7.0-8.0	DE272	SO	10/19/2011	FIELD
SA7	SL-143-SA7-SB-5.0-6.0	DE272	SO	10/19/2011	FIELD
SA7	SL-143-SA7-SB-9.0-10.0	DE272	SO	10/19/2011	FIELD
	TB-101911	DE272	SO	10/19/2011	FIELD

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
SA7	SL-023-SA7-SB-2.0-3.0	DE273	SO	10/20/2011	FIELD
SA7	SL-060-SA7-SB-2.5-3.5	DE273	SO	10/20/2011	FIELD
SA7	SL-069-SA7-SB-2.5-3.5	DE273	SO	10/20/2011	FIELD
SA7	SL-148-SA7-SB-0.0-1.0	DE273	SO	10/20/2011	FIELD
	TB-102011	DE273	AQ	10/20/2011	FIELD
SA7	EB-SA7-SB-102611	DE274	AQ	10/26/2011	FIELD
SA7	FB-SA7-102611	DE274	AQ	10/26/2011	FIELD
SA7	SL-033-SA7-SB-4.0-5.0	DE274	SO	10/24/2011	FIELD
SA7	SL-033-SA7-SB-9.0-10.0	DE274	SO	10/24/2011	FIELD
SA7	SL-038-SA7-SB-4.0-5.0	DE274	SO	10/24/2011	FIELD
SA7	SL-082-SA7-SB-4.0-5.0	DE274	SO	10/25/2011	FIELD
SA7	SL-086-SA7-SB-3.0-4.0	DE274	SO	10/26/2011	FIELD
SA7	SL-157-SA7-SB-2.5-3.5	DE274	SO	10/26/2011	FIELD
	TB-102611	DE274	AQ	10/26/2011	FIELD
SA7	EB-SA7-SB-102711	DE275	WQ	10/27/2011	FIELD
SA7	SL-008-SA7-SB-2.5-3.0	DE275	SO	10/27/2011	FIELD
	TB-102711	DE275	AQ	10/27/2011	FIELD
SA7	SL-091-SA7-SB-2.5-3.5	DE276	SO	10/27/2011	FIELD
SA7	SL-116-SA7-SB-0.0-0.5	DE276	SO	10/28/2011	FIELD
SA7	SL-117-SA7-SB-2.5-3.5	DE276	SO	10/28/2011	FIELD
SA7	SL-118-SA7-SB-4.0-5.0	DE276	SO	10/28/2011	FIELD
SA7	SL-119-SA7-SB-4.0-5.0	DE276	SO	10/28/2011	FIELD
	TB-102811	DE276	AQ	10/28/2011	FIELD
SA7	SL-065-SA7-SB-2.0-3.0	DE277	SO	10/21/2011	FIELD
SA7	EB-SA7-SB-103111	DE278	WQ	10/31/2011	FIELD
SA7	SL-120-SA7-SB-4.0-5.0	DE278	SO	10/31/2011	FIELD
SA7	SL-120-SA7-SB-9.0-10.0	DE278	SO	10/31/2011	FIELD
SA7	SL-121-SA7-SB-4.0-5.0	DE278	SO	10/31/2011	FIELD
SA7	SL-121-SA7-SB-9.0-10.0	DE278	SO	10/31/2011	FIELD
SA7	SL-123-SA7-SB-4.0-5.0	DE278	SO	11/1/2011	FIELD
SA7	SL-123-SA7-SB-9.0-10.0	DE278	SO	11/1/2011	FIELD
SA7	SL-175-SA7-SB-4.0-5.0	DE278	SO	11/1/2011	FIELD
SA7	SL-175-SA7-SB-9.0-10.0	DE278	SO	11/1/2011	FIELD
	TB-110111-AQ	DE278	AQ	11/1/2011	FIELD
	TB-110111-SO	DE278	SO	11/1/2011	FIELD
SA7	EB-SA7-SB-110311	DE279	AQ	11/3/2011	FIELD
SA7	EB-SA7-SB-NDMA-110311	DE279	WQ	11/3/2011	FIELD
SA7	SL-048-SA7-SB-4.0-5.0	DE279	SO	11/2/2011	FIELD
SA7	SL-048-SA7-SB-9.0-10.0	DE279	SO	11/2/2011	FIELD
SA7	SL-108-SA7-SB-2.9-3.9	DE279	SO	11/3/2011	FIELD
SA7	SL-128-SA7-SB-4.0-5.0	DE279	SO	11/3/2011	FIELD
SA7	SL-128-SA7-SB-9.0-10.0	DE279	SO	11/3/2011	FIELD
SA7	SL-171-SA7-SB-4.0-5.0	DE279	SO	11/3/2011	FIELD
SA7	SL-171-SA7-SB-9.0-10.0	DE279	SO	11/3/2011	FIELD
	TB-110311-AQ	DE279	AQ	11/3/2011	FIELD
	TB-110311-SO	DE279	SO	11/3/2011	FIELD
SA7	EB-SA7-SB-110411	DE280	WQ	11/4/2011	FIELD
SA7	SL-107-SA7-SB-13.0-14.0	DE280	SO	11/4/2011	FIELD
SA7	SL-107-SA7-SB-4.0-5.0	DE280	SO	11/4/2011	FIELD
SA7	SL-107-SA7-SB-9.0-10.0	DE280	SO	11/4/2011	FIELD
	TB-110411-AQ	DE280	AQ	11/4/2011	FIELD
	TB-110411-SO	DE280	SO	11/4/2011	FIELD

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
SA7	SL-030-SA7-SS-0.0-0.5	DX133	SO	9/13/2011	FIELD
SA7	SL-034-SA7-SS-0.0-0.5	DX133	SO	9/13/2011	FIELD
SA7	SL-035-SA7-SS-0.0-0.5	DX133	SO	9/13/2011	FIELD
SA7	SL-037-SA7-SS-0.0-0.5	DX133	SO	9/13/2011	FIELD
SA7	SL-040-SA7-SS-0.0-0.5	DX133	SO	9/13/2011	FIELD
SA7	SL-041-SA7-SS-0.0-0.5	DX133	SO	9/13/2011	FIELD
SA7	SL-070-SA7-SS-0.0-0.5	DX133	SO	9/13/2011	FIELD
SA7	SL-071-SA7-SS-0.0-0.5	DX133	SO	9/13/2011	FIELD
SA7	SL-073-SA7-SS-0.0-0.5	DX133	SO	9/13/2011	FIELD
SA7	SL-024-SA7-SS-0.0-0.5	DX134	SO	9/14/2011	FIELD
SA7	SL-028-SA7-SS-0.0-0.5	DX134	SO	9/14/2011	FIELD
SA7	SL-029-SA7-SS-0.0-0.5	DX134	SO	9/14/2011	FIELD
SA7	SL-032-SA7-SS-0.0-0.5	DX134	SO	9/14/2011	FIELD
SA7	SL-033-SA7-SS-0.0-0.5	DX134	SO	9/14/2011	FIELD
SA7	SL-036-SA7-SS-0.0-0.5	DX134	SO	9/14/2011	FIELD
SA7	SL-038-SA7-SS-0.0-0.5	DX134	SO	9/14/2011	FIELD
SA7	SL-039-SA7-SS-0.0-0.5	DX134	SO	9/14/2011	FIELD
SA7	SL-076-SA7-SS-0.0-0.5	DX134	SO	9/14/2011	FIELD
SA7	SL-077-SA7-SS-0.0-0.5	DX134	SO	9/14/2011	FIELD
SA7	SL-078-SA7-SS-0.0-0.5	DX134	SO	9/14/2011	FIELD
SA7	SL-099-SA7-SS-0.0-0.5	DX134	SO	9/14/2011	FIELD
SA7	SL-144-SA7-SS-0.0-0.5	DX134	SO	9/14/2011	FIELD
SA7	SL-145-SA7-SS-0.0-0.5	DX134	SO	9/14/2011	FIELD
SA7	SL-146-SA7-SS-0.0-0.5	DX134	SO	9/13/2011	FIELD
SA7	EB-SA7-SB-091511	DX135	WQ	9/15/2011	FIELD
SA7	EB-SA7-SS-091411	DX135	WQ	9/14/2011	FIELD
SA7	SL-010-SA7-SS-0.0-0.5	DX135	SO	9/15/2011	FIELD
SA7	SL-014-SA7-SS-0.0-0.5	DX135	SO	9/15/2011	FIELD
SA7	SL-018-SA7-SS-0.0-0.5	DX135	SO	9/15/2011	FIELD
SA7	SL-021-SA7-SS-0.0-0.5	DX135	SO	9/15/2011	FIELD
SA7	SL-037-SA7-SB-4.0-5.0	DX135	SO	9/15/2011	FIELD
SA7	SL-041-SA7-SB-4.0-5.0	DX135	SO	9/14/2011	FIELD
SA7	SL-070-SA7-SB-3.0-4.0	DX135	SO	9/15/2011	FIELD
SA7	SL-071-SA7-SB-4.0-5.0	DX135	SO	9/14/2011	FIELD
SA7	SL-081-SA7-SB-4.0-5.0	DX135	SO	9/15/2011	FIELD
SA7	SL-081-SA7-SB-9.0-10.0	DX135	SO	9/15/2011	FIELD
SA7	SL-091-SA7-SS-0.0-0.5	DX135	SO	9/15/2011	FIELD
SA7	SL-092-SA7-SS-0.0-0.5	DX135	SO	9/15/2011	FIELD
SA7	SL-096-SA7-SS-0.0-0.5	DX135	SO	9/15/2011	FIELD
SA7	SL-097-SA7-SS-0.0-0.5	DX135	SO	9/15/2011	FIELD
SA7	SL-183-SA7-SB-4.0-5.0	DX135	SO	9/15/2011	FIELD
SA7	SL-183-SA7-SB-9.0-10.0	DX135	SO	9/15/2011	FIELD
SA7	SL-183-SA7-SS-0.0-0.5	DX135	SO	9/14/2011	FIELD

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
SA7	DUP01-SA7-QC-091511	DX136	SO	9/15/2011	FIELD
SA7	SL-007-SA7-SS-0.0-0.5	DX136	SO	9/16/2011	FIELD
SA7	SL-008-SA7-SS-0.0-0.5	DX136	SO	9/15/2011	FIELD
SA7	SL-026-SA7-SS-0.0-0.5	DX136	SO	9/14/2011	FIELD
SA7	SL-034-SA7-SB-4.0-5.0	DX136	SO	9/16/2011	FIELD
SA7	SL-034-SA7-SB-9.0-10.0	DX136	SO	9/16/2011	FIELD
SA7	SL-035-SA7-SB-4.0-5.0	DX136	SO	9/16/2011	FIELD
SA7	SL-035-SA7-SB-9.0-10.0	DX136	SO	9/16/2011	FIELD
SA7	SL-045-SA7-SS-0.0-0.5	DX136	SO	9/15/2011	FIELD
SA7	SL-079-SA7-SB-2.0-3.0	DX136	SO	9/16/2011	FIELD
SA7	SL-080-SA7-SB-4.0-5.0	DX136	SO	9/16/2011	FIELD
SA7	SL-080-SA7-SB-9.0-10.0	DX136	SO	9/16/2011	FIELD
SA7	SL-086-SA7-SS-0.0-0.5	DX136	SO	9/16/2011	FIELD
SA7	SL-087-SA7-SS-0.0-0.5	DX136	SO	9/16/2011	FIELD
SA7	SL-090-SA7-SS-0.0-0.5	DX136	SO	9/15/2011	FIELD
SA7	SL-098-SA7-SS-0.0-0.5	DX136	SO	9/16/2011	FIELD
SA7	SL-146-SA7-SB-4.0-5.0	DX136	SO	9/16/2011	FIELD
SA7	SL-146-SA7-SB-9.0-10.0	DX136	SO	9/16/2011	FIELD
SA7	SL-157-SA7-SS-0.0-0.5	DX136	SO	9/16/2011	FIELD
SA7	SL-179-SA7-SS-0.0-0.5	DX136	SO	9/16/2011	FIELD
SA7	SL-002-SA7-SS-0.0-0.5	DX137	SO	9/19/2011	FIELD
SA7	SL-003-SA7-SS-0.0-0.5	DX137	SO	9/19/2011	FIELD
SA7	SL-004-SA7-SS-0.0-0.5	DX137	SO	9/19/2011	FIELD
SA7	SL-009-SA7-SS-0.0-0.5	DX137	SO	9/16/2011	FIELD
SA7	SL-017-SA7-SS-0.0-0.5	DX137	SO	9/16/2011	FIELD
SA7	SL-022-SA7-SS-0.0-0.5	DX137	SO	9/16/2011	FIELD
SA7	SL-042-SA7-SS-0.0-0.5	DX137	SO	9/19/2011	FIELD
SA7	SL-048-SA7-SS-0.0-0.5	DX137	SO	9/19/2011	FIELD
SA7	SL-052-SA7-SS-0.0-0.5	DX137	SO	9/16/2011	FIELD
SA7	SL-053-SA7-SS-0.0-0.5	DX137	SO	9/16/2011	FIELD
SA7	SL-054-SA7-SS-0.0-0.5	DX137	SO	9/16/2011	FIELD
SA7	SL-083-SA7-SS-0.0-0.5	DX137	SO	9/16/2011	FIELD
SA7	SL-100-SA7-SS-0.0-0.5	DX137	SO	9/16/2011	FIELD
SA7	SL-110-SA7-SS-0.0-0.5	DX137	SO	9/19/2011	FIELD
SA7	SL-111-SA7-SS-0.0-0.5	DX137	SO	9/19/2011	FIELD
SA7	SL-122-SA7-SS-0.0-0.5	DX137	SO	9/19/2011	FIELD
SA7	SL-130-SA7-SS-0.0-0.5	DX137	SO	9/19/2011	FIELD
SA7	SL-133-SA7-SS-0.0-0.5	DX137	SO	9/19/2011	FIELD
SA7	SL-165-SA7-SS-0.0-0.5	DX137	SO	9/16/2011	FIELD
SA7	SL-184-SA7-SS-0.0-0.5	DX137	SO	9/16/2011	FIELD

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
SA7	DUP02-SA7-QC-091911	DX138	SO	9/19/2011	FIELD
SA7	SL-005-SA7-SS-0.0-0.5	DX138	SO	9/20/2011	FIELD
SA7	SL-006-SA7-SS-0.0-0.5	DX138	SO	9/20/2011	FIELD
SA7	SL-025-SA7-SB-4.0-5.0	DX138	SO	9/19/2011	FIELD
SA7	SL-025-SA7-SB-9.0-10.0	DX138	SO	9/19/2011	FIELD
SA7	SL-032-SA7-SB-4.0-5.0	DX138	SO	9/19/2011	FIELD
SA7	SL-032-SA7-SB-9.0-10.0	DX138	SO	9/19/2011	FIELD
SA7	SL-043-SA7-SS-0.0-0.5	DX138	SO	9/20/2011	FIELD
SA7	SL-046-SA7-SS-0.0-0.5	DX138	SO	9/20/2011	FIELD
SA7	SL-047-SA7-SS-0.0-0.5	DX138	SO	9/20/2011	FIELD
SA7	SL-049-SA7-SS-0.0-0.5	DX138	SO	9/20/2011	FIELD
SA7	SL-050-SA7-SS-0.0-0.5	DX138	SO	9/20/2011	FIELD
SA7	SL-051-SA7-SS-0.0-0.5	DX138	SO	9/20/2011	FIELD
SA7	SL-131-SA7-SS-0.0-0.5	DX138	SO	9/19/2011	FIELD
SA7	SL-137-SA7-SS-0.0-0.5	DX138	SO	9/19/2011	FIELD
SA7	SL-138-SA7-SS-0.0-0.5	DX138	SO	9/19/2011	FIELD
SA7	SL-144-SA7-SB-4.0-5.0	DX138	SO	9/19/2011	FIELD
SA7	SL-144-SA7-SB-9.0-10.0	DX138	SO	9/19/2011	FIELD
SA7	SL-145-SA7-SB-4.0-5.0	DX138	SO	9/19/2011	FIELD
SA7	SL-145-SA7-SB-9.0-10.0	DX138	SO	9/19/2011	FIELD
SA7	DUP03-SA7-QC-092011	DX139	SO	9/20/2011	FIELD
SA7	SL-001-SA7-SS-0.0-0.5	DX139	SO	9/21/2011	FIELD
SA7	SL-058-SA7-SB-0.5-1.5	DX139	SO	9/20/2011	FIELD
SA7	SL-059-SA7-SB-5.0-6.0	DX139	SO	9/20/2011	FIELD
SA7	SL-061-SA7-SS-0.0-0.5	DX139	SO	9/21/2011	FIELD
SA7	SL-085-SA7-SS-0.0-0.5	DX139	SO	9/20/2011	FIELD
SA7	SL-119-SA7-SS-0.0-0.5	DX139	SO	9/21/2011	FIELD
SA7	SL-120-SA7-SS-0.0-0.5	DX139	SO	9/21/2011	FIELD
SA7	SL-121-SA7-SS-0.0-0.5	DX139	SO	9/21/2011	FIELD
SA7	SL-123-SA7-SS-0.0-0.5	DX139	SO	9/21/2011	FIELD
SA7	SL-125-SA7-SS-0.0-0.5	DX139	SO	9/20/2011	FIELD
SA7	SL-129-SA7-SS-0.0-0.5	DX139	SO	9/20/2011	FIELD
SA7	SL-134-SA7-SS-0.0-0.5	DX139	SO	9/20/2011	FIELD
SA7	SL-135-SA7-SS-0.0-0.5	DX139	SO	9/20/2011	FIELD
SA7	SL-136-SA7-SS-0.0-0.5	DX139	SO	9/20/2011	FIELD
SA7	SL-149-SA7-SB-0.0-1.0	DX139	SO	9/20/2011	FIELD
SA7	SL-150-SA7-SB-0.0-1.0	DX139	SO	9/20/2011	FIELD
SA7	SL-154-SA7-SB-0.0-1.0	DX139	SO	9/20/2011	FIELD
SA7	SL-173-SA7-SS-0.0-0.5	DX139	SO	9/20/2011	FIELD
SA7	SL-174-SA7-SB-1.0-2.0	DX139	SO	9/20/2011	FIELD

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
SA7	DUP04-SA7-QC-092111	DX140	SO	9/21/2011	FIELD
SA7	EB-SA7-SS-092111	DX140	WQ	9/21/2011	FIELD
SA7	SL-011-SA7-SS-0.0-0.5	DX140	SO	9/22/2011	FIELD
SA7	SL-012-SA7-SS-0.0-0.5	DX140	SO	9/22/2011	FIELD
SA7	SL-013-SA7-SS-0.0-0.5	DX140	SO	9/22/2011	FIELD
SA7	SL-020-SA7-SS-0.0-0.5	DX140	SO	9/22/2011	FIELD
SA7	SL-023-SA7-SS-0.0-0.5	DX140	SO	9/21/2011	FIELD
SA7	SL-055-SA7-SS-0.0-0.5	DX140	SO	9/22/2011	FIELD
SA7	SL-056-SA7-SB-4.0-5.0	DX140	SO	9/21/2011	FIELD
SA7	SL-057-SA7-SB-3.0-4.0	DX140	SO	9/21/2011	FIELD
SA7	SL-078-SA7-SB-4.0-5.0	DX140	SO	9/21/2011	FIELD
SA7	SL-078-SA7-SB-7.0-8.0	DX140	SO	9/21/2011	FIELD
SA7	SL-088-SA7-SS-0.0-0.5	DX140	SO	9/22/2011	FIELD
SA7	SL-101-SA7-SS-0.0-0.5	DX140	SO	9/22/2011	FIELD
SA7	SL-124-SA7-SS-0.0-0.5	DX140	SO	9/21/2011	FIELD
SA7	SL-141-SA7-SS-0.0-0.5	DX140	SO	9/21/2011	FIELD
SA7	SL-151-SA7-SS-0.0-0.5	DX140	SO	9/22/2011	FIELD
SA7	SL-156-SA7-SB-4.0-5.0	DX140	SO	9/21/2011	FIELD
SA7	SL-156-SA7-SB-7.5-8.5	DX140	SO	9/21/2011	FIELD
SA7	SL-158-SA7-SB-4.0-5.0	DX140	SO	9/21/2011	FIELD
SA7	SL-175-SA7-SS-0.0-0.5	DX140	SO	9/21/2011	FIELD
SA7	DUP05-SA7-QC-092211	DX141	SO	9/22/2011	FIELD
SA7	EB-SA7-SB-092211	DX141	WQ	9/22/2011	FIELD
SA7	SL-015-SA7-SS-0.0-0.5	DX141	SO	9/22/2011	FIELD
SA7	SL-019-SA7-SS-0.0-0.5	DX141	SO	9/23/2011	FIELD
SA7	SL-025-SA7-SS-0.0-0.5	DX141	SO	9/23/2011	FIELD
SA7	SL-027-SA7-SS-0.0-0.5	DX141	SO	9/23/2011	FIELD
SA7	SL-039-SA7-SB-4.0-5.0	DX141	SO	9/22/2011	FIELD
SA7	SL-062-SA7-SS-0.0-0.5	DX141	SO	9/23/2011	FIELD
SA7	SL-066-SA7-SS-0.0-0.5	DX141	SO	9/23/2011	FIELD
SA7	SL-067-SA7-SS-0.0-0.5	DX141	SO	9/23/2011	FIELD
SA7	SL-068-SA7-SS-0.0-0.5	DX141	SO	9/23/2011	FIELD
SA7	SL-072-SA7-SB-4.0-5.0	DX141	SO	9/22/2011	FIELD
SA7	SL-072-SA7-SB-7.5-8.5	DX141	SO	9/22/2011	FIELD
SA7	SL-074-SA7-SB-4.0-5.0	DX141	SO	9/22/2011	FIELD
SA7	SL-075-SA7-SB-4.0-5.0	DX141	SO	9/22/2011	FIELD
SA7	SL-075-SA7-SB-9.0-10.0	DX141	SO	9/22/2011	FIELD
SA7	SL-077-SA7-SB-4.0-5.0	DX141	SO	9/22/2011	FIELD
SA7	SL-139-SA7-SS-0.0-0.5	DX141	SO	9/22/2011	FIELD
SA7	SL-140-SA7-SS-0.0-0.5	DX141	SO	9/22/2011	FIELD
SA7	SL-142-SA7-SS-0.0-0.5	DX141	SO	9/21/2011	FIELD
SA7	SL-143-SA7-SS-0.0-0.5	DX141	SO	9/21/2011	FIELD
SA7	SL-028-SA7-SB-4.0-5.0	DX142	SO	9/23/2011	FIELD
SA7	SL-028-SA7-SB-8.0-9.0	DX142	SO	9/23/2011	FIELD
SA7	SL-030-SA7-SB-4.0-5.0	DX142	SO	9/23/2011	FIELD
SA7	SL-069-SA7-SS-0.0-0.5	DX142	SO	9/23/2011	FIELD
SA7	SL-073-SA7-SB-4.0-5.0	DX142	SO	9/23/2011	FIELD
SA7	SL-076-SA7-SB-2.5-3.5	DX142	SO	9/23/2011	FIELD
SA7	SL-089-SA7-SS-0.0-0.5	DX142	SO	9/23/2011	FIELD
SA7	SL-152-SA7-SS-0.0-0.5	DX142	SO	9/23/2011	FIELD
SA7	SL-153-SA7-SS-0.0-0.5	DX142	SO	9/23/2011	FIELD
SA7	SL-181-SA7-SS-0.0-0.5	DX142	SO	9/23/2011	FIELD
SA7	SL-102-SA7-SB-4.0-5.0	DX143	SO	9/26/2011	FIELD
SA7	SL-102-SA7-SB-9.0-10.0	DX143	SO	9/26/2011	FIELD
SA7	SL-109-SA7-SB-4.0-5.0	DX143	SO	9/26/2011	FIELD
SA7	SL-109-SA7-SB-9.0-10.0	DX143	SO	9/26/2011	FIELD

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
SA7	DUP07-SA7-QC-092611	DX144	SO	9/26/2011	FIELD
SA7	DUP08-SA7-QC-092611	DX144	SO	9/26/2011	FIELD
SA7	SL-103-SA7-SB-18.0-19.0	DX144	SO	9/28/2011	FIELD
SA7	SL-106-SA7-SB-16.5-17.5	DX144	SO	9/28/2011	FIELD
SA7	SL-106-SA7-SB-19.0-20.0	DX144	SO	9/28/2011	FIELD
SA7	SL-106-SA7-SB-4.0-5.0	DX144	SO	9/28/2011	FIELD
SA7	SL-106-SA7-SB-9.0-10.0	DX144	SO	9/28/2011	FIELD
SA7	SL-125-SA7-SB-4.0-5.0	DX144	SO	9/26/2011	FIELD
SA7	SL-170-SA7-SB-4.0-5.0	DX144	SO	9/26/2011	FIELD
SA7	SL-170-SA7-SB-9.0-10.0	DX144	SO	9/26/2011	FIELD
SA7	DUP-09-SA7-QC-092711	DX145	SO	9/27/2011	FIELD
SA7	EB-SA7-SB-092711	DX145	AQ	9/27/2011	FIELD
SA7	SL-103-SA7-SB-4.0-5.0	DX145	SO	9/27/2011	FIELD
SA7	SL-103-SA7-SB-9.0-10.0	DX145	SO	9/27/2011	FIELD
SA7	SL-104-SA7-SB-4.0-5.0	DX145	SO	9/27/2011	FIELD
SA7	SL-104-SA7-SB-9.0-10.0	DX145	SO	9/27/2011	FIELD
SA7	SL-105-SA7-SB-4.0-5.0	DX145	SO	9/27/2011	FIELD
SA7	SL-172-SA7-SB-4.0-5.0	DX145	SO	9/27/2011	FIELD
SA7	SL-172-SA7-SB-9.0-10.0	DX145	SO	9/27/2011	FIELD
SA7	SL-084-SA7-SB-0.0-1.0	DX146	SO	9/30/2011	FIELD
SA7	SL-113-SA7-SB-0.0-1.0	DX146	SO	9/30/2011	FIELD
SA7	SL-115-SA7-SB-0.5-1.5	DX146	SO	9/30/2011	FIELD
SA7	SL-132-SA7-SB-4.0-5.0	DX146	SO	9/30/2011	FIELD
SA7	SL-132-SA7-SB-8.5-9.5	DX146	SO	9/30/2011	FIELD
SA7	SL-180-SA7-SB-2.0-3.0	DX146	SO	9/30/2011	FIELD
SA7	SL-126-SA7-SB-4.0-5.0	DX147	SO	9/29/2011	FIELD
SA7	SL-127-SA7-SB-4.0-5.0	DX147	SO	9/29/2011	FIELD
SA7	SL-177-SA7-SB-3.0-4.0	DX147	SO	9/29/2011	FIELD
SA7	SL-046-SA7-SB-2.5-3.5	DX148	SO	10/7/2011	FIELD
SA7	SL-049-SA7-SB-4.0-5.0	DX148	SO	10/11/2011	FIELD
SA7	SL-112-SA7-SB-0.0-1.0	DX148	SO	10/10/2011	FIELD
SA7	SL-137-SA7-SB-0.0-1.0	DX148	SO	10/7/2011	FIELD
SA7	SL-138-SA7-SB-1.5-2.5	DX148	SO	10/7/2011	FIELD
SA7	SL-147-SA7-SB-1.0-2.0	DX148	SO	10/11/2011	FIELD
SA7	SL-155-SA7-SB-1.5-2.5	DX148	SO	10/11/2011	FIELD
SA7	SL-159-SA7-SB-3.0-4.0	DX148	SO	10/10/2011	FIELD
SA7	SL-162-SA7-SB-0.0-1.0	DX148	SO	10/11/2011	FIELD
SA7	SL-166-SA7-SB-1.0-2.0	DX148	SO	10/11/2011	FIELD
SA7	SL-167-SA7-SB-0.5-1.5	DX148	SO	10/11/2011	FIELD
SA7	SL-169-SA7-SB-3.0-4.0	DX148	SO	10/10/2011	FIELD
SA7	SL-020-SA7-SB-4.0-5.0	DX149	SO	10/18/2011	FIELD
SA7	SL-020-SA7-SB-9.0-10.0	DX149	SO	10/18/2011	FIELD
SA7	SL-096-SA7-SB-2.0-3.0	DX149	SO	10/12/2011	FIELD
SA7	SL-140-SA7-SB-3.0-4.0	DX149	SO	10/18/2011	FIELD
SA7	SL-164-SA7-SB-0.5-1.5	DX149	SO	10/14/2011	FIELD
SA7	SL-168-SA7-SB-0.5-1.5	DX149	SO	10/11/2011	FIELD

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
SA7	DUP09-SA7-QC-101311	DX150	SO	10/13/2011	FIELD
SA7	EB-SA7-SB-101311	DX150	AQ	10/13/2011	FIELD
SA7	EB-SA7-SB-101911	DX150	AQ	10/19/2011	FIELD
SA7	SL-023-SA7-SB-2.0-3.0	DX150	SO	10/20/2011	FIELD
SA7	SL-060-SA7-SB-2.5-3.5	DX150	SO	10/20/2011	FIELD
SA7	SL-069-SA7-SB-2.5-3.5	DX150	SO	10/20/2011	FIELD
SA7	SL-089-SA7-SB-3.5-4.5	DX150	SO	10/13/2011	FIELD
SA7	SL-142-SA7-SB-2.0-3.0	DX150	SO	10/19/2011	FIELD
SA7	SL-142-SA7-SB-7.0-8.0	DX150	SO	10/19/2011	FIELD
SA7	SL-143-SA7-SB-5.0-6.0	DX150	SO	10/19/2011	FIELD
SA7	SL-143-SA7-SB-9.0-10.0	DX150	SO	10/19/2011	FIELD
SA7	SL-148-SA7-SB-0.0-1.0	DX150	SO	10/20/2011	FIELD
SA7	SL-139-SA7-SB-2.0-3.0	DX151	SO	10/17/2011	FIELD
SA7	EB-SA7-SB-102611	DX152	AQ	10/26/2011	FIELD
SA7	FB-SA7-102611	DX152	AQ	10/26/2011	FIELD
SA7	SL-008-SA7-SB-2.5-3.0	DX152	SO	10/27/2011	FIELD
SA7	SL-033-SA7-SB-4.0-5.0	DX152	SO	10/24/2011	FIELD
SA7	SL-033-SA7-SB-9.0-10.0	DX152	SO	10/24/2011	FIELD
SA7	SL-038-SA7-SB-4.0-5.0	DX152	SO	10/24/2011	FIELD
SA7	SL-065-SA7-SB-2.0-3.0	DX152	SO	10/21/2011	FIELD
SA7	SL-082-SA7-SB-4.0-5.0	DX152	SO	10/25/2011	FIELD
SA7	SL-086-SA7-SB-3.0-4.0	DX152	SO	10/26/2011	FIELD
SA7	SL-157-SA7-SB-2.5-3.5	DX152	SO	10/26/2011	FIELD
SA7	SL-001-SA7-SB-4.0-5.0	DX153	SO	10/31/2011	FIELD
SA7	SL-091-SA7-SB-2.5-3.5	DX153	SO	10/27/2011	FIELD
SA7	SL-107-SA7-SB-13.0-14.0	DX153	SO	11/4/2011	FIELD
SA7	SL-107-SA7-SB-4.0-5.0	DX153	SO	11/4/2011	FIELD
SA7	SL-107-SA7-SB-9.0-10.0	DX153	SO	11/4/2011	FIELD
SA7	SL-116-SA7-SB-0.0-0.5	DX153	SO	10/28/2011	FIELD
SA7	SL-117-SA7-SB-2.5-3.5	DX153	SO	10/28/2011	FIELD
SA7	SL-118-SA7-SB-4.0-5.0	DX153	SO	10/28/2011	FIELD
SA7	SL-119-SA7-SB-4.0-5.0	DX153	SO	10/28/2011	FIELD
SA7	SL-120-SA7-SB-4.0-5.0	DX153	SO	10/31/2011	FIELD
SA7	SL-120-SA7-SB-9.0-10.0	DX153	SO	10/31/2011	FIELD
SA7	SL-121-SA7-SB-4.0-5.0	DX153	SO	10/31/2011	FIELD
SA7	SL-121-SA7-SB-9.0-10.0	DX153	SO	10/31/2011	FIELD
SA7	SL-123-SA7-SB-4.0-5.0	DX153	SO	11/1/2011	FIELD
SA7	SL-123-SA7-SB-9.0-10.0	DX153	SO	11/1/2011	FIELD
SA7	SL-160-SA7-SB-0.0-1.0	DX153	SO	11/1/2011	FIELD
SA7	SL-175-SA7-SB-4.0-5.0	DX153	SO	11/1/2011	FIELD
SA7	SL-175-SA7-SB-9.0-10.0	DX153	SO	11/1/2011	FIELD
SA7	SL-185-SA7-SB-3.0-4.0	DX153	SO	11/1/2011	FIELD
SA7	EB-SA7-SB-110311	DX154	AQ	11/3/2011	FIELD
SA7	SL-048-SA7-SB-4.0-5.0	DX154	SO	11/2/2011	FIELD
SA7	SL-048-SA7-SB-9.0-10.0	DX154	SO	11/2/2011	FIELD
SA7	SL-108-SA7-SB-2.9-3.9	DX154	SO	11/3/2011	FIELD
SA7	SL-128-SA7-SB-4.0-5.0	DX154	SO	11/3/2011	FIELD
SA7	SL-128-SA7-SB-9.0-10.0	DX154	SO	11/3/2011	FIELD
SA7	SL-161-SA7-SB-4.0-5.0	DX154	SO	11/2/2011	FIELD
SA7	SL-171-SA7-SB-4.0-5.0	DX154	SO	11/3/2011	FIELD
SA7	SL-171-SA7-SB-9.0-10.0	DX154	SO	11/3/2011	FIELD

Table C-2 - Subarea 7 Equipment Rinsate Blank Results

Sample Name:		EB-SA7-SS-091411		EB-SA7-SB-091511		EB-SA7-SS-092111		EB-SA7-SB-092211		EB-SA7-SB-092711		EB-SA7-SB-093011		
Location:		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		
Sample Date:		09/14/2011		09/15/2011		09/21/2011		09/22/2011		09/27/2011		09/30/2011		
Sample Type		EB		EB		EB		EB		EB		EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l			5	U			5	U			5	U
1,1,1-Trichloroethane	8260B	ug/l			5	U			5	U			5	U
1,1,2,2-Tetrachloroethane	8260B	ug/l			5	U			5	U			5	U
1,1,2-Trichloroethane	8260B	ug/l			5	U			5	U			5	U
1,1-Dichloroethane	8260B	ug/l			5	U			5	U			5	U
1,1-Dichloroethene	8260B	ug/l			5	U			5	U			5	U
1,1-Dichloropropene	8260B	ug/l			5	U			5	U			5	U
1,2,3,4,6,7,8-HpCDD	1613B	pg/l	9.48	U	10.1	U	9.72	U	10.9	U	10.3	U		
1,2,3,4,6,7,8-HpCDF	1613B	pg/l	9.48	U	10.1	U	9.72	U	10.9	U	10.3	U		
1,2,3,4,7,8,9-HpCDF	1613B	pg/l	0.429	J	0.284	J	9.72	U	10.9	U	10.3	U		
1,2,3,4,7,8-HxCDD	1613B	pg/l	9.48	U	10.1	U	9.72	U	10.9	U	10.3	U		
1,2,3,4,7,8-HxCDF	1613B	pg/l	9.48	U	10.1	U	9.72	U	10.9	U	10.3	U		
1,2,3,6,7,8-HxCDD	1613B	pg/l	9.48	U	10.1	U	9.72	U	10.9	U	10.3	U		
1,2,3,6,7,8-HxCDF	1613B	pg/l	9.48	U	10.1	U	9.72	U	10.9	U	10.3	U		
1,2,3,7,8,9-HxCDD	1613B	pg/l	9.48	U	10.1	U	9.72	U	10.9	U	10.3	U		
1,2,3,7,8,9-HxCDF	1613B	pg/l	9.48	U	10.1	U	0.333	J	10.9	U	10.3	U		
1,2,3,7,8-PeCDD	1613B	pg/l	9.48	U	0.503	J	0.324	J	0.380	J	10.3	U		
1,2,3,7,8-PeCDF	1613B	pg/l	9.48	U	10.1	U	9.72	U	10.9	U	10.3	U		
1,2,3-Trichlorobenzene	8260B	ug/l			5	U			5	U			5	U
1,2,3-Trichloropropane	8260B	ug/l			5	U			5	U			5	U
1,2,4-Trichlorobenzene	8260B	ug/l			5	U			5	U			5	U
1,2,4-Trichlorobenzene	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
1,2,4-Trimethylbenzene	8260B	ug/l			5	U			5	U			5	U
1,2-Dibromo-3-chloropropane	8260B	ug/l			5	U			5	U			5	U
1,2-Dibromoethane	8260B	ug/l			5	U			5	U			5	U
1,2-Dichlorobenzene	8260B	ug/l			5	U			5	U			5	U
1,2-Dichlorobenzene	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
1,2-Dichloroethane	8260B	ug/l			5	U			5	U			5	U
1,2-Dichloropropane	8260B	ug/l			5	U			5	U			5	U
1,2-Diphenylhydrazine	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
1,3,5-Trimethylbenzene	8260B	ug/l			5	U			5	U			5	U
1,3,5-Trinitrobenzene	8330A	ug/l	0.60	U	0.60	U	0.60	U	0.60	U	0.60	U		
1,3-Dichlorobenzene	8260B	ug/l			5	U			5	U			5	U
1,3-Dichlorobenzene	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
1,3-Dichloropropane	8260B	ug/l			5	U			5	U			5	U
1,4-Dichlorobenzene	8260B	ug/l			5	U			5	U			5	U
1,4-Dichlorobenzene	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
1,4-Dioxane	8260B SIM	ug/l			2.0	U			2.0	U			2.0	U
1-Methylnaphthalene	8270C	ug/l												
1-Methylnaphthalene	8270C SIM	ug/l	0.051	U	0.056	U	0.056	U	0.051	U	0.055	U		
2,2-Dichloropropane	8260B	ug/l			5	U			5	U			5	U
2,2-Dichlor-Propionic Acid	8151A	ug/l	1.4	U	1.3	U	1.2	U						
2,3,4,6,7,8-HxCDF	1613B	pg/l	9.48	U	10.1	U	9.72	U	10.9	U	10.3	U		
2,3,4,7,8-PeCDF	1613B	pg/l	9.48	U	10.1	U	9.72	U	10.9	U	10.3	U		

Table C-2 - Subarea 7 Equipment Rinsate Blank Results

Sample Name:		EB-SA7-SS-091411		EB-SA7-SB-091511		EB-SA7-SS-092111		EB-SA7-SB-092211		EB-SA7-SB-092711		EB-SA7-SB-093011		
Location:		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		
Sample Date:		09/14/2011		09/15/2011		09/21/2011		09/22/2011		09/27/2011		09/30/2011		
Sample Type		EB		EB		EB		EB		EB		EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
2,3,7,8-TCDD	1613B	pg/l	1.90	U	2.02	U	1.94	U	2.18	U	2.06	U		
2,3,7,8-TCDF	1613B	pg/l	1.90	U	2.02	U	1.94	U	2.18	U	2.06	U		
2,4 DB	8151A	ug/l	1.1	U	1.0	U	0.98	U						
2,4,5-T	8151A	ug/l	0.055	U	0.051	U	0.049	U						
2,4,5-TP	8151A	ug/l	0.055	U	0.051	U	0.049	U						
2,4,5-Trichlorophenol	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
2,4,6-Trichlorophenol	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
2,4,6-Trinitrotoluene	8330A	ug/l	0.60	U	0.60	U	0.60	U	0.60	U	0.60	U		
2,4-D	8151A	ug/l	0.55	U	0.51	U	0.49	U						
2,4-Diamino-6-nitrotoluene	8330A	ug/l	0.60	U	0.60	U	0.60	U	0.60	U	0.60	U		
2,4-Dichlorophenol	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
2,4-Dimethylphenol	8270C	ug/l	10	U	10	U	11	U	11	U	11	U		
2,4-Dinitrophenol	8270C	ug/l	30	U	31	U	34	U	34	U	33	U		
2,4-Dinitrotoluene	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
2,4-Dinitrotoluene	8330A	ug/l	0.60	U	0.60	U	0.60	U	0.60	U	0.60	U		
2,6-Diamino-4-nitrotoluene	8330A	ug/l	0.60	U	0.60	U	0.60	U	0.60	U	0.60	U		
2,6-Dinitrotoluene	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
2,6-Dinitrotoluene	8330A	ug/l	0.60	U	0.60	U	0.60	U	0.60	U	0.60	U		
2-Amino-4,6-Dinitrotoluene	8330A	ug/l	0.60	U	0.60	U	0.60	U	0.60	U	0.60	U		
2-Butanone	8260B	ug/l			10	U			10	U	10	U		
2-butoxy-Ethanol	8270C	ug/l					50	U	50	U				
2-Chloroethyl Vinyl Ether	8260B	ug/l			10	U			10	U	10	U		
2-Chloronaphthalene	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
2-Chlorophenol	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
2-Chlorotoluene	8260B	ug/l			5	U			5	U	5	U		
2-Hexanone	8260B	ug/l			10	U			10	U	10	U		
2-Methylnaphthalene	8270C	ug/l												
2-Methylnaphthalene	8270C SIM	ug/l	0.051	U	0.056	U	0.056	U	0.051	U	0.055	U		
2-Methylphenol	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
2-Nitroaniline	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
2-Nitrophenol	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
2-Nitrotoluene	8330A	ug/l	0.60	U	0.60	U	0.60	U	0.60	U	0.60	U		
2-phenoxy-Ethanol	8270C	ug/l					50	U	50	U				
2-Propanol	8015B	ug/l	1000	U	1000	U	1000	U	1000	U	1000	U		
3,3` -Dichlorobenzidine	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
3,5-Dimethylphenol	8270C	ug/l	10	U	10	U	11	U	11	U	11	U		
3-Nitroaniline	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
3-Nitrotoluene	8330A	ug/l	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U		
4,4'-DDD	8081A	ug/l	0.020	U	0.020	U	0.021	U						
4,4'-DDE	8081A	ug/l	0.020	U	0.020	U	0.021	U						
4,4'-DDT	8081A	ug/l	0.020	U	0.020	U	0.021	U						
4,6-Dinitro-2-Methylphenol	8270C	ug/l	15	U	16	U	17	U	17	U	17	U		
4-Amino-2,6-Dinitrotoluene	8330A	ug/l	0.80		0.75		0.82		0.77		0.65	U		
4-Bromophenyl Phenyl Ether	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		

Table C-2 - Subarea 7 Equipment Rinsate Blank Results

Sample Name:		EB-SA7-SS-091411		EB-SA7-SB-091511		EB-SA7-SS-092111		EB-SA7-SB-092211		EB-SA7-SB-092711		EB-SA7-SB-093011		
Location:		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		
Sample Date:		09/14/2011		09/15/2011		09/21/2011		09/22/2011		09/27/2011		09/30/2011		
Sample Type		EB		EB		EB		EB		EB		EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
4-Chloro-3-Methylphenol	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
4-Chloroaniline	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
4-Chlorophenyl Phenylether	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
4-Chlorotoluene	8260B	ug/l			5	U			5	U	5	U		
4-Methyl-2-Pentanone	8260B	ug/l			10	U			10	U	10	U		
4-Methylphenol	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
4-Nitroaniline	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
4-Nitrophenol	8270C	ug/l	30	U	31	U	34	U	34	U	33	U		
4-Nitrotoluene	8330A	ug/l	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U		
Acenaphthene	8270C	ug/l												
Acenaphthene	8270C SIM	ug/l	0.051	U	0.056	U	0.056	U	0.051	U	0.055	U		
Acenaphthylene	8270C	ug/l												
Acenaphthylene	8270C SIM	ug/l	0.051	U	0.056	U	0.056	U	0.051	U	0.055	U		
Acetone	8260B	ug/l			30				22		26			
Aldrin	8081A	ug/l	0.010	U	0.0099	U	0.010	U						
Alpha-BHC	8081A	ug/l	0.010	U	0.0099	U	0.010	U						
Aluminum	6010B	mg/l	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U		
Aluminum	6020	mg/l												
Aniline	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
Anthracene	8270C	ug/l												
Anthracene	8270C SIM	ug/l	0.051	U	0.056	U	0.056	U	0.051	U	0.055	U		
Antimony	6020	mg/l	0.0010	U	0.0010	U	0.0010	U	0.0010	U	0.0010	U		
Aroclor 1016	8082	ug/l	0.49	U	0.51	U	0.52	U	0.54	U	0.51	U		
Aroclor 1221	8082	ug/l	0.49	U	0.51	U	0.52	U	0.54	U	0.51	U		
Aroclor 1232	8082	ug/l	0.49	U	0.51	U	0.52	U	0.54	U	0.51	U		
Aroclor 1242	8082	ug/l	0.49	U	0.51	U	0.52	U	0.54	U	0.51	U		
Aroclor 1248	8082	ug/l	0.49	U	0.51	U	0.52	U	0.54	U	0.51	U		
Aroclor 1254	8082	ug/l	0.49	U	0.51	U	0.52	U	0.54	U	0.51	U		
Aroclor 1260	8082	ug/l	0.49	U	0.51	U	0.52	U	0.54	U	0.51	U		
Aroclor 1262	8082	ug/l	0.49	U	0.51	U	0.52	U	0.54	U	0.51	U		
Aroclor 1268	8082	ug/l	0.49	U	0.51	U	0.52	U	0.54	U	0.51	U		
Aroclor 5432	8082	ug/l	0.49	U	0.51	U	0.52	U	0.54	U	0.51	U		
Aroclor 5442	8082	ug/l	0.49	U	0.51	U	0.52	U	0.54	U	0.51	U		
Aroclor 5460	8082	ug/l	0.49	U	0.51	U	0.52	U	0.54	U	0.51	U		
Arsenic	6020	mg/l	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U		
Barium	6020	mg/l	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U		
Benzene	8260B	ug/l			5	U			5	U	5	U		
Benzidine	8270C	ug/l	61	U	63	U	67	U	67	U	66	U		
Benzo(a)anthracene	8270C	ug/l												
Benzo(a)anthracene	8270C SIM	ug/l	0.051	U	0.056	U	0.056	U	0.051	U	0.055	U		
Benzo(a)pyrene	8270C	ug/l												
Benzo(a)pyrene	8270C SIM	ug/l	0.051	U	0.056	U	0.056	U	0.051	U	0.055	U		
Benzo(b)fluoranthene	8270C	ug/l												
Benzo(b)fluoranthene	8270C SIM	ug/l	0.051	U	0.056	U	0.056	U	0.051	U	0.055	U		







Table C-2 - Subarea 7 Equipment Rinsate Blank Results

Sample Name:		EB-SA7-SS-091411		EB-SA7-SB-091511		EB-SA7-SS-092111		EB-SA7-SB-092211		EB-SA7-SB-092711		EB-SA7-SB-093011		
Location:		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		
Sample Date:		09/14/2011		09/15/2011		09/21/2011		09/22/2011		09/27/2011		09/30/2011		
Sample Type		EB		EB		EB		EB		EB		EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Nitrate	300.0	mg/l	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U		
Nitrobenzene	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
Nitrobenzene	8330A	ug/l	0.60	U	0.60	U	0.60	U	0.60	U	0.60	U		
Nitroglycerin	8330A	ug/l	15	U	15	U	15	U	15	U	15	U		
Nitroglycerin	8332	ug/l												
N-Nitrosodimethylamine	1625C	ng/l	2.99		4.34	J	2.3800000000	UJ	3.1900000000	UJ	3.2300000000	UJ	0.956	UJ
N-Nitrosodimethylamine	8270C SIM	ug/l	0.051	U	0.056	U	0.056	U	0.051	U	0.055	U		
N-Nitroso-Di-N-Propylamine	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
N-Nitrosodiphenylamine	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
N-Propylbenzene	8260B	ug/l			5	U			5	U	5	U		
OCDD	1613B	pg/l	19.0	U	20.2	U	19.4	U	21.8	U	20.6	U		
OCDF	1613B	pg/l	19.0	U	20.2	U	19.4	U	21.8	U	20.6	U		
o-Terphenyl	8015B	mg/l	0.27	U	0.26	U	0.25	U	0.26	U	0.27	U		
o-Xylene	8260B	ug/l			5	U			5	U	5	U		
Pentachlorophenol	8270C	ug/l	15	U	16	U	17	U	17	U	17	U		
Perchlorate	314.0	ug/l	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U		
PETN	8330A	ug/l	18	U	18	U	18	U	18	U	18	U		
PETN	8332	ug/l												
pH	9040B	pH unit	5.6		5.5		5.6		5.4		5.7			
pH	9040C	pH unit												
Phenanthrene	8270C	ug/l												
Phenanthrene	8270C SIM	ug/l	0.051	U	0.056	U	0.056	U	0.051	U	0.055	U		
Phenol	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		
Phosphorus	6010B	mg/l	0.100	U	0.100	U	0.100	U	0.100	U	0.100	U		
Phosphorus	6020	mg/l												
Potassium	6010B	mg/l	0.500	U	0.500	U	0.500	U	0.500	U	0.500	U		
Potassium	6020	mg/l												
Propylene glycol	8015M	mg/l	200	UJ	200	UJ	200	U	200	U	200	U		
p-Terphenyl	8015B	mg/l	0.27	U	0.26	U	0.25	U	0.26	U	0.27	U		
Pyrene	8270C	ug/l												
Pyrene	8270C SIM	ug/l	0.051	U	0.056	U	0.056	U	0.051	U	0.055	U		
RDX	8330A	ug/l	2.5		2.9		3.2		3.0		3.4			
sec-Butylbenzene	8260B	ug/l			5	U			5	U	5	U		
Selenium	6020	mg/l	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U		
Silver	6020	mg/l	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U		
Sodium	6010B	mg/l	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U		
Sodium	6020	mg/l												
Strontium	6010B	mg/l	0.0050	U	0.0050	U	0.0050	U	0.0050	U	0.0050	U		
Strontium	6020	mg/l												
Styrene	8260B	ug/l			5	U			5	U	5	U		
tert-Butylbenzene	8260B	ug/l			5	U			5	U	5	U		
Tetrachloroethene	8260B	ug/l			5	U			5	U	5	U		
Tetralin	8270C	ug/l	5	U	5	U	6	U	6	U	6	U		

**Table C-2 - Subarea 7 Equipment Rinsate Blank Results**

Sample Name:			EB-SA7-SS-091411		EB-SA7-SB-091511		EB-SA7-SS-092111		EB-SA7-SB-092211		EB-SA7-SB-092711		EB-SA7-SB-093011	
Location:			EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7	
Sample Date:			09/14/2011		09/15/2011		09/21/2011		09/22/2011		09/27/2011		09/30/2011	
Sample Type			EB		EB		EB		EB		EB		EB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Tetryl	8330A	ug/l	0.60	U	0.60	U	0.60	U	0.60	U	0.60	UJ		
Thallium	6020	mg/l	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U		
Tin	6010B	mg/l	0.0200	U	0.0200	U	0.0200	U	0.0200	U	0.0200	U		
Tin	6020	mg/l												
Titanium	6010B	mg/l	0.0100	U	0.0100	U	0.0100	U	0.0100	U	0.0100	U		
Titanium	6020	mg/l												
Toluene	8260B	ug/l			5	U			5	U	5	U		
Toxaphene	8081A	ug/l	3.0	U	3.0	U	3.1	U						
trans-1,2-Dichloroethene	8260B	ug/l			5	U			5	U	5	U		
trans-1,3-Dichloropropene	8260B	ug/l			5	U			5	U	5	U		
Trichloroethene	8260B	ug/l			5	U			5	U	5	U		
Trichlorofluoromethane	8260B	ug/l			5	U			5	U	5	U		
Vanadium	6020	mg/l	0.00050	U	0.00050	U	0.00050	U	0.00050	U	0.00050	U		
Vinyl Chloride	8260B	ug/l			5	U			5	U	5	U		
Zinc	6020	mg/l	0.0150	U	0.0150	U	0.0150	U	0.0150	U	0.0150	U		
Zirconium	6010B	mg/l	0.0500	U	0.0500	U	0.0500	U	0.0500	U	0.0500	U		
Zirconium	6020	mg/l												

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 7 Equipment Rinsate Blank Results

Sample Name:		EB-SA7-SB-100711		EB-SA7-SB-101011		EB-SA7-SB-101111		EB-SA7-SB-101311		EB-SA7-SB-NDMA-101311		EB-SA7-SB-101811		
Location:		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		
Sample Date:		10/07/2011		10/10/2011		10/11/2011		10/13/2011		10/13/2011		10/18/2011		
Sample Type		EB		EB		EB		EB		EB		EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l												
1,1,1-Trichloroethane	8260B	ug/l												
1,1,2,2-Tetrachloroethane	8260B	ug/l												
1,1,2-Trichloroethane	8260B	ug/l												
1,1-Dichloroethane	8260B	ug/l												
1,1-Dichloroethene	8260B	ug/l												
1,1-Dichloropropene	8260B	ug/l												
1,2,3,4,6,7,8-HpCDD	1613B	pg/l							9.99	U				
1,2,3,4,6,7,8-HpCDF	1613B	pg/l							9.99	U				
1,2,3,4,7,8,9-HpCDF	1613B	pg/l							9.99	U				
1,2,3,4,7,8-HxCDD	1613B	pg/l							9.99	U				
1,2,3,4,7,8-HxCDF	1613B	pg/l							9.99	U				
1,2,3,6,7,8-HxCDD	1613B	pg/l							0.265	J				
1,2,3,6,7,8-HxCDF	1613B	pg/l							9.99	U				
1,2,3,7,8,9-HxCDD	1613B	pg/l							9.99	U				
1,2,3,7,8,9-HxCDF	1613B	pg/l							9.99	U				
1,2,3,7,8-PeCDD	1613B	pg/l							9.99	U				
1,2,3,7,8-PeCDF	1613B	pg/l							9.99	U				
1,2,3-Trichlorobenzene	8260B	ug/l												
1,2,3-Trichloropropane	8260B	ug/l												
1,2,4-Trichlorobenzene	8260B	ug/l												
1,2,4-Trichlorobenzene	8270C	ug/l							5	U				
1,2,4-Trimethylbenzene	8260B	ug/l												
1,2-Dibromo-3-chloropropane	8260B	ug/l												
1,2-Dibromoethane	8260B	ug/l												
1,2-Dichlorobenzene	8260B	ug/l												
1,2-Dichlorobenzene	8270C	ug/l							5	U				
1,2-Dichloroethane	8260B	ug/l												
1,2-Dichloropropane	8260B	ug/l												
1,2-Diphenylhydrazine	8270C	ug/l							5	U				
1,3,5-Trimethylbenzene	8260B	ug/l												
1,3,5-Trinitrobenzene	8330A	ug/l							0.60	U				
1,3-Dichlorobenzene	8260B	ug/l												
1,3-Dichlorobenzene	8270C	ug/l							5	U				
1,3-Dichloropropane	8260B	ug/l												
1,4-Dichlorobenzene	8260B	ug/l												
1,4-Dichlorobenzene	8270C	ug/l							5	U				
1,4-Dioxane	8260B SIM	ug/l												
1-Methylnaphthalene	8270C	ug/l												
1-Methylnaphthalene	8270C SIM	ug/l							0.049	U				
2,2-Dichloropropane	8260B	ug/l												
2,2-Dichlor-Propionic Acid	8151A	ug/l												
2,3,4,6,7,8-HxCDF	1613B	pg/l							9.99	U				
2,3,4,7,8-PeCDF	1613B	pg/l							9.99	U				

Table C-2 - Subarea 7 Equipment Rinsate Blank Results

Sample Name:		EB-SA7-SB-100711		EB-SA7-SB-101011		EB-SA7-SB-101111		EB-SA7-SB-101311		EB-SA7-SB-NDMA-101311		EB-SA7-SB-101811		
Location:		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		
Sample Date:		10/07/2011		10/10/2011		10/11/2011		10/13/2011		10/13/2011		10/18/2011		
Sample Type		EB		EB		EB		EB		EB		EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
2,3,7,8-TCDD	1613B	pg/l							2.00	U				
2,3,7,8-TCDF	1613B	pg/l							2.00	U				
2,4 DB	8151A	ug/l												
2,4,5-T	8151A	ug/l												
2,4,5-TP	8151A	ug/l												
2,4,5-Trichlorophenol	8270C	ug/l							5	U				
2,4,6-Trichlorophenol	8270C	ug/l							5	U				
2,4,6-Trinitrotoluene	8330A	ug/l							0.60	U				
2,4-D	8151A	ug/l												
2,4-Diamino-6-nitrotoluene	8330A	ug/l							0.60	U				
2,4-Dichlorophenol	8270C	ug/l							5	U				
2,4-Dimethylphenol	8270C	ug/l							10	U				
2,4-Dinitrophenol	8270C	ug/l							29	U				
2,4-Dinitrotoluene	8270C	ug/l							5	U				
2,4-Dinitrotoluene	8330A	ug/l							0.60	U				
2,6-Diamino-4-nitrotoluene	8330A	ug/l							0.60	U				
2,6-Dinitrotoluene	8270C	ug/l							5	U				
2,6-Dinitrotoluene	8330A	ug/l							0.60	U				
2-Amino-4,6-Dinitrotoluene	8330A	ug/l							0.60	U				
2-Butanone	8260B	ug/l												
2-butoxy-Ethanol	8270C	ug/l							48	U				
2-Chloroethyl Vinyl Ether	8260B	ug/l												
2-Chloronaphthalene	8270C	ug/l							5	U				
2-Chlorophenol	8270C	ug/l							5	U				
2-Chlorotoluene	8260B	ug/l												
2-Hexanone	8260B	ug/l												
2-Methylnaphthalene	8270C	ug/l												
2-Methylnaphthalene	8270C SIM	ug/l							0.049	U				
2-Methylphenol	8270C	ug/l							5	U				
2-Nitroaniline	8270C	ug/l							5	U				
2-Nitrophenol	8270C	ug/l							5	U				
2-Nitrotoluene	8330A	ug/l							0.60	U				
2-phenoxy-Ethanol	8270C	ug/l							48	U				
2-Propanol	8015B	ug/l							1000	U				
3,3`-Dichlorobenzidine	8270C	ug/l							5	U				
3,5-Dimethylphenol	8270C	ug/l							10	U				
3-Nitroaniline	8270C	ug/l							5	U				
3-Nitrotoluene	8330A	ug/l							1.2	U				
4,4'-DDD	8081A	ug/l												
4,4'-DDE	8081A	ug/l												
4,4'-DDT	8081A	ug/l												
4,6-Dinitro-2-Methylphenol	8270C	ug/l							14	U				
4-Amino-2,6-Dinitrotoluene	8330A	ug/l							0.60	U				
4-Bromophenyl Phenyl Ether	8270C	ug/l							5	U				

Table C-2 - Subarea 7 Equipment Rinsate Blank Results

Sample Name:		EB-SA7-SB-100711		EB-SA7-SB-101011		EB-SA7-SB-101111		EB-SA7-SB-101311		EB-SA7-SB-NDMA-101311		EB-SA7-SB-101811		
Location:		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		
Sample Date:		10/07/2011		10/10/2011		10/11/2011		10/13/2011		10/13/2011		10/18/2011		
Sample Type		EB		EB		EB		EB		EB		EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
4-Chloro-3-Methylphenol	8270C	ug/l							5	U				
4-Chloroaniline	8270C	ug/l							5	U				
4-Chlorophenyl Phenylether	8270C	ug/l							5	U				
4-Chlorotoluene	8260B	ug/l												
4-Methyl-2-Pentanone	8260B	ug/l												
4-Methylphenol	8270C	ug/l							5	U				
4-Nitroaniline	8270C	ug/l							5	U				
4-Nitrophenol	8270C	ug/l							29	U				
4-Nitrotoluene	8330A	ug/l							1.2	U				
Acenaphthene	8270C	ug/l												
Acenaphthene	8270C SIM	ug/l							0.049	U				
Acenaphthylene	8270C	ug/l												
Acenaphthylene	8270C SIM	ug/l							0.049	U				
Acetone	8260B	ug/l												
Aldrin	8081A	ug/l												
Alpha-BHC	8081A	ug/l												
Aluminum	6010B	mg/l							0.200	U				
Aluminum	6020	mg/l												
Aniline	8270C	ug/l							5	U				
Anthracene	8270C	ug/l												
Anthracene	8270C SIM	ug/l							0.049	U				
Antimony	6020	mg/l							0.0010	U				
Aroclor 1016	8082	ug/l							0.50	U				
Aroclor 1221	8082	ug/l							0.50	U				
Aroclor 1232	8082	ug/l							0.50	U				
Aroclor 1242	8082	ug/l							0.50	U				
Aroclor 1248	8082	ug/l							0.50	U				
Aroclor 1254	8082	ug/l							0.50	U				
Aroclor 1260	8082	ug/l							0.50	U				
Aroclor 1262	8082	ug/l							0.50	U				
Aroclor 1268	8082	ug/l							0.50	U				
Aroclor 5432	8082	ug/l							0.50	U				
Aroclor 5442	8082	ug/l							0.50	U				
Aroclor 5460	8082	ug/l							0.50	U				
Arsenic	6020	mg/l							0.0020	U				
Barium	6020	mg/l							0.0020	U				
Benzene	8260B	ug/l												
Benzidine	8270C	ug/l							57	U				
Benzo(a)anthracene	8270C	ug/l												
Benzo(a)anthracene	8270C SIM	ug/l							0.049	U				
Benzo(a)pyrene	8270C	ug/l												
Benzo(a)pyrene	8270C SIM	ug/l							0.049	U				
Benzo(b)fluoranthene	8270C	ug/l												
Benzo(b)fluoranthene	8270C SIM	ug/l							0.049	U				



Table C-2 - Subarea 7 Equipment Rinsate Blank Results

Sample Name: Location: Sample Date: Sample Type			EB-SA7-SB-100711 EB-SA7 10/07/2011 EB		EB-SA7-SB-101011 EB-SA7 10/10/2011 EB		EB-SA7-SB-101111 EB-SA7 10/11/2011 EB		EB-SA7-SB-101311 EB-SA7 10/13/2011 EB		EB-SA7-SB-NDMA-101311 EB-SA7 10/13/2011 EB		EB-SA7-SB-101811 EB-SA7 10/18/2011 EB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Delta-BHC	8081A	ug/l												
Dibenzo(a,h)anthracene	8270C	ug/l												
Dibenzo(a,h)anthracene	8270C SIM	ug/l							0.049	U				
Dibenzofuran	8270C	ug/l							5	U				
Dibromochloromethane	8260B	ug/l												
Dibromomethane	8260B	ug/l												
Dicamba	8151A	ug/l												
Dichlorodifluoromethane	8260B	ug/l												
Dichlorprop	8151A	ug/l												
Dieldrin	8081A	ug/l												
Diethylene Glycol	8015M	mg/l							200	U				
Diethylphthalate	8270C	ug/l												
Diethylphthalate	8270C SIM	ug/l							0.11	J				
Dimethylphthalate	8270C	ug/l												
Dimethylphthalate	8270C SIM	ug/l							0.98	U				
Di-n-Butylphthalate	8270C	ug/l												
Di-n-Butylphthalate	8270C SIM	ug/l							0.19	J				
Dinitrobutyl Phenol	8151A	ug/l												
Di-N-Octyl Phthalate	8270C	ug/l												
Di-N-Octyl Phthalate	8270C SIM	ug/l							0.98	U				
EFH (C12-C14)	8015B EFH	mg/l												
EFH (C12-C14)	8015M	mg/l							0.61	U				
EFH (C15-C20)	8015B EFH	mg/l												
EFH (C15-C20)	8015M	mg/l							0.61	U				
EFH (C21-C30)	8015B EFH	mg/l												
EFH (C21-C30)	8015M	mg/l							0.61	U				
EFH (C30-C40)	8015B EFH	mg/l												
EFH (C30-C40)	8015M	mg/l							0.61	U				
EFH (C8-C11)	8015B EFH	mg/l												
EFH (C8-C11)	8015M	mg/l							0.61	U				
Endosulfan I	8081A	ug/l												
Endosulfan II	8081A	ug/l												
Endosulfan Sulfate	8081A	ug/l												
Endrin	8081A	ug/l												
Endrin Aldehyde	8081A	ug/l												
Endrin Ketone	8081A	ug/l												
Ethanol	8015B	ug/l							1000	U				
Ethylbenzene	8260B	ug/l												
Ethylene Glycol	8015M	mg/l							200	U				
Fluoranthene	8270C	ug/l												
Fluoranthene	8270C SIM	ug/l							0.049	U				
Fluorene	8270C	ug/l												
Fluorene	8270C SIM	ug/l							0.049	U				
Fluoride	300.0	mg/l							0.10	U				

Table C-2 - Subarea 7 Equipment Rinsate Blank Results

Sample Name:		EB-SA7-SB-100711	EB-SA7-SB-101011		EB-SA7-SB-101111		EB-SA7-SB-101311		EB-SA7-SB-NDMA-101311		EB-SA7-SB-101811	
Location:		EB-SA7	EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7	
Sample Date:		10/07/2011	10/10/2011		10/11/2011		10/13/2011		10/13/2011		10/18/2011	
Sample Type		EB	EB		EB		EB		EB		EB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Formaldehyde	8315A	ug/l							50	U		
Freon 113	8260B	ug/l										
Freon 113a	8260B	ug/l										
Gamma-BHC (Lindane)	8081A	ug/l										
GRO (C5-C12)	8015B GRO	ug/l										
GRO (C5-C12)	8015M	ug/l							50	U		
Heptachlor	8081A	ug/l										
Heptachlor Epoxide	8081A	ug/l										
Hexachlorobenzene	8270C	ug/l							5	U		
Hexachlorobutadiene	8260B	ug/l										
Hexachlorobutadiene	8270C	ug/l							5	U		
Hexachlorocyclopentadiene	8270C	ug/l							14	U		
Hexachloroethane	8270C	ug/l							5	U		
HMX	8330A	ug/l							2.0	U		
Indeno(1,2,3-Cd)Pyrene	8270C	ug/l										
Indeno(1,2,3-Cd)Pyrene	8270C SIM	ug/l							0.049	U		
Iron	6010B	mg/l							0.200	U		
Iron	6020	mg/l										
Isophorone	8270C	ug/l							5	U		
Isopropylbenzene	8260B	ug/l										
Isopropyltoluene	8260B	ug/l										
Lead	6020	mg/l							0.000089	J		
Lithium	6010B	mg/l							0.0200	U		
Lithium	6020	mg/l										
m,p-Xylene	8260B	ug/l										
Magnesium	6010B	mg/l							0.100	U		
Magnesium	6020	mg/l										
Manganese	6010B	mg/l							0.0050	U		
Manganese	6020	mg/l										
MCPA	8151A	ug/l										
MCPP	8151A	ug/l										
m-Dinitrobenzene	8330A	ug/l							0.60	U		
Mercury	7470A	mg/l							0.00020	U		
Methanol	8015B	ug/l							1000	U		
Methoxychlor	8081A	ug/l										
Methyl tert-Butyl Ether	8260B	ug/l										
Methylene chloride	8260B	ug/l										
Mirex	8081A	ug/l										
Molybdenum	6020	mg/l							0.00050	U		
m-Terphenyl	8015B	mg/l							0.25	U		
Naphthalene	8270C	ug/l										
Naphthalene	8270C SIM	ug/l							0.060			
N-Butylbenzene	8260B	ug/l										
Nickel	6020	mg/l							0.0020	U		

Table C-2 - Subarea 7 Equipment Rinsate Blank Results

Sample Name:		EB-SA7-SB-100711		EB-SA7-SB-101011		EB-SA7-SB-101111		EB-SA7-SB-101311		EB-SA7-SB-NDMA-101311		EB-SA7-SB-101811		
Location:		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		
Sample Date:		10/07/2011		10/10/2011		10/11/2011		10/13/2011		10/13/2011		10/18/2011		
Sample Type		EB		EB		EB		EB		EB		EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Nitrate	300.0	mg/l							0.10	U				
Nitrobenzene	8270C	ug/l							5	U				
Nitrobenzene	8330A	ug/l							0.60	U				
Nitroglycerin	8330A	ug/l							15	U				
Nitroglycerin	8332	ug/l												
N-Nitrosodimethylamine	1625C	ng/l	0.589	J	1.02	UJ	3.0700000000	UJ	4.5000000000	U	4.6100000000	U	3.72	
N-Nitrosodimethylamine	8270C SIM	ug/l							0.049	U				
N-Nitroso-Di-N-Propylamine	8270C	ug/l							5	U				
N-Nitrosodiphenylamine	8270C	ug/l							5	U				
N-Propylbenzene	8260B	ug/l												
OCDD	1613B	pg/l							20.0	U				
OCDF	1613B	pg/l							20.0	U				
o-Terphenyl	8015B	mg/l							0.25	U				
o-Xylene	8260B	ug/l												
Pentachlorophenol	8270C	ug/l							14	U				
Perchlorate	314.0	ug/l							2.0	U				
PETN	8330A	ug/l							18	U				
PETN	8332	ug/l												
pH	9040B	pH unit							5.5					
pH	9040C	pH unit												
Phenanthrene	8270C	ug/l												
Phenanthrene	8270C SIM	ug/l							0.049	U				
Phenol	8270C	ug/l							5	U				
Phosphorus	6010B	mg/l							0.100	U				
Phosphorus	6020	mg/l												
Potassium	6010B	mg/l							0.500	U				
Potassium	6020	mg/l												
Propylene glycol	8015M	mg/l							200	U				
p-Terphenyl	8015B	mg/l							0.25	U				
Pyrene	8270C	ug/l												
Pyrene	8270C SIM	ug/l							0.049	U				
RDX	8330A	ug/l							1.7					
sec-Butylbenzene	8260B	ug/l												
Selenium	6020	mg/l							0.0020	U				
Silver	6020	mg/l							0.00050	U				
Sodium	6010B	mg/l							1.00	U				
Sodium	6020	mg/l												
Strontium	6010B	mg/l							0.00051	J				
Strontium	6020	mg/l												
Styrene	8260B	ug/l												
tert-Butylbenzene	8260B	ug/l												
Tetrachloroethene	8260B	ug/l												
Tetralin	8270C	ug/l							5	U				

**Table C-2 - Subarea 7 Equipment Rinsate Blank Results**

Sample Name: Location: Sample Date: Sample Type			EB-SA7-SB-100711 EB-SA7 10/07/2011 EB		EB-SA7-SB-101011 EB-SA7 10/10/2011 EB		EB-SA7-SB-101111 EB-SA7 10/11/2011 EB		EB-SA7-SB-101311 EB-SA7 10/13/2011 EB		EB-SA7-SB-NDMA-101311 EB-SA7 10/13/2011 EB		EB-SA7-SB-101811 EB-SA7 10/18/2011 EB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Tetryl	8330A	ug/l							0.60	U				
Thallium	6020	mg/l							0.00050	U				
Tin	6010B	mg/l							0.0200	U				
Tin	6020	mg/l												
Titanium	6010B	mg/l							0.0100	U				
Titanium	6020	mg/l												
Toluene	8260B	ug/l												
Toxaphene	8081A	ug/l												
trans-1,2-Dichloroethene	8260B	ug/l												
trans-1,3-Dichloropropene	8260B	ug/l												
Trichloroethene	8260B	ug/l												
Trichlorofluoromethane	8260B	ug/l												
Vanadium	6020	mg/l							0.00050	U				
Vinyl Chloride	8260B	ug/l												
Zinc	6020	mg/l							0.0056	J				
Zirconium	6010B	mg/l							0.0500	U				
Zirconium	6020	mg/l												

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 7 Equipment Rinsate Blank Results

Sample Name:		EB-SA7-SB-101911		EB-SA7-SB-102611		EB-SA7-SB-102711		EB-SA7-SB-103111		EB-SA7-SB-110311S		EB-SA7-SB-110311		
Location:		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		
Sample Date:		10/19/2011		10/26/2011		10/27/2011		10/31/2011		11/03/2011		11/03/2011		
Sample Type		EB		EB		EB		EB		EB Split		EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
2,3,7,8-TCDD	1613B	pg/l	2.12	U	2.12	U							1.97	U
2,3,7,8-TCDF	1613B	pg/l	2.12	U	2.12	U							1.97	U
2,4 DB	8151A	ug/l												
2,4,5-T	8151A	ug/l												
2,4,5-TP	8151A	ug/l												
2,4,5-Trichlorophenol	8270C	ug/l	5	U	5	U					9.8	U		
2,4,6-Trichlorophenol	8270C	ug/l	5	U	5	U					9.8	U		
2,4,6-Trinitrotoluene	8330A	ug/l	0.60	U			0.60	U			1.0	U		
2,4-D	8151A	ug/l												
2,4-Diamino-6-nitrotoluene	8330A	ug/l	0.60	U			0.60	U			2.0	U		
2,4-Dichlorophenol	8270C	ug/l	5	U	5	U					9.8	U		
2,4-Dimethylphenol	8270C	ug/l	10	U	11	U					9.8	U		
2,4-Dinitrophenol	8270C	ug/l	30	U	33	U					20	U		
2,4-Dinitrotoluene	8270C	ug/l	5	U	5	U					9.8	U		
2,4-Dinitrotoluene	8330A	ug/l	0.60	U			0.60	U			1.0	U		
2,6-Diamino-4-nitrotoluene	8330A	ug/l	0.60	U			0.60	U			2.0	U		
2,6-Dinitrotoluene	8270C	ug/l	5	U	5	U					9.8	U		
2,6-Dinitrotoluene	8330A	ug/l	0.60	U			0.60	U			1.0	U		
2-Amino-4,6-Dinitrotoluene	8330A	ug/l	0.60	U			0.60	U			1.0	U		
2-Butanone	8260B	ug/l	10	U							10	U		
2-butoxy-Ethanol	8270C	ug/l	50	U	55	U					9.8	U		
2-Chloroethyl Vinyl Ether	8260B	ug/l	10	U							2.0	U		
2-Chloronaphthalene	8270C	ug/l	5	U	5	U					9.8	U		
2-Chlorophenol	8270C	ug/l	5	U	5	U					9.8	U		
2-Chlorotoluene	8260B	ug/l	5	U							1.0	U		
2-Hexanone	8260B	ug/l	10	U							10	U		
2-Methylnaphthalene	8270C	ug/l									9.8	U		
2-Methylnaphthalene	8270C SIM	ug/l	0.053	U	0.050	U								
2-Methylphenol	8270C	ug/l	5	U	5	U					9.8	U		
2-Nitroaniline	8270C	ug/l	5	U	5	U					9.8	U		
2-Nitrophenol	8270C	ug/l	5	U	5	U					9.8	U		
2-Nitrotoluene	8330A	ug/l	0.60	U			0.60	U			1.0	U		
2-phenoxy-Ethanol	8270C	ug/l	50	U	55	U					9.8	U		
2-Propanol	8015B	ug/l	1000	U			1000	UJ			1000	U		
3,3'-Dichlorobenzidine	8270C	ug/l	5	U	5	U					9.8	U		
3,5-Dimethylphenol	8270C	ug/l	10	U	11	U					20	U		
3-Nitroaniline	8270C	ug/l	5	U	5	U					9.8	U		
3-Nitrotoluene	8330A	ug/l	1.2	U			1.2	U			1.0	U		
4,4'-DDD	8081A	ug/l												
4,4'-DDE	8081A	ug/l												
4,4'-DDT	8081A	ug/l												
4,6-Dinitro-2-Methylphenol	8270C	ug/l	15	U	16	U					20	U		
4-Amino-2,6-Dinitrotoluene	8330A	ug/l	0.60	U			0.71				1.0	U		
4-Bromophenyl Phenyl Ether	8270C	ug/l	5	U	5	U					9.8	U		



Table C-2 - Subarea 7 Equipment Rinsate Blank Results

Sample Name:		EB-SA7-SB-101911		EB-SA7-SB-102611		EB-SA7-SB-102711		EB-SA7-SB-103111		EB-SA7-SB-110311S		EB-SA7-SB-110311		
Location:		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		
Sample Date:		10/19/2011		10/26/2011		10/27/2011		10/31/2011		11/03/2011		11/03/2011		
Sample Type		EB		EB		EB		EB		EB Split		EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Benzo(g,h,i)perylene	8270C	ug/l									9.8	U		
Benzo(g,h,i)perylene	8270C SIM	ug/l	0.053	U	0.050	U								
Benzo(k)fluoranthene	8270C	ug/l									9.8	U		
Benzo(k)fluoranthene	8270C SIM	ug/l	0.053	U	0.050	U								
Benzoic Acid	8270C	ug/l	15	U	16	U					39	U		
Benzyl Alcohol	8270C	ug/l	15	U	16	U					9.8	U		
Beryllium	6020	mg/l	0.00050	U	0.00050	U					0.00100	U		
Beta-BHC	8081A	ug/l												
Bis(2-Chloroethoxy) methane	8270C	ug/l	5	U	5	U					9.8	U		
Bis(2-Chloroethyl) ether	8270C	ug/l	5	U	5	U					9.8	U		
bis(2-Chloroisopropyl) ether	8270C	ug/l	5	U	5	U					9.8	U		
Bis(2-Ethylhexyl) phthalate	8270C	ug/l									20	U		
Bis(2-Ethylhexyl) phthalate	8270C SIM	ug/l	0.16	J	1.0	U								
Boron	6010B	mg/l	0.0500	U	0.0500	U								
Boron	6020	mg/l									0.0100	U		
Bromobenzene	8260B	ug/l	5	U							1.0	U		
Bromochloromethane	8260B	ug/l	5	U							1.0	U		
Bromodichloromethane	8260B	ug/l	5	U							1.0	U		
Bromoform	8260B	ug/l	5	U							1.0	U		
Bromomethane	8260B	ug/l	5	U							1.0	U		
Butylbenzylphthalate	8270C	ug/l									9.8	U		
Butylbenzylphthalate	8270C SIM	ug/l	1.1	UJ	1.0	U								
Cadmium	6020	mg/l	0.00050	U	0.00050	U					0.00100	U		
Calcium	6010B	mg/l	0.200	U	0.200	U								
Calcium	6020	mg/l									0.100	U		
Carbazole	8270C	ug/l	5	U	5	U					9.8	U		
Carbon tetrachloride	8260B	ug/l	5	U							1.0	U		
Chlordane	8081A	ug/l												
Chlorobenzene	8260B	ug/l	5	U							1.0	U		
Chloroethane	8260B	ug/l	5	U							1.0	U		
Chloroform	8260B	ug/l	5	U							1.0	U		
Chloromethane	8260B	ug/l	5	U							1.0	U		
Chlorotrifluoroethene	8260B	ug/l	5	U							1.0	U		
Chromium	6020	mg/l	0.0020	U	0.0020	U					0.00100	U		
Chromium VI	7199	ug/l	10.0	U	10.0	UJ					0.200	U		
											0.200	U		
Chrysene	8270C	ug/l									9.8	U		
Chrysene	8270C SIM	ug/l	0.053	U	0.050	U								
cis-1,2-Dichloroethene	8260B	ug/l	5	U							1.0	U		
cis-1,3-Dichloropropene	8260B	ug/l	5	U							1.0	U		
Cobalt	6020	mg/l	0.00050	U	0.00050	U					0.00100	U		
Copper	6020	mg/l	0.0020	U	0.0020	U					0.000561	J		
Cyanide	9012B	mg/l	0.010	U			0.010	U						
Cyanide	9014	mg/l									0.0100	U		

Table C-2 - Subarea 7 Equipment Rinsate Blank Results

Sample Name:			EB-SA7-SB-101911		EB-SA7-SB-102611		EB-SA7-SB-102711		EB-SA7-SB-103111		EB-SA7-SB-110311S		EB-SA7-SB-110311	
Location:			EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7	
Sample Date:			10/19/2011		10/26/2011		10/27/2011		10/31/2011		11/03/2011		11/03/2011	
Sample Type			EB		EB		EB		EB		EB Split		EB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Delta-BHC	8081A	ug/l												
Dibenzo(a,h)anthracene	8270C	ug/l									9.8	U		
Dibenzo(a,h)anthracene	8270C SIM	ug/l	0.053	U	0.050	U								
Dibenzofuran	8270C	ug/l	5	U	5	U					9.8	U		
Dibromochloromethane	8260B	ug/l	5	U							1.0	U		
Dibromomethane	8260B	ug/l	5	U							1.0	U		
Dicamba	8151A	ug/l												
Dichlorodifluoromethane	8260B	ug/l	5	U							1.0	U		
Dichlorprop	8151A	ug/l												
Dieldrin	8081A	ug/l												
Diethylene Glycol	8015M	mg/l	200	U			200	U			10	U		
Diethylphthalate	8270C	ug/l									9.8	U		
Diethylphthalate	8270C SIM	ug/l	0.19	J	0.075	J								
Dimethylphthalate	8270C	ug/l									9.8	U		
Dimethylphthalate	8270C SIM	ug/l	1.1	UJ	1.0	U								
Di-n-Butylphthalate	8270C	ug/l									9.8	U		
Di-n-Butylphthalate	8270C SIM	ug/l	0.27	J	0.28	J								
Dinitrobutyl Phenol	8151A	ug/l												
Di-N-Octyl Phthalate	8270C	ug/l									9.8	U		
Di-N-Octyl Phthalate	8270C SIM	ug/l	1.1	U	1.0	U								
EFH (C12-C14)	8015B EFH	mg/l									0.51	U		
EFH (C12-C14)	8015M	mg/l	0.61	U			0.64	U						
EFH (C15-C20)	8015B EFH	mg/l									0.51	U		
EFH (C15-C20)	8015M	mg/l	0.61	U			0.64	U						
EFH (C21-C30)	8015B EFH	mg/l									0.51	U		
EFH (C21-C30)	8015M	mg/l	0.61	U			0.64	U						
EFH (C30-C40)	8015B EFH	mg/l									0.51	U		
EFH (C30-C40)	8015M	mg/l	0.61	U			0.64	U						
EFH (C8-C11)	8015B EFH	mg/l									0.51	U		
EFH (C8-C11)	8015M	mg/l	0.61	U			0.64	U						
Endosulfan I	8081A	ug/l												
Endosulfan II	8081A	ug/l												
Endosulfan Sulfate	8081A	ug/l												
Endrin	8081A	ug/l												
Endrin Aldehyde	8081A	ug/l												
Endrin Ketone	8081A	ug/l												
Ethanol	8015B	ug/l	1000	U			1000	UJ			1000	U		
Ethylbenzene	8260B	ug/l	5	U							1.0	U		
Ethylene Glycol	8015M	mg/l	200	UJ			200	UJ			10	U		
Fluoranthene	8270C	ug/l									9.8	U		
Fluoranthene	8270C SIM	ug/l	0.053	U	0.050	U								
Fluorene	8270C	ug/l									9.8	U		
Fluorene	8270C SIM	ug/l	0.053	U	0.050	U								
Fluoride	300.0	mg/l	0.10	U	0.10	U					0.100	U		

Table C-2 - Subarea 7 Equipment Rinsate Blank Results

Sample Name:		EB-SA7-SB-101911		EB-SA7-SB-102611		EB-SA7-SB-102711		EB-SA7-SB-103111		EB-SA7-SB-110311S		EB-SA7-SB-110311		
Location:		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		
Sample Date:		10/19/2011		10/26/2011		10/27/2011		10/31/2011		11/03/2011		11/03/2011		
Sample Type		EB		EB		EB		EB		EB Split		EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Formaldehyde	8315A	ug/l	50	U			50	U					50	U
Freon 113	8260B	ug/l	10	U							1.0	U		
Freon 113a	8260B	ug/l	5	U							1.0	U		
Gamma-BHC (Lindane)	8081A	ug/l												
GRO (C5-C12)	8015B GRO	ug/l									50	U		
GRO (C5-C12)	8015M	ug/l	50	U			50	U						
Heptachlor	8081A	ug/l												
Heptachlor Epoxide	8081A	ug/l												
Hexachlorobenzene	8270C	ug/l	5	U	5	U					9.8	U		
Hexachlorobutadiene	8260B	ug/l	5	U							1.0	U		
Hexachlorobutadiene	8270C	ug/l	5	U	5	U					9.8	U		
Hexachlorocyclopentadiene	8270C	ug/l	15	U	16	U					20	U		
Hexachloroethane	8270C	ug/l	5	U	5	U					9.8	U		
HMX	8330A	ug/l	2.0	U			2.0	U			1.0	U		
Indeno(1,2,3-Cd)Pyrene	8270C	ug/l									9.8	U		
Indeno(1,2,3-Cd)Pyrene	8270C SIM	ug/l	0.053	U	0.050	U								
Iron	6010B	mg/l	0.200	U	0.0424	J								
Iron	6020	mg/l									0.100	U		
Isophorone	8270C	ug/l	5	U	5	U					9.8	U		
Isopropylbenzene	8260B	ug/l	5	U							1.0	U		
Isopropyltoluene	8260B	ug/l	5	U							1.0	U		
Lead	6020	mg/l	0.00012	J	0.0010	U					0.00100	U		
Lithium	6010B	mg/l	0.0200	U	0.0200	U								
Lithium	6020	mg/l									0.00200	U		
m,p-Xylene	8260B	ug/l	5	U							2.0	U		
Magnesium	6010B	mg/l	0.100	U	0.100	U								
Magnesium	6020	mg/l									0.100	U		
Manganese	6010B	mg/l	0.0050	U	0.00052	J								
Manganese	6020	mg/l									0.00100	U		
MCPA	8151A	ug/l												
MCPP	8151A	ug/l												
m-Dinitrobenzene	8330A	ug/l	0.60	U			0.60	U			1.0	U		
Mercury	7470A	mg/l	0.00020	U	0.00020	U					0.000500	U		
Methanol	8015B	ug/l	1000	U			1000	UJ			1000	U		
Methoxychlor	8081A	ug/l												
Methyl tert-Butyl Ether	8260B	ug/l	5	U							0.40	J		
Methylene chloride	8260B	ug/l	5								2.8			
Mirex	8081A	ug/l												
Molybdenum	6020	mg/l	0.00050	U	0.00050	U					0.00200	U		
m-Terphenyl	8015B	mg/l	0.27	U			0.27	U					0.25	UJ
Naphthalene	8270C	ug/l									9.8	U		
Naphthalene	8270C SIM	ug/l	0.039	J	0.037	J								
N-Butylbenzene	8260B	ug/l	5	U							1.0	U		
Nickel	6020	mg/l	0.0020	U	0.0020	U					0.00100	U		

Table C-2 - Subarea 7 Equipment Rinsate Blank Results

Sample Name:		EB-SA7-SB-101911		EB-SA7-SB-102611		EB-SA7-SB-102711		EB-SA7-SB-103111		EB-SA7-SB-110311S		EB-SA7-SB-110311		
Location:		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		
Sample Date:		10/19/2011		10/26/2011		10/27/2011		10/31/2011		11/03/2011		11/03/2011		
Sample Type		EB		EB		EB		EB		EB Split		EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Nitrate	300.0	mg/l	0.10	U			0.10	U			0.443	U		
Nitrobenzene	8270C	ug/l	5	U	5	U					9.8	U		
Nitrobenzene	8330A	ug/l	0.60	U			0.60	U			1.0	U		
Nitroglycerin	8330A	ug/l	15	U			15	U						
Nitroglycerin	8332	ug/l									250	U		
N-Nitrosodimethylamine	1625C	ng/l	4.5500000000	U			2.02		1.69				1.59	J
N-Nitrosodimethylamine			3.6600000000	U										
N-Nitrosodimethylamine	8270C SIM	ug/l	0.053	U	0.050	U								
N-Nitroso-Di-N-Propylamine	8270C	ug/l	5	U	5	U					9.8	U		
N-Nitrosodiphenylamine	8270C	ug/l	5	U	5	U					9.8	U		
N-Propylbenzene	8260B	ug/l	5	U							1.0	U		
OCDD	1613B	pg/l	21.2	U	21.2	U							19.7	U
OCDF	1613B	pg/l	21.2	U	21.2	U							19.7	U
o-Terphenyl	8015B	mg/l	0.27	U			0.27	U					0.25	UJ
o-Xylene	8260B	ug/l	5	U							1.0	U		
Pentachlorophenol	8270C	ug/l	15	U	16	U					20	U		
Perchlorate	314.0	ug/l	2.0	U	2.0	U					2.00	U		
PETN	8330A	ug/l	18	U			18	U						
PETN	8332	ug/l									250	U		
pH	9040B	pH unit	5.5		5.7									
pH	9040C	pH unit									5.52			
Phenanthrene	8270C	ug/l									9.8	U		
Phenanthrene	8270C SIM	ug/l	0.053	U	0.050	U								
Phenol	8270C	ug/l	5	U	5	U					9.8	U		
Phosphorus	6010B	mg/l	0.0055	J	0.100	U								
Phosphorus	6020	mg/l									0.0500	U		
Potassium	6010B	mg/l	0.500	U	0.500	U								
Potassium	6020	mg/l									0.100	U		
Propylene glycol	8015M	mg/l	200	UJ			200	UJ			10	U		
p-Terphenyl	8015B	mg/l	0.27	U			0.27	U					0.25	UJ
Pyrene	8270C	ug/l									9.8	U		
Pyrene	8270C SIM	ug/l	0.053	U	0.050	U								
RDX	8330A	ug/l	0.99	NJ			2.1				1.0	U		
sec-Butylbenzene	8260B	ug/l	5	U							1.0	U		
Selenium	6020	mg/l	0.0020	U	0.0020	U					0.00100	U		
Silver	6020	mg/l	0.00050	U	0.00050	U					0.00100	U		
Sodium	6010B	mg/l	1.00	U	1.00	U								
Sodium	6020	mg/l									0.100	U		
Strontium	6010B	mg/l	0.0050	U	0.0050	U								
Strontium	6020	mg/l									0.00200	U		
Styrene	8260B	ug/l	5	U							1.0	U		
tert-Butylbenzene	8260B	ug/l	5	U							1.0	U		
Tetrachloroethene	8260B	ug/l	5	U							1.0	U		
Tetralin	8270C	ug/l	5	U	5	U					9.8	U		

**Table C-2 - Subarea 7 Equipment Rinsate Blank Results**

Sample Name:			EB-SA7-SB-101911		EB-SA7-SB-102611		EB-SA7-SB-102711		EB-SA7-SB-103111		EB-SA7-SB-110311S		EB-SA7-SB-110311	
Location:			EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7		EB-SA7	
Sample Date:			10/19/2011		10/26/2011		10/27/2011		10/31/2011		11/03/2011		11/03/2011	
Sample Type			EB		EB		EB		EB		EB Split		EB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Tetryl	8330A	ug/l	0.60	U			0.60	U			1.0	U		
Thallium	6020	mg/l	0.00050	U	0.00050	U					0.00100	U		
Tin	6010B	mg/l	0.0200	U	0.0200	U								
Tin	6020	mg/l									0.00100	U		
Titanium	6010B	mg/l	0.0100	U	0.0100	U								
Titanium	6020	mg/l									0.00200	U		
Toluene	8260B	ug/l	5	U							1.0	U		
Toxaphene	8081A	ug/l												
trans-1,2-Dichloroethene	8260B	ug/l	5	U							1.0	U		
trans-1,3-Dichloropropene	8260B	ug/l	5	U							1.0	U		
Trichloroethene	8260B	ug/l	5	U							1.0	U		
Trichlorofluoromethane	8260B	ug/l	5	U							1.0	U		
Vanadium	6020	mg/l	0.00050	U	0.00050	U					0.00100	U		
Vinyl Chloride	8260B	ug/l	5	U							1.0	U		
Zinc	6020	mg/l	0.0150	U	0.0150	U					0.0200	U		
Zirconium	6010B	mg/l	0.0500	U	0.0500	U								
Zirconium	6020	mg/l									0.00500	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 7 Equipment Rinsate Blank Results

Sample Name:		EB-SA7-SB-NDMA-110311		EB-SA7-SB-110411		
Location:		EB-SA7		EB-SA7		
Sample Date:		11/03/2011		11/04/2011		
Sample Type:		EB		EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l				
1,1,1-Trichloroethane	8260B	ug/l				
1,1,2,2-Tetrachloroethane	8260B	ug/l				
1,1,2-Trichloroethane	8260B	ug/l				
1,1-Dichloroethane	8260B	ug/l				
1,1-Dichloroethene	8260B	ug/l				
1,1-Dichloropropene	8260B	ug/l				
1,2,3,4,6,7,8-HpCDD	1613B	pg/l				
1,2,3,4,6,7,8-HpCDF	1613B	pg/l				
1,2,3,4,7,8,9-HpCDF	1613B	pg/l				
1,2,3,4,7,8-HxCDD	1613B	pg/l				
1,2,3,4,7,8-HxCDF	1613B	pg/l				
1,2,3,6,7,8-HxCDD	1613B	pg/l				
1,2,3,6,7,8-HxCDF	1613B	pg/l				
1,2,3,7,8,9-HxCDD	1613B	pg/l				
1,2,3,7,8,9-HxCDF	1613B	pg/l				
1,2,3,7,8-PeCDD	1613B	pg/l				
1,2,3,7,8-PeCDF	1613B	pg/l				
1,2,3-Trichlorobenzene	8260B	ug/l				
1,2,3-Trichloropropane	8260B	ug/l				
1,2,4-Trichlorobenzene	8260B	ug/l				
1,2,4-Trichlorobenzene	8270C	ug/l				
1,2,4-Trimethylbenzene	8260B	ug/l				
1,2-Dibromo-3-chloropropane	8260B	ug/l				
1,2-Dibromoethane	8260B	ug/l				
1,2-Dichlorobenzene	8260B	ug/l				
1,2-Dichlorobenzene	8270C	ug/l				
1,2-Dichloroethane	8260B	ug/l				
1,2-Dichloropropane	8260B	ug/l				
1,2-Diphenylhydrazine	8270C	ug/l				
1,3,5-Trimethylbenzene	8260B	ug/l				
1,3,5-Trinitrobenzene	8330A	ug/l				
1,3-Dichlorobenzene	8260B	ug/l				
1,3-Dichlorobenzene	8270C	ug/l				
1,3-Dichloropropane	8260B	ug/l				
1,4-Dichlorobenzene	8260B	ug/l				
1,4-Dichlorobenzene	8270C	ug/l				
1,4-Dioxane	8260B SIM	ug/l				
1-Methylnaphthalene	8270C	ug/l				
1-Methylnaphthalene	8270C SIM	ug/l				
2,2-Dichloropropane	8260B	ug/l				
2,2-Dichlor-Propionic Acid	8151A	ug/l				
2,3,4,6,7,8-HxCDF	1613B	pg/l				
2,3,4,7,8-PeCDF	1613B	pg/l				

Table C-2 - Subarea 7 Equipment Rinsate Blank Results

		Sample Name:	EB-SA7-SB-NDMA-110311		EB-SA7-SB-110411	
		Location:	EB-SA7		EB-SA7	
		Sample Date:	11/03/2011		11/04/2011	
		Sample Type:	EB		EB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
2,3,7,8-TCDD	1613B	pg/l				
2,3,7,8-TCDF	1613B	pg/l				
2,4 DB	8151A	ug/l				
2,4,5-T	8151A	ug/l				
2,4,5-TP	8151A	ug/l				
2,4,5-Trichlorophenol	8270C	ug/l				
2,4,6-Trichlorophenol	8270C	ug/l				
2,4,6-Trinitrotoluene	8330A	ug/l				
2,4-D	8151A	ug/l				
2,4-Diamino-6-nitrotoluene	8330A	ug/l				
2,4-Dichlorophenol	8270C	ug/l				
2,4-Dimethylphenol	8270C	ug/l				
2,4-Dinitrophenol	8270C	ug/l				
2,4-Dinitrotoluene	8270C	ug/l				
2,4-Dinitrotoluene	8330A	ug/l				
2,6-Diamino-4-nitrotoluene	8330A	ug/l				
2,6-Dinitrotoluene	8270C	ug/l				
2,6-Dinitrotoluene	8330A	ug/l				
2-Amino-4,6-Dinitrotoluene	8330A	ug/l				
2-Butanone	8260B	ug/l				
2-butoxy-Ethanol	8270C	ug/l				
2-Chloroethyl Vinyl Ether	8260B	ug/l				
2-Chloronaphthalene	8270C	ug/l				
2-Chlorophenol	8270C	ug/l				
2-Chlorotoluene	8260B	ug/l				
2-Hexanone	8260B	ug/l				
2-Methylnaphthalene	8270C	ug/l				
2-Methylnaphthalene	8270C SIM	ug/l				
2-Methylphenol	8270C	ug/l				
2-Nitroaniline	8270C	ug/l				
2-Nitrophenol	8270C	ug/l				
2-Nitrotoluene	8330A	ug/l				
2-phenoxy-Ethanol	8270C	ug/l				
2-Propanol	8015B	ug/l				
3,3`-Dichlorobenzidine	8270C	ug/l				
3,5-Dimethylphenol	8270C	ug/l				
3-Nitroaniline	8270C	ug/l				
3-Nitrotoluene	8330A	ug/l				
4,4'-DDD	8081A	ug/l				
4,4'-DDE	8081A	ug/l				
4,4'-DDT	8081A	ug/l				
4,6-Dinitro-2-Methylphenol	8270C	ug/l				
4-Amino-2,6-Dinitrotoluene	8330A	ug/l				
4-Bromophenyl Phenyl Ether	8270C	ug/l				

Table C-2 - Subarea 7 Equipment Rinsate Blank Results

		Sample Name:	EB-SA7-SB-NDMA-110311	EB-SA7-SB-110411		
		Location:	EB-SA7	EB-SA7		
		Sample Date:	11/03/2011	11/04/2011		
		Sample Type	EB	EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
4-Chloro-3-Methylphenol	8270C	ug/l				
4-Chloroaniline	8270C	ug/l				
4-Chlorophenyl Phenylether	8270C	ug/l				
4-Chlorotoluene	8260B	ug/l				
4-Methyl-2-Pentanone	8260B	ug/l				
4-Methylphenol	8270C	ug/l				
4-Nitroaniline	8270C	ug/l				
4-Nitrophenol	8270C	ug/l				
4-Nitrotoluene	8330A	ug/l				
Acenaphthene	8270C	ug/l				
Acenaphthene	8270C SIM	ug/l				
Acenaphthylene	8270C	ug/l				
Acenaphthylene	8270C SIM	ug/l				
Acetone	8260B	ug/l				
Aldrin	8081A	ug/l				
Alpha-BHC	8081A	ug/l				
Aluminum	6010B	mg/l				
Aluminum	6020	mg/l				
Aniline	8270C	ug/l				
Anthracene	8270C	ug/l				
Anthracene	8270C SIM	ug/l				
Antimony	6020	mg/l				
Aroclor 1016	8082	ug/l				
Aroclor 1221	8082	ug/l				
Aroclor 1232	8082	ug/l				
Aroclor 1242	8082	ug/l				
Aroclor 1248	8082	ug/l				
Aroclor 1254	8082	ug/l				
Aroclor 1260	8082	ug/l				
Aroclor 1262	8082	ug/l				
Aroclor 1268	8082	ug/l				
Aroclor 5432	8082	ug/l				
Aroclor 5442	8082	ug/l				
Aroclor 5460	8082	ug/l				
Arsenic	6020	mg/l				
Barium	6020	mg/l				
Benzene	8260B	ug/l				
Benzidine	8270C	ug/l				
Benzo(a)anthracene	8270C	ug/l				
Benzo(a)anthracene	8270C SIM	ug/l				
Benzo(a)pyrene	8270C	ug/l				
Benzo(a)pyrene	8270C SIM	ug/l				
Benzo(b)fluoranthene	8270C	ug/l				
Benzo(b)fluoranthene	8270C SIM	ug/l				

Table C-2 - Subarea 7 Equipment Rinsate Blank Results

Sample Name:		EB-SA7-SB-NDMA-110311	EB-SA7-SB-110411			
Location:		EB-SA7	EB-SA7			
Sample Date:		11/03/2011	11/04/2011			
Sample Type		EB	EB			
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
Benzo(g,h,i)perylene	8270C	ug/l				
Benzo(g,h,i)perylene	8270C SIM	ug/l				
Benzo(k)fluoranthene	8270C	ug/l				
Benzo(k)fluoranthene	8270C SIM	ug/l				
Benzoic Acid	8270C	ug/l				
Benzyl Alcohol	8270C	ug/l				
Beryllium	6020	mg/l				
Beta-BHC	8081A	ug/l				
Bis(2-Chloroethoxy) methane	8270C	ug/l				
Bis(2-Chloroethyl) ether	8270C	ug/l				
bis(2-Chloroisopropyl) ether	8270C	ug/l				
Bis(2-Ethylhexyl) phthalate	8270C	ug/l				
Bis(2-Ethylhexyl) phthalate	8270C SIM	ug/l				
Boron	6010B	mg/l				
Boron	6020	mg/l				
Bromobenzene	8260B	ug/l				
Bromochloromethane	8260B	ug/l				
Bromodichloromethane	8260B	ug/l				
Bromoform	8260B	ug/l				
Bromomethane	8260B	ug/l				
Butylbenzylphthalate	8270C	ug/l				
Butylbenzylphthalate	8270C SIM	ug/l				
Cadmium	6020	mg/l				
Calcium	6010B	mg/l				
Calcium	6020	mg/l				
Carbazole	8270C	ug/l				
Carbon tetrachloride	8260B	ug/l				
Chlordane	8081A	ug/l				
Chlorobenzene	8260B	ug/l				
Chloroethane	8260B	ug/l				
Chloroform	8260B	ug/l				
Chloromethane	8260B	ug/l				
Chlorotrifluoroethene	8260B	ug/l				
Chromium	6020	mg/l				
Chromium VI	7199	ug/l				
Chrysene	8270C	ug/l				
Chrysene	8270C SIM	ug/l				
cis-1,2-Dichloroethene	8260B	ug/l				
cis-1,3-Dichloropropene	8260B	ug/l				
Cobalt	6020	mg/l				
Copper	6020	mg/l				
Cyanide	9012B	mg/l				
Cyanide	9014	mg/l				

Table C-2 - Subarea 7 Equipment Rinsate Blank Results

		Sample Name:	EB-SA7-SB-NDMA-110311	EB-SA7-SB-110411		
		Location:	EB-SA7	EB-SA7		
		Sample Date:	11/03/2011	11/04/2011		
		Sample Type	EB	EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
Delta-BHC	8081A	ug/l				
Dibenzo(a,h)anthracene	8270C	ug/l				
Dibenzo(a,h)anthracene	8270C SIM	ug/l				
Dibenzofuran	8270C	ug/l				
Dibromochloromethane	8260B	ug/l				
Dibromomethane	8260B	ug/l				
Dicamba	8151A	ug/l				
Dichlorodifluoromethane	8260B	ug/l				
Dichlorprop	8151A	ug/l				
Dieldrin	8081A	ug/l				
Diethylene Glycol	8015M	mg/l				
Diethylphthalate	8270C	ug/l				
Diethylphthalate	8270C SIM	ug/l				
Dimethylphthalate	8270C	ug/l				
Dimethylphthalate	8270C SIM	ug/l				
Di-n-Butylphthalate	8270C	ug/l				
Di-n-Butylphthalate	8270C SIM	ug/l				
Dinitrobutyl Phenol	8151A	ug/l				
Di-N-Octyl Phthalate	8270C	ug/l				
Di-N-Octyl Phthalate	8270C SIM	ug/l				
EFH (C12-C14)	8015B EFH	mg/l				
EFH (C12-C14)	8015M	mg/l				
EFH (C15-C20)	8015B EFH	mg/l				
EFH (C15-C20)	8015M	mg/l				
EFH (C21-C30)	8015B EFH	mg/l				
EFH (C21-C30)	8015M	mg/l				
EFH (C30-C40)	8015B EFH	mg/l				
EFH (C30-C40)	8015M	mg/l				
EFH (C8-C11)	8015B EFH	mg/l				
EFH (C8-C11)	8015M	mg/l				
Endosulfan I	8081A	ug/l				
Endosulfan II	8081A	ug/l				
Endosulfan Sulfate	8081A	ug/l				
Endrin	8081A	ug/l				
Endrin Aldehyde	8081A	ug/l				
Endrin Ketone	8081A	ug/l				
Ethanol	8015B	ug/l				
Ethylbenzene	8260B	ug/l				
Ethylene Glycol	8015M	mg/l				
Fluoranthene	8270C	ug/l				
Fluoranthene	8270C SIM	ug/l				
Fluorene	8270C	ug/l				
Fluorene	8270C SIM	ug/l				
Fluoride	300.0	mg/l				

Table C-2 - Subarea 7 Equipment Rinsate Blank Results

Sample Name:		EB-SA7-SB-NDMA-110311		EB-SA7-SB-110411		
Location:		EB-SA7		EB-SA7		
Sample Date:		11/03/2011		11/04/2011		
Sample Type:		EB		EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
Formaldehyde	8315A	ug/l				
Freon 113	8260B	ug/l				
Freon 113a	8260B	ug/l				
Gamma-BHC (Lindane)	8081A	ug/l				
GRO (C5-C12)	8015B GRO	ug/l				
GRO (C5-C12)	8015M	ug/l				
Heptachlor	8081A	ug/l				
Heptachlor Epoxide	8081A	ug/l				
Hexachlorobenzene	8270C	ug/l				
Hexachlorobutadiene	8260B	ug/l				
Hexachlorobutadiene	8270C	ug/l				
Hexachlorocyclopentadiene	8270C	ug/l				
Hexachloroethane	8270C	ug/l				
HMX	8330A	ug/l				
Indeno(1,2,3-Cd)Pyrene	8270C	ug/l				
Indeno(1,2,3-Cd)Pyrene	8270C SIM	ug/l				
Iron	6010B	mg/l				
Iron	6020	mg/l				
Isophorone	8270C	ug/l				
Isopropylbenzene	8260B	ug/l				
Isopropyltoluene	8260B	ug/l				
Lead	6020	mg/l				
Lithium	6010B	mg/l				
Lithium	6020	mg/l				
m,p-Xylene	8260B	ug/l				
Magnesium	6010B	mg/l				
Magnesium	6020	mg/l				
Manganese	6010B	mg/l				
Manganese	6020	mg/l				
MCPA	8151A	ug/l				
MCPP	8151A	ug/l				
m-Dinitrobenzene	8330A	ug/l				
Mercury	7470A	mg/l				
Methanol	8015B	ug/l				
Methoxychlor	8081A	ug/l				
Methyl tert-Butyl Ether	8260B	ug/l				
Methylene chloride	8260B	ug/l				
Mirex	8081A	ug/l				
Molybdenum	6020	mg/l				
m-Terphenyl	8015B	mg/l				
Naphthalene	8270C	ug/l				
Naphthalene	8270C SIM	ug/l				
N-Butylbenzene	8260B	ug/l				
Nickel	6020	mg/l				

Table C-2 - Subarea 7 Equipment Rinsate Blank Results

		Sample Name:	EB-SA7-SB-NDMA-110311	EB-SA7-SB-110411		
		Location:	EB-SA7	EB-SA7		
		Sample Date:	11/03/2011	11/04/2011		
		Sample Type	EB	EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
Nitrate	300.0	mg/l				
Nitrobenzene	8270C	ug/l				
Nitrobenzene	8330A	ug/l				
Nitroglycerin	8330A	ug/l				
Nitroglycerin	8332	ug/l				
N-Nitrosodimethylamine	1625C	ng/l	1.53	J	1.66	J
N-Nitrosodimethylamine	8270C SIM	ug/l				
N-Nitroso-Di-N-Propylamine	8270C	ug/l				
N-Nitrosodiphenylamine	8270C	ug/l				
N-Propylbenzene	8260B	ug/l				
OCDD	1613B	pg/l				
OCDF	1613B	pg/l				
o-Terphenyl	8015B	mg/l				
o-Xylene	8260B	ug/l				
Pentachlorophenol	8270C	ug/l				
Perchlorate	314.0	ug/l				
PETN	8330A	ug/l				
PETN	8332	ug/l				
pH	9040B	pH unit				
pH	9040C	pH unit				
Phenanthrene	8270C	ug/l				
Phenanthrene	8270C SIM	ug/l				
Phenol	8270C	ug/l				
Phosphorus	6010B	mg/l				
Phosphorus	6020	mg/l				
Potassium	6010B	mg/l				
Potassium	6020	mg/l				
Propylene glycol	8015M	mg/l				
p-Terphenyl	8015B	mg/l				
Pyrene	8270C	ug/l				
Pyrene	8270C SIM	ug/l				
RDX	8330A	ug/l				
sec-Butylbenzene	8260B	ug/l				
Selenium	6020	mg/l				
Silver	6020	mg/l				
Sodium	6010B	mg/l				
Sodium	6020	mg/l				
Strontium	6010B	mg/l				
Strontium	6020	mg/l				
Styrene	8260B	ug/l				
tert-Butylbenzene	8260B	ug/l				
Tetrachloroethene	8260B	ug/l				
Tetralin	8270C	ug/l				

**Table C-2 - Subarea 7 Equipment Rinsate Blank Results**

Sample Name:		EB-SA7-SB-NDMA-110311		EB-SA7-SB-110411		
Location:		EB-SA7		EB-SA7		
Sample Date:		11/03/2011		11/04/2011		
Sample Type:		EB		EB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
Tetryl	8330A	ug/l				
Thallium	6020	mg/l				
Tin	6010B	mg/l				
Tin	6020	mg/l				
Titanium	6010B	mg/l				
Titanium	6020	mg/l				
Toluene	8260B	ug/l				
Toxaphene	8081A	ug/l				
trans-1,2-Dichloroethene	8260B	ug/l				
trans-1,3-Dichloropropene	8260B	ug/l				
Trichloroethene	8260B	ug/l				
Trichlorofluoromethane	8260B	ug/l				
Vanadium	6020	mg/l				
Vinyl Chloride	8260B	ug/l				
Zinc	6020	mg/l				
Zirconium	6010B	mg/l				
Zirconium	6020	mg/l				

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 7 Field Blank Results

Sample Name:		FB-SA7-102611		FB-SA7-110111		FB-SA7-SB-093011		
Location:		FB-SA7		FB-SA7		FB-SA7		
Sample Date:		10/26/2011		11/01/2011		09/30/2011		
Sample Type		FB		FB		FB		
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l	5	U	1.0	U		
1,1,1-Trichloroethane	8260B	ug/l	5	U	1.0	U		
1,1,2,2-Tetrachloroethane	8260B	ug/l	5	U	1.0	U		
1,1,2-Trichloroethane	8260B	ug/l	5	U	1.0	U		
1,1-Dichloroethane	8260B	ug/l	5	U	1.0	U		
1,1-Dichloroethene	8260B	ug/l	5	U	1.0	U		
1,1-Dichloropropene	8260B	ug/l	5	U	1.0	U		
1,2,3,4,6,7,8-HpCDD	1613B	pg/l	10.4	U				
1,2,3,4,6,7,8-HpCDF	1613B	pg/l	10.4	U				
1,2,3,4,7,8,9-HpCDF	1613B	pg/l	10.4	U				
1,2,3,4,7,8-HxCDD	1613B	pg/l	0.251	J				
1,2,3,4,7,8-HxCDF	1613B	pg/l	10.4	U				
1,2,3,6,7,8-HxCDD	1613B	pg/l	10.4	U				
1,2,3,6,7,8-HxCDF	1613B	pg/l	0.219	J				
1,2,3,7,8,9-HxCDD	1613B	pg/l	10.4	U				
1,2,3,7,8,9-HxCDF	1613B	pg/l	10.4	U				
1,2,3,7,8-PeCDD	1613B	pg/l	10.4	U				
1,2,3,7,8-PeCDF	1613B	pg/l	10.4	U				
1,2,3-Trichlorobenzene	8260B	ug/l	5	U	1.0	U		
1,2,3-Trichloropropane	8260B	ug/l	5	U	2.0	U		
1,2,4-Trichlorobenzene	8260B	ug/l	5	U	1.0	U		
1,2,4-Trichlorobenzene	8270C	ug/l	6	U	11	U		
1,2,4-Trimethylbenzene	8260B	ug/l	5	U	1.0	U		
1,2-Dibromo-3-chloropropane	8260B	ug/l	5	U	2.0	U		
1,2-Dibromoethane	8260B	ug/l	5	U	1.0	U		
1,2-Dichlorobenzene	8260B	ug/l	5	U	1.0	U		
1,2-Dichlorobenzene	8270C	ug/l	6	U	11	U		
1,2-Dichloroethane	8260B	ug/l	5	U	1.0	U		
1,2-Dichloropropane	8260B	ug/l	5	U	1.0	U		
1,2-Diphenylhydrazine	8270C	ug/l	6	U	11	U		
1,3,5-Trimethylbenzene	8260B	ug/l	5	U	1.0	U		
1,3,5-Trinitrobenzene	8330A	ug/l	0.60	U	1.0	U		
1,3-Dichlorobenzene	8260B	ug/l	5	U	1.0	U		
1,3-Dichlorobenzene	8270C	ug/l	6	U	11	U		
1,3-Dichloropropane	8260B	ug/l	5	U	1.0	U		
1,4-Dichlorobenzene	8260B	ug/l	5	U	1.0	U		
1,4-Dichlorobenzene	8270C	ug/l	6	U	11	U		
1,4-Dioxane	8260B SIM	ug/l	2.0	U	4.0	U		
1-Methylnaphthalene	8270C	ug/l			11	U		
1-Methylnaphthalene	8270C SIM	ug/l	0.049	U				
2,2-Dichloropropane	8260B	ug/l	5	U	1.0	U		
2,2-Dichlor-Propionic Acid	8151A	ug/l	1.4	U				
2,3,4,6,7,8-HxCDF	1613B	pg/l	10.4	U				
2,3,4,7,8-PeCDF	1613B	pg/l	10.4	U				
2,3,7,8-TCDD	1613B	pg/l	2.09	U				
2,3,7,8-TCDF	1613B	pg/l	2.09	U				
2,4 DB	8151A	ug/l	1.1	U				
2,4,5-T	8151A	ug/l	0.054	U				
2,4,5-TP	8151A	ug/l	0.054	U				
2,4,5-Trichlorophenol	8270C	ug/l	6	U	11	U		
2,4,6-Trichlorophenol	8270C	ug/l	6	U	11	U		
2,4,6-Trinitrotoluene	8330A	ug/l	0.60	U	1.0	U		
2,4-D	8151A	ug/l	0.54	U				
2,4-Diamino-6-nitrotoluene	8330A	ug/l	0.60	U	2.0	U		
2,4-Dichlorophenol	8270C	ug/l	6	U	11	U		
2,4-Dimethylphenol	8270C	ug/l	11	U	11	U		
2,4-Dinitrophenol	8270C	ug/l	33	U	22	U		
2,4-Dinitrotoluene	8270C	ug/l	6	U	11	U		
2,4-Dinitrotoluene	8330A	ug/l	0.60	U	1.0	U		
2,6-Diamino-4-nitrotoluene	8330A	ug/l	0.60	U	2.0	U		
2,6-Dinitrotoluene	8270C	ug/l	6	U	11	U		
2,6-Dinitrotoluene	8330A	ug/l	0.60	U	1.0	U		
2-Amino-4,6-Dinitrotoluene	8330A	ug/l	0.60	U	1.0	U		
2-Butanone	8260B	ug/l	10	U	10	U		
2-butoxy-Ethanol	8270C	ug/l	55	U	11	U		
2-Chloroethyl Vinyl Ether	8260B	ug/l	10	U	2.0	U		
2-Chloronaphthalene	8270C	ug/l	6	U	11	U		
2-Chlorophenol	8270C	ug/l	6	U	11	U		
2-Chlorotoluene	8260B	ug/l	5	U	1.0	U		
2-Hexanone	8260B	ug/l	10	U	10	U		
2-Methylnaphthalene	8270C	ug/l			11	U		
2-Methylnaphthalene	8270C SIM	ug/l	0.049	U				
2-Methylphenol	8270C	ug/l	6	U	11	U		
2-Nitroaniline	8270C	ug/l	6	U	11	U		
2-Nitrophenol	8270C	ug/l	6	U	11	U		
2-Nitrotoluene	8330A	ug/l	0.60	U	1.0	U		
2-phenoxy-Ethanol	8270C	ug/l	55	U	11	U		
2-Propanol	8015B	ug/l	1000	UJ	1000	U		

Table C-3 - Subarea 7 Field Blank Results

		Sample Name:	FB-SA7-102611	FB-SA7-110111	FB-SA7-SB-093011			
		Location:	FB-SA7	FB-SA7	FB-SA7			
		Sample Date:	10/26/2011	11/01/2011	09/30/2011			
		Sample Type	FB	FB	FB			
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
3,3'-Dichlorobenzidine	8270C	ug/l	6	U	11	U		
3,5-Dimethylphenol	8270C	ug/l	11	U	22	U		
3-Nitroaniline	8270C	ug/l	6	U	11	U		
3-Nitrotoluene	8330A	ug/l	1.2	U	1.0	U		
4,4'-DDD	8081A	ug/l	0.051	U				
4,4'-DDE	8081A	ug/l	0.051	U				
4,4'-DDT	8081A	ug/l	0.051	U				
4,6-Dinitro-2-Methylphenol	8270C	ug/l	17	U	22	U		
4-Amino-2,6-Dinitrotoluene	8330A	ug/l	0.60	U	1.0	U		
4-Bromophenyl Phenyl Ether	8270C	ug/l	6	U	11	U		
4-Chloro-3-Methylphenol	8270C	ug/l	6	U	11	U		
4-Chloroaniline	8270C	ug/l	6	U	11	U		
4-Chlorophenyl Phenylether	8270C	ug/l	6	U	11	U		
4-Chlorotoluene	8260B	ug/l	5	U	1.0	U		
4-Methyl-2-Pentanone	8260B	ug/l	10	U	10	U		
4-Methylphenol	8270C	ug/l	6	U	11	U		
4-Nitroaniline	8270C	ug/l	6	U	11	U		
4-Nitrophenol	8270C	ug/l	33	U	22	U		
4-Nitrotoluene	8330A	ug/l	1.2	U	1.0	U		
Acenaphthene	8270C	ug/l			11	U		
Acenaphthene	8270C SIM	ug/l	0.049	U				
Acenaphthylene	8270C	ug/l			11	U		
Acenaphthylene	8270C SIM	ug/l	0.049	U				
Acetone	8260B	ug/l	20	U	10	U		
Aldrin	8081A	ug/l	0.026	U				
Alpha-BHC	8081A	ug/l	0.026	U				
Aluminum	6010B	mg/l	0.200	U				
Aluminum	6020	mg/l			0.100	U		
Aniline	8270C	ug/l	6	U	22	U		
Anthracene	8270C	ug/l			11	U		
Anthracene	8270C SIM	ug/l	0.049	U				
Antimony	6020	mg/l	0.0010	U	0.00100	U		
Aroclor 1016	8082	ug/l	0.49	U	1.1	U		
Aroclor 1221	8082	ug/l	0.49	U	1.1	U		
Aroclor 1232	8082	ug/l	0.49	U	1.1	U		
Aroclor 1242	8082	ug/l	0.49	U	1.1	U		
Aroclor 1248	8082	ug/l	0.49	U	1.1	U		
Aroclor 1254	8082	ug/l	0.49	U	1.1	U		
Aroclor 1260	8082	ug/l	0.49	U	1.1	U		
Aroclor 1262	8082	ug/l	0.49	U	1.1	U		
Aroclor 1268	8082	ug/l	0.49	U	1.1	U		
Aroclor 5432	8082	ug/l	0.49	U	2.2	U		
Aroclor 5442	8082	ug/l	0.49	U	2.2	U		
Aroclor 5460	8082	ug/l	0.49	U	2.2	U		
Arsenic	6020	mg/l	0.0020	U	0.00100	U		
Barium	6020	mg/l	0.0020	U	0.00100	U		
Benzene	8260B	ug/l	5	U	1.0	U		
Benzidine	8270C	ug/l	66	U	54	U		
Benzo(a)anthracene	8270C	ug/l			11	U		
Benzo(a)anthracene	8270C SIM	ug/l	0.049	U				
Benzo(a)pyrene	8270C	ug/l			11	U		
Benzo(a)pyrene	8270C SIM	ug/l	0.049	U				
Benzo(b)fluoranthene	8270C	ug/l			11	U		
Benzo(b)fluoranthene	8270C SIM	ug/l	0.049	U				
Benzo(g,h,i)perylene	8270C	ug/l			11	U		
Benzo(g,h,i)perylene	8270C SIM	ug/l	0.049	U				
Benzo(k)fluoranthene	8270C	ug/l			11	U		
Benzo(k)fluoranthene	8270C SIM	ug/l	0.049	U				
Benzoic Acid	8270C	ug/l	17	U	44	U		
Benzyl Alcohol	8270C	ug/l	17	U	11	U		
Beryllium	6020	mg/l	0.00050	U	0.00100	U		
Beta-BHC	8081A	ug/l	0.026	U				
Bis(2-Chloroethoxy) methane	8270C	ug/l	6	U	11	U		
Bis(2-Chloroethyl) ether	8270C	ug/l	6	U	11	U		
bis(2-Chloroisopropyl) ether	8270C	ug/l	6	U	11	U		
Bis(2-Ethylhexyl) phthalate	8270C	ug/l			22	U		
Bis(2-Ethylhexyl) phthalate	8270C SIM	ug/l	0.98	U				
Boron	6010B	mg/l	0.148					
Boron	6020	mg/l			0.0100	U		
Bromobenzene	8260B	ug/l	5	U	1.0	U		
Bromochloromethane	8260B	ug/l	5	U	1.0	U		
Bromodichloromethane	8260B	ug/l	5	U	1.0	U		
Bromoform	8260B	ug/l	5	U	1.0	U		
Bromomethane	8260B	ug/l	5	U	1.0	U		
Butylbenzylphthalate	8270C	ug/l			11	U		
Butylbenzylphthalate	8270C SIM	ug/l	0.98	U				
Cadmium	6020	mg/l	0.00050	U	0.00100	U		
Calcium	6010B	mg/l	9.89					

Table C-3 - Subarea 7 Field Blank Results

		Sample Name:	FB-SA7-102611	FB-SA7-110111	FB-SA7-SB-093011			
		Location:	FB-SA7	FB-SA7	FB-SA7			
		Sample Date:	10/26/2011	11/01/2011	09/30/2011			
		Sample Type	FB	FB	FB			
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Calcium	6020	mg/l			0.100	U		
Carbazole	8270C	ug/l	6	U	11	U		
Carbon tetrachloride	8260B	ug/l	5	U	1.0	U		
Chlordane	8081A	ug/l	1.3	U				
Chlorobenzene	8260B	ug/l	5	U	1.0	U		
Chloroethane	8260B	ug/l	5	U	1.0	U		
Chloroform	8260B	ug/l	5	U	2.7			
Chloromethane	8260B	ug/l	5	U	1.0	U		
Chlorotrifluoroethene	8260B	ug/l	5	U	1.0	U		
Chromium	6020	mg/l	0.0020	U	0.00100	U		
Chromium VI	7199	ug/l	10.0	UJ	0.200	UJ		
Chrysene	8270C	ug/l			11	U		
Chrysene	8270C SIM	ug/l	0.049	U				
cis-1,2-Dichloroethene	8260B	ug/l	5	U	1.0	U		
cis-1,3-Dichloropropene	8260B	ug/l	5	U	1.0	U		
Cobalt	6020	mg/l	0.00050	U	0.00100	U		
Copper	6020	mg/l	0.0020	U	0.00100	U		
Cyanide	9012B	mg/l	0.010	U				
Cyanide	9014	mg/l			0.0100	U		
Delta-BHC	8081A	ug/l	0.026	U				
Dibenzo(a,h)anthracene	8270C	ug/l			11	U		
Dibenzo(a,h)anthracene	8270C SIM	ug/l	0.049	U				
Dibenzofuran	8270C	ug/l	6	U	11	U		
Dibromochloromethane	8260B	ug/l	5	U	1.0	U		
Dibromomethane	8260B	ug/l	5	U	1.0	U		
Dicamba	8151A	ug/l	0.32	U				
Dichlorodifluoromethane	8260B	ug/l	5	U	1.0	U		
Dichlorprop	8151A	ug/l	0.54	U				
Dieldrin	8081A	ug/l	0.051	U				
Diethylene Glycol	8015M	mg/l	200	U	10	U		
Diethylphthalate	8270C	ug/l			11	U		
Diethylphthalate	8270C SIM	ug/l	0.98	U				
Dimethylphthalate	8270C	ug/l			11	U		
Dimethylphthalate	8270C SIM	ug/l	0.98	U				
Di-n-Butylphthalate	8270C	ug/l			11	U		
Di-n-Butylphthalate	8270C SIM	ug/l	0.98	U				
Dinitrobutyl Phenol	8151A	ug/l	0.54	U				
Di-N-Octyl Phthalate	8270C	ug/l			11	U		
Di-N-Octyl Phthalate	8270C SIM	ug/l	0.083	J				
EFH (C12-C14)	8015B EFH	mg/l			0.52	U		
EFH (C12-C14)	8015M	mg/l	0.66	U				
EFH (C15-C20)	8015B EFH	mg/l			0.52	U		
EFH (C15-C20)	8015M	mg/l	0.66	U				
EFH (C21-C30)	8015B EFH	mg/l			0.52	U		
EFH (C21-C30)	8015M	mg/l	0.66	U				
EFH (C30-C40)	8015B EFH	mg/l			0.52	U		
EFH (C30-C40)	8015M	mg/l	0.66	U				
EFH (C8-C11)	8015B EFH	mg/l			0.52	U		
EFH (C8-C11)	8015M	mg/l	0.66	U				
Endosulfan I	8081A	ug/l	0.026	U				
Endosulfan II	8081A	ug/l	0.051	U				
Endosulfan Sulfate	8081A	ug/l	0.051	U				
Endrin	8081A	ug/l	0.051	U				
Endrin Aldehyde	8081A	ug/l	0.26	U				
Endrin Ketone	8081A	ug/l	0.051	U				
Ethanol	8015B	ug/l	1000	UJ	1000	U		
Ethylbenzene	8260B	ug/l	5	U	1.4			
Ethylene Glycol	8015M	mg/l	200	UJ	10	U		
Fluoranthene	8270C	ug/l			11	U		
Fluoranthene	8270C SIM	ug/l	0.049	U				
Fluorene	8270C	ug/l			11	U		
Fluorene	8270C SIM	ug/l	0.049	U				
Fluoride	300.0	mg/l	0.10	U	0.100	U		
Formaldehyde	8315A	ug/l	50	U				
Freon 113	8260B	ug/l	10	U	1.0	U		
Freon 113a	8260B	ug/l	5	U	1.0	U		
Gamma-BHC (Lindane)	8081A	ug/l	0.026	U				
GRO (C5-C12)	8015B GRO	ug/l			50	U		
GRO (C5-C12)	8015M	ug/l	50	U				
Heptachlor	8081A	ug/l	0.026	U				
Heptachlor Epoxide	8081A	ug/l	0.026	U				
Hexachlorobenzene	8270C	ug/l	6	U	11	U		
Hexachlorobutadiene	8260B	ug/l	5	U	1.0	U		
Hexachlorobutadiene	8270C	ug/l	6	U	11	U		
Hexachlorocyclopentadiene	8270C	ug/l	17	U	22	U		
Hexachloroethane	8270C	ug/l	6	U	11	U		
HMX	8330A	ug/l	2.0	U	1.0	U		
Indeno(1,2,3-Cd)Pyrene	8270C	ug/l			11	U		

Table C-3 - Subarea 7 Field Blank Results

Sample Name: Location: Sample Date: Sample Type			FB-SA7-102611 FB-SA7 10/26/2011 FB	FB-SA7-110111 FB-SA7 11/01/2011 FB	FB-SA7-SB-093011 FB-SA7 09/30/2011 FB			
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Indeno(1,2,3-Cd)Pyrene	8270C SIM	ug/l	0.049	U				
Iron	6010B	mg/l	0.200	U				
Iron	6020	mg/l			0.100	U		
Isophorone	8270C	ug/l	6	U	11	U		
Isopropylbenzene	8260B	ug/l	5	U	1.0	U		
Isopropyltoluene	8260B	ug/l	5	U	1.0	U		
Lead	6020	mg/l	0.0010	U	0.00100	U		
Lithium	6010B	mg/l	0.0200	U				
Lithium	6020	mg/l			0.00200	U		
m,p-Xylene	8260B	ug/l	5	U	5.7			
Magnesium	6010B	mg/l	1.22					
Magnesium	6020	mg/l			0.100	U		
Manganese	6010B	mg/l	0.0050	U				
Manganese	6020	mg/l			0.00100	U		
MCPA	8151A	ug/l	1100	U				
MCPP	8151A	ug/l	220	U				
m-Dinitrobenzene	8330A	ug/l	0.60	U	1.0	U		
Mercury	7470A	mg/l	0.00020	U	0.000500	U		
Methanol	8015B	ug/l	1000	UJ	1000	U		
Methoxychlor	8081A	ug/l	0.26	U				
Methyl tert-Butyl Ether	8260B	ug/l	5	U	1.0	U		
Methylene chloride	8260B	ug/l	5	U	1.0	U		
Mirex	8081A	ug/l	0.64	U				
Molybdenum	6020	mg/l	0.00050	U	0.00200	U		
m-Terphenyl	8015B	mg/l	0.26	U				
Naphthalene	8270C	ug/l			11	U		
Naphthalene	8270C SIM	ug/l	0.049	U				
N-Butylbenzene	8260B	ug/l	5	U	1.0	U		
Nickel	6020	mg/l	0.0020	U	0.00100	U		
Nitrate	300.0	mg/l	0.10	U	0.443	U		
Nitrobenzene	8270C	ug/l	6	U	11	U		
Nitrobenzene	8330A	ug/l	0.60	U	1.0	U		
Nitroglycerin	8330A	ug/l	15	U				
Nitroglycerin	8332	ug/l			250	U		
N-Nitrosodimethylamine	1625C	ng/l	1.10	U			0.955	U
N-Nitrosodimethylamine	8270C SIM	ug/l	0.049	U				
N-Nitroso-Di-N-Propylamine	8270C	ug/l	6	U	11	U		
N-Nitrosodiphenylamine	8270C	ug/l	6	U	11	U		
N-Propylbenzene	8260B	ug/l	5	U	1.0	U		
OCDD	1613B	pg/l	20.9	U				
OCDF	1613B	pg/l	20.9	U				
o-Terphenyl	8015B	mg/l	0.26	U				
o-Xylene	8260B	ug/l	5	U	2.6			
Pentachlorophenol	8270C	ug/l	17	U	22	U		
Perchlorate	314.0	ug/l	2.0	U	2.00	U		
PETN	8330A	ug/l	18	U				
PETN	8332	ug/l			250	U		
pH	9040B	pH unit	7.2					
pH	9040C	pH unit			5.77			
Phenanthrene	8270C	ug/l			11	U		
Phenanthrene	8270C SIM	ug/l	0.049	U				
Phenol	8270C	ug/l	6	U	11	U		
Phosphorus	6010B	mg/l	0.100	U				
Phosphorus	6020	mg/l			0.0500	U		
Potassium	6010B	mg/l	0.500	U				
Potassium	6020	mg/l			0.100	U		
Propylene glycol	8015M	mg/l	200	UJ	10	U		
p-Terphenyl	8015B	mg/l	0.26	U				
Pyrene	8270C	ug/l			11	U		
Pyrene	8270C SIM	ug/l	0.049	U				
RDX	8330A	ug/l	0.60	U	1.0	U		
sec-Butylbenzene	8260B	ug/l	5	U	1.0	U		
Selenium	6020	mg/l	0.0020	U	0.00100	U		
Silver	6020	mg/l	0.00050	U	0.00100	U		
Sodium	6010B	mg/l	8.30					
Sodium	6020	mg/l			0.100	U		
Strontium	6010B	mg/l	0.0018	J				
Strontium	6020	mg/l			0.00200	U		
Styrene	8260B	ug/l	5	U	1.0	U		
tert-Butylbenzene	8260B	ug/l	5	U	1.0	U		
Tetrachloroethene	8260B	ug/l	5	U	1.0	U		
Tetralin	8270C	ug/l	6	U	11	U		
Tetryl	8330A	ug/l	0.60	U	1.0	U		
Thallium	6020	mg/l	0.00050	U	0.00100	U		
Tin	6010B	mg/l	0.0200	U				
Tin	6020	mg/l			0.00100	U		
Titanium	6010B	mg/l	0.00060	J				
Titanium	6020	mg/l			0.00200	U		

**Table C-3 - Subarea 7 Field Blank Results**

		Sample Name:	FB-SA7-102611	FB-SA7-110111	FB-SA7-SB-093011			
		Location:	FB-SA7	FB-SA7	FB-SA7			
		Sample Date:	10/26/2011	11/01/2011	09/30/2011			
		Sample Type:	FB	FB	FB			
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Toluene	8260B	ug/l	5	U	5.5			
Toxaphene	8081A	ug/l	7.7	U				
trans-1,2-Dichloroethene	8260B	ug/l	5	U	1.0	U		
trans-1,3-Dichloropropene	8260B	ug/l	5	U	1.0	U		
Trichloroethene	8260B	ug/l	5	U	1.0	U		
Trichlorofluoromethane	8260B	ug/l	5	U	1.0	U		
Vanadium	6020	mg/l	0.00050	U	0.00100	U		
Vinyl Chloride	8260B	ug/l	5	U	1.0	U		
Zinc	6020	mg/l	0.0150	U	0.0200	U		
Zirconium	6010B	mg/l	0.0500	U				
Zirconium	6020	mg/l			0.00500	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 7 Trip Blank Results

Sample Name: Sample Date: Sample Type			TB-091311 09/13/2011 TB		TB-091411 09/14/2011 TB		TB-091511 09/15/2011 TB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l						
1,1,1-Trichloroethane	8260B	ug/l						
1,1,2,2-Tetrachloroethane	8260B	ug/l						
1,1,2-Trichloroethane	8260B	ug/l						
1,1-Dichloroethane	8260B	ug/l						
1,1-Dichloroethene	8260B	ug/l						
1,1-Dichloropropene	8260B	ug/l						
1,2,3-Trichlorobenzene	8260B	ug/l						
1,2,3-Trichloropropane	8260B	ug/l						
1,2,4-Trichlorobenzene	8260B	ug/l						
1,2,4-Trimethylbenzene	8260B	ug/l						
1,2-Dibromo-3-chloropropane	8260B	ug/l						
1,2-Dibromoethane	8260B	ug/l						
1,2-Dichlorobenzene	8260B	ug/l						
1,2-Dichloroethane	8260B	ug/l						
1,2-Dichloropropane	8260B	ug/l						
1,3,5-Trimethylbenzene	8260B	ug/l						
1,3-Dichlorobenzene	8260B	ug/l						
1,3-Dichloropropane	8260B	ug/l						
1,4-Dichlorobenzene	8260B	ug/l						
1,4-Dioxane	8260B SIM	ug/l						
2,2-Dichloropropane	8260B	ug/l						
2-Butanone	8260B	ug/l						
2-Chloroethyl Vinyl Ether	8260B	ug/l						
2-Chlorotoluene	8260B	ug/l						
2-Hexanone	8260B	ug/l						
4-Chlorotoluene	8260B	ug/l						
4-Methyl-2-Pentanone	8260B	ug/l						
Acetone	8260B	ug/l						
Benzene	8260B	ug/l						
Bromobenzene	8260B	ug/l						
Bromochloromethane	8260B	ug/l						
Bromodichloromethane	8260B	ug/l						
Bromoform	8260B	ug/l						
Bromomethane	8260B	ug/l						
Carbon tetrachloride	8260B	ug/l						
Chlorobenzene	8260B	ug/l						
Chloroethane	8260B	ug/l						
Chloroform	8260B	ug/l						
Chloromethane	8260B	ug/l						
Chlorotrifluoroethene	8260B	ug/l						
cis-1,2-Dichloroethene	8260B	ug/l						
cis-1,3-Dichloropropene	8260B	ug/l						
Dibromochloromethane	8260B	ug/l						
Dibromomethane	8260B	ug/l						
Dichlorodifluoromethane	8260B	ug/l						
Ethylbenzene	8260B	ug/l						
Freon 113	8260B	ug/l						
Freon 113a	8260B	ug/l						
GRO (C5-C12)	8015B GRO	ug/l						
GRO (C5-C12)	8015M	ug/l	50	U	50	U	50	U
Hexachlorobutadiene	8260B	ug/l						
Isopropylbenzene	8260B	ug/l						
Isopropyltoluene	8260B	ug/l						
m,p-Xylene	8260B	ug/l						
Methyl tert-Butyl Ether	8260B	ug/l						
Methylene chloride	8260B	ug/l						
N-Butylbenzene	8260B	ug/l						
N-Nitrosodimethylamine	1625C	ng/kg						
N-Nitrosodimethylamine	1625C	ng/l						
N-Propylbenzene	8260B	ug/l						
o-Xylene	8260B	ug/l						
Percent Moisture	160.3M	%						
sec-Butylbenzene	8260B	ug/l						
Styrene	8260B	ug/l						
tert-Butylbenzene	8260B	ug/l						
Tetrachloroethene	8260B	ug/l						
Toluene	8260B	ug/l						
trans-1,2-Dichloroethene	8260B	ug/l						
trans-1,3-Dichloropropene	8260B	ug/l						
Trichloroethene	8260B	ug/l						
Trichlorofluoromethane	8260B	ug/l						
Vinyl Chloride	8260B	ug/l						

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-4 - Subarea 7 Trip Blank Results

Sample Name: Sample Date: Sample Type			TB-091911 09/19/2011 TB		TB-092011 09/20/2011 TB		TB-092111 09/21/2011 TB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l						
1,1,1-Trichloroethane	8260B	ug/l						
1,1,2,2-Tetrachloroethane	8260B	ug/l						
1,1,2-Trichloroethane	8260B	ug/l						
1,1-Dichloroethane	8260B	ug/l						
1,1-Dichloroethene	8260B	ug/l						
1,1-Dichloropropene	8260B	ug/l						
1,2,3-Trichlorobenzene	8260B	ug/l						
1,2,3-Trichloropropane	8260B	ug/l						
1,2,4-Trichlorobenzene	8260B	ug/l						
1,2,4-Trimethylbenzene	8260B	ug/l						
1,2-Dibromo-3-chloropropane	8260B	ug/l						
1,2-Dibromoethane	8260B	ug/l						
1,2-Dichlorobenzene	8260B	ug/l						
1,2-Dichloroethane	8260B	ug/l						
1,2-Dichloropropane	8260B	ug/l						
1,3,5-Trimethylbenzene	8260B	ug/l						
1,3-Dichlorobenzene	8260B	ug/l						
1,3-Dichloropropane	8260B	ug/l						
1,4-Dichlorobenzene	8260B	ug/l						
1,4-Dioxane	8260B SIM	ug/l						
2,2-Dichloropropane	8260B	ug/l						
2-Butanone	8260B	ug/l						
2-Chloroethyl Vinyl Ether	8260B	ug/l						
2-Chlorotoluene	8260B	ug/l						
2-Hexanone	8260B	ug/l						
4-Chlorotoluene	8260B	ug/l						
4-Methyl-2-Pentanone	8260B	ug/l						
Acetone	8260B	ug/l						
Benzene	8260B	ug/l						
Bromobenzene	8260B	ug/l						
Bromochloromethane	8260B	ug/l						
Bromodichloromethane	8260B	ug/l						
Bromoform	8260B	ug/l						
Bromomethane	8260B	ug/l						
Carbon tetrachloride	8260B	ug/l						
Chlorobenzene	8260B	ug/l						
Chloroethane	8260B	ug/l						
Chloroform	8260B	ug/l						
Chloromethane	8260B	ug/l						
Chlorotrifluoroethene	8260B	ug/l						
cis-1,2-Dichloroethene	8260B	ug/l						
cis-1,3-Dichloropropene	8260B	ug/l						
Dibromochloromethane	8260B	ug/l						
Dibromomethane	8260B	ug/l						
Dichlorodifluoromethane	8260B	ug/l						
Ethylbenzene	8260B	ug/l						
Freon 113	8260B	ug/l						
Freon 113a	8260B	ug/l						
GRO (C5-C12)	8015B GRO	ug/l						
GRO (C5-C12)	8015M	ug/l	50	U	50	U	50	U
Hexachlorobutadiene	8260B	ug/l						
Isopropylbenzene	8260B	ug/l						
Isopropyltoluene	8260B	ug/l						
m,p-Xylene	8260B	ug/l						
Methyl tert-Butyl Ether	8260B	ug/l						
Methylene chloride	8260B	ug/l						
N-Butylbenzene	8260B	ug/l						
N-Nitrosodimethylamine	1625C	ng/kg						
N-Nitrosodimethylamine	1625C	ng/l						
N-Propylbenzene	8260B	ug/l						
o-Xylene	8260B	ug/l						
Percent Moisture	160.3M	%						
sec-Butylbenzene	8260B	ug/l						
Styrene	8260B	ug/l						
tert-Butylbenzene	8260B	ug/l						
Tetrachloroethene	8260B	ug/l						
Toluene	8260B	ug/l						
trans-1,2-Dichloroethene	8260B	ug/l						
trans-1,3-Dichloropropene	8260B	ug/l						
Trichloroethene	8260B	ug/l						
Trichlorofluoromethane	8260B	ug/l						
Vinyl Chloride	8260B	ug/l						

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-4 - Subarea 7 Trip Blank Results

Sample Name: Sample Date: Sample Type			TB-092211 09/22/2011 TB		TB-092311 09/23/2011 TB		TB-092611 09/26/2011 TB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l						
1,1,1-Trichloroethane	8260B	ug/l						
1,1,2,2-Tetrachloroethane	8260B	ug/l						
1,1,2-Trichloroethane	8260B	ug/l						
1,1-Dichloroethane	8260B	ug/l						
1,1-Dichloroethene	8260B	ug/l						
1,1-Dichloropropene	8260B	ug/l						
1,2,3-Trichlorobenzene	8260B	ug/l						
1,2,3-Trichloropropane	8260B	ug/l						
1,2,4-Trichlorobenzene	8260B	ug/l						
1,2,4-Trimethylbenzene	8260B	ug/l						
1,2-Dibromo-3-chloropropane	8260B	ug/l						
1,2-Dibromoethane	8260B	ug/l						
1,2-Dichlorobenzene	8260B	ug/l						
1,2-Dichloroethane	8260B	ug/l						
1,2-Dichloropropane	8260B	ug/l						
1,3,5-Trimethylbenzene	8260B	ug/l						
1,3-Dichlorobenzene	8260B	ug/l						
1,3-Dichloropropane	8260B	ug/l						
1,4-Dichlorobenzene	8260B	ug/l						
1,4-Dioxane	8260B SIM	ug/l						
2,2-Dichloropropane	8260B	ug/l						
2-Butanone	8260B	ug/l						
2-Chloroethyl Vinyl Ether	8260B	ug/l						
2-Chlorotoluene	8260B	ug/l						
2-Hexanone	8260B	ug/l						
4-Chlorotoluene	8260B	ug/l						
4-Methyl-2-Pentanone	8260B	ug/l						
Acetone	8260B	ug/l						
Benzene	8260B	ug/l						
Bromobenzene	8260B	ug/l						
Bromochloromethane	8260B	ug/l						
Bromodichloromethane	8260B	ug/l						
Bromoform	8260B	ug/l						
Bromomethane	8260B	ug/l						
Carbon tetrachloride	8260B	ug/l						
Chlorobenzene	8260B	ug/l						
Chloroethane	8260B	ug/l						
Chloroform	8260B	ug/l						
Chloromethane	8260B	ug/l						
Chlorotrifluoroethene	8260B	ug/l						
cis-1,2-Dichloroethene	8260B	ug/l						
cis-1,3-Dichloropropene	8260B	ug/l						
Dibromochloromethane	8260B	ug/l						
Dibromomethane	8260B	ug/l						
Dichlorodifluoromethane	8260B	ug/l						
Ethylbenzene	8260B	ug/l						
Freon 113	8260B	ug/l						
Freon 113a	8260B	ug/l						
GRO (C5-C12)	8015B GRO	ug/l						
GRO (C5-C12)	8015M	ug/l	50	U	50	U	50	U
Hexachlorobutadiene	8260B	ug/l						
Isopropylbenzene	8260B	ug/l						
Isopropyltoluene	8260B	ug/l						
m,p-Xylene	8260B	ug/l						
Methyl tert-Butyl Ether	8260B	ug/l						
Methylene chloride	8260B	ug/l						
N-Butylbenzene	8260B	ug/l						
N-Nitrosodimethylamine	1625C	ng/kg						
N-Nitrosodimethylamine	1625C	ng/l						
N-Propylbenzene	8260B	ug/l						
o-Xylene	8260B	ug/l						
Percent Moisture	160.3M	%						
sec-Butylbenzene	8260B	ug/l						
Styrene	8260B	ug/l						
tert-Butylbenzene	8260B	ug/l						
Tetrachloroethene	8260B	ug/l						
Toluene	8260B	ug/l						
trans-1,2-Dichloroethene	8260B	ug/l						
trans-1,3-Dichloropropene	8260B	ug/l						
Trichloroethene	8260B	ug/l						
Trichlorofluoromethane	8260B	ug/l						
Vinyl Chloride	8260B	ug/l						

ug/L - microgram per liter

U - Compound not detected above the reporting limit

**Table C-4 - Subarea 7 Trip Blank Results**

Sample Name: Sample Date: Sample Type			TB-092711 09/27/2011 TB		TB-092911 09/29/2011 TB		TB-100711-AQ 10/07/2011 TB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l	5	U				
1,1,1-Trichloroethane	8260B	ug/l	5	U				
1,1,2,2-Tetrachloroethane	8260B	ug/l	5	U				
1,1,2-Trichloroethane	8260B	ug/l	5	U				
1,1-Dichloroethane	8260B	ug/l	5	U				
1,1-Dichloroethene	8260B	ug/l	5	U				
1,1-Dichloropropene	8260B	ug/l	5	U				
1,2,3-Trichlorobenzene	8260B	ug/l	5	U				
1,2,3-Trichloropropane	8260B	ug/l	5	U				
1,2,4-Trichlorobenzene	8260B	ug/l	5	U				
1,2,4-Trimethylbenzene	8260B	ug/l	5	U				
1,2-Dibromo-3-chloropropane	8260B	ug/l	5	U				
1,2-Dibromoethane	8260B	ug/l	5	U				
1,2-Dichlorobenzene	8260B	ug/l	5	U				
1,2-Dichloroethane	8260B	ug/l	5	U				
1,2-Dichloropropane	8260B	ug/l	5	U				
1,3,5-Trimethylbenzene	8260B	ug/l	5	U				
1,3-Dichlorobenzene	8260B	ug/l	5	U				
1,3-Dichloropropane	8260B	ug/l	5	U				
1,4-Dichlorobenzene	8260B	ug/l	5	U				
1,4-Dioxane	8260B SIM	ug/l	2.0	U				
2,2-Dichloropropane	8260B	ug/l	5	U				
2-Butanone	8260B	ug/l	10	U				
2-Chloroethyl Vinyl Ether	8260B	ug/l	10	U				
2-Chlorotoluene	8260B	ug/l	5	U				
2-Hexanone	8260B	ug/l	10	U				
4-Chlorotoluene	8260B	ug/l	5	U				
4-Methyl-2-Pentanone	8260B	ug/l	10	U				
Acetone	8260B	ug/l	20	U				
Benzene	8260B	ug/l	5	U				
Bromobenzene	8260B	ug/l	5	U				
Bromochloromethane	8260B	ug/l	5	U				
Bromodichloromethane	8260B	ug/l	5	U				
Bromoform	8260B	ug/l	5	U				
Bromomethane	8260B	ug/l	5	U				
Carbon tetrachloride	8260B	ug/l	5	U				
Chlorobenzene	8260B	ug/l	5	U				
Chloroethane	8260B	ug/l	5	U				
Chloroform	8260B	ug/l	5	U				
Chloromethane	8260B	ug/l	5	U				
Chlorotrifluoroethene	8260B	ug/l	5	U				
cis-1,2-Dichloroethene	8260B	ug/l	5	U				
cis-1,3-Dichloropropene	8260B	ug/l	5	U				
Dibromochloromethane	8260B	ug/l	5	U				
Dibromomethane	8260B	ug/l	5	U				
Dichlorodifluoromethane	8260B	ug/l	5	U				
Ethylbenzene	8260B	ug/l	5	U				
Freon 113	8260B	ug/l	10	U				
Freon 113a	8260B	ug/l	5	U				
GRO (C5-C12)	8015B GRO	ug/l						
GRO (C5-C12)	8015M	ug/l	50	U	50	U	50	U
Hexachlorobutadiene	8260B	ug/l	5	U				
Isopropylbenzene	8260B	ug/l	5	U				
Isopropyltoluene	8260B	ug/l	5	U				
m,p-Xylene	8260B	ug/l	5	U				
Methyl tert-Butyl Ether	8260B	ug/l	5	U				
Methylene chloride	8260B	ug/l	5	U				
N-Butylbenzene	8260B	ug/l	5	U				
N-Nitrosodimethylamine	1625C	ng/kg			33.0	U		
N-Nitrosodimethylamine	1625C	ng/l			4.12		0.975	U
N-Propylbenzene	8260B	ug/l	5	U				
o-Xylene	8260B	ug/l	5	U				
Percent Moisture	160.3M	%			0.50	U		
sec-Butylbenzene	8260B	ug/l	5	U				
Styrene	8260B	ug/l	5	U				
tert-Butylbenzene	8260B	ug/l	5	U				
Tetrachloroethene	8260B	ug/l	5	U				
Toluene	8260B	ug/l	5	U				
trans-1,2-Dichloroethene	8260B	ug/l	5	U				
trans-1,3-Dichloropropene	8260B	ug/l	5	U				
Trichloroethene	8260B	ug/l	5	U				
Trichlorofluoromethane	8260B	ug/l	5	U				
Vinyl Chloride	8260B	ug/l	5	U				

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-4 - Subarea 7 Trip Blank Results

		Sample Name: Sample Date: Sample Type	TB-100711-SO 10/07/2011 TB		TB-101011-AQ 10/10/2011 TB		TB-101011-SO 10/10/2011 TB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l						
1,1,1-Trichloroethane	8260B	ug/l						
1,1,2,2-Tetrachloroethane	8260B	ug/l						
1,1,2-Trichloroethane	8260B	ug/l						
1,1-Dichloroethane	8260B	ug/l						
1,1-Dichloroethene	8260B	ug/l						
1,1-Dichloropropene	8260B	ug/l						
1,2,3-Trichlorobenzene	8260B	ug/l						
1,2,3-Trichloropropane	8260B	ug/l						
1,2,4-Trichlorobenzene	8260B	ug/l						
1,2,4-Trimethylbenzene	8260B	ug/l						
1,2-Dibromo-3-chloropropane	8260B	ug/l						
1,2-Dibromoethane	8260B	ug/l						
1,2-Dichlorobenzene	8260B	ug/l						
1,2-Dichloroethane	8260B	ug/l						
1,2-Dichloropropane	8260B	ug/l						
1,3,5-Trimethylbenzene	8260B	ug/l						
1,3-Dichlorobenzene	8260B	ug/l						
1,3-Dichloropropane	8260B	ug/l						
1,4-Dichlorobenzene	8260B	ug/l						
1,4-Dioxane	8260B SIM	ug/l						
2,2-Dichloropropane	8260B	ug/l						
2-Butanone	8260B	ug/l						
2-Chloroethyl Vinyl Ether	8260B	ug/l						
2-Chlorotoluene	8260B	ug/l						
2-Hexanone	8260B	ug/l						
4-Chlorotoluene	8260B	ug/l						
4-Methyl-2-Pentanone	8260B	ug/l						
Acetone	8260B	ug/l						
Benzene	8260B	ug/l						
Bromobenzene	8260B	ug/l						
Bromochloromethane	8260B	ug/l						
Bromodichloromethane	8260B	ug/l						
Bromoform	8260B	ug/l						
Bromomethane	8260B	ug/l						
Carbon tetrachloride	8260B	ug/l						
Chlorobenzene	8260B	ug/l						
Chloroethane	8260B	ug/l						
Chloroform	8260B	ug/l						
Chloromethane	8260B	ug/l						
Chlorotrifluoroethene	8260B	ug/l						
cis-1,2-Dichloroethene	8260B	ug/l						
cis-1,3-Dichloropropene	8260B	ug/l						
Dibromochloromethane	8260B	ug/l						
Dibromomethane	8260B	ug/l						
Dichlorodifluoromethane	8260B	ug/l						
Ethylbenzene	8260B	ug/l						
Freon 113	8260B	ug/l						
Freon 113a	8260B	ug/l						
GRO (C5-C12)	8015B GRO	ug/l						
GRO (C5-C12)	8015M	ug/l			50	U		
Hexachlorobutadiene	8260B	ug/l						
Isopropylbenzene	8260B	ug/l						
Isopropyltoluene	8260B	ug/l						
m,p-Xylene	8260B	ug/l						
Methyl tert-Butyl Ether	8260B	ug/l						
Methylene chloride	8260B	ug/l						
N-Butylbenzene	8260B	ug/l						
N-Nitrosodimethylamine	1625C	ng/kg	32.9	U			33.2	U
N-Nitrosodimethylamine	1625C	ng/l			1.02	U		
N-Propylbenzene	8260B	ug/l						
o-Xylene	8260B	ug/l						
Percent Moisture	160.3M	%	0.50	U			0.50	U
sec-Butylbenzene	8260B	ug/l						
Styrene	8260B	ug/l						
tert-Butylbenzene	8260B	ug/l						
Tetrachloroethene	8260B	ug/l						
Toluene	8260B	ug/l						
trans-1,2-Dichloroethene	8260B	ug/l						
trans-1,3-Dichloropropene	8260B	ug/l						
Trichloroethene	8260B	ug/l						
Trichlorofluoromethane	8260B	ug/l						
Vinyl Chloride	8260B	ug/l						

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-4 - Subarea 7 Trip Blank Results

		Sample Name: Sample Date: Sample Type	TB-101111 10/11/2011 TB		TB-101211 10/12/2011 TB		TB-101311 10/13/2011 TB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l						
1,1,1-Trichloroethane	8260B	ug/l						
1,1,2,2-Tetrachloroethane	8260B	ug/l						
1,1,2-Trichloroethane	8260B	ug/l						
1,1-Dichloroethane	8260B	ug/l						
1,1-Dichloroethene	8260B	ug/l						
1,1-Dichloropropene	8260B	ug/l						
1,2,3-Trichlorobenzene	8260B	ug/l						
1,2,3-Trichloropropane	8260B	ug/l						
1,2,4-Trichlorobenzene	8260B	ug/l						
1,2,4-Trimethylbenzene	8260B	ug/l						
1,2-Dibromo-3-chloropropane	8260B	ug/l						
1,2-Dibromoethane	8260B	ug/l						
1,2-Dichlorobenzene	8260B	ug/l						
1,2-Dichloroethane	8260B	ug/l						
1,2-Dichloropropane	8260B	ug/l						
1,3,5-Trimethylbenzene	8260B	ug/l						
1,3-Dichlorobenzene	8260B	ug/l						
1,3-Dichloropropane	8260B	ug/l						
1,4-Dichlorobenzene	8260B	ug/l						
1,4-Dioxane	8260B SIM	ug/l						
2,2-Dichloropropane	8260B	ug/l						
2-Butanone	8260B	ug/l						
2-Chloroethyl Vinyl Ether	8260B	ug/l						
2-Chlorotoluene	8260B	ug/l						
2-Hexanone	8260B	ug/l						
4-Chlorotoluene	8260B	ug/l						
4-Methyl-2-Pentanone	8260B	ug/l						
Acetone	8260B	ug/l						
Benzene	8260B	ug/l						
Bromobenzene	8260B	ug/l						
Bromochloromethane	8260B	ug/l						
Bromodichloromethane	8260B	ug/l						
Bromoform	8260B	ug/l						
Bromomethane	8260B	ug/l						
Carbon tetrachloride	8260B	ug/l						
Chlorobenzene	8260B	ug/l						
Chloroethane	8260B	ug/l						
Chloroform	8260B	ug/l						
Chloromethane	8260B	ug/l						
Chlorotrifluoroethene	8260B	ug/l						
cis-1,2-Dichloroethene	8260B	ug/l						
cis-1,3-Dichloropropene	8260B	ug/l						
Dibromochloromethane	8260B	ug/l						
Dibromomethane	8260B	ug/l						
Dichlorodifluoromethane	8260B	ug/l						
Ethylbenzene	8260B	ug/l						
Freon 113	8260B	ug/l						
Freon 113a	8260B	ug/l						
GRO (C5-C12)	8015B GRO	ug/l						
GRO (C5-C12)	8015M	ug/l	50	U	50	U	50	U
Hexachlorobutadiene	8260B	ug/l						
Isopropylbenzene	8260B	ug/l						
Isopropyltoluene	8260B	ug/l						
m,p-Xylene	8260B	ug/l						
Methyl tert-Butyl Ether	8260B	ug/l						
Methylene chloride	8260B	ug/l						
N-Butylbenzene	8260B	ug/l						
N-Nitrosodimethylamine	1625C	ng/kg	33.1	U	33.3	U	33.2	U
N-Nitrosodimethylamine	1625C	ng/l	1.1600000000	UJ	1.0300000000	UJ	1.2300000000	U
N-Propylbenzene	8260B	ug/l						
o-Xylene	8260B	ug/l						
Percent Moisture	160.3M	%	0.50	U	0.50	U	0.50	U
sec-Butylbenzene	8260B	ug/l						
Styrene	8260B	ug/l						
tert-Butylbenzene	8260B	ug/l						
Tetrachloroethene	8260B	ug/l						
Toluene	8260B	ug/l						
trans-1,2-Dichloroethene	8260B	ug/l						
trans-1,3-Dichloropropene	8260B	ug/l						
Trichloroethene	8260B	ug/l						
Trichlorofluoromethane	8260B	ug/l						
Vinyl Chloride	8260B	ug/l						

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-4 - Subarea 7 Trip Blank Results

		Sample Name: Sample Date: Sample Type	TB-101411 10/14/2011 TB		TB-101711 10/17/2011 TB		TB-101811 10/18/2011 TB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l						
1,1,1-Trichloroethane	8260B	ug/l						
1,1,2,2-Tetrachloroethane	8260B	ug/l						
1,1,2-Trichloroethane	8260B	ug/l						
1,1-Dichloroethane	8260B	ug/l						
1,1-Dichloroethene	8260B	ug/l						
1,1-Dichloropropene	8260B	ug/l						
1,2,3-Trichlorobenzene	8260B	ug/l						
1,2,3-Trichloropropane	8260B	ug/l						
1,2,4-Trichlorobenzene	8260B	ug/l						
1,2,4-Trimethylbenzene	8260B	ug/l						
1,2-Dibromo-3-chloropropane	8260B	ug/l						
1,2-Dibromoethane	8260B	ug/l						
1,2-Dichlorobenzene	8260B	ug/l						
1,2-Dichloroethane	8260B	ug/l						
1,2-Dichloropropane	8260B	ug/l						
1,3,5-Trimethylbenzene	8260B	ug/l						
1,3-Dichlorobenzene	8260B	ug/l						
1,3-Dichloropropane	8260B	ug/l						
1,4-Dichlorobenzene	8260B	ug/l						
1,4-Dioxane	8260B SIM	ug/l						
2,2-Dichloropropane	8260B	ug/l						
2-Butanone	8260B	ug/l						
2-Chloroethyl Vinyl Ether	8260B	ug/l						
2-Chlorotoluene	8260B	ug/l						
2-Hexanone	8260B	ug/l						
4-Chlorotoluene	8260B	ug/l						
4-Methyl-2-Pentanone	8260B	ug/l						
Acetone	8260B	ug/l						
Benzene	8260B	ug/l						
Bromobenzene	8260B	ug/l						
Bromochloromethane	8260B	ug/l						
Bromodichloromethane	8260B	ug/l						
Bromoform	8260B	ug/l						
Bromomethane	8260B	ug/l						
Carbon tetrachloride	8260B	ug/l						
Chlorobenzene	8260B	ug/l						
Chloroethane	8260B	ug/l						
Chloroform	8260B	ug/l						
Chloromethane	8260B	ug/l						
Chlorotrifluoroethene	8260B	ug/l						
cis-1,2-Dichloroethene	8260B	ug/l						
cis-1,3-Dichloropropene	8260B	ug/l						
Dibromochloromethane	8260B	ug/l						
Dibromomethane	8260B	ug/l						
Dichlorodifluoromethane	8260B	ug/l						
Ethylbenzene	8260B	ug/l						
Freon 113	8260B	ug/l						
Freon 113a	8260B	ug/l						
GRO (C5-C12)	8015B GRO	ug/l						
GRO (C5-C12)	8015M	ug/l			50	U	50	U
Hexachlorobutadiene	8260B	ug/l						
Isopropylbenzene	8260B	ug/l						
Isopropyltoluene	8260B	ug/l						
m,p-Xylene	8260B	ug/l						
Methyl tert-Butyl Ether	8260B	ug/l						
Methylene chloride	8260B	ug/l						
N-Butylbenzene	8260B	ug/l						
N-Nitrosodimethylamine	1625C	ng/kg	33.3	U	105		33.3	U
N-Nitrosodimethylamine	1625C	ng/l	3.9900000000	U	0.978	U	0.999	U
N-Propylbenzene	8260B	ug/l						
o-Xylene	8260B	ug/l						
Percent Moisture	160.3M	%	0.50	U	0.50	U	0.50	U
sec-Butylbenzene	8260B	ug/l						
Styrene	8260B	ug/l						
tert-Butylbenzene	8260B	ug/l						
Tetrachloroethene	8260B	ug/l						
Toluene	8260B	ug/l						
trans-1,2-Dichloroethene	8260B	ug/l						
trans-1,3-Dichloropropene	8260B	ug/l						
Trichloroethene	8260B	ug/l						
Trichlorofluoromethane	8260B	ug/l						
Vinyl Chloride	8260B	ug/l						

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-4 - Subarea 7 Trip Blank Results

Sample Name: Sample Date: Sample Type		TB-101911 10/19/2011 TB	TB-102011 10/20/2011 TB	TB-102611 10/26/2011 TB				
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l	5	U				
1,1,1-Trichloroethane	8260B	ug/l	5	U				
1,1,2,2-Tetrachloroethane	8260B	ug/l	5	U				
1,1,2-Trichloroethane	8260B	ug/l	5	U				
1,1-Dichloroethane	8260B	ug/l	5	U				
1,1-Dichloroethene	8260B	ug/l	5	U				
1,1-Dichloropropene	8260B	ug/l	5	U				
1,2,3-Trichlorobenzene	8260B	ug/l	5	U				
1,2,3-Trichloropropane	8260B	ug/l	5	U				
1,2,4-Trichlorobenzene	8260B	ug/l	5	U				
1,2,4-Trimethylbenzene	8260B	ug/l	5	U				
1,2-Dibromo-3-chloropropane	8260B	ug/l	5	U				
1,2-Dibromoethane	8260B	ug/l	5	U				
1,2-Dichlorobenzene	8260B	ug/l	5	U				
1,2-Dichloroethane	8260B	ug/l	5	U				
1,2-Dichloropropane	8260B	ug/l	5	U				
1,3,5-Trimethylbenzene	8260B	ug/l	5	U				
1,3-Dichlorobenzene	8260B	ug/l	5	U				
1,3-Dichloropropane	8260B	ug/l	5	U				
1,4-Dichlorobenzene	8260B	ug/l	5	U				
1,4-Dioxane	8260B SIM	ug/l	2.0	U				
2,2-Dichloropropane	8260B	ug/l	5	U				
2-Butanone	8260B	ug/l	10	U				
2-Chloroethyl Vinyl Ether	8260B	ug/l	10	U				
2-Chlorotoluene	8260B	ug/l	5	U				
2-Hexanone	8260B	ug/l	10	U				
4-Chlorotoluene	8260B	ug/l	5	U				
4-Methyl-2-Pentanone	8260B	ug/l	10	U				
Acetone	8260B	ug/l	20	U				
Benzene	8260B	ug/l	5	U				
Bromobenzene	8260B	ug/l	5	U				
Bromochloromethane	8260B	ug/l	5	U				
Bromodichloromethane	8260B	ug/l	5	U				
Bromoform	8260B	ug/l	5	U				
Bromomethane	8260B	ug/l	5	U				
Carbon tetrachloride	8260B	ug/l	5	U				
Chlorobenzene	8260B	ug/l	5	U				
Chloroethane	8260B	ug/l	5	U				
Chloroform	8260B	ug/l	5	U				
Chloromethane	8260B	ug/l	5	U				
Chlorotrifluoroethene	8260B	ug/l	5	U				
cis-1,2-Dichloroethene	8260B	ug/l	5	U				
cis-1,3-Dichloropropene	8260B	ug/l	5	U				
Dibromochloromethane	8260B	ug/l	5	U				
Dibromomethane	8260B	ug/l	5	U				
Dichlorodifluoromethane	8260B	ug/l	5	U				
Ethylbenzene	8260B	ug/l	5	U				
Freon 113	8260B	ug/l	10	U				
Freon 113a	8260B	ug/l	5	U				
GRO (C5-C12)	8015B GRO	ug/l						
GRO (C5-C12)	8015M	ug/l	50	U	50	U	50	U
Hexachlorobutadiene	8260B	ug/l	5	U				
Isopropylbenzene	8260B	ug/l	5	U				
Isopropyltoluene	8260B	ug/l	5	U				
m,p-Xylene	8260B	ug/l	5	U				
Methyl tert-Butyl Ether	8260B	ug/l	5	U				
Methylene chloride	8260B	ug/l	5	U				
N-Butylbenzene	8260B	ug/l	5	U				
N-Nitrosodimethylamine	1625C	ng/kg	33.1	U				
N-Nitrosodimethylamine	1625C	ng/l	0.990	U				
N-Propylbenzene	8260B	ug/l	5	U				
o-Xylene	8260B	ug/l	5	U				
Percent Moisture	160.3M	%	0.50	U				
sec-Butylbenzene	8260B	ug/l	5	U				
Styrene	8260B	ug/l	5	U				
tert-Butylbenzene	8260B	ug/l	5	U				
Tetrachloroethene	8260B	ug/l	5	U				
Toluene	8260B	ug/l	5	U				
trans-1,2-Dichloroethene	8260B	ug/l	5	U				
trans-1,3-Dichloropropene	8260B	ug/l	5	U				
Trichloroethene	8260B	ug/l	5	U				
Trichlorofluoromethane	8260B	ug/l	5	U				
Vinyl Chloride	8260B	ug/l	5	U				

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-4 - Subarea 7 Trip Blank Results

		Sample Name: Sample Date: Sample Type	TB-102711 10/27/2011 TB	TB-102811 10/28/2011 TB	TB-110111-AO 11/01/2011 TB
Analyte	Analytic Method	Units	Concentration Final Qualifer	Concentration Final Qualifer	Concentration Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l			
1,1,1-Trichloroethane	8260B	ug/l			
1,1,2,2-Tetrachloroethane	8260B	ug/l			
1,1,2-Trichloroethane	8260B	ug/l			
1,1-Dichloroethane	8260B	ug/l			
1,1-Dichloroethene	8260B	ug/l			
1,1-Dichloropropene	8260B	ug/l			
1,2,3-Trichlorobenzene	8260B	ug/l			
1,2,3-Trichloropropane	8260B	ug/l			
1,2,4-Trichlorobenzene	8260B	ug/l			
1,2,4-Trimethylbenzene	8260B	ug/l			
1,2-Dibromo-3-chloropropane	8260B	ug/l			
1,2-Dibromoethane	8260B	ug/l			
1,2-Dichlorobenzene	8260B	ug/l			
1,2-Dichloroethane	8260B	ug/l			
1,2-Dichloropropane	8260B	ug/l			
1,3,5-Trimethylbenzene	8260B	ug/l			
1,3-Dichlorobenzene	8260B	ug/l			
1,3-Dichloropropane	8260B	ug/l			
1,4-Dichlorobenzene	8260B	ug/l			
1,4-Dioxane	8260B SIM	ug/l			
2,2-Dichloropropane	8260B	ug/l			
2-Butanone	8260B	ug/l			
2-Chloroethyl Vinyl Ether	8260B	ug/l			
2-Chlorotoluene	8260B	ug/l			
2-Hexanone	8260B	ug/l			
4-Chlorotoluene	8260B	ug/l			
4-Methyl-2-Pentanone	8260B	ug/l			
Acetone	8260B	ug/l			
Benzene	8260B	ug/l			
Bromobenzene	8260B	ug/l			
Bromochloromethane	8260B	ug/l			
Bromodichloromethane	8260B	ug/l			
Bromoform	8260B	ug/l			
Bromomethane	8260B	ug/l			
Carbon tetrachloride	8260B	ug/l			
Chlorobenzene	8260B	ug/l			
Chloroethane	8260B	ug/l			
Chloroform	8260B	ug/l			
Chloromethane	8260B	ug/l			
Chlorotrifluoroethene	8260B	ug/l			
cis-1,2-Dichloroethene	8260B	ug/l			
cis-1,3-Dichloropropene	8260B	ug/l			
Dibromochloromethane	8260B	ug/l			
Dibromomethane	8260B	ug/l			
Dichlorodifluoromethane	8260B	ug/l			
Ethylbenzene	8260B	ug/l			
Freon 113	8260B	ug/l			
Freon 113a	8260B	ug/l			
GRO (C5-C12)	8015B GRO	ug/l			
GRO (C5-C12)	8015M	ug/l	50 U	50 U	
Hexachlorobutadiene	8260B	ug/l			
Isopropylbenzene	8260B	ug/l			
Isopropyltoluene	8260B	ug/l			
m,p-Xylene	8260B	ug/l			
Methyl tert-Butyl Ether	8260B	ug/l			
Methylene chloride	8260B	ug/l			
N-Butylbenzene	8260B	ug/l			
N-Nitrosodimethylamine	1625C	ng/kg			
N-Nitrosodimethylamine	1625C	ng/l			0.953 U
N-Propylbenzene	8260B	ug/l			
o-Xylene	8260B	ug/l			
Percent Moisture	160.3M	%			
sec-Butylbenzene	8260B	ug/l			
Styrene	8260B	ug/l			
tert-Butylbenzene	8260B	ug/l			
Tetrachloroethene	8260B	ug/l			
Toluene	8260B	ug/l			
trans-1,2-Dichloroethene	8260B	ug/l			
trans-1,3-Dichloropropene	8260B	ug/l			
Trichloroethene	8260B	ug/l			
Trichlorofluoromethane	8260B	ug/l			
Vinyl Chloride	8260B	ug/l			

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-4 - Subarea 7 Trip Blank Results

		Sample Name: Sample Date: Sample Type	TB-110111S 11/01/2011 TB Split		TB-110111-SO 11/01/2011 TB		TB-110211 11/02/2011 TB	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l	1.0	U				
1,1,1-Trichloroethane	8260B	ug/l	1.0	U				
1,1,2,2-Tetrachloroethane	8260B	ug/l	1.0	U				
1,1,2-Trichloroethane	8260B	ug/l	1.0	U				
1,1-Dichloroethane	8260B	ug/l	1.0	U				
1,1-Dichloroethene	8260B	ug/l	1.0	U				
1,1-Dichloropropene	8260B	ug/l	1.0	U				
1,2,3-Trichlorobenzene	8260B	ug/l	1.0	U				
1,2,3-Trichloropropane	8260B	ug/l	2.0	U				
1,2,4-Trichlorobenzene	8260B	ug/l	1.0	U				
1,2,4-Trimethylbenzene	8260B	ug/l	1.0	U				
1,2-Dibromo-3-chloropropane	8260B	ug/l	2.0	U				
1,2-Dibromoethane	8260B	ug/l	1.0	U				
1,2-Dichlorobenzene	8260B	ug/l	1.0	U				
1,2-Dichloroethane	8260B	ug/l	1.0	U				
1,2-Dichloropropane	8260B	ug/l	1.0	U				
1,3,5-Trimethylbenzene	8260B	ug/l	1.0	U				
1,3-Dichlorobenzene	8260B	ug/l	1.0	U				
1,3-Dichloropropane	8260B	ug/l	1.0	U				
1,4-Dichlorobenzene	8260B	ug/l	1.0	U				
1,4-Dioxane	8260B SIM	ug/l	4.0	U				
2,2-Dichloropropane	8260B	ug/l	1.0	U				
2-Butanone	8260B	ug/l	10	U				
2-Chloroethyl Vinyl Ether	8260B	ug/l	2.0	U				
2-Chlorotoluene	8260B	ug/l	1.0	U				
2-Hexanone	8260B	ug/l	10	U				
4-Chlorotoluene	8260B	ug/l	1.0	U				
4-Methyl-2-Pentanone	8260B	ug/l	10	U				
Acetone	8260B	ug/l	10	U				
Benzene	8260B	ug/l	1.0	U				
Bromobenzene	8260B	ug/l	1.0	U				
Bromochloromethane	8260B	ug/l	1.0	U				
Bromodichloromethane	8260B	ug/l	1.0	U				
Bromoform	8260B	ug/l	1.0	U				
Bromomethane	8260B	ug/l	1.0	U				
Carbon tetrachloride	8260B	ug/l	1.0	U				
Chlorobenzene	8260B	ug/l	1.0	U				
Chloroethane	8260B	ug/l	1.0	U				
Chloroform	8260B	ug/l	1.0	U				
Chloromethane	8260B	ug/l	1.0	U				
Chlorotrifluoroethene	8260B	ug/l	1.0	U				
cis-1,2-Dichloroethene	8260B	ug/l	1.0	U				
cis-1,3-Dichloropropene	8260B	ug/l	1.0	U				
Dibromochloromethane	8260B	ug/l	1.0	U				
Dibromomethane	8260B	ug/l	1.0	U				
Dichlorodifluoromethane	8260B	ug/l	1.0	U				
Ethylbenzene	8260B	ug/l	1.0	U				
Freon 113	8260B	ug/l	1.0	U				
Freon 113a	8260B	ug/l	1.0	U				
GRO (C5-C12)	8015B GRO	ug/l	21	J			18	J
GRO (C5-C12)	8015M	ug/l						
Hexachlorobutadiene	8260B	ug/l	1.0	U				
Isopropylbenzene	8260B	ug/l	1.0	U				
Isopropyltoluene	8260B	ug/l	1.0	U				
m,p-Xylene	8260B	ug/l	2.0	U				
Methyl tert-Butyl Ether	8260B	ug/l	1.0	U				
Methylene chloride	8260B	ug/l	1.0	U				
N-Butylbenzene	8260B	ug/l	1.0	U				
N-Nitrosodimethylamine	1625C	ng/kg			33.3	U		
N-Nitrosodimethylamine	1625C	ng/l						
N-Propylbenzene	8260B	ug/l	1.0	U				
o-Xylene	8260B	ug/l	1.0	U				
Percent Moisture	160.3M	%			0.50	U		
sec-Butylbenzene	8260B	ug/l	1.0	U				
Styrene	8260B	ug/l	1.0	U				
tert-Butylbenzene	8260B	ug/l	1.0	U				
Tetrachloroethene	8260B	ug/l	1.0	U				
Toluene	8260B	ug/l	1.0	U				
trans-1,2-Dichloroethene	8260B	ug/l	1.0	U				
trans-1,3-Dichloropropene	8260B	ug/l	1.0	U				
Trichloroethene	8260B	ug/l	1.0	U				
Trichlorofluoromethane	8260B	ug/l	1.0	U				
Vinyl Chloride	8260B	ug/l	1.0	U				

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-4 - Subarea 7 Trip Blank Results

		Sample Name: Sample Date: Sample Type	TB-110311-AQ 11/03/2011 TB	TB-110311S 11/03/2011 TB Split	TB-110311-SO 11/03/2011 TB			
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l						
1,1,1-Trichloroethane	8260B	ug/l						
1,1,2,2-Tetrachloroethane	8260B	ug/l						
1,1,2-Trichloroethane	8260B	ug/l						
1,1-Dichloroethane	8260B	ug/l						
1,1-Dichloroethene	8260B	ug/l						
1,1-Dichloropropene	8260B	ug/l						
1,2,3-Trichlorobenzene	8260B	ug/l						
1,2,3-Trichloropropane	8260B	ug/l						
1,2,4-Trichlorobenzene	8260B	ug/l						
1,2,4-Trimethylbenzene	8260B	ug/l						
1,2-Dibromo-3-chloropropane	8260B	ug/l						
1,2-Dibromoethane	8260B	ug/l						
1,2-Dichlorobenzene	8260B	ug/l						
1,2-Dichloroethane	8260B	ug/l						
1,2-Dichloropropane	8260B	ug/l						
1,3,5-Trimethylbenzene	8260B	ug/l						
1,3-Dichlorobenzene	8260B	ug/l						
1,3-Dichloropropane	8260B	ug/l						
1,4-Dichlorobenzene	8260B	ug/l						
1,4-Dioxane	8260B SIM	ug/l						
2,2-Dichloropropane	8260B	ug/l						
2-Butanone	8260B	ug/l						
2-Chloroethyl Vinyl Ether	8260B	ug/l						
2-Chlorotoluene	8260B	ug/l						
2-Hexanone	8260B	ug/l						
4-Chlorotoluene	8260B	ug/l						
4-Methyl-2-Pentanone	8260B	ug/l						
Acetone	8260B	ug/l						
Benzene	8260B	ug/l						
Bromobenzene	8260B	ug/l						
Bromochloromethane	8260B	ug/l						
Bromodichloromethane	8260B	ug/l						
Bromoform	8260B	ug/l						
Bromomethane	8260B	ug/l						
Carbon tetrachloride	8260B	ug/l						
Chlorobenzene	8260B	ug/l						
Chloroethane	8260B	ug/l						
Chloroform	8260B	ug/l						
Chloromethane	8260B	ug/l						
Chlorotrifluoroethene	8260B	ug/l						
cis-1,2-Dichloroethene	8260B	ug/l						
cis-1,3-Dichloropropene	8260B	ug/l						
Dibromochloromethane	8260B	ug/l						
Dibromomethane	8260B	ug/l						
Dichlorodifluoromethane	8260B	ug/l						
Ethylbenzene	8260B	ug/l						
Freon 113	8260B	ug/l						
Freon 113a	8260B	ug/l						
GRO (C5-C12)	8015B GRO	ug/l			26 J			
GRO (C5-C12)	8015M	ug/l						
Hexachlorobutadiene	8260B	ug/l						
Isopropylbenzene	8260B	ug/l						
Isopropyltoluene	8260B	ug/l						
m,p-Xylene	8260B	ug/l						
Methyl tert-Butyl Ether	8260B	ug/l						
Methylene chloride	8260B	ug/l						
N-Butylbenzene	8260B	ug/l						
N-Nitrosodimethylamine	1625C	ng/kg					33.3	U
N-Nitrosodimethylamine	1625C	ng/l	0.955	U				
N-Propylbenzene	8260B	ug/l						
o-Xylene	8260B	ug/l						
Percent Moisture	160.3M	%					0.50	U
sec-Butylbenzene	8260B	ug/l						
Styrene	8260B	ug/l						
tert-Butylbenzene	8260B	ug/l						
Tetrachloroethene	8260B	ug/l						
Toluene	8260B	ug/l						
trans-1,2-Dichloroethene	8260B	ug/l						
trans-1,3-Dichloropropene	8260B	ug/l						
Trichloroethene	8260B	ug/l						
Trichlorofluoromethane	8260B	ug/l						
Vinyl Chloride	8260B	ug/l						

ug/L - microgram per liter

U - Compound not detected above the reporting limit

Table C-4 - Subarea 7 Trip Blank Results

		Sample Name: Sample Date: Sample Type	TB-110411-AQ 11/04/2011 TB	TB-110411-SO 11/04/2011 TB
Analyte	Analytic Method	Units	Concentration Final Qualifer	Concentration Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	ug/l		
1,1,1-Trichloroethane	8260B	ug/l		
1,1,2,2-Tetrachloroethane	8260B	ug/l		
1,1,2-Trichloroethane	8260B	ug/l		
1,1-Dichloroethane	8260B	ug/l		
1,1-Dichloroethene	8260B	ug/l		
1,1-Dichloropropene	8260B	ug/l		
1,2,3-Trichlorobenzene	8260B	ug/l		
1,2,3-Trichloropropane	8260B	ug/l		
1,2,4-Trichlorobenzene	8260B	ug/l		
1,2,4-Trimethylbenzene	8260B	ug/l		
1,2-Dibromo-3-chloropropane	8260B	ug/l		
1,2-Dibromoethane	8260B	ug/l		
1,2-Dichlorobenzene	8260B	ug/l		
1,2-Dichloroethane	8260B	ug/l		
1,2-Dichloropropane	8260B	ug/l		
1,3,5-Trimethylbenzene	8260B	ug/l		
1,3-Dichlorobenzene	8260B	ug/l		
1,3-Dichloropropane	8260B	ug/l		
1,4-Dichlorobenzene	8260B	ug/l		
1,4-Dioxane	8260B SIM	ug/l		
2,2-Dichloropropane	8260B	ug/l		
2-Butanone	8260B	ug/l		
2-Chloroethyl Vinyl Ether	8260B	ug/l		
2-Chlorotoluene	8260B	ug/l		
2-Hexanone	8260B	ug/l		
4-Chlorotoluene	8260B	ug/l		
4-Methyl-2-Pentanone	8260B	ug/l		
Acetone	8260B	ug/l		
Benzene	8260B	ug/l		
Bromobenzene	8260B	ug/l		
Bromochloromethane	8260B	ug/l		
Bromodichloromethane	8260B	ug/l		
Bromoform	8260B	ug/l		
Bromomethane	8260B	ug/l		
Carbon tetrachloride	8260B	ug/l		
Chlorobenzene	8260B	ug/l		
Chloroethane	8260B	ug/l		
Chloroform	8260B	ug/l		
Chloromethane	8260B	ug/l		
Chlorotrifluoroethene	8260B	ug/l		
cis-1,2-Dichloroethene	8260B	ug/l		
cis-1,3-Dichloropropene	8260B	ug/l		
Dibromochloromethane	8260B	ug/l		
Dibromomethane	8260B	ug/l		
Dichlorodifluoromethane	8260B	ug/l		
Ethylbenzene	8260B	ug/l		
Freon 113	8260B	ug/l		
Freon 113a	8260B	ug/l		
GRO (C5-C12)	8015B GRO	ug/l		
GRO (C5-C12)	8015M	ug/l	50 U	
Hexachlorobutadiene	8260B	ug/l		
Isopropylbenzene	8260B	ug/l		
Isopropyltoluene	8260B	ug/l		
m,p-Xylene	8260B	ug/l		
Methyl tert-Butyl Ether	8260B	ug/l		
Methylene chloride	8260B	ug/l		
N-Butylbenzene	8260B	ug/l		
N-Nitrosodimethylamine	1625C	ng/kg		33.3 U
N-Nitrosodimethylamine	1625C	ng/l	0.953 U	
N-Propylbenzene	8260B	ug/l		
o-Xylene	8260B	ug/l		
Percent Moisture	160.3M	%		0.50 U
sec-Butylbenzene	8260B	ug/l		
Styrene	8260B	ug/l		
tert-Butylbenzene	8260B	ug/l		
Tetrachloroethene	8260B	ug/l		
Toluene	8260B	ug/l		
trans-1,2-Dichloroethene	8260B	ug/l		
trans-1,3-Dichloropropene	8260B	ug/l		
Trichloroethene	8260B	ug/l		
Trichlorofluoromethane	8260B	ug/l		
Vinyl Chloride	8260B	ug/l		

ug/L - microgram per liter

U - Compound not detected above the reporting limit

























**Table C-6 Summary of Data Completeness Following Data Validation – Subarea 7**

	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	666	2010		1667	26	4269	100
NDMA		3		78		81	100
Formaldehyde		8		73		81	100
Cyanide	2	3	1	127		133	99.25
Fluoride, Nitrate	106	137		37	62	342	100
Hexavalent Chromium	20	120		133	3	276	100
Mercury	2	78		173	4	257	100
Metals – 6010B	2317	566		446	3	3332	100
Metals – 6020	1109	3063	3	114	89	4378	99.93
Perchlorate-314				257		257	100
Perchlorate-6850		2		33		35	100
Alcohols, terphenyls	26	51		1145	17	1239	100
Energetics				844	2	846	100
Total Petroleum Hydrocarbons, glycols	330	121	12	1057	37	1557	99.23
PCBs/PCTs	220	172		2605	87	3084	100
Pesticides	117	176	34	1870	218	2415	98.6
Herbicides	62	51	88	944	5	1150	92.4
Semivolatiles	97	303	27	13017	69	13501	99.8
Semivolatiles SIM	841	621	2	4312	44	5832	99.96
Volatiles	1	6		188	6	201	100
Volatiles SIM				3		3	100
<b>Completeness Total for All Subarea 7 Samples Collected and Judged Valid</b>							<b>99.62</b>

# **SAMPLE DELIVERY GROUP**

**11K007**

## **Attachment I**

### **Sample ID Cross Reference and Data Review Level**

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-Oct-2011	SL-120-SA7-SB-4.0-5.0	K008-03	N	3550B	8015B EFH	IV
31-Oct-2011	SL-120-SA7-SB-4.0-5.0	K008-03	N	3550B	8082	IV
31-Oct-2011	SL-120-SA7-SB-4.0-5.0	K008-03	N	3550B	8270C	IV
31-Oct-2011	SL-120-SA7-SB-4.0-5.0	K008-03	N	3550B	8270C SIM	IV
31-Oct-2011	SL-120-SA7-SB-4.0-5.0	K008-03	N	7471A	7471A	IV
31-Oct-2011	SL-120-SA7-SB-4.0-5.0	K008-03	N	GEN PREP	300.0	IV
31-Oct-2011	SL-120-SA7-SB-4.0-5.0	K008-03	N	GEN PREP	314.0	IV
31-Oct-2011	SL-120-SA7-SB-4.0-5.0	K008-03	N	GEN PREP	6020	IV
31-Oct-2011	SL-120-SA7-SB-4.0-5.0	K008-03	N	GEN PREP	7199	IV
31-Oct-2011	SL-120-SA7-SB-4.0-5.0	K008-03	N	GEN PREP	8015B	IV
31-Oct-2011	SL-120-SA7-SB-4.0-5.0	K008-03	N	GEN PREP	8015M	IV
31-Oct-2011	SL-120-SA7-SB-4.0-5.0	K008-03	N	GEN PREP	8330A	IV
31-Oct-2011	SL-120-SA7-SB-4.0-5.0	K008-03	N	GEN PREP	8332	IV
31-Oct-2011	SL-120-SA7-SB-4.0-5.0	K008-03	N	GEN PREP	9014	IV
31-Oct-2011	SL-120-SA7-SB-4.0-5.0	K008-03R	N	GEN PREP	7199	IV
31-Oct-2011	SL-120-SA7-SB-4.0-5.0	K008-03T	N	GEN PREP	6020	IV
31-Oct-2011	SL-120-SA7-SB-4.5	K008-02	N	5035	8015B GRO	IV
31-Oct-2011	SL-120-SA7-SB-4.5	K008-02	N	5035	8260B	IV
31-Oct-2011	SL-120-SA7-SB-4.5	K008-02	N	5035	8260B SIM	IV
31-Oct-2011	SL-120-SA7-SB-9.5	K008-04	N	5035	8015B GRO	IV
31-Oct-2011	SL-120-SA7-SB-9.5	K008-04	N	5035	8260B	IV
31-Oct-2011	SL-120-SA7-SB-9.5	K008-04	N	5035	8260B SIM	IV
31-Oct-2011	SL-120-SA7-SB-9.5MS	K008-04M	MS	5035	8015B GRO	IV
31-Oct-2011	SL-120-SA7-SB-9.5MS	K008-04M	MS	5035	8260B	IV
31-Oct-2011	SL-120-SA7-SB-9.5MS	K008-04M	MS	5035	8260B SIM	IV
31-Oct-2011	SL-120-SA7-SB-9.5MSD	K008-04S	MSD	5035	8015B GRO	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-Oct-2011	SL-120-SA7-SB-9.5MSD	K008-04S	MSD	5035	8260B	IV
31-Oct-2011	SL-120-SA7-SB-9.5MSD	K008-04S	MSD	5035	8260B SIM	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0	K008-05	N	3550B	8015B EFH	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0	K008-05	N	3550B	8082	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0	K008-05	N	3550B	8270C	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0	K008-05	N	3550B	8270C SIM	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0	K008-05	N	7471A	7471A	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0	K008-05	N	GEN PREP	300.0	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0	K008-05	N	GEN PREP	314.0	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0	K008-05	N	GEN PREP	7199	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0	K008-05	N	GEN PREP	8015B	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0	K008-05	N	GEN PREP	8015M	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0	K008-05	N	GEN PREP	8330A	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0	K008-05	N	GEN PREP	8332	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0	K008-05	N	GEN PREP	9014	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05G	MS	GEN PREP	7199	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05G1	MS	GEN PREP	7199	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05H	MSD	GEN PREP	7199	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05H1	MSD	GEN PREP	7199	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05M	MS	3550B	8015B EFH	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05M	MS	3550B	8082	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05M	MS	3550B	8270C	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05M	MS	3550B	8270C SIM	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05M	MS	7471A	7471A	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05M	MS	GEN PREP	300.0	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05M	MS	GEN PREP	314.0	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05M	MS	GEN PREP	6020	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05M	MS	GEN PREP	7199	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05M	MS	GEN PREP	8015B	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05M	MS	GEN PREP	8015M	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05M	MS	GEN PREP	8330A	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05M	MS	GEN PREP	8332	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05M	MS	GEN PREP	9014	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MS	K008-05M1	MS	GEN PREP	7199	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0	K008-05R	N	GEN PREP	7199	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05S	MSD	3550B	8015B EFH	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05S	MSD	3550B	8082	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05S	MSD	3550B	8270C	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05S	MSD	3550B	8270C SIM	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05S	MSD	7471A	7471A	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05S	MSD	GEN PREP	300.0	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05S	MSD	GEN PREP	314.0	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05S	MSD	GEN PREP	6020	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05S	MSD	GEN PREP	7199	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05S	MSD	GEN PREP	8015B	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05S	MSD	GEN PREP	8015M	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05S	MSD	GEN PREP	8330A	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05S	MSD	GEN PREP	8332	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05S	MSD	GEN PREP	9014	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0MSD	K008-05S1	MSD	GEN PREP	7199	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0	K008-05T	N	GEN PREP	6020	IV
31-Oct-2011	SL-120-SA7-SB-9.0-10.0	K008-05W	N	GEN PREP	6020	IV

III = EPA Level 3 Data Review  
IV = EPA Level 4 Data Validation

N = Normal Sample  
FD = Field Duplicate

TB = Trip Blank  
FB = Field Blank

MS = Matrix Spike  
MSD = Matrix Spike Duplicate

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-Oct-2011	SL-121-SA7-SB-4.0-5.0	K008-07	N	3550B	8015B EFH	IV
31-Oct-2011	SL-121-SA7-SB-4.0-5.0	K008-07	N	3550B	8082	IV
31-Oct-2011	SL-121-SA7-SB-4.0-5.0	K008-07	N	3550B	8270C	IV
31-Oct-2011	SL-121-SA7-SB-4.0-5.0	K008-07	N	3550B	8270C SIM	IV
31-Oct-2011	SL-121-SA7-SB-4.0-5.0	K008-07	N	7471A	7471A	IV
31-Oct-2011	SL-121-SA7-SB-4.0-5.0	K008-07	N	GEN PREP	300.0	IV
31-Oct-2011	SL-121-SA7-SB-4.0-5.0	K008-07	N	GEN PREP	314.0	IV
31-Oct-2011	SL-121-SA7-SB-4.0-5.0	K008-07	N	GEN PREP	6020	IV
31-Oct-2011	SL-121-SA7-SB-4.0-5.0	K008-07	N	GEN PREP	7199	IV
31-Oct-2011	SL-121-SA7-SB-4.0-5.0	K008-07	N	GEN PREP	8015B	IV
31-Oct-2011	SL-121-SA7-SB-4.0-5.0	K008-07	N	GEN PREP	8015M	IV
31-Oct-2011	SL-121-SA7-SB-4.0-5.0	K008-07	N	GEN PREP	9014	IV
31-Oct-2011	SL-121-SA7-SB-4.0-5.0	K008-07R	N	GEN PREP	7199	IV
31-Oct-2011	SL-121-SA7-SB-4.0-5.0	K008-07T	N	GEN PREP	6020	IV
31-Oct-2011	SL-121-SA7-SB-4.5	K008-06	N	5035	8015B GRO	IV
31-Oct-2011	SL-121-SA7-SB-9.0-10.0	K008-09	N	3550B	8015B EFH	IV
31-Oct-2011	SL-121-SA7-SB-9.0-10.0	K008-09	N	3550B	8082	IV
31-Oct-2011	SL-121-SA7-SB-9.0-10.0	K008-09	N	3550B	8270C	IV
31-Oct-2011	SL-121-SA7-SB-9.0-10.0	K008-09	N	3550B	8270C SIM	IV
31-Oct-2011	SL-121-SA7-SB-9.0-10.0	K008-09	N	7471A	7471A	IV
31-Oct-2011	SL-121-SA7-SB-9.0-10.0	K008-09	N	GEN PREP	300.0	IV
31-Oct-2011	SL-121-SA7-SB-9.0-10.0	K008-09	N	GEN PREP	314.0	IV
31-Oct-2011	SL-121-SA7-SB-9.0-10.0	K008-09	N	GEN PREP	6020	IV
31-Oct-2011	SL-121-SA7-SB-9.0-10.0	K008-09	N	GEN PREP	7199	IV
31-Oct-2011	SL-121-SA7-SB-9.0-10.0	K008-09	N	GEN PREP	8015B	IV
31-Oct-2011	SL-121-SA7-SB-9.0-10.0	K008-09	N	GEN PREP	8015M	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
31-Oct-2011	SL-121-SA7-SB-9.0-10.0	K008-09	N	GEN PREP	9014	IV
31-Oct-2011	SL-121-SA7-SB-9.0-10.0	K008-09R	N	GEN PREP	7199	IV
31-Oct-2011	SL-121-SA7-SB-9.0-10.0	K008-09T	N	GEN PREP	6020	IV
31-Oct-2011	SL-121-SA7-SB-9.5	K008-08	N	5035	8015B GRO	IV
31-Oct-2011	SL-001-SA7-SB-4.0-5.0	K008-01	N	3550B	8082	IV
31-Oct-2011	SL-001-SA7-SB-4.0-5.0	K008-01	N	3550B	8270C	IV
31-Oct-2011	SL-001-SA7-SB-4.0-5.0	K008-01	N	3550B	8270C SIM	IV
31-Oct-2011	SL-001-SA7-SB-4.0-5.0	K008-01	N	7471A	7471A	IV
31-Oct-2011	SL-001-SA7-SB-4.0-5.0	K008-01	N	GEN PREP	300.0	IV
31-Oct-2011	SL-001-SA7-SB-4.0-5.0	K008-01	N	GEN PREP	314.0	IV
31-Oct-2011	SL-001-SA7-SB-4.0-5.0	K008-01	N	GEN PREP	6020	IV
31-Oct-2011	SL-001-SA7-SB-4.0-5.0	K008-01	N	GEN PREP	7199	IV
31-Oct-2011	SL-001-SA7-SB-4.0-5.0	K008-01R	N	GEN PREP	7199	IV
31-Oct-2011	SL-001-SA7-SB-4.0-5.0	K008-01T	N	GEN PREP	6020	IV
01-Nov-2011	SL-175-SA7-SB-4.0-5.0	K008-16	N	3550B	8015B EFH	IV
01-Nov-2011	SL-175-SA7-SB-4.0-5.0	K008-16	N	3550B	8082	IV
01-Nov-2011	SL-175-SA7-SB-4.0-5.0	K008-16	N	3550B	8270C	IV
01-Nov-2011	SL-175-SA7-SB-4.0-5.0	K008-16	N	3550B	8270C SIM	IV
01-Nov-2011	SL-175-SA7-SB-4.0-5.0	K008-16	N	7471A	7471A	IV
01-Nov-2011	SL-175-SA7-SB-4.0-5.0	K008-16	N	GEN PREP	300.0	IV
01-Nov-2011	SL-175-SA7-SB-4.0-5.0	K008-16	N	GEN PREP	314.0	IV
01-Nov-2011	SL-175-SA7-SB-4.0-5.0	K008-16	N	GEN PREP	6020	IV
01-Nov-2011	SL-175-SA7-SB-4.0-5.0	K008-16	N	GEN PREP	7199	IV
01-Nov-2011	SL-175-SA7-SB-4.0-5.0	K008-16	N	GEN PREP	8015B	IV
01-Nov-2011	SL-175-SA7-SB-4.0-5.0	K008-16	N	GEN PREP	8015M	IV
01-Nov-2011	SL-175-SA7-SB-4.0-5.0	K008-16	N	GEN PREP	9014	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Nov-2011	SL-175-SA7-SB-4.0-5.0	K008-16R	N	GEN PREP	7199	IV
01-Nov-2011	SL-175-SA7-SB-4.0-5.0	K008-16T	N	GEN PREP	6020	IV
01-Nov-2011	SL-175-SA7-SB-4.5	K008-15	N	5035	8015B GRO	IV
01-Nov-2011	DUP-01-SA7-QC-110111	K008-20	FD	3550B	8015B EFH	IV
01-Nov-2011	DUP-01-SA7-QC-110111	K008-20	FD	3550B	8082	IV
01-Nov-2011	DUP-01-SA7-QC-110111	K008-20	FD	3550B	8270C	IV
01-Nov-2011	DUP-01-SA7-QC-110111	K008-20	FD	3550B	8270C SIM	IV
01-Nov-2011	DUP-01-SA7-QC-110111	K008-20	FD	5035	8015B GRO	IV
01-Nov-2011	DUP-01-SA7-QC-110111	K008-20	FD	7471A	7471A	IV
01-Nov-2011	DUP-01-SA7-QC-110111	K008-20	FD	GEN PREP	300.0	IV
01-Nov-2011	DUP-01-SA7-QC-110111	K008-20	FD	GEN PREP	314.0	IV
01-Nov-2011	DUP-01-SA7-QC-110111	K008-20	FD	GEN PREP	6020	IV
01-Nov-2011	DUP-01-SA7-QC-110111	K008-20	FD	GEN PREP	7199	IV
01-Nov-2011	DUP-01-SA7-QC-110111	K008-20	FD	GEN PREP	8015B	IV
01-Nov-2011	DUP-01-SA7-QC-110111	K008-20	FD	GEN PREP	8015M	IV
01-Nov-2011	DUP-01-SA7-QC-110111	K008-20	FD	GEN PREP	9014	IV
01-Nov-2011	DUP-01-SA7-QC-110111	K008-20R	FD	GEN PREP	7199	IV
01-Nov-2011	DUP-01-SA7-QC-110111	K008-20T	FD	GEN PREP	6020	IV
01-Nov-2011	SL-175-SA7-SB-9.0-10.0	K008-18	N	3550B	8015B EFH	IV
01-Nov-2011	SL-175-SA7-SB-9.0-10.0	K008-18	N	3550B	8082	IV
01-Nov-2011	SL-175-SA7-SB-9.0-10.0	K008-18	N	3550B	8270C	IV
01-Nov-2011	SL-175-SA7-SB-9.0-10.0	K008-18	N	3550B	8270C SIM	IV
01-Nov-2011	SL-175-SA7-SB-9.0-10.0	K008-18	N	7471A	7471A	IV
01-Nov-2011	SL-175-SA7-SB-9.0-10.0	K008-18	N	GEN PREP	300.0	IV
01-Nov-2011	SL-175-SA7-SB-9.0-10.0	K008-18	N	GEN PREP	314.0	IV
01-Nov-2011	SL-175-SA7-SB-9.0-10.0	K008-18	N	GEN PREP	6020	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Nov-2011	SL-175-SA7-SB-9.0-10.0	K008-18	N	GEN PREP	7199	IV
01-Nov-2011	SL-175-SA7-SB-9.0-10.0	K008-18	N	GEN PREP	8015B	IV
01-Nov-2011	SL-175-SA7-SB-9.0-10.0	K008-18	N	GEN PREP	8015M	IV
01-Nov-2011	SL-175-SA7-SB-9.0-10.0	K008-18	N	GEN PREP	9014	IV
01-Nov-2011	SL-175-SA7-SB-9.0-10.0	K008-18R	N	GEN PREP	7199	IV
01-Nov-2011	SL-175-SA7-SB-9.5	K008-17	N	5035	8015B GRO	IV
01-Nov-2011	FB-SA7-110111	K007-01	FB	3520C	8015B EFH	IV
01-Nov-2011	FB-SA7-110111	K007-01	FB	3520C	8082	IV
01-Nov-2011	FB-SA7-110111	K007-01	FB	3520C	8270C	IV
01-Nov-2011	FB-SA7-110111	K007-01	FB	5030B	8260B	IV
01-Nov-2011	FB-SA7-110111	K007-01	FB	5030B	8260B SIM	IV
01-Nov-2011	FB-SA7-110111	K007-01	FB	7470A	7470A	IV
01-Nov-2011	FB-SA7-110111	K007-01	FB	GEN PREP	300.0	IV
01-Nov-2011	FB-SA7-110111	K007-01	FB	GEN PREP	314.0	IV
01-Nov-2011	FB-SA7-110111	K007-01	FB	GEN PREP	7199	IV
01-Nov-2011	FB-SA7-110111	K007-01	FB	GEN PREP	8015B	IV
01-Nov-2011	FB-SA7-110111	K007-01	FB	GEN PREP	8015M	IV
01-Nov-2011	FB-SA7-110111	K007-01	FB	GEN PREP	8330A	IV
01-Nov-2011	FB-SA7-110111	K007-01	FB	GEN PREP	8332	IV
01-Nov-2011	FB-SA7-110111	K007-01	FB	GEN PREP	9014	IV
01-Nov-2011	FB-SA7-110111	K007-01R	FB	5030B	8015B GRO	IV
01-Nov-2011	FB-SA7-110111	K007-01W	FB	GEN PREP	6020	IV
01-Nov-2011	SL-123-SA7-SB-4.0-5.0	K008-11	N	3550B	8015B EFH	IV
01-Nov-2011	SL-123-SA7-SB-4.0-5.0	K008-11	N	3550B	8082	IV
01-Nov-2011	SL-123-SA7-SB-4.0-5.0	K008-11	N	3550B	8270C	IV
01-Nov-2011	SL-123-SA7-SB-4.0-5.0	K008-11	N	3550B	8270C SIM	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Nov-2011	SL-123-SA7-SB-4.0-5.0	K008-11	N	7471A	7471A	IV
01-Nov-2011	SL-123-SA7-SB-4.0-5.0	K008-11	N	GEN PREP	300.0	IV
01-Nov-2011	SL-123-SA7-SB-4.0-5.0	K008-11	N	GEN PREP	314.0	IV
01-Nov-2011	SL-123-SA7-SB-4.0-5.0	K008-11	N	GEN PREP	6020	IV
01-Nov-2011	SL-123-SA7-SB-4.0-5.0	K008-11	N	GEN PREP	6850	IV
01-Nov-2011	SL-123-SA7-SB-4.0-5.0	K008-11	N	GEN PREP	7199	IV
01-Nov-2011	SL-123-SA7-SB-4.0-5.0	K008-11	N	GEN PREP	8015B	IV
01-Nov-2011	SL-123-SA7-SB-4.0-5.0	K008-11	N	GEN PREP	8015M	IV
01-Nov-2011	SL-123-SA7-SB-4.0-5.0	K008-11	N	GEN PREP	9014	IV
01-Nov-2011	SL-123-SA7-SB-4.0-5.0	K008-11R	N	GEN PREP	7199	IV
01-Nov-2011	SL-123-SA7-SB-4.0-5.0	K008-11T	N	GEN PREP	6020	IV
01-Nov-2011	SL-123-SA7-SB-4.5	K008-10	N	5035	8015B GRO	IV
01-Nov-2011	SL-123-SA7-SB-9.0-10.0	K008-13	N	3550B	8015B EFH	IV
01-Nov-2011	SL-123-SA7-SB-9.0-10.0	K008-13	N	3550B	8082	IV
01-Nov-2011	SL-123-SA7-SB-9.0-10.0	K008-13	N	3550B	8270C	IV
01-Nov-2011	SL-123-SA7-SB-9.0-10.0	K008-13	N	3550B	8270C SIM	IV
01-Nov-2011	SL-123-SA7-SB-9.0-10.0	K008-13	N	7471A	7471A	IV
01-Nov-2011	SL-123-SA7-SB-9.0-10.0	K008-13	N	GEN PREP	300.0	IV
01-Nov-2011	SL-123-SA7-SB-9.0-10.0	K008-13	N	GEN PREP	314.0	IV
01-Nov-2011	SL-123-SA7-SB-9.0-10.0	K008-13	N	GEN PREP	6020	IV
01-Nov-2011	SL-123-SA7-SB-9.0-10.0	K008-13	N	GEN PREP	7199	IV
01-Nov-2011	SL-123-SA7-SB-9.0-10.0	K008-13	N	GEN PREP	8015B	IV
01-Nov-2011	SL-123-SA7-SB-9.0-10.0	K008-13	N	GEN PREP	8015M	IV
01-Nov-2011	SL-123-SA7-SB-9.0-10.0	K008-13	N	GEN PREP	9014	IV
01-Nov-2011	SL-123-SA7-SB-9.0-10.0	K008-13R	N	GEN PREP	7199	IV
01-Nov-2011	SL-123-SA7-SB-9.0-10.0	K008-13T	N	GEN PREP	6020	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
01-Nov-2011	SL-123-SA7-SB-9.5	K008-12	N	5035	8015B GRO	IV
01-Nov-2011	SL-160-SA7-SB-0.0-1.0	K008-14	N	3550B	8082	IV
01-Nov-2011	SL-160-SA7-SB-0.0-1.0	K008-14	N	3550B	8270C	IV
01-Nov-2011	SL-160-SA7-SB-0.0-1.0	K008-14	N	3550B	8270C SIM	IV
01-Nov-2011	SL-160-SA7-SB-0.0-1.0	K008-14	N	7471A	7471A	IV
01-Nov-2011	SL-160-SA7-SB-0.0-1.0	K008-14	N	GEN PREP	300.0	IV
01-Nov-2011	SL-160-SA7-SB-0.0-1.0	K008-14	N	GEN PREP	314.0	IV
01-Nov-2011	SL-160-SA7-SB-0.0-1.0	K008-14	N	GEN PREP	6020	IV
01-Nov-2011	SL-160-SA7-SB-0.0-1.0	K008-14	N	GEN PREP	7199	IV
01-Nov-2011	SL-160-SA7-SB-0.0-1.0	K008-14R	N	GEN PREP	7199	IV
01-Nov-2011	SL-185-SA7-SB-3.0-4.0	K008-19	N	3550B	8082	IV
01-Nov-2011	SL-185-SA7-SB-3.0-4.0	K008-19	N	3550B	8270C	IV
01-Nov-2011	SL-185-SA7-SB-3.0-4.0	K008-19	N	3550B	8270C SIM	IV
01-Nov-2011	SL-185-SA7-SB-3.0-4.0	K008-19	N	7471A	7471A	IV
01-Nov-2011	SL-185-SA7-SB-3.0-4.0	K008-19	N	GEN PREP	300.0	IV
01-Nov-2011	SL-185-SA7-SB-3.0-4.0	K008-19	N	GEN PREP	314.0	IV
01-Nov-2011	SL-185-SA7-SB-3.0-4.0	K008-19	N	GEN PREP	6020	IV
01-Nov-2011	SL-185-SA7-SB-3.0-4.0	K008-19	N	GEN PREP	7199	IV
01-Nov-2011	SL-185-SA7-SB-3.0-4.0	K008-19R	N	GEN PREP	7199	IV
01-Nov-2011	SL-185-SA7-SB-3.0-4.0	K008-19T	N	GEN PREP	6020	IV
01-Nov-2011	TB-110111	K008-21	TB	5030B	8260B	IV
01-Nov-2011	TB-110111	K008-21	TB	5030B	8260B SIM	IV
01-Nov-2011	TB-110111	K008-21R	TB	5030B	8015B GRO	IV
02-Nov-2011	TB-110211	K021-07R	TB	5030B	8015B GRO	IV
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02	N	3550B	8015B EFH	IV
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02	N	3550B	8082	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02	N	3550B	8270C	IV
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02	N	3550B	8270C SIM	IV
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02	N	7471A	7471A	IV
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02	N	GEN PREP	300.0	IV
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02	N	GEN PREP	314.0	IV
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02	N	GEN PREP	6020	IV
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02	N	GEN PREP	6850	IV
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02	N	GEN PREP	7199	IV
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02	N	GEN PREP	8015B	IV
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02	N	GEN PREP	8015M	IV
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02	N	GEN PREP	8330A	IV
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02	N	GEN PREP	8332	IV
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02	N	GEN PREP	9014	IV
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02R	N	GEN PREP	7199	IV
02-Nov-2011	SL-048-SA7-SB-4.0-5.0	K021-02T	N	GEN PREP	6020	IV
02-Nov-2011	SL-048-SA7-SB-4.5	K021-01	N	5035	8015B GRO	IV
02-Nov-2011	DUP02-SA7-QC-110211	K021-06	FD	3550B	8015B EFH	IV
02-Nov-2011	DUP02-SA7-QC-110211	K021-06	FD	3550B	8082	IV
02-Nov-2011	DUP02-SA7-QC-110211	K021-06	FD	5035	8015B GRO	IV
02-Nov-2011	DUP02-SA7-QC-110211	K021-06	FD	7471A	7471A	IV
02-Nov-2011	DUP02-SA7-QC-110211	K021-06	FD	GEN PREP	300.0	IV
02-Nov-2011	DUP02-SA7-QC-110211	K021-06	FD	GEN PREP	314.0	IV
02-Nov-2011	DUP02-SA7-QC-110211	K021-06	FD	GEN PREP	7199	IV
02-Nov-2011	DUP02-SA7-QC-110211	K021-06	FD	GEN PREP	8015B	IV
02-Nov-2011	DUP02-SA7-QC-110211	K021-06	FD	GEN PREP	8015M	IV
02-Nov-2011	DUP02-SA7-QC-110211	K021-06	FD	GEN PREP	8330A	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Nov-2011	DUP02-SA7-QC-110211	K021-06	FD	GEN PREP	8332	IV
02-Nov-2011	DUP02-SA7-QC-110211	K021-06	FD	GEN PREP	9014	IV
02-Nov-2011	DUP02-SA7-QC-110211	K021-06R	FD	GEN PREP	7199	IV
02-Nov-2011	DUP02-SA7-QC-110211	K021-06T	FD	GEN PREP	6020	IV
02-Nov-2011	DUP02-SA7-QC-110211	K021-06W	FD	3550B	8270C	IV
02-Nov-2011	DUP02-SA7-QC-110211	K021-06W	FD	3550B	8270C SIM	IV
02-Nov-2011	DUP02-SA7-QC-110211	K021-06W	FD	GEN PREP	6020	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	K021-04	N	3550B	8015B EFH	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	K021-04	N	3550B	8082	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	K021-04	N	3550B	8270C	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	K021-04	N	3550B	8270C SIM	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	K021-04	N	7471A	7471A	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	K021-04	N	GEN PREP	300.0	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	K021-04	N	GEN PREP	314.0	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	K021-04	N	GEN PREP	7199	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	K021-04	N	GEN PREP	8015B	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	K021-04	N	GEN PREP	8015M	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	K021-04	N	GEN PREP	8330A	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	K021-04	N	GEN PREP	8332	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	K021-04	N	GEN PREP	9014	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04G	MS	GEN PREP	7199	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04G1	MS	GEN PREP	7199	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04H	MSD	GEN PREP	7199	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04H1	MSD	GEN PREP	7199	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04M	MS	3550B	8015B EFH	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04M	MS	3550B	8082	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04M	MS	3550B	8270C	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04M	MS	3550B	8270C SIM	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04M	MS	7471A	7471A	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04M	MS	GEN PREP	300.0	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04M	MS	GEN PREP	314.0	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04M	MS	GEN PREP	6020	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04M	MS	GEN PREP	7199	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04M	MS	GEN PREP	8015B	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04M	MS	GEN PREP	8015M	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04M	MS	GEN PREP	8330A	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04M	MS	GEN PREP	8332	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04M	MS	GEN PREP	9014	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MS	K021-04M1	MS	GEN PREP	7199	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	K021-04R	N	GEN PREP	7199	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04S	MSD	3550B	8015B EFH	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04S	MSD	3550B	8082	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04S	MSD	3550B	8270C	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04S	MSD	3550B	8270C SIM	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04S	MSD	7471A	7471A	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04S	MSD	GEN PREP	300.0	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04S	MSD	GEN PREP	314.0	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04S	MSD	GEN PREP	6020	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04S	MSD	GEN PREP	7199	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04S	MSD	GEN PREP	8015B	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04S	MSD	GEN PREP	8015M	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04S	MSD	GEN PREP	8330A	IV

III = EPA Level 3 Data Review  
IV = EPA Level 4 Data Validation

N = Normal Sample  
FD = Field Duplicate

TB = Trip Blank  
FB = Field Blank

MS = Matrix Spike  
MSD = Matrix Spike Duplicate

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04S	MSD	GEN PREP	8332	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04S	MSD	GEN PREP	9014	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0MSD	K021-04S1	MSD	GEN PREP	7199	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	K021-04T	N	GEN PREP	6020	IV
02-Nov-2011	SL-048-SA7-SB-9.0-10.0	K021-04W	N	GEN PREP	6020	IV
02-Nov-2011	SL-048-SA7-SB-9.5	K021-03	N	5035	8015B GRO	IV
02-Nov-2011	SL-048-SA7-SB-9.5MS	K021-03M	MS	5035	8015B GRO	IV
02-Nov-2011	SL-048-SA7-SB-9.5MSD	K021-03S	MSD	5035	8015B GRO	IV
02-Nov-2011	SL-161-SA7-SB-4.0-5.0	K021-05	N	3550B	8082	IV
02-Nov-2011	SL-161-SA7-SB-4.0-5.0	K021-05	N	7471A	7471A	IV
02-Nov-2011	SL-161-SA7-SB-4.0-5.0	K021-05	N	GEN PREP	300.0	IV
02-Nov-2011	SL-161-SA7-SB-4.0-5.0	K021-05	N	GEN PREP	314.0	IV
02-Nov-2011	SL-161-SA7-SB-4.0-5.0	K021-05	N	GEN PREP	6020	IV
02-Nov-2011	SL-161-SA7-SB-4.0-5.0	K021-05	N	GEN PREP	7199	IV
02-Nov-2011	SL-161-SA7-SB-4.0-5.0	K021-05R	N	GEN PREP	7199	IV
02-Nov-2011	SL-161-SA7-SB-4.0-5.0	K021-05T	N	GEN PREP	6020	IV
02-Nov-2011	SL-161-SA7-SB-4.0-5.0	K021-05W	N	3550B	8270C	IV
02-Nov-2011	SL-161-SA7-SB-4.0-5.0	K021-05W	N	3550B	8270C SIM	IV
03-Nov-2011	TB-110311	K036-11	TB	5030B	8015B GRO	IV
03-Nov-2011	SL-108-SA7-SB-2.9-3.9	K036-02	N	3550B	8015B EFH	IV
03-Nov-2011	SL-108-SA7-SB-2.9-3.9	K036-02	N	3550B	8082	IV
03-Nov-2011	SL-108-SA7-SB-2.9-3.9	K036-02	N	3550B	8270C	IV
03-Nov-2011	SL-108-SA7-SB-2.9-3.9	K036-02	N	3550B	8270C SIM	IV
03-Nov-2011	SL-108-SA7-SB-2.9-3.9	K036-02	N	7471A	7471A	IV
03-Nov-2011	SL-108-SA7-SB-2.9-3.9	K036-02	N	GEN PREP	300.0	IV
03-Nov-2011	SL-108-SA7-SB-2.9-3.9	K036-02	N	GEN PREP	314.0	IV

III = EPA Level 3 Data Review  
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## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Nov-2011	SL-108-SA7-SB-2.9-3.9	K036-02	N	GEN PREP	7199	IV
03-Nov-2011	SL-108-SA7-SB-2.9-3.9	K036-02	N	GEN PREP	8015B	IV
03-Nov-2011	SL-108-SA7-SB-2.9-3.9	K036-02R	N	GEN PREP	7199	IV
03-Nov-2011	SL-108-SA7-SB-2.9-3.9	K036-02T	N	GEN PREP	6020	IV
03-Nov-2011	SL-108-SA7-SB-2.9-3.9	K036-02W	N	GEN PREP	6020	IV
03-Nov-2011	SL-108-SA7-SB-2.9-3.9	K036-02W	N	GEN PREP	8015M	IV
03-Nov-2011	SL-108-SA7-SB-3.3	K036-01	N	5035	8015B GRO	IV
03-Nov-2011	SL-128-SA7-SB-4.0-5.0	K036-04	N	3550B	8015B EFH	IV
03-Nov-2011	SL-128-SA7-SB-4.0-5.0	K036-04	N	3550B	8082	IV
03-Nov-2011	SL-128-SA7-SB-4.0-5.0	K036-04	N	3550B	8270C	IV
03-Nov-2011	SL-128-SA7-SB-4.0-5.0	K036-04	N	3550B	8270C SIM	IV
03-Nov-2011	SL-128-SA7-SB-4.0-5.0	K036-04	N	7471A	7471A	IV
03-Nov-2011	SL-128-SA7-SB-4.0-5.0	K036-04	N	GEN PREP	300.0	IV
03-Nov-2011	SL-128-SA7-SB-4.0-5.0	K036-04	N	GEN PREP	314.0	IV
03-Nov-2011	SL-128-SA7-SB-4.0-5.0	K036-04	N	GEN PREP	7199	IV
03-Nov-2011	SL-128-SA7-SB-4.0-5.0	K036-04	N	GEN PREP	8015B	IV
03-Nov-2011	SL-128-SA7-SB-4.0-5.0	K036-04	N	GEN PREP	8015M	IV
03-Nov-2011	SL-128-SA7-SB-4.0-5.0	K036-04R	N	GEN PREP	7199	IV
03-Nov-2011	SL-128-SA7-SB-4.0-5.0	K036-04T	N	GEN PREP	6020	IV
03-Nov-2011	SL-128-SA7-SB-4.0-5.0	K036-04W	N	GEN PREP	6020	IV
03-Nov-2011	SL-128-SA7-SB-4.5	K036-03	N	5035	8015B GRO	IV
03-Nov-2011	SL-128-SA7-SB-9.0-10.0	K036-06	N	3550B	8015B EFH	IV
03-Nov-2011	SL-128-SA7-SB-9.0-10.0	K036-06	N	3550B	8082	IV
03-Nov-2011	SL-128-SA7-SB-9.0-10.0	K036-06	N	3550B	8270C	IV
03-Nov-2011	SL-128-SA7-SB-9.0-10.0	K036-06	N	3550B	8270C SIM	IV
03-Nov-2011	SL-128-SA7-SB-9.0-10.0	K036-06	N	7471A	7471A	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Nov-2011	SL-128-SA7-SB-9.0-10.0	K036-06	N	GEN PREP	300.0	IV
03-Nov-2011	SL-128-SA7-SB-9.0-10.0	K036-06	N	GEN PREP	314.0	IV
03-Nov-2011	SL-128-SA7-SB-9.0-10.0	K036-06	N	GEN PREP	7199	IV
03-Nov-2011	SL-128-SA7-SB-9.0-10.0	K036-06	N	GEN PREP	8015B	IV
03-Nov-2011	SL-128-SA7-SB-9.0-10.0	K036-06	N	GEN PREP	8015M	IV
03-Nov-2011	SL-128-SA7-SB-9.0-10.0	K036-06R	N	GEN PREP	7199	IV
03-Nov-2011	SL-128-SA7-SB-9.0-10.0	K036-06T	N	GEN PREP	6020	IV
03-Nov-2011	SL-128-SA7-SB-9.0-10.0	K036-06W	N	GEN PREP	6020	IV
03-Nov-2011	SL-128-SA7-SB-9.5	K036-05	N	5035	8015B GRO	IV
03-Nov-2011	SL-171-SA7-SB-4.0-5.0	K036-08	N	3550B	8015B EFH	IV
03-Nov-2011	SL-171-SA7-SB-4.0-5.0	K036-08	N	3550B	8082	IV
03-Nov-2011	SL-171-SA7-SB-4.0-5.0	K036-08	N	3550B	8270C	IV
03-Nov-2011	SL-171-SA7-SB-4.0-5.0	K036-08	N	3550B	8270C SIM	IV
03-Nov-2011	SL-171-SA7-SB-4.0-5.0	K036-08	N	7471A	7471A	IV
03-Nov-2011	SL-171-SA7-SB-4.0-5.0	K036-08	N	GEN PREP	300.0	IV
03-Nov-2011	SL-171-SA7-SB-4.0-5.0	K036-08	N	GEN PREP	314.0	IV
03-Nov-2011	SL-171-SA7-SB-4.0-5.0	K036-08	N	GEN PREP	7199	IV
03-Nov-2011	SL-171-SA7-SB-4.0-5.0	K036-08	N	GEN PREP	8015B	IV
03-Nov-2011	SL-171-SA7-SB-4.0-5.0	K036-08	N	GEN PREP	8015M	IV
03-Nov-2011	SL-171-SA7-SB-4.0-5.0	K036-08R	N	GEN PREP	7199	IV
03-Nov-2011	SL-171-SA7-SB-4.0-5.0	K036-08T	N	GEN PREP	6020	IV
03-Nov-2011	SL-171-SA7-SB-4.0-5.0	K036-08W	N	GEN PREP	6020	IV
03-Nov-2011	SL-171-SA7-SB-4.5	K036-07	N	5035	8015B GRO	IV
03-Nov-2011	SL-171-SA7-SB-9.0-10.0	K036-10	N	3550B	8015B EFH	IV
03-Nov-2011	SL-171-SA7-SB-9.0-10.0	K036-10	N	3550B	8082	IV
03-Nov-2011	SL-171-SA7-SB-9.0-10.0	K036-10	N	3550B	8270C	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Nov-2011	SL-171-SA7-SB-9.0-10.0	K036-10	N	3550B	8270C SIM	IV
03-Nov-2011	SL-171-SA7-SB-9.0-10.0	K036-10	N	7471A	7471A	IV
03-Nov-2011	SL-171-SA7-SB-9.0-10.0	K036-10	N	GEN PREP	300.0	IV
03-Nov-2011	SL-171-SA7-SB-9.0-10.0	K036-10	N	GEN PREP	314.0	IV
03-Nov-2011	SL-171-SA7-SB-9.0-10.0	K036-10	N	GEN PREP	7199	IV
03-Nov-2011	SL-171-SA7-SB-9.0-10.0	K036-10	N	GEN PREP	8015B	IV
03-Nov-2011	SL-171-SA7-SB-9.0-10.0	K036-10	N	GEN PREP	8015M	IV
03-Nov-2011	SL-171-SA7-SB-9.0-10.0	K036-10R	N	GEN PREP	7199	IV
03-Nov-2011	SL-171-SA7-SB-9.0-10.0	K036-10T	N	GEN PREP	6020	IV
03-Nov-2011	SL-171-SA7-SB-9.0-10.0	K036-10W	N	GEN PREP	6020	IV
03-Nov-2011	SL-171-SA7-SB-9.5	K036-09	N	5035	8015B GRO	IV
03-Nov-2011	EB-SA7-SB-110311	K037-01	EB	3520C	8015B EFH	IV
03-Nov-2011	EB-SA7-SB-110311	K037-01	EB	3520C	8082	IV
03-Nov-2011	EB-SA7-SB-110311	K037-01	EB	3520C	8270C	IV
03-Nov-2011	EB-SA7-SB-110311	K037-01	EB	5030B	8015B GRO	IV
03-Nov-2011	EB-SA7-SB-110311	K037-01	EB	5030B	8260B	IV
03-Nov-2011	EB-SA7-SB-110311	K037-01	EB	5030B	8260B SIM	IV
03-Nov-2011	EB-SA7-SB-110311	K037-01	EB	7470A	7470A	IV
03-Nov-2011	EB-SA7-SB-110311	K037-01	EB	GEN PREP	300.0	IV
03-Nov-2011	EB-SA7-SB-110311	K037-01	EB	GEN PREP	314.0	IV
03-Nov-2011	EB-SA7-SB-110311	K037-01	EB	GEN PREP	7199	IV
03-Nov-2011	EB-SA7-SB-110311	K037-01	EB	GEN PREP	8015B	IV
03-Nov-2011	EB-SA7-SB-110311	K037-01	EB	GEN PREP	8015M	IV
03-Nov-2011	EB-SA7-SB-110311	K037-01	EB	GEN PREP	8330A	IV
03-Nov-2011	EB-SA7-SB-110311	K037-01	EB	GEN PREP	8332	IV
03-Nov-2011	EB-SA7-SB-110311	K037-01	EB	GEN PREP	9014	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
03-Nov-2011	EB-SA7-SB-110311	K037-01R	EB	GEN PREP	7199	IV
03-Nov-2011	EB-SA7-SB-110311	K037-01W	EB	GEN PREP	6020	IV

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

Method Category:	GENCHEM	
Method:	300.0	Matrix: SO

Sample ID: DUP02-SA7-QC-110211      Collected: 11/2/2011 9:28:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.20	J	0.795	MDL	1.59	PQL	MG/KG	J	Z

Sample ID: SL-001-SA7-SB-4.0-5.0      Collected: 10/31/2011 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	0.679	J	0.534	MDL	1.07	PQL	MG/KG	J	Z

Sample ID: SL-048-SA7-SB-4.0-5.0      Collected: 11/2/2011 9:15:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.16	J	0.795	MDL	1.59	PQL	MG/KG	J	Z

Sample ID: SL-048-SA7-SB-9.0-10.0      Collected: 11/2/2011 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
Nitrate-NO3	1.31	J	0.790	MDL	1.58	PQL	MG/KG	J	Z

Sample ID: SL-108-SA7-SB-2.9-3.9      Collected: 11/3/2011 9:15:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.12	J	0.776	MDL	1.55	PQL	MG/KG	J	Z

Sample ID: SL-171-SA7-SB-4.0-5.0      Collected: 11/3/2011 1:25:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.13	J	0.788	MDL	1.58	PQL	MG/KG	J	Z

Method Category:	METALS	
Method:	6020	Matrix: AQ

Sample ID: EB-SA7-SB-110311      Collected: 11/3/2011 3:00:00      Analysis Type: RES/TOT      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	0.000561	J	0.000500	MDL	0.00100	PQL	MG/L	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: DUP-01-SA7-QC-110111      Collected: 11/1/2011 8:55:00      Analysis Type: RES/TOT      Dilution: 0.990

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.139	J	0.104	MDL	0.207	PQL	MG/KG	J	Z, Q
CHROMIUM	15.3		0.207	MDL	0.414	PQL	MG/KG	J	Q
COBALT	4.28		0.0518	MDL	0.104	PQL	MG/KG	J	Q
COPPER	4.91		0.207	MDL	0.414	PQL	MG/KG	J	Q
NICKEL	7.92		0.207	MDL	0.414	PQL	MG/KG	J	Q
PHOSPHORUS	280		6.21	MDL	12.4	PQL	MG/KG	J	Q
POTASSIUM	2500		31.1	MDL	62.1	PQL	MG/KG	J	Q, A
SODIUM	55.0	J	51.8	MDL	104	PQL	MG/KG	J	Z, Q
THALLIUM	0.253		0.0518	MDL	0.104	PQL	MG/KG	U	B
Zirconium	5.18	U	2.59	MDL	5.18	PQL	MG/KG	UJ	Q

Sample ID: DUP02-SA7-QC-110211      Collected: 11/2/2011 9:28:00      Analysis Type: RES/TOT      Dilution: 0.976

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	9950		12.4	MDL	24.8	PQL	MG/KG	J	Q, A
ANTIMONY	0.137	J	0.103	MDL	0.207	PQL	MG/KG	J	Z
CADMIUM	0.119		0.0517	MDL	0.103	PQL	MG/KG	J	FD
CALCIUM	1940		10.3	MDL	20.7	PQL	MG/KG	J	A
COPPER	4.25		0.207	MDL	0.414	PQL	MG/KG	J	Q
MAGNESIUM	3240		5.17	MDL	10.3	PQL	MG/KG	J	Q, A
NICKEL	7.41		0.207	MDL	0.414	PQL	MG/KG	J	Q
PHOSPHORUS	244		6.21	MDL	12.4	PQL	MG/KG	J	Q
POTASSIUM	2200		31.0	MDL	62.1	PQL	MG/KG	J	Q, A
SODIUM	72.4	J	51.7	MDL	103	PQL	MG/KG	J	Z
THALLIUM	0.215		0.0517	MDL	0.103	PQL	MG/KG	U	B
VANADIUM	23.2		0.0517	MDL	0.103	PQL	MG/KG	J	Q, A
Zirconium	5.17	U	2.59	MDL	5.17	PQL	MG/KG	UJ	Q

Sample ID: SL-001-SA7-SB-4.0-5.0      Collected: 10/31/2011 3:15:00      Analysis Type: RES/TOT      Dilution: 0.966

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.261		0.103	MDL	0.206	PQL	MG/KG	J	Q
CHROMIUM	19.5		0.206	MDL	0.413	PQL	MG/KG	J	Q
COBALT	7.65		0.0516	MDL	0.103	PQL	MG/KG	J	Q
COPPER	8.15		0.206	MDL	0.413	PQL	MG/KG	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-001-SA7-SB-4.0-5.0      Collected: 10/31/2011 3:15:00      Analysis Type: RES/TOT      Dilution: 0.966

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	13.2		0.206	MDL	0.413	PQL	MG/KG	J	Q
PHOSPHORUS	422		6.19	MDL	12.4	PQL	MG/KG	J	Q
POTASSIUM	2490		31.0	MDL	61.9	PQL	MG/KG	J	Q, A
SODIUM	68.8	J	51.6	MDL	103	PQL	MG/KG	J	Z, Q
Zirconium	5.16	U	2.58	MDL	5.16	PQL	MG/KG	UJ	Q

Sample ID: SL-048-SA7-SB-4.0-5.0      Collected: 11/2/2011 9:15:00      Analysis Type: RES/TOT      Dilution: 0.985

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	10500		12.5	MDL	25.1	PQL	MG/KG	J	Q, A
ANTIMONY	0.145	J	0.104	MDL	0.209	PQL	MG/KG	J	Z
CALCIUM	1900		10.4	MDL	20.9	PQL	MG/KG	J	A
COPPER	4.27		0.209	MDL	0.418	PQL	MG/KG	J	Q
MAGNESIUM	3430		5.22	MDL	10.4	PQL	MG/KG	J	Q, A
NICKEL	7.18		0.209	MDL	0.418	PQL	MG/KG	J	Q
PHOSPHORUS	231		6.27	MDL	12.5	PQL	MG/KG	J	Q
POTASSIUM	2210		31.3	MDL	62.7	PQL	MG/KG	J	Q, A
SODIUM	70.2	J	52.2	MDL	104	PQL	MG/KG	J	Z
VANADIUM	23.8		0.0522	MDL	0.104	PQL	MG/KG	J	Q, A
Zirconium	5.22	U	2.61	MDL	5.22	PQL	MG/KG	UJ	Q

Sample ID: SL-048-SA7-SB-9.0-10.0      Collected: 11/2/2011 10:00:00      Analysis Type: RES/TOT      Dilution: 0.976

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	10800		12.3	MDL	24.7	PQL	MG/KG	J	Q, A
ANTIMONY	0.145	J	0.103	MDL	0.206	PQL	MG/KG	J	Z
CADMIUM	0.205		0.0514	MDL	0.103	PQL	MG/KG	J	FD
CALCIUM	1970		10.3	MDL	20.6	PQL	MG/KG	J	A
COPPER	6.95		0.206	MDL	0.411	PQL	MG/KG	J	Q
MAGNESIUM	4130		5.14	MDL	10.3	PQL	MG/KG	J	Q, A
NICKEL	8.98		0.206	MDL	0.411	PQL	MG/KG	J	Q
PHOSPHORUS	391		6.17	MDL	12.3	PQL	MG/KG	J	Q
POTASSIUM	3330		30.9	MDL	61.7	PQL	MG/KG	J	Q, A
SODIUM	91.9	J	51.4	MDL	103	PQL	MG/KG	J	Z
VANADIUM	25.8		0.0514	MDL	0.103	PQL	MG/KG	J	Q, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-048-SA7-SB-9.0-10.0      Collected: 11/2/2011 10:00:00      Analysis Type: RES/TOT      Dilution: 0.976

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	5.14	U	2.57	MDL	5.14	PQL	MG/KG	UJ	Q

Sample ID: SL-108-SA7-SB-2.9-3.9      Collected: 11/3/2011 9:15:00      Analysis Type: RES/TOT      Dilution: 0.957

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	10100		11.9	MDL	23.8	PQL	MG/KG	J	Q, A
ANTIMONY	0.159	J	0.0990	MDL	0.198	PQL	MG/KG	J	Z
CALCIUM	3540		9.90	MDL	19.8	PQL	MG/KG	J	A
COPPER	5.29		0.198	MDL	0.396	PQL	MG/KG	J	Q
MAGNESIUM	3750		4.95	MDL	9.90	PQL	MG/KG	J	Q, A
NICKEL	7.26		0.198	MDL	0.396	PQL	MG/KG	J	Q
PHOSPHORUS	321		5.94	MDL	11.9	PQL	MG/KG	J	Q
POTASSIUM	2620		29.7	MDL	59.4	PQL	MG/KG	J	Q, A
SODIUM	62.9	J	49.5	MDL	99.0	PQL	MG/KG	J	Z
THALLIUM	0.230		0.0495	MDL	0.0990	PQL	MG/KG	U	B
VANADIUM	25.2		0.0495	MDL	0.0990	PQL	MG/KG	J	Q, A
Zirconium	4.95	U	2.47	MDL	4.95	PQL	MG/KG	UJ	Q

Sample ID: SL-120-SA7-SB-4.0-5.0      Collected: 10/31/2011 9:30:00      Analysis Type: RES/TOT      Dilution: 0.976

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.207		0.102	MDL	0.205	PQL	MG/KG	J	Q
BORON	3.63	J	2.56	MDL	5.12	PQL	MG/KG	J	Z
CHROMIUM	15.9		0.205	MDL	0.410	PQL	MG/KG	J	Q
COBALT	4.24		0.0512	MDL	0.102	PQL	MG/KG	J	Q
COPPER	5.84		0.205	MDL	0.410	PQL	MG/KG	J	Q
NICKEL	8.13		0.205	MDL	0.410	PQL	MG/KG	J	Q
PHOSPHORUS	239		6.14	MDL	12.3	PQL	MG/KG	J	Q
POTASSIUM	1910		30.7	MDL	61.4	PQL	MG/KG	J	Q, A
SODIUM	71.7	J	51.2	MDL	102	PQL	MG/KG	J	Z, Q
THALLIUM	0.221		0.0512	MDL	0.102	PQL	MG/KG	U	B
Zirconium	5.12	U	2.56	MDL	5.12	PQL	MG/KG	UJ	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

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# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

**Sample ID:** SL-120-SA7-SB-9.0-10.0      **Collected:** 10/31/2011 10:40:00      **Analysis Type:** RE/TOT      **Dilution:** 9.85

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	33.9		2.23	MDL	4.46	PQL	MG/KG	J	Q
COBALT	9.57		0.558	MDL	1.12	PQL	MG/KG	J	Q
COPPER	17.6		2.23	MDL	4.46	PQL	MG/KG	J	Q
NICKEL	20.0		2.23	MDL	4.46	PQL	MG/KG	J	Q

**Sample ID:** SL-120-SA7-SB-9.0-10.0      **Collected:** 10/31/2011 10:40:00      **Analysis Type:** RES/TOT      **Dilution:** 0.985

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.277		0.112	MDL	0.223	PQL	MG/KG	J	Q
PHOSPHORUS	371		6.69	MDL	13.4	PQL	MG/KG	J	Q
POTASSIUM	3460		33.5	MDL	66.9	PQL	MG/KG	J	Q, A
SODIUM	276		55.8	MDL	112	PQL	MG/KG	J	Q
Zirconium	5.58	U	2.79	MDL	5.58	PQL	MG/KG	UJ	Q

**Sample ID:** SL-121-SA7-SB-4.0-5.0      **Collected:** 10/31/2011 11:50:00      **Analysis Type:** RES/TOT      **Dilution:** 0.985

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.190	J	0.106	MDL	0.212	PQL	MG/KG	J	Z, Q
CHROMIUM	17.0		0.212	MDL	0.424	PQL	MG/KG	J	Q
COBALT	4.71		0.0530	MDL	0.106	PQL	MG/KG	J	Q
COPPER	6.62		0.212	MDL	0.424	PQL	MG/KG	J	Q
NICKEL	8.49		0.212	MDL	0.424	PQL	MG/KG	J	Q
PHOSPHORUS	194		6.35	MDL	12.7	PQL	MG/KG	J	Q
POTASSIUM	2230		31.8	MDL	63.5	PQL	MG/KG	J	Q, A
SODIUM	72.2	J	53.0	MDL	106	PQL	MG/KG	J	Z, Q
THALLIUM	0.255		0.0530	MDL	0.106	PQL	MG/KG	U	B
Zirconium	5.30	U	2.65	MDL	5.30	PQL	MG/KG	UJ	Q

**Sample ID:** SL-121-SA7-SB-9.0-10.0      **Collected:** 10/31/2011 12:15:00      **Analysis Type:** RES/TOT      **Dilution:** 0.985

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.263		0.113	MDL	0.226	PQL	MG/KG	J	Q
BORON	4.78	J	2.82	MDL	5.65	PQL	MG/KG	J	Z
CHROMIUM	25.6		0.226	MDL	0.452	PQL	MG/KG	J	Q
COBALT	8.94		0.0565	MDL	0.113	PQL	MG/KG	J	Q

\* denotes a non-reportable result

**Project Name and Number:** 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-121-SA7-SB-9.0-10.0      Collected: 10/31/2011 12:15:00      Analysis Type: RES/TOT      Dilution: 0.985

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	12.9		0.226	MDL	0.452	PQL	MG/KG	J	Q
NICKEL	16.2		0.226	MDL	0.452	PQL	MG/KG	J	Q
PHOSPHORUS	276		6.78	MDL	13.6	PQL	MG/KG	J	Q
POTASSIUM	3720		33.9	MDL	67.8	PQL	MG/KG	J	Q, A
SODIUM	294		56.5	MDL	113	PQL	MG/KG	J	Q
Zirconium	3.58	J	2.82	MDL	5.65	PQL	MG/KG	J	Z, Q

Sample ID: SL-123-SA7-SB-4.0-5.0      Collected: 11/1/2011 10:56:00      Analysis Type: RES/TOT      Dilution: 0.948

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.200	J	0.101	MDL	0.202	PQL	MG/KG	J	Z, Q
BORON	2.80	J	2.52	MDL	5.04	PQL	MG/KG	J	Z
CHROMIUM	16.2		0.202	MDL	0.403	PQL	MG/KG	J	Q
COBALT	5.56		0.0504	MDL	0.101	PQL	MG/KG	J	Q
COPPER	6.93		0.202	MDL	0.403	PQL	MG/KG	J	Q
NICKEL	10.1		0.202	MDL	0.403	PQL	MG/KG	J	Q
PHOSPHORUS	296		6.05	MDL	12.1	PQL	MG/KG	J	Q
POTASSIUM	2370		30.3	MDL	60.5	PQL	MG/KG	J	Q, A
SODIUM	66.7	J	50.4	MDL	101	PQL	MG/KG	J	Z, Q
THALLIUM	0.232		0.0504	MDL	0.101	PQL	MG/KG	U	B
Zirconium	5.04	U	2.52	MDL	5.04	PQL	MG/KG	UJ	Q

Sample ID: SL-123-SA7-SB-9.0-10.0      Collected: 11/1/2011 11:25:00      Analysis Type: RES/TOT      Dilution: 0.990

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.282		0.112	MDL	0.224	PQL	MG/KG	J	Q
CHROMIUM	22.9		0.224	MDL	0.448	PQL	MG/KG	J	Q
COBALT	7.82		0.0560	MDL	0.112	PQL	MG/KG	J	Q
COPPER	9.87		0.224	MDL	0.448	PQL	MG/KG	J	Q
NICKEL	13.4		0.224	MDL	0.448	PQL	MG/KG	J	Q
PHOSPHORUS	216		6.72	MDL	13.4	PQL	MG/KG	J	Q
POTASSIUM	2290		33.6	MDL	67.2	PQL	MG/KG	J	Q, A
SODIUM	239		56.0	MDL	112	PQL	MG/KG	J	Q
Zirconium	3.85	J	2.80	MDL	5.60	PQL	MG/KG	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

<b>Method Category:</b>	METALS	<b>Method:</b>	6020	<b>Matrix:</b>	SO
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Sample ID: SL-128-SA7-SB-4.0-5.0      Collected: 11/3/2011 10:05:00      Analysis Type: RES/TOT      Dilution: 0.980

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	12000		12.8	MDL	25.6	PQL	MG/KG	J	Q, A
ANTIMONY	0.187	J	0.107	MDL	0.213	PQL	MG/KG	J	Z
CALCIUM	4210		10.7	MDL	21.3	PQL	MG/KG	J	A
COPPER	399		0.213	MDL	0.427	PQL	MG/KG	J	Q
MAGNESIUM	3580		5.33	MDL	10.7	PQL	MG/KG	J	Q, A
NICKEL	7.80		0.213	MDL	0.427	PQL	MG/KG	J	Q
PHOSPHORUS	331		6.40	MDL	12.8	PQL	MG/KG	J	Q
POTASSIUM	2400		32.0	MDL	64.0	PQL	MG/KG	J	Q, A
THALLIUM	0.223		0.0533	MDL	0.107	PQL	MG/KG	U	B
VANADIUM	26.9		0.0533	MDL	0.107	PQL	MG/KG	J	Q, A
Zirconium	5.33	U	2.67	MDL	5.33	PQL	MG/KG	UJ	Q

Sample ID: SL-128-SA7-SB-9.0-10.0      Collected: 11/3/2011 10:35:00      Analysis Type: RES/TOT      Dilution: 0.980

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	9470		12.6	MDL	25.3	PQL	MG/KG	J	Q, A
ANTIMONY	0.143	J	0.105	MDL	0.211	PQL	MG/KG	J	Z
CALCIUM	3720		10.5	MDL	21.1	PQL	MG/KG	J	A
COPPER	5.34		0.211	MDL	0.421	PQL	MG/KG	J	Q
MAGNESIUM	3590		5.26	MDL	10.5	PQL	MG/KG	J	Q, A
NICKEL	7.08		0.211	MDL	0.421	PQL	MG/KG	J	Q
PHOSPHORUS	328		6.32	MDL	12.6	PQL	MG/KG	J	Q
POTASSIUM	2490		31.6	MDL	63.2	PQL	MG/KG	J	Q, A
THALLIUM	0.210		0.0526	MDL	0.105	PQL	MG/KG	U	B
VANADIUM	23.9		0.0526	MDL	0.105	PQL	MG/KG	J	Q, A
Zirconium	5.26	U	2.63	MDL	5.26	PQL	MG/KG	UJ	Q

Sample ID: SL-160-SA7-SB-0.0-1.0      Collected: 11/1/2011 2:03:00      Analysis Type: RES/TOT      Dilution: 0.980

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.160	J	0.102	MDL	0.203	PQL	MG/KG	J	Z, Q
CHROMIUM	9.98		0.203	MDL	0.407	PQL	MG/KG	J	Q
COBALT	3.34		0.0508	MDL	0.102	PQL	MG/KG	J	Q
COPPER	5.17		0.203	MDL	0.407	PQL	MG/KG	J	Q
NICKEL	6.28		0.203	MDL	0.407	PQL	MG/KG	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-160-SA7-SB-0.0-1.0      Collected: 11/1/2011 2:03:00      Analysis Type: RES/TOT      Dilution: 0.980

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	313		6.10	MDL	12.2	PQL	MG/KG	J	Q
POTASSIUM	2510		30.5	MDL	61.0	PQL	MG/KG	J	Q, A
SODIUM	102	U	50.8	MDL	102	PQL	MG/KG	UJ	Q
THALLIUM	0.167		0.0508	MDL	0.102	PQL	MG/KG	U	B
Zirconium	5.08	U	2.54	MDL	5.08	PQL	MG/KG	UJ	Q

Sample ID: SL-161-SA7-SB-4.0-5.0      Collected: 11/2/2011 1:20:00      Analysis Type: RES/TOT      Dilution: 0.943

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	10900		12.0	MDL	23.9	PQL	MG/KG	J	Q, A
CALCIUM	3090		9.98	MDL	20.0	PQL	MG/KG	J	A
COPPER	7.23		0.200	MDL	0.399	PQL	MG/KG	J	Q
MAGNESIUM	5560		4.99	MDL	9.98	PQL	MG/KG	J	Q, A
NICKEL	11.0		0.200	MDL	0.399	PQL	MG/KG	J	Q
PHOSPHORUS	443		5.99	MDL	12.0	PQL	MG/KG	J	Q
POTASSIUM	1690		29.9	MDL	59.9	PQL	MG/KG	J	Q, A
SELENIUM	0.204	J	0.200	MDL	0.399	PQL	MG/KG	J	Z
THALLIUM	0.252		0.0499	MDL	0.0998	PQL	MG/KG	U	B
VANADIUM	36.7		0.0499	MDL	0.0998	PQL	MG/KG	J	Q, A
Zirconium	4.99	U	2.49	MDL	4.99	PQL	MG/KG	UJ	Q

Sample ID: SL-171-SA7-SB-4.0-5.0      Collected: 11/3/2011 1:25:00      Analysis Type: RES/TOT      Dilution: 0.939

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	8850		11.8	MDL	23.7	PQL	MG/KG	J	Q, A
CALCIUM	4520		9.86	MDL	19.7	PQL	MG/KG	J	A
COPPER	6.32		0.197	MDL	0.395	PQL	MG/KG	J	Q
MAGNESIUM	3260		4.93	MDL	9.86	PQL	MG/KG	J	Q, A
NICKEL	6.85		0.197	MDL	0.395	PQL	MG/KG	J	Q
PHOSPHORUS	408		5.92	MDL	11.8	PQL	MG/KG	J	Q
POTASSIUM	2150		29.6	MDL	59.2	PQL	MG/KG	J	Q, A
THALLIUM	0.178		0.0493	MDL	0.0986	PQL	MG/KG	U	B
VANADIUM	23.6		0.0493	MDL	0.0986	PQL	MG/KG	J	Q, A
Zirconium	4.93	U	2.47	MDL	4.93	PQL	MG/KG	UJ	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-171-SA7-SB-9.0-10.0      Collected: 11/3/2011 2:05:00      Analysis Type: RES/TOT      Dilution: 0.966

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	10000		12.3	MDL	24.5	PQL	MG/KG	J	Q, A
CALCIUM	5050		10.2	MDL	20.4	PQL	MG/KG	J	A
COPPER	8.55		0.204	MDL	0.408	PQL	MG/KG	J	Q
MAGNESIUM	3630		5.11	MDL	10.2	PQL	MG/KG	J	Q, A
NICKEL	8.06		0.204	MDL	0.408	PQL	MG/KG	J	Q
PHOSPHORUS	295		6.13	MDL	12.3	PQL	MG/KG	J	Q
POTASSIUM	2470		30.6	MDL	61.3	PQL	MG/KG	J	Q, A
THALLIUM	0.223		0.0511	MDL	0.102	PQL	MG/KG	U	B
VANADIUM	25.5		0.0511	MDL	0.102	PQL	MG/KG	J	Q, A
Zirconium	5.11	U	2.55	MDL	5.11	PQL	MG/KG	UJ	Q

Sample ID: SL-175-SA7-SB-4.0-5.0      Collected: 11/1/2011 8:45:00      Analysis Type: RES/TOT      Dilution: 0.971

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.146	J	0.102	MDL	0.204	PQL	MG/KG	J	Z, Q
CHROMIUM	15.8		0.204	MDL	0.407	PQL	MG/KG	J	Q
COBALT	4.02		0.0509	MDL	0.102	PQL	MG/KG	J	Q
COPPER	5.13		0.204	MDL	0.407	PQL	MG/KG	J	Q
NICKEL	7.73		0.204	MDL	0.407	PQL	MG/KG	J	Q
PHOSPHORUS	280		6.11	MDL	12.2	PQL	MG/KG	J	Q
POTASSIUM	2430		30.5	MDL	61.1	PQL	MG/KG	J	Q, A
SODIUM	58.6	J	50.9	MDL	102	PQL	MG/KG	J	Z, Q
THALLIUM	0.255		0.0509	MDL	0.102	PQL	MG/KG	U	B
Zirconium	5.09	U	2.54	MDL	5.09	PQL	MG/KG	UJ	Q

Sample ID: SL-175-SA7-SB-9.0-10.0      Collected: 11/1/2011 9:30:00      Analysis Type: RES/TOT      Dilution: 0.935

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.233		0.111	MDL	0.223	PQL	MG/KG	J	Q
CHROMIUM	24.5		0.223	MDL	0.445	PQL	MG/KG	J	Q
COBALT	7.08		0.0557	MDL	0.111	PQL	MG/KG	J	Q
COPPER	12.5		0.223	MDL	0.445	PQL	MG/KG	J	Q
NICKEL	14.1		0.223	MDL	0.445	PQL	MG/KG	J	Q
PHOSPHORUS	415		6.68	MDL	13.4	PQL	MG/KG	J	Q
POTASSIUM	3620		33.4	MDL	66.8	PQL	MG/KG	J	Q, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-175-SA7-SB-9.0-10.0      Collected: 11/1/2011 9:30:00      Analysis Type: RES/TOT      Dilution: 0.935

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	217		55.7	MDL	111	PQL	MG/KG	J	Q
Zirconium	5.57	U	2.78	MDL	5.57	PQL	MG/KG	UJ	Q

Sample ID: SL-185-SA7-SB-3.0-4.0      Collected: 11/1/2011 2:30:00      Analysis Type: RES/TOT      Dilution: 0.976

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.174	J	0.101	MDL	0.202	PQL	MG/KG	J	Z, Q
CHROMIUM	15.2		0.202	MDL	0.405	PQL	MG/KG	J	Q
COBALT	5.28		0.0506	MDL	0.101	PQL	MG/KG	J	Q
COPPER	4.39		0.202	MDL	0.405	PQL	MG/KG	J	Q
NICKEL	7.99		0.202	MDL	0.405	PQL	MG/KG	J	Q
PHOSPHORUS	271		6.07	MDL	12.1	PQL	MG/KG	J	Q
POTASSIUM	2480		30.4	MDL	60.7	PQL	MG/KG	J	Q, A
SODIUM	142		50.6	MDL	101	PQL	MG/KG	J	Q
THALLIUM	0.236		0.0506	MDL	0.101	PQL	MG/KG	U	B
Zirconium	5.06	U	2.53	MDL	5.06	PQL	MG/KG	UJ	Q

Method Category:	METALS	
Method:	7199	Matrix: AQ

Sample ID: FB-SA7-110111      Collected: 11/1/2011 10:45:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.200	U	0.100	MDL	0.200	PQL	UG/L	UJ	H

Method Category:	METALS	
Method:	7471A	Matrix: SO

Sample ID: SL-121-SA7-SB-9.0-10.0      Collected: 10/31/2011 12:15:00      Analysis Type: RES/TOT      Dilution: 1.01

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0602	J	0.0579	MDL	0.116	PQL	MG/KG	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8015B EFH	<b>Matrix:</b> SO

<b>Sample ID:</b> DUP-01-SA7-QC-110111			<b>Collected:</b> 11/1/2011 8:55:00			<b>Analysis Type:</b> RES		<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	0.99	J	0.52	MDL	1.0	PQL	MG/KG	J	Z, FD
EFH(C30-C40)	0.70	J	0.52	MDL	1.0	PQL	MG/KG	J	Z, FD
EFH(C8-C11)	1.1		0.52	MDL	1.0	PQL	MG/KG	J	FD
TOTAL EFH(C8-C40)	2.8		0.52	MDL	1.0	PQL	MG/KG	J	FD

<b>Sample ID:</b> DUP02-SA7-QC-110211			<b>Collected:</b> 11/2/2011 9:28:00			<b>Analysis Type:</b> RES		<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C30-C40)	1.0	J	0.53	MDL	1.1	PQL	MG/KG	J	Z
EFH(C8-C11)	1.2		0.53	MDL	1.1	PQL	MG/KG	J	FD

<b>Sample ID:</b> SL-048-SA7-SB-4.0-5.0			<b>Collected:</b> 11/2/2011 9:15:00			<b>Analysis Type:</b> RES		<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	1.0	J	0.53	MDL	1.1	PQL	MG/KG	J	Z

<b>Sample ID:</b> SL-048-SA7-SB-9.0-10.0			<b>Collected:</b> 11/2/2011 10:00:00			<b>Analysis Type:</b> RES		<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C30-C40)	0.78	J	0.53	MDL	1.1	PQL	MG/KG	J	Z
EFH(C8-C11)	0.59	J	0.53	MDL	1.1	PQL	MG/KG	J	Z, FD

<b>Sample ID:</b> SL-108-SA7-SB-2.9-3.9			<b>Collected:</b> 11/3/2011 9:15:00			<b>Analysis Type:</b> RES		<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	0.75	J	0.52	MDL	1.0	PQL	MG/KG	J	Z

<b>Sample ID:</b> SL-120-SA7-SB-9.0-10.0			<b>Collected:</b> 10/31/2011 10:40:00			<b>Analysis Type:</b> RES		<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	0.64	J	0.57	MDL	1.1	PQL	MG/KG	J	Z

<b>Sample ID:</b> SL-121-SA7-SB-9.0-10.0			<b>Collected:</b> 10/31/2011 12:15:00			<b>Analysis Type:</b> RES		<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	0.70	J	0.57	MDL	1.1	PQL	MG/KG	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8015B EFH	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-123-SA7-SB-4.0-5.0			<b>Collected:</b> 11/1/2011 10:56:00			<b>Analysis Type:</b> RES		<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	0.60	J	0.53	MDL	1.1	PQL	MG/KG	J	Z

<b>Sample ID:</b> SL-123-SA7-SB-9.0-10.0			<b>Collected:</b> 11/1/2011 11:25:00			<b>Analysis Type:</b> RES		<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	0.92	J	0.57	MDL	1.1	PQL	MG/KG	J	Z
EFH(C8-C11)	0.83	J	0.57	MDL	1.1	PQL	MG/KG	J	Z

<b>Sample ID:</b> SL-128-SA7-SB-9.0-10.0			<b>Collected:</b> 11/3/2011 10:35:00			<b>Analysis Type:</b> RES		<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	0.70	J	0.54	MDL	1.1	PQL	MG/KG	J	Z

<b>Sample ID:</b> SL-171-SA7-SB-4.0-5.0			<b>Collected:</b> 11/3/2011 1:25:00			<b>Analysis Type:</b> RES		<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	0.73	J	0.53	MDL	1.1	PQL	MG/KG	J	Z

<b>Sample ID:</b> SL-171-SA7-SB-9.0-10.0			<b>Collected:</b> 11/3/2011 2:05:00			<b>Analysis Type:</b> RES		<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C8-C11)	0.67	J	0.53	MDL	1.1	PQL	MG/KG	J	Z

<b>Sample ID:</b> SL-175-SA7-SB-4.0-5.0			<b>Collected:</b> 11/1/2011 8:45:00			<b>Analysis Type:</b> RES		<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	2.2		0.52	MDL	1.0	PQL	MG/KG	J	FD
EFH(C30-C40)	1.9		0.52	MDL	1.0	PQL	MG/KG	J	FD
EFH(C8-C11)	0.64	J	0.52	MDL	1.0	PQL	MG/KG	J	Z, FD
TOTAL EFH(C8-C40)	4.7		0.52	MDL	1.0	PQL	MG/KG	J	FD

<b>Sample ID:</b> SL-175-SA7-SB-9.0-10.0			<b>Collected:</b> 11/1/2011 9:30:00			<b>Analysis Type:</b> RES		<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH(C21-C30)	1.1	J	0.60	MDL	1.2	PQL	MG/KG	J	Z
EFH(C8-C11)	0.69	J	0.60	MDL	1.2	PQL	MG/KG	J	Z

\* denotes a non-reportable result

**Project Name and Number:** 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

Method Category:	SVOA	
Method:	8015B EFH	Matrix: SO

Method Category:	SVOA	
Method:	8082	Matrix: SO

Sample ID: SL-128-SA7-SB-9.0-10.0      Collected: 11/3/2011 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	2.6	J	1.8	MDL	3.5	PQL	UG/KG	J	Z

Sample ID: SL-160-SA7-SB-0.0-1.0      Collected: 11/1/2011 2:03:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	2.2	J	1.8	MDL	3.4	PQL	UG/KG	J	Z

Sample ID: SL-171-SA7-SB-4.0-5.0      Collected: 11/3/2011 1:25:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	3.1	J	1.8	MDL	3.5	PQL	UG/KG	J	Z

Method Category:	SVOA	
Method:	8270C	Matrix: SO

Sample ID: SL-048-SA7-SB-9.0-10.0      Collected: 11/2/2011 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
BENZIDINE	1100	U	530	MDL	1100	PQL	UG/KG	UJ	Q

Sample ID: SL-120-SA7-SB-9.0-10.0      Collected: 10/31/2011 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	1100	U	570	MDL	1100	PQL	UG/KG	UJ	Q

Method Category:	SVOA	
Method:	8270C SIM	Matrix: SO

Sample ID: DUP-01-SA7-QC-110111      Collected: 11/1/2011 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	16	J	8.8	MDL	17	PQL	UG/KG	J	Z, FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

Method Category:	SVOA	Matrix:	SO
Method:	8270C SIM		

Sample ID: DUP02-SA7-QC-110211      Collected: 11/2/2011 9:28:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.3	J	0.90	MDL	1.8	PQL	UG/KG	J	Z, FD
2-METHYLNAPHTHALENE	1.4	J	0.90	MDL	1.8	PQL	UG/KG	J	Z, FD
ACENAPHTHENE	1.2	J	0.90	MDL	1.8	PQL	UG/KG	J	Z, FD
ACENAPHTHYLENE	1.2	J	0.90	MDL	1.8	PQL	UG/KG	J	Z, FD
BIS(2-ETHYLHEXYL)PHTHALATE	22		8.9	MDL	18	PQL	UG/KG	J	FD
NAPHTHALENE	1.7	J	0.90	MDL	1.8	PQL	UG/KG	J	Z, FD
N-NITROSODIMETHYLAMINE	1.9		0.90	MDL	1.8	PQL	UG/KG	J	FD

Sample ID: SL-048-SA7-SB-9.0-10.0      Collected: 11/2/2011 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-METHYLNAPHTHALENE	1.8	U	0.90	MDL	1.8	PQL	UG/KG	UJ	FD
2-METHYLNAPHTHALENE	1.8	U	0.90	MDL	1.8	PQL	UG/KG	UJ	FD
ACENAPHTHENE	1.8	U	0.90	MDL	1.8	PQL	UG/KG	UJ	FD
ACENAPHTHYLENE	1.8	U	0.90	MDL	1.8	PQL	UG/KG	UJ	FD
BIS(2-ETHYLHEXYL)PHTHALATE	18	U	8.9	MDL	18	PQL	UG/KG	UJ	FD
NAPHTHALENE	1.8	U	0.90	MDL	1.8	PQL	UG/KG	UJ	FD
N-NITROSODIMETHYLAMINE	1.8	U	0.90	MDL	1.8	PQL	UG/KG	UJ	FD

Sample ID: SL-108-SA7-SB-2.9-3.9      Collected: 11/3/2011 9:15:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	1.6	J	0.88	MDL	1.8	PQL	UG/KG	J	Z
CHRYSENE	1.6	J	0.88	MDL	1.8	PQL	UG/KG	J	Z

Sample ID: SL-120-SA7-SB-9.0-10.0      Collected: 10/31/2011 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	18	J	9.5	MDL	19	PQL	UG/KG	J	Z

Sample ID: SL-123-SA7-SB-9.0-10.0      Collected: 11/1/2011 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
NAPHTHALENE	1.7	J	0.96	MDL	1.9	PQL	UG/KG	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

Method Category:	SVOA	
Method:	8270C SIM	Matrix: SO

Sample ID: SL-128-SA7-SB-9.0-10.0      Collected: 11/3/2011 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	1.2	J	0.91	MDL	1.8	PQL	UG/KG	J	Z
FLUORANTHENE	1.5	J	0.91	MDL	1.8	PQL	UG/KG	J	Z

Sample ID: SL-160-SA7-SB-0.0-1.0      Collected: 11/1/2011 2:03:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	16	J	8.7	MDL	17	PQL	UG/KG	J	Z
INDENO(1,2,3-CD)PYRENE	1.6	J	0.88	MDL	1.8	PQL	UG/KG	J	Z

Sample ID: SL-171-SA7-SB-4.0-5.0      Collected: 11/3/2011 1:25:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	14	J	8.8	MDL	18	PQL	UG/KG	J	Z
Butylbenzylphthalate	16	J	8.8	MDL	18	PQL	UG/KG	J	Z
PHENANTHRENE	1.3	J	0.89	MDL	1.8	PQL	UG/KG	J	Z

Sample ID: SL-175-SA7-SB-4.0-5.0      Collected: 11/1/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	18	U	8.8	MDL	18	PQL	UG/KG	UJ	FD

Sample ID: SL-185-SA7-SB-3.0-4.0      Collected: 11/1/2011 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	13	J	8.7	MDL	17	PQL	UG/KG	J	Z

Method Category:	VOA	
Method:	8015B GRO	Matrix: AQ

Sample ID: FB-SA7-110111      Collected: 11/1/2011 10:45:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS (C5-C12)	47	J	10	MDL	50	PQL	UG/L	U	T

\* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

Method Category:	VOA	
Method:	8015B GRO	Matrix: AQ

Sample ID: TB-110111	Collected: 11/1/2011 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
GASOLINE RANGE ORGANICS (C5-C12)	21	J	10	MDL	50	PQL	UG/L	J	Z

Sample ID: TB-110211	Collected: 11/2/2011 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
GASOLINE RANGE ORGANICS (C5-C12)	18	J	10	MDL	50	PQL	UG/L	J	Z

Sample ID: TB-110311	Collected: 11/3/2011 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
GASOLINE RANGE ORGANICS (C5-C12)	26	J	10	MDL	50	PQL	UG/L	J	Z

Method Category:	VOA	
Method:	8015B GRO	Matrix: SO

Sample ID: DUP02-SA7-QC-110211	Collected: 11/2/2011 9:28:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS (C5-C12)	0.77	J	0.53	MDL	1.1	PQL	MG/KG	J	Z, FD

Sample ID: SL-048-SA7-SB-9.5	Collected: 11/2/2011 10:05:00	Analysis Type: RES	Dilution: 1.01						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS (C5-C12)	1.1	U	0.54	MDL	1.1	PQL	MG/KG	UJ	FD

Sample ID: SL-120-SA7-SB-9.5	Collected: 10/31/2011 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
GASOLINE RANGE ORGANICS (C5-C12)	0.68	J	0.57	MDL	1.1	PQL	MG/KG	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

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# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

<b>Method Category:</b>	VOA	
<b>Method:</b>	8260B	<b>Matrix:</b> AQ

Sample ID: EB-SA7-SB-110311

Collected: 11/3/2011 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
METHYL TERT-BUTYL ETHER (MTBE)	0.40	J	0.20	MDL	1.0	PQL	UG/L	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

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# Data Qualifier Summary

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: Prep11K007R

eQAPP Name: CDM\_SSFL\_111101

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
FD	Field Duplicate Precision
H	Sampling to Analysis Estimation
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Upper Estimation
T	Trip Blank Contamination
Z	Reporting Limit Trace Value

\* denotes a non-reportable result

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

11K007

# QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: 11K007  
EDD Filename: 11K007R

Laboratory: EMXT  
eQAPP Name: CDM\_SSFL\_111101

Method: 7199		Preparation Method: GEN PREP			
Matrix: AQ					
Sample ID	Type	Actual	Criteria	Units	Flag
FB-SA7-110111 (RES)	Sampling To Analysis	24.25	24.00	HOURS	J (all detects) UJ (all non-detects)

# Trip Blank Outlier Report

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: 11K007

eQAPP Name: CDM\_SSFL\_111101

**Method:** 8015B GRO  
**Matrix:** AQ

Trip Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
TB-110111(RES)	11/1/2011 2:30:00 PM	GASOLINE RANGE ORGANICS (C5-C12)	21 UG/L	DUP-01-SA7-QC-110111 FB-SA7-110111 SL-123-SA7-SB-4.0-5.0 SL-123-SA7-SB-4.5 SL-123-SA7-SB-9.0-10.0 SL-123-SA7-SB-9.5 SL-160-SA7-SB-0.0-1.0 SL-175-SA7-SB-4.0-5.0 SL-175-SA7-SB-4.5 SL-175-SA7-SB-9.0-10.0 SL-175-SA7-SB-9.5 SL-185-SA7-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
FB-SA7-110111(RES)	GASOLINE RANGE ORGANICS (C5-C12)	47 UG/L	50U UG/L

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: 11K007R

eQAPP Name: CDM\_SSFL\_111101

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-120-SA7-SB-9.0-10.0MSD (TOT) (DUP-01-SA7-QC-110111 SL -001-SA7-SB-4.0-5.0 SL -120-SA7-SB-4.0-5.0 SL -120-SA7-SB-9.0-10.0 SL -121-SA7-SB-4.0-5.0 SL -121-SA7-SB-9.0-10.0 SL -123-SA7-SB-4.0-5.0 SL -123-SA7-SB-9.0-10.0 SL -160-SA7-SB-0.0-1.0 SL -175-SA7-SB-4.0-5.0 SL -175-SA7-SB-9.0-10.0 SL -185-SA7-SB-3.0-4.0)	BARIUM	-	137	75.00-125.00	-	BARIUM	No Qual, >4x
SL-120-SA7-SB-9.0-10.0MS (TOT) SL-120-SA7-SB-9.0-10.0MSD (TOT) (DUP-01-SA7-QC-110111 SL -001-SA7-SB-4.0-5.0 SL -120-SA7-SB-4.0-5.0 SL -120-SA7-SB-9.0-10.0 SL -121-SA7-SB-4.0-5.0 SL -121-SA7-SB-9.0-10.0 SL -123-SA7-SB-4.0-5.0 SL -123-SA7-SB-9.0-10.0 SL -160-SA7-SB-0.0-1.0 SL -175-SA7-SB-4.0-5.0 SL -175-SA7-SB-9.0-10.0 SL -185-SA7-SB-3.0-4.0)	ALUMINUM CALCIUM CHROMIUM IRON MAGNESIUM MANGANESE TITANIUM VANADIUM	-423 -321 23 -307 -82 -606 -920 -9	-393 -329 24 180 -68 -621 -821 -5	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - - - -	ALUMINUM CALCIUM CHROMIUM IRON MAGNESIUM MANGANESE TITANIUM VANADIUM	J(all detects) UJ(all non-detects)  Al, Ca, Cr, Fe, Mg, Mn, Ti, V, No Qual, >4x Cr Post Spike = 94%
SL-120-SA7-SB-9.0-10.0MS (TOT) SL-120-SA7-SB-9.0-10.0MSD (TOT) (DUP-01-SA7-QC-110111 SL -001-SA7-SB-4.0-5.0 SL -120-SA7-SB-4.0-5.0 SL -120-SA7-SB-9.0-10.0 SL -121-SA7-SB-4.0-5.0 SL -121-SA7-SB-9.0-10.0 SL -123-SA7-SB-4.0-5.0 SL -123-SA7-SB-9.0-10.0 SL -160-SA7-SB-0.0-1.0 SL -175-SA7-SB-4.0-5.0 SL -175-SA7-SB-9.0-10.0 SL -185-SA7-SB-3.0-4.0)	ANTIMONY COBALT COPPER NICKEL PHOSPHORUS POTASSIUM SODIUM Zirconium	72 64 36 38 64 73 73 52	73 63 37 39 62 68 74 54	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	- - - - - - - -	ANTIMONY COBALT COPPER NICKEL PHOSPHORUS POTASSIUM SODIUM Zirconium	J(all detects) UJ(all non-detects)
SL-048-SA7-SB-9.0-10.0MS (TOT) SL-048-SA7-SB-9.0-10.0MSD (TOT) (DUP02 -SA7-QC-110211 SL -048-SA7-SB-4.0-5.0 SL -048-SA7-SB-9.0-10.0 SL -108-SA7-SB-2.9-3.9 SL -128-SA7-SB-4.0-5.0 SL -128-SA7-SB-9.0-10.0 SL -161-SA7-SB-4.0-5.0 SL -171-SA7-SB-4.0-5.0 SL -171-SA7-SB-9.0-10.0)	ALUMINUM IRON MANGANESE TITANIUM	34 -109 -240 -1040	-8 -168 -296 -1400	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINUM IRON MANGANESE TITANIUM	No Qual, >4x

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

2/29/2012 1:31:58 PM

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: 11K007R

eQAPP Name: CDM\_SSFL\_111101

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-048-SA7-SB-9.0-10.0MS (TOT)	COPPER	70	66	75.00-125.00	-	COPPER	J(all detects) UJ(all non-detects)
SL-048-SA7-SB-9.0-10.0MSD (TOT)	MAGNESIUM	57	49	75.00-125.00	-	MAGNESIUM	
(DUP02-SA7-QC-110211)	NICKEL	-	72	75.00-125.00	-	NICKEL	
SL-048-SA7-SB-4.0-5.0	PHOSPHORUS	50	49	75.00-125.00	-	PHOSPHORUS	
SL-048-SA7-SB-9.0-10.0	POTASSIUM	-	67	75.00-125.00	-	POTASSIUM	
SL-108-SA7-SB-2.9-3.9	VANADIUM	-	66	75.00-125.00	-	VANADIUM	
SL-128-SA7-SB-4.0-5.0	Zirconium	42	37	75.00-125.00	-	Zirconium	
SL-128-SA7-SB-9.0-10.0							
SL-161-SA7-SB-4.0-5.0							
SL-171-SA7-SB-4.0-5.0							

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-120-SA7-SB-9.0-10.0MS SL-120-SA7-SB-9.0-10.0MSD (SL-120-SA7-SB-9.0-10.0)	BENZIDINE	9	8	10.00-150.00	-	BENZIDINE	J(all detects) UJ(all non-detects)
SL-048-SA7-SB-9.0-10.0MS SL-048-SA7-SB-9.0-10.0MSD (SL-048-SA7-SB-9.0-10.0)	BENZIDINE	8	8	10.00-150.00	-	BENZIDINE	J(all detects) UJ(all non-detects)

# Field Duplicate RPD Report

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: 11K007R

eQAPP Name: CDM\_SSFL\_111101

Method: 300.0  
Matrix: SO

Analyte	Concentration (MG/KG)		Sample RPD	eQAPP RPD	Flag
	SL-175-SA7-SB-4.0-5.0	DUP-01-SA7-QC-110111			
FLUORIDE	2.18	2.24	3	50.00	No Qualifiers Applied

Analyte	Concentration (MG/KG)		Sample RPD	eQAPP RPD	Flag
	SL-048-SA7-SB-9.0-10.0	DUP02-SA7-QC-110211			
FLUORIDE	1.77	2.08	16	50.00	No Qualifiers Applied
Nitrate-NO3	1.31	1.20	9	50.00	

Method: 6020  
Matrix: SO

Analyte	Concentration (MG/KG)		Sample RPD	eQAPP RPD	Flag
	SL-175-SA7-SB-4.0-5.0 (TOT)	DUP-01-SA7-QC-110111 (TOT)			
ALUMINUM	12500	10600	16	50.00	No Qualifiers Applied
ANTIMONY	0.146	0.139	5	50.00	
ARSENIC	5.39	4.67	14	50.00	
BARIUM	66.1	60.0	10	50.00	
BERYLLIUM	0.549	0.486	12	50.00	
CADMIUM	0.123	0.119	3	50.00	
CALCIUM	2360	2270	4	50.00	
CHROMIUM	15.8	15.3	3	50.00	
COBALT	4.02	4.28	6	50.00	
COPPER	5.13	4.91	4	50.00	
IRON	16200	15200	6	50.00	
LEAD	5.06	4.34	15	50.00	
LITHIUM	19.8	20.3	2	50.00	
MAGNESIUM	3350	3300	2	50.00	
MANGANESE	218	223	2	50.00	
MOLYBDENUM	0.499	0.432	14	50.00	
NICKEL	7.73	7.92	2	50.00	
PHOSPHORUS	280	280	0	50.00	
POTASSIUM	2430	2500	3	50.00	
SODIUM	58.6	55.0	6	50.00	
STRONTIUM	13.4	11.3	17	50.00	
THALLIUM	0.255	0.253	1	50.00	
TITANIUM	892	875	2	50.00	
VANADIUM	25.0	22.4	11	50.00	
ZINC	55.4	48.0	14	50.00	

Analyte	Concentration (MG/KG)		Sample RPD	eQAPP RPD	Flag
	SL-048-SA7-SB-9.0-10.0 (TOT)	DUP02-SA7-QC-110211 (TOT)			

# Field Duplicate RPD Report

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: 11K007R

eQAPP Name: CDM\_SSFL\_111101

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

Analyte	10800	9950	8	50.00	No Qualifiers Applied
ALUMINUM	0.145	0.137	6	50.00	
ANTIMONY	2.87	2.92	2	50.00	
ARSENIC	85.2	75.3	12	50.00	
BARIUM	0.442	0.454	3	50.00	
BERYLLIUM	1970	1940	2	50.00	
CALCIUM	14.6	14.5	1	50.00	
CHROMIUM	3.99	3.77	6	50.00	
COBALT	6.95	4.25	48	50.00	
COPPER	18600	15600	18	50.00	
IRON	3.70	3.83	3	50.00	
LEAD	23.6	21.4	10	50.00	
LITHIUM	4130	3240	24	50.00	
MAGNESIUM	299	191	44	50.00	
MANGANESE	0.454	0.373	20	50.00	
MOLYBDENUM	8.98	7.41	19	50.00	
NICKEL	391	244	46	50.00	
PHOSPHORUS	3330	2200	41	50.00	
POTASSIUM	91.9	72.4	24	50.00	
SODIUM	14.0	12.7	10	50.00	
STRONTIUM	0.219	0.215	2	50.00	
THALLIUM	957	901	6	50.00	
TITANIUM	25.8	23.2	11	50.00	
VANADIUM	54.4	46.7	15	50.00	
ZINC					
CADMIUM	0.205	0.119	53	50.00	J(all detects)

**Method: 8015B EFH**  
**Matrix: SO**

Analyte	Concentration (MG/KG)		Sample RPD	eQAPP RPD	Flag
	SL-175-SA7-SB-4.0-5.0	DUP-01-SA7-QC-110111			
EFH(C21-C30)	2.2	0.99	76	50.00	J(all detects)
EFH(C30-C40)	1.9	0.70	92	50.00	
EFH(C8-C11)	0.64	1.1	53	50.00	
TOTAL EFH(C8-C40)	4.7	2.8	51	50.00	

Analyte	Concentration (MG/KG)		Sample RPD	eQAPP RPD	Flag
	SL-048-SA7-SB-9.0-10.0	DUP02-SA7-QC-110211			
EFH(C21-C30)	1.1	1.6	37	50.00	No Qualifiers Applied
EFH(C30-C40)	0.78	1.0	25	50.00	
TOTAL EFH(C8-C40)	2.5	3.8	41	50.00	
EFH(C8-C11)	0.59	1.2	68	50.00	J(all detects)

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

Analyte	Concentration (UG/KG)		Sample RPD	eQAPP RPD	Flag
	SL-175-SA7-SB-4.0-5.0	DUP-01-SA7-QC-110111			
BIS(2-ETHYLHEXYL)PHTHALATE	18 U	16	200	50.00	J(all detects) UJ(all non-detects)

Analyte	Concentration (UG/KG)		Sample RPD	eQAPP RPD	Flag
	SL-048-SA7-SB-9.0-10.0	DUP02-SA7-QC-110211			

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Field Duplicate RPD Report

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: 11K007R

eQAPP Name: CDM\_SSFL\_111101

Method: 8270C SIM						
Matrix: SO						
1-METHYLNAPHTHALENE	1.8 U	1.3	200	50.00	J(all detects) UJ(all non-detects)	
2-METHYLNAPHTHALENE	1.8 U	1.4	200	50.00		
ACENAPHTHENE	1.8 U	1.2	200	50.00		
ACENAPHTHYLENE	1.8 U	1.2	200	50.00		
BIS(2-ETHYLHEXYL)PHTHALATE	18 U	22	200	50.00		
NAPHTHALENE	1.8 U	1.7	200	50.00		
N-NITROSODIMETHYLAMINE	1.8 U	1.9	200	50.00		

Method: 9045D					
Matrix: SO					

<i>Analyte</i>	<i>Concentration (PH UNIT)</i>		<i>Sample RPD</i>	<i>eQAPP RPD</i>	<i>Flag</i>
	SL-175-SA7-SB-4.0-5.0	DUP-01-SA7-QC-110111			
PH	8.07	8.15	1		No Qualifiers Applied

<i>Analyte</i>	<i>Concentration (PH UNIT)</i>		<i>Sample RPD</i>	<i>eQAPP RPD</i>	<i>Flag</i>
	SL-048-SA7-SB-9.0-10.0	DUP02-SA7-QC-110211			
PH	7.71	7.65	1		No Qualifiers Applied

# Field Duplicate RPD Report

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: 11K007R

eQAPP Name: CDM\_SSFL\_111101

Method: 8015B GRO

Matrix: SO

Analyte	Concentration (MG/KG)		Sample RPD	eQAPP RPD	Flag
	SL-048-SA7-SB-9.5	DUP02-SA7-QC-110211			
GASOLINE RANGE ORGANICS (C5-C12)	1.1 U	0.77	200	50.00	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

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# Reporting Limit Outliers

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: 11K007

eQAPP Name: CDM\_SSFL\_111101

**Method:** 6020  
**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-110311	COPPER	J	0.000561	0.00100	PQL	MG/L	J (all detects)

**Method:** 8015B GRO  
**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FB-SA7-110111	GASOLINE RANGE ORGANICS (C5-C12)	J	47	50	PQL	UG/L	J (all detects)
TB-110111	GASOLINE RANGE ORGANICS (C5-C12)	J	21	50	PQL	UG/L	J (all detects)
TB-110211	GASOLINE RANGE ORGANICS (C5-C12)	J	18	50	PQL	UG/L	J (all detects)
TB-110311	GASOLINE RANGE ORGANICS (C5-C12)	J	26	50	PQL	UG/L	J (all detects)

**Method:** 8260B  
**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-110311	METHYL TERT-BUTYL ETHER (MTBE)	J	0.40	1.0	PQL	UG/L	J (all detects)

**Method:** 300.0  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP02-SA7-QC-110211	Nitrate-NO3	J	1.20	1.59	PQL	MG/KG	J (all detects)
SL-001-SA7-SB-4.0-5.0	FLUORIDE	J	0.679	1.07	PQL	MG/KG	J (all detects)
SL-048-SA7-SB-4.0-5.0	Nitrate-NO3	J	1.16	1.59	PQL	MG/KG	J (all detects)
SL-048-SA7-SB-9.0-10.0	Nitrate-NO3	J	1.31	1.58	PQL	MG/KG	J (all detects)
SL-108-SA7-SB-2.9-3.9	Nitrate-NO3	J	1.12	1.55	PQL	MG/KG	J (all detects)
SL-171-SA7-SB-4.0-5.0	Nitrate-NO3	J	1.13	1.58	PQL	MG/KG	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-01-SA7-QC-110111	ANTIMONY	J	0.139	0.207	PQL	MG/KG	J (all detects)
	LITHIUM	J	19.7	20.7	PQL	MG/KG	
	SODIUM	J	55.0	104	PQL	MG/KG	

# Reporting Limit Outliers

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: 11K007

eQAPP Name: CDM\_SSFL\_111101

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP02-SA7-QC-110211	ANTIMONY	J	0.137	0.207	PQL	MG/KG	J (all detects)
	ARSENIC	J	3.05	4.14	PQL	MG/KG	
	BERYLLIUM	J	0.543	1.03	PQL	MG/KG	
	SODIUM	J	72.4	103	PQL	MG/KG	
SL-001-SA7-SB-4.0-5.0	BERYLLIUM	J	0.774	1.03	PQL	MG/KG	J (all detects)
	SODIUM	J	68.8	103	PQL	MG/KG	
SL-048-SA7-SB-4.0-5.0	ANTIMONY	J	0.145	0.209	PQL	MG/KG	J (all detects)
	ARSENIC	J	3.15	4.18	PQL	MG/KG	
	SODIUM	J	70.2	104	PQL	MG/KG	
SL-048-SA7-SB-9.0-10.0	ANTIMONY	J	0.145	0.206	PQL	MG/KG	J (all detects)
	ARSENIC	J	3.45	4.11	PQL	MG/KG	
	MOLYBDENUM	J	0.551	1.03	PQL	MG/KG	
	SODIUM	J	91.9	103	PQL	MG/KG	
SL-108-SA7-SB-2.9-3.9	ANTIMONY	J	0.159	0.198	PQL	MG/KG	J (all detects)
	ARSENIC	J	3.77	3.96	PQL	MG/KG	
	BERYLLIUM	J	0.524	0.990	PQL	MG/KG	
	SODIUM	J	62.9	99.0	PQL	MG/KG	
SL-120-SA7-SB-4.0-5.0	ARSENIC	J	4.00	4.10	PQL	MG/KG	J (all detects)
	BERYLLIUM	J	0.651	1.02	PQL	MG/KG	
	BORON	J	3.63	5.12	PQL	MG/KG	
	LITHIUM	J	17.6	20.5	PQL	MG/KG	
	MOLYBDENUM	J	0.657	1.02	PQL	MG/KG	
	SODIUM	J	71.7	102	PQL	MG/KG	
SL-120-SA7-SB-9.0-10.0	BERYLLIUM	J	0.873	1.12	PQL	MG/KG	J (all detects)
	LITHIUM	J	21.4	22.3	PQL	MG/KG	
	MOLYBDENUM	J	0.686	1.12	PQL	MG/KG	
SL-121-SA7-SB-4.0-5.0	ANTIMONY	J	0.190	0.212	PQL	MG/KG	J (all detects)
	BERYLLIUM	J	0.683	1.06	PQL	MG/KG	
	LITHIUM	J	17.7	21.2	PQL	MG/KG	
	MOLYBDENUM	J	0.673	1.06	PQL	MG/KG	
	SODIUM	J	72.2	106	PQL	MG/KG	
SL-121-SA7-SB-9.0-10.0	BERYLLIUM	J	0.910	1.13	PQL	MG/KG	J (all detects)
	BORON	J	4.78	5.65	PQL	MG/KG	
	CADMIUM	J	0.596	1.13	PQL	MG/KG	
	LITHIUM	J	21.9	22.6	PQL	MG/KG	
	Zirconium	J	3.58	5.65	PQL	MG/KG	
SL-123-SA7-SB-4.0-5.0	ANTIMONY	J	0.200	0.202	PQL	MG/KG	J (all detects)
	ARSENIC	J	3.93	4.03	PQL	MG/KG	
	BERYLLIUM	J	0.594	1.01	PQL	MG/KG	
	BORON	J	2.80	5.04	PQL	MG/KG	
	SODIUM	J	66.7	101	PQL	MG/KG	
SL-123-SA7-SB-9.0-10.0	BERYLLIUM	J	0.827	1.12	PQL	MG/KG	J (all detects)
	LITHIUM	J	21.3	22.4	PQL	MG/KG	
	Zirconium	J	3.85	5.60	PQL	MG/KG	
SL-128-SA7-SB-4.0-5.0	ANTIMONY	J	0.187	0.213	PQL	MG/KG	J (all detects)
	ARSENIC	J	3.87	4.27	PQL	MG/KG	
	BERYLLIUM	J	0.554	1.07	PQL	MG/KG	
	LITHIUM	J	19.9	21.3	PQL	MG/KG	
	MOLYBDENUM	J	0.560	1.07	PQL	MG/KG	
SL-128-SA7-SB-9.0-10.0	ANTIMONY	J	0.143	0.211	PQL	MG/KG	J (all detects)
	ARSENIC	J	3.16	4.21	PQL	MG/KG	

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Reporting Limit Outliers

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: 11K007

eQAPP Name: CDM\_SSFL\_111101

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-160-SA7-SB-0.0-1.0	ANTIMONY	J	0.160	0.203	PQL	MG/KG	J (all detects)
SL-161-SA7-SB-4.0-5.0	BERYLLIUM	J	0.597	0.998	PQL	MG/KG	J (all detects)
	MOLYBDENUM	J	0.689	0.998	PQL	MG/KG	
	SELENIUM	J	0.204	0.399	PQL	MG/KG	
SL-171-SA7-SB-4.0-5.0	ARSENIC	J	3.27	3.95	PQL	MG/KG	J (all detects)
	LITHIUM	J	17.4	19.7	PQL	MG/KG	
	MOLYBDENUM	J	0.550	0.986	PQL	MG/KG	
SL-171-SA7-SB-9.0-10.0	ARSENIC	J	3.81	4.08	PQL	MG/KG	J (all detects)
	MOLYBDENUM	J	0.542	1.02	PQL	MG/KG	
SL-175-SA7-SB-4.0-5.0	ANTIMONY	J	0.146	0.204	PQL	MG/KG	J (all detects)
	BERYLLIUM	J	0.588	1.02	PQL	MG/KG	
	LITHIUM	J	19.6	20.4	PQL	MG/KG	
	MOLYBDENUM	J	0.516	1.02	PQL	MG/KG	
	SODIUM	J	58.6	102	PQL	MG/KG	
SL-185-SA7-SB-3.0-4.0	ANTIMONY	J	0.174	0.202	PQL	MG/KG	J (all detects)
	ARSENIC	J	3.80	4.05	PQL	MG/KG	
	BERYLLIUM	J	0.535	1.01	PQL	MG/KG	
	MOLYBDENUM	J	0.532	1.01	PQL	MG/KG	

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-121-SA7-SB-9.0-10.0	MERCURY	J	0.0602	0.116	PQL	MG/KG	J (all detects)

**Method:** 8015B EFH  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-01-SA7-QC-110111	EFH(C21-C30)	J	0.99	1.0	PQL	MG/KG	J (all detects)
	EFH(C30-C40)	J	0.70	1.0	PQL	MG/KG	
DUP02-SA7-QC-110211	EFH(C30-C40)	J	1.0	1.1	PQL	MG/KG	J (all detects)
SL-048-SA7-SB-4.0-5.0	EFH(C8-C11)	J	1.0	1.1	PQL	MG/KG	J (all detects)
SL-048-SA7-SB-9.0-10.0	EFH(C30-C40)	J	0.78	1.1	PQL	MG/KG	J (all detects)
	EFH(C8-C11)	J	0.59	1.1	PQL	MG/KG	
SL-108-SA7-SB-2.9-3.9	EFH(C8-C11)	J	0.75	1.0	PQL	MG/KG	J (all detects)
SL-120-SA7-SB-9.0-10.0	EFH(C8-C11)	J	0.64	1.1	PQL	MG/KG	J (all detects)
SL-121-SA7-SB-9.0-10.0	EFH(C8-C11)	J	0.70	1.1	PQL	MG/KG	J (all detects)
SL-123-SA7-SB-4.0-5.0	EFH(C8-C11)	J	0.60	1.1	PQL	MG/KG	J (all detects)
SL-123-SA7-SB-9.0-10.0	EFH(C21-C30)	J	0.92	1.1	PQL	MG/KG	J (all detects)
	EFH(C8-C11)	J	0.83	1.1	PQL	MG/KG	
SL-128-SA7-SB-9.0-10.0	EFH(C8-C11)	J	0.70	1.1	PQL	MG/KG	J (all detects)

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

# Reporting Limit Outliers

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: 11K007

eQAPP Name: CDM\_SSFL\_111101

**Method:** 8015B EFH  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-171-SA7-SB-4.0-5.0	EFH(C8-C11)	J	0.73	1.1	PQL	MG/KG	J (all detects)
SL-171-SA7-SB-9.0-10.0	EFH(C8-C11)	J	0.67	1.1	PQL	MG/KG	J (all detects)
SL-175-SA7-SB-4.0-5.0	EFH(C8-C11)	J	0.64	1.0	PQL	MG/KG	J (all detects)
SL-175-SA7-SB-9.0-10.0	EFH(C21-C30) EFH(C8-C11)	J J	1.1 0.69	1.2 1.2	PQL PQL	MG/KG MG/KG	J (all detects)

**Method:** 8015B GRO  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP02-SA7-QC-110211	GASOLINE RANGE ORGANICS (C5-C12)	J	0.77	1.1	PQL	MG/KG	J (all detects)
SL-120-SA7-SB-9.5	GASOLINE RANGE ORGANICS (C5-C12)	J	0.68	1.1	PQL	MG/KG	J (all detects)

**Method:** 8082  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-128-SA7-SB-9.0-10.0	Aroclor 5460	J	2.6	3.5	PQL	UG/KG	J (all detects)
SL-160-SA7-SB-0.0-1.0	Aroclor 5460	J	2.2	3.4	PQL	UG/KG	J (all detects)
SL-171-SA7-SB-4.0-5.0	Aroclor 5460	J	3.1	3.5	PQL	UG/KG	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-01-SA7-QC-110111	BIS(2-ETHYLHEXYL)PHTHALATE	J	16	17	PQL	UG/KG	J (all detects)
DUP02-SA7-QC-110211	1-METHYLNAPHTHALENE	J	1.3	1.8	PQL	UG/KG	J (all detects)
	2-METHYLNAPHTHALENE	J	1.4	1.8	PQL	UG/KG	
	ACENAPHTHENE	J	1.2	1.8	PQL	UG/KG	
	ACENAPHTHYLENE	J	1.2	1.8	PQL	UG/KG	
	NAPHTHALENE	J	1.7	1.8	PQL	UG/KG	
SL-108-SA7-SB-2.9-3.9	BENZO(G,H,I)PERYLENE	J	1.6	1.8	PQL	UG/KG	J (all detects)
	CHRYSENE	J	1.6	1.8	PQL	UG/KG	
SL-120-SA7-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	18	19	PQL	UG/KG	J (all detects)
SL-123-SA7-SB-9.0-10.0	NAPHTHALENE	J	1.7	1.9	PQL	UG/KG	J (all detects)
SL-128-SA7-SB-9.0-10.0	CHRYSENE	J	1.2	1.8	PQL	UG/KG	J (all detects)
	FLUORANTHENE	J	1.5	1.8	PQL	UG/KG	
SL-160-SA7-SB-0.0-1.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	16	17	PQL	UG/KG	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	1.6	1.8	PQL	UG/KG	

Project Name and Number: 1203-004-010-AL - SSFL AREA IV COLLOCATED SAMPLING

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# Reporting Limit Outliers

Lab Reporting Batch ID: 11K007

Laboratory: EMXT

EDD Filename: 11K007

eQAPP Name: CDM\_SSFL\_111101

*Method:* 8270C SIM

*Matrix:* SO

<i>SampleID</i>	<i>Analyte</i>	<i>Lab Qual</i>	<i>Result</i>	<i>Reporting Limit</i>	<i>RL Type</i>	<i>Units</i>	<i>Flag</i>
SL-171-SA7-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	14	18	PQL	UG/KG	J (all detects)
	Butylbenzylphthalate	J	16	18	PQL	UG/KG	
	PHENANTHRENE	J	1.3	1.8	PQL	UG/KG	
SL-185-SA7-SB-3.0-4.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	17	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:** October 31 through November 3, 2011  
**LDC Report Date:** February 22, 2012  
**Matrix:** Soil/Water  
**Parameters:** Volatiles  
**Validation Level:** Level IV  
**Laboratory:** EMAX Laboratories, Inc.  
**Sample Delivery Group (SDG):** 11K007

**Sample Identification**

FB-SA7-110111  
SL-120-SA7-SB-4.5  
SL-120-SA7-SB-9.5  
TB-110111  
EB-SA7-SB-110311  
SL-120-SA7-SB-9.5MS  
SL-120-SA7-SB-9.5MSD

## Introduction

This data review covers 4 soil samples and 3 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
MBLK1S	11/3/11	Methylene chloride	2.2 ug/Kg	All soil samples in SDG 11K007

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.

Sample TB-110111 was identified as a trip blank. No volatile contaminants were found.

Sample EB-SA7-SB-110311 was identified as an equipment blank. No volatile contaminants were found with the following exceptions:

Equipment Blank ID	Sampling Date	Compound	Concentration	Associated Samples
EB-SA7-SB-110311	11/3/11	Methyl-tert-butyl ether Ethylbenzene	0.40 ug/L 2.8 ug/L	No associated samples in this SDG

Sample FB-SA7-110111 was identified as a field blank. No volatile contaminants were found with the following exceptions:

Field Blank ID	Sampling Date	Compound	Concentration	Associated Samples
FB-SA7-110111	11/1/11	Chloroform Ethylbenzene m,p-Xylenes o-Xylene Toluene	2.7 ug/L 1.4 ug/L 5.7 ug/L 2.6 ug/L 5.5 ug/L	No associated samples 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. 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 11K007	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 11K007**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
11K007	FB-SA7-110111 SL-120-SA7-SB-4.5 SL-120-SA7-SB-9.5 TB-110111 EB-SA7-SB-110311	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 11K007**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Volatiles - Field Blank Data Qualification Summary - SDG 11K007**

No Sample Data Qualified in this SDG

LDC #: 27103A1a

## VALIDATION COMPLETENESS WORKSHEET

SDG #: 11K007

Level IV

Laboratory: EMAX Laboratories, Inc.

Date: 2/21/12

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**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: 10/31 - 11/03/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD $\leq 30$ , $\sqrt{2}$
IV.	Continuing calibration/ICV	A	1W/CCV $\leq 21$
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	105/10
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation (R)/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	FB = 1 * TB = 4 EB = 5

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

\* ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

Validated Samples:

soil + water

1	FB-SA7-110111	W	11	MBLK1W	21		31
2	SL-120-SA7-SB-4.5	S	12	MBLK1S	22		32
3	SL-120-SA7-SB-9.5	↓	13	MBLK1S	23		33
4	TB-110111	W	14		24		34
5	EB-SA7-SB-110311	W	15		25		35
6	SL-120-SA7-SB-9.5MS	S	16		26		36
7	SL-120-SA7-SB-9.5MSD	↓	17		27		37
8			18		28		38
9			19		29		39
10			20		30		40

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/MS Instrument performance check</b>				
Were the BFB performance results reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples analyzed within the 12 hour clock criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X. Internal standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within + 30 seconds of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. Compound quantitation/CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Tentatively identified compounds (TICs)</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XVI. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XVII. Field blanks</b>				
Field blanks were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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	AAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBB. tert-Amyl methyl ether	VVVV.

\* = System performance check compounds (SPCC) for RRF ; \*\* = Calibration check compounds (CCC) for %RSD.



LDC #: 271039/R

# VALIDATION FINDINGS WORKSHEET Field Blanks

Page: 1 of 1  
Reviewer: FT  
2nd Reviewer: [Signature]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

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: NA

Sampling date: 11/01/11

Field blank type: (circle one) Field Blank / Rinsate / Other: FB Associated Samples: none

Compound	Blank ID	Sample Identification
	1	
K	2.7	
EE	1.4	
RRR	5.7	
SSS	2.6	
CC	5.5	
CRQL		

Blank units: ug/L Associated sample units: NA

Sampling date: 11/3/11

Field blank type: (circle one) Field Blank / Rinsate / Other: FB Associated Samples: none

Compound	Blank ID	Sample Identification
	5	
LL	0.40	
EE	2.8	
CRQL		

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:  
Common contaminants such as Methylene chloride, Acetone, 2-Butanone and Carbon disulfide 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".

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

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		Recalculated		Reported		Recalculated	
				RRF (10 std)	RRF (10 std)	RRF (10 std)	Average RRF (initial)	%RSD	Average RRF (initial)	%RSD	
1	V001J31	10/31/11	C (1st internal standard)	0.515	0.515	0.461	0.461	7.36	7.36	7.36	7.36
			V (2nd internal standard)	1.714	1.714	1.767	1.767	3.77	3.77	3.77	3.77
			JJJ (3rd internal standard)	1.581	1.581	1.561	1.561	2.0	2.0	2.0	2.0
			(4th internal standard)	92	50						
2	V003K0Z	11/2/11	C (1st internal standard)	0.276	0.276	0.281	0.281	2.84	2.84	2.84	2.84
			V (2nd internal standard)	1.344	1.344	1.391	1.391	10.66	10.66	10.66	10.66
			JJJ (3rd internal standard)	1.364	1.364	1.391	1.391	8.8	8.8	8.8	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 Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

**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 =  $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$   
 $\text{RRF} = (A_x / C_x) / (A_{is} / C_{is})$

Where: ave. RRF = initial calibration average RRF  
 RRF = continuing calibration RRF  
 $A_x$  = Area of compound,  
 $C_x$  = Concentration of compound,  
 $A_{is}$  = Area of associated internal standard  
 $C_{is}$  = 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	PK203	11/2/11	C (1st internal standard)	0.461	0.414	0.414	10.2	10.2
			V (2nd internal standard)	1.767	1.589	1.589	10.1	10.1
			JJJ (3rd internal standard)	1.561	1.499	1.499	4.0	4.0
			(4th internal standard)					
2	PK2033	11/3/11	C (1st internal standard)	0.281	0.269	0.269	4.3	4.3
			V (2nd internal standard)	1.391	1.351	1.351	2.9	2.9
			JJJ (3rd internal standard)	1.391	1.478	1.478	6.3	6.3
			(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 Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

Surrogate Results Verification

Reviewer: 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	10	9.94	99.4	99.4	0
1,2-Dichloroethane-d4		9.55	95.5	95.5	
Toluene-d8	↓	10.3	103	103	↓
Bromofluorobenzene	↓	10.8	108	108	↓

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					

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

**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      SC = Sample concentration  
 SA = Spike added

RPD =  $100 * MSC - MSC / (MSC + MSC)$       MSC = Matrix spike concentration      MSCD = Matrix spike duplicate concentration

MS/MSD sample: 617

Compound	Spike Added (ng/L)		Sample Concentration (ng/L)		Spiked Sample Concentration (ng/L)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	MS	MSD	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene	58.7	75.9	NP		61.9	74.4	105	105	78	98	7	7
Trichloroethene					63.7	78.0	108	108	103	103	5	5
Benzene					42.2	77.5	106	106	102	102	4	4
Toluene					63.5	77.8	108	108	102	102	6	6
Chlorobenzene					63.4	76.9	108	108	101	101	7	7

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample Results Verification**

**METHOD:** GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory 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 =  $100 * (LCS - LCSD) / (LCS + LCSD)$

LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS ID: MBLKIS (105/b)

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS		LCSD		Percent Recovery		Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalc	Reported	Recalc	Reported	Recalc
	1,1-Dichloroethene	50.0	50.0	46.7	52.0	93	93	104	104	93	93	104	104	11
Trichloroethene			48.7	51.7	97	97	109	109	97	97	109	109	12	12
Benzene			48.7	53.1	97	91	107	107	97	91	107	107	9	9
Toluene			48.6	51.2	97	97	108	108	97	97	108	108	11	11
Chlorobenzene			49.8	51.5	100	100	109	109	100	100	109	109	9	9

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.

# VALIDATION FINDINGS WORKSHEET

## Sample Calculation Verification

**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?

$$\text{Concentration} = \frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$$

- A<sub>x</sub> = Area of the characteristic ion (EICP) for the compound to be measured
- A<sub>is</sub> = Area of the characteristic ion (EICP) for the specific internal standard
- I<sub>s</sub> = Amount of internal standard added in nanograms (ng)
- RRF = Relative response factor of the calibration standard.
- V<sub>o</sub> = 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, K:

$$\text{Conc.} = \frac{(353308)(10)}{(2066666)(0.056)} \quad ( ) \quad ( )$$

=

2.7 ug/L

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** October 31 through November 3, 2011  
**LDC Report Date:** February 22, 2012  
**Matrix:** Soil/Water  
**Parameters:** 1,4-Dioxane  
**Validation Level:** Level IV  
**Laboratory:** EMAX Laboratories, Inc.  
**Sample Delivery Group (SDG):** 11K007

**Sample Identification**

FB-SA7-110111  
SL-120-SA7-SB-4.5  
SL-120-SA7-SB-9.5  
TB-110111  
EB-SA7-SB-110311  
SL-120-SA7-SB-9.5MS  
SL-120-SA7-SB-9.5MSD

## Introduction

This data review covers 4 soil samples and 3 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-110111 was identified as a trip blank. No 1,4-dioxane was found.

Sample EB-SA7-SB-110311 was identified as an equipment blank. No 1,4-dioxane was found.

Sample FB-SA7-110111 was identified as a field 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 11K007	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 11K007**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
11K007	FB-SA7-110111 SL-120-SA7-SB-4.5 SL-120-SA7-SB-9.5 TB-110111 EB-SA7-SB-110311	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 11K007**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
1,4-Dioxane - Field Blank Data Qualification Summary - SDG 11K007**

No Sample Data Qualified in this SDG

LDC #: 27103A1b

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: 11K007

Level IV

Laboratory: EMAX Laboratories, Inc.

Date: 2/21/12

Page: 1 of 1

Reviewer: *[Signature]*2nd Reviewer: *[Signature]***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: 10/31 - 11/03/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD ≤ 30
IV.	Continuing calibration/ICV	A	104/CCV ≤ 25
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	was 10
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation (R)/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	NP	FB = 1 TB = 4 EB = 5

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

Validated Samples:

*Soil + water*

1	FB-SA7-110111	W	11	1	MBK1W	21		31
2	SL-120-SA7-SB-4.5		12	2	MBK2W	22		32
3	SL-120-SA7-SB-9.5		13	3	MBK3S	23		33
4	TB-110111	W	14	3	MBK3S	24		34
5	EB-SA7-SB-110311	W	15			25		35
6	SL-120-SA7-SB-9.5MS		16			26		36
7	SL-120-SA7-SB-9.5MSD		17			27		37
8			18			28		38
9			19			29		39
10			20			30		40

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
<b>II. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. GC/MS Instrument performance check</b>				
Were the BFB performance results reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples analyzed within the 12 hour clock criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of $> 0.990$ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were all percent relative standard deviations (%RSD) $\leq 30\%$ and relative response factors (RRF) $> 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Continuing calibration</b>				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were all percent differences (%D) $\leq 25\%$ and relative response factors (RRF) $\geq 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Surrogate spikes</b>				
Were all surrogate %R within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VIII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	<input checked="" type="checkbox"/>			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>			
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?			<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?			<input checked="" type="checkbox"/>	
<b>X. Internal standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>			
Were retention times within + 30 seconds of the associated calibration standard?	<input checked="" type="checkbox"/>			
<b>XI. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?			<input checked="" type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?			<input checked="" type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>			
<b>XII. Compound quantitation (CRQLs)</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?			<input checked="" type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>			
<b>XIII. Tentatively identified compounds (TICs)</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			<input checked="" type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XVI. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.		<input checked="" type="checkbox"/>		
Target compounds were detected in the field duplicates.			<input checked="" type="checkbox"/>	
<b>XVII. Field blanks</b>				
Field blanks were identified in this SDG.	<input checked="" type="checkbox"/>			
Target compounds were detected in the field blanks.		<input checked="" type="checkbox"/>		

# 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	JJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl chloride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KK. 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. Tetrachloroethane	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-Dichloroethane, 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.

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Calculation Verification

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

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported		Recalculated		Reported		Recalculated	
				RRF (20 std)	RRF (20 std)	RRF (20 std)	Average RRF (initial)	Average RRF (initial)	%RSD	%RSD	
1	10FSK03	11/3/11	1,4-Dioxane (1st internal standard)	1.168	1.168	1.231	1.231	13.19	13.19	13.19	
			(2nd internal standard)								
			(3rd internal standard)								
			(4th internal standard)								
2	10FSJ31	10/31/11	↓ (1st internal standard)	1.163	1.163	1.145	1.145	7.02	7.02	7.02	
			(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.

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

**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 =  $100 * (\text{ave. RRF} - \text{RRF}/\text{ave. RRF})$   
 $\text{RRF} = (A_x)(C_{is}) / (A_{is})(C_x)$   
 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	PKY099	11/4/11	1,4-Dioxane (1st internal standard)	1.231	1.127	1.127	8.4	8.4
			(2nd internal standard)					
			(3rd internal standard)	↓	1.097	1.097	10.9	10.9
			(4th internal standard)					
2	PKY073	11/3/11	1,4-Dioxane (1st internal standard)	1.145	1.308	1.308	17.2	14.2
			(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.

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: 3

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4	20	18.05	90.3	90.25	0
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					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Dibromofluoromethane					
1,2-Dichloroethane-d4					
Toluene-d8					
Bromofluorobenzene					

LDC #: 27103A/b

VALIDATION FINDINGS WORKSHEET  
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1  
Reviewer: FT  
2nd Reviewer: [Signature]

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:

$\% \text{ Recovery} = 100 * ((\text{SSC} - \text{SC}) / \text{SA})$       Where: SSC = Spiked sample concentration      SC = Sample concentration  
SA = Spike added

$\text{RPD} = | \text{MSC} - \text{MSC} | * 2 / (\text{MSC} + \text{MSC})$       MSC = Matrix spike concentration      MSDC = Matrix spike duplicate concentration

MS/MSD sample: 627

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	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,4-Dioxane	281	247	ND		316	251	110	110	102	102	✓	8
1,1-Dichloroethene												
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.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample Results Verification**

**METHOD:** GC/MS VOA (EPA SW 846 Method 8260)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery =  $100 * \frac{SSC}{SA}$       Where: SSC = Spiked sample concentration  
 SA = Spike added

RPD =  $\frac{|LCS - LCSD| * 2}{(LCS + LCSD)}$

LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

LCS ID: 105 D 5011

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene										
Trichloroethene										
Benzene										
Toluene										
Chlorobenzene										
1,4-Dioxane	200	200	241	229	121	121	115	115	5	5

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.

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?

$$\text{Concentration} = \frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_s)(\%S)}$$

- A<sub>x</sub> = Area of the characteristic ion (EICP) for the compound to be measured
- A<sub>is</sub> = Area of the characteristic ion (EICP) for the specific internal standard
- I<sub>s</sub> = Amount of internal standard added in nanograms (ng)
- RRF = Relative response factor of the calibration standard.
- V<sub>s</sub> = 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. \_\_\_\_\_, \_\_\_\_\_:

$$\text{Conc.} = \frac{(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)}$$

=

*MD*

#	Sample ID	Compound	Reported Concentration ( ) ( )	Calculated Concentration ( ) ( )	Qualification

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** October 31 through November 3, 2011  
**LDC Report Date:** February 23, 2012  
**Matrix:** Soil/Water  
**Parameters:** Semivolatiles  
**Validation Level:** Level IV  
**Laboratory:** EMAX Laboratories, Inc.  
**Sample Delivery Group (SDG):** 11K007

### Sample Identification

FB-SA7-110111	SL-171-SA7-SB-4.0-5.0
SL-001-SA7-SB-4.0-5.0	SL-171-SA7-SB-9.0-10.0
SL-120-SA7-SB-4.0-5.0	EB-SA7-SB-110311
SL-120-SA7-SB-9.0-10.0	SL-120-SA7-SB-9.0-10.0MS
SL-121-SA7-SB-4.0-5.0	SL-120-SA7-SB-9.0-10.0MSD
SL-121-SA7-SB-9.0-10.0	SL-048-SA7-SB-9.0-10.0MS
SL-123-SA7-SB-4.0-5.0	SL-048-SA7-SB-9.0-10.0MSD
SL-123-SA7-SB-9.0-10.0	
SL-160-SA7-SB-0.0-1.0	
SL-175-SA7-SB-4.0-5.0	
SL-175-SA7-SB-9.0-10.0	
SL-185-SA7-SB-3.0-4.0	
DUP-01-SA7-QC-110111	
SL-048-SA7-SB-4.0-5.0	
SL-048-SA7-SB-9.0-10.0	
SL-161-SA7-SB-4.0-5.0	
DUP02-SA7-QC-110211	
SL-108-SA7-SB-2.9-3.9	
SL-128-SA7-SB-4.0-5.0	
SL-128-SA7-SB-9.0-10.0	

## Introduction

This data review covers 25 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.

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 EB-SA7-SB-110311 was identified as an equipment blank. No semivolatile contaminants were found.

Sample FB-SA7-110111 was identified as a field 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-120-SA7-SB-9.0-10.0MS/MSD (SL-120-SA7-SB-9.0-10.0)	Benzidine	9 (10-150)	8 (10-150)	-	J (all detects) UJ (all non-detects)	A
SL-048-SA7-SB-9.0-10.0MS/MSD (SL-048-SA7-SB-9.0-10.0)	Benzidine	8 (10-150)	8 (10-150)	-	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.

## 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 11K007	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-175-SA7-SB-4.0-5.0 and DUP-01-SA7-QC-110111 and samples SL-048-SA7-SB-9.0-10.0 and DUP02-SA7-QC-110211 were identified as field duplicates. No semivolatiles were detected in any of the samples.

**Santa Susana Field Laboratory  
Semivolatiles - Data Qualification Summary - SDG 11K007**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
11K007	SL-120-SA7-SB-9.0-10.0 SL-048-SA7-SB-9.0-10.0	Benzidine	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
11K007	FB-SA7-110111 SL-001-SA7-SB-4.0-5.0 SL-120-SA7-SB-4.0-5.0 SL-120-SA7-SB-9.0-10.0 SL-121-SA7-SB-4.0-5.0 SL-121-SA7-SB-9.0-10.0 SL-123-SA7-SB-4.0-5.0 SL-123-SA7-SB-9.0-10.0 SL-160-SA7-SB-0.0-1.0 SL-175-SA7-SB-4.0-5.0 SL-175-SA7-SB-9.0-10.0 SL-185-SA7-SB-3.0-4.0 DUP-01-SA7-QC-110111 SL-048-SA7-SB-4.0-5.0 SL-048-SA7-SB-9.0-10.0 SL-161-SA7-SB-4.0-5.0 DUP02-SA7-QC-110211 SL-108-SA7-SB-2.9-3.9 SL-128-SA7-SB-4.0-5.0 SL-128-SA7-SB-9.0-10.0 SL-171-SA7-SB-4.0-5.0 SL-171-SA7-SB-9.0-10.0 EB-SA7-SB-110311	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 11K007**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Semivolatiles - Field Blank Data Qualification Summary - SDG 11K007**

No Sample Data Qualified in this SDG

LDC #: 27103A2a

## VALIDATION COMPLETENESS WORKSHEET

SDG #: 11K007

Level IV

Laboratory: EMAX Laboratories, Inc.

Date: 2/23/12

Page: 1 of 1

Reviewer: EB2nd Reviewer: EB

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: 10/31 - 11/3/11
II.	GC/MS Instrument performance check	Δ	
III.	Initial calibration	Δ	% PSD ≤ 30, r <sup>2</sup>
IV.	Continuing calibration/ICV	Δ	1CV/CCV ≤ 25
V.	Blanks	Δ	
VI.	Surrogate spikes	Δ	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	A	ics 10
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	Δ	
XI.	Target compound identification	Δ	
XII.	Compound quantitation (R)/LOQ/LODs	Δ	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	Δ	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	D = 10, 13, 15, 17
XVII.	Field blanks	ND	FB = 1, EB = 23

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	FB-SA7-110111	N	11	SL-175-SA7-SB-9.0-10.0	21	SL-171-SA7-SB-4.0-5.0	31	MBLK1W
2	SL-001-SA7-SB-4.0-5.0		12	SL-175-SA7-SB-3.0-4.0	22	SL-171-SA7-SB-9.0-10.0	32	MBLK1S
3	SL-120-SA7-SB-4.0-5.0		13	DUP-01-SA7-QC-110111	23	EB-SA7-SB-110311	33	MBLK2S
4	SL-120-SA7-SB-9.0-10.0		14	SL-048-SA7-SB-4.0-5.0	24	SL-120-SA7-SB-9.0-10.0MS	34	
5	SL-121-SA7-SB-4.0-5.0		15	SL-048-SA7-SB-9.0-10.0	25	SL-120-SA7-SB-9.0-10.0MSD	35	
6	SL-121-SA7-SB-9.0-10.0		16	SL-161-SA7-SB-4.0-5.0	26	SL-048-SA7-SB-9.0-10.0MS	36	
7	SL-123-SA7-SB-4.0-5.0		17	DUP02-SA7-QC-110211	27	SL-048-SA7-SB-9.0-10.0MSD	37	
8	SL-123-SA7-SB-9.0-10.0		18	SL-108-SA7-SB-2.9-3.9	28		38	
9	SL-160-SA7-SB-0.0-1.0		19	SL-128-SA7-SB-4.0-5.0	29		39	
10	SL-175-SA7-SB-4.0-5.0		20	SL-128-SA7-SB-9.0-10.0	30		40	

**Method: Semivolatiles (EPA SW 846 Method 8270C)**

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
<b>II. GC/MS instrument performance check</b>				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	/			
Were all samples analyzed within the 12 hour clock criteria?	/			
<b>III. Initial calibration</b>				
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) $\leq 30\%$ and relative response factors (RRF) $> 0.05$ ?	/			
<b>IV. Continuing calibration</b>				
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) $\geq 0.05$ ?	/			
<b>V. Blanks</b>				
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.			/	
<b>VI. Surrogate spikes</b>				
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?			/	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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?		/		
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	/			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>			
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?			<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?			<input checked="" type="checkbox"/>	
<b>X. Internal standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>			
Were retention times within + 30 seconds from the associated calibration standard?	<input checked="" type="checkbox"/>			
<b>XI. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?			<input checked="" type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>			
<b>XII. Compound quantitation/CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?			<input checked="" type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>			
<b>XIII. Tentatively identified compounds (TIC)</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			<input checked="" type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XVI. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>			
Target compounds were detected in the field duplicates.		<input checked="" type="checkbox"/>		
<b>XVII. Field blanks</b>				
Field blanks were identified in this SDG.	<input checked="" type="checkbox"/>			
Target compounds were detected in the field blanks.		<input checked="" type="checkbox"/>		

# 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.

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates**

**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
		2445	555	9 (10-150)	8 (10-150)	( ) ( )	4	J/W/A (8)
				( ) ( )	( ) ( )	( ) ( )		
				( ) ( )	( ) ( )	( ) ( )		
				( ) ( )	( ) ( )	( ) ( )		
				( ) ( )	( ) ( )	( ) ( )		
				( ) ( )	( ) ( )	( ) ( )		
				( ) ( )	( ) ( )	( ) ( )		
				( ) ( )	( ) ( )	( ) ( )		
				( ) ( )	( ) ( )	( ) ( )		
		26427	555	8 ( ) ↓	8 ( ) ↓	( ) ( )	15	J/W/A (8)
				( ) ( )	( ) ( )	( ) ( )		
				( ) ( )	( ) ( )	( ) ( )		
				( ) ( )	( ) ( )	( ) ( )		
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**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

**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,  
 $X$  = Mean 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		Recalculated		Reported		Recalculated	
				RRF (std)	RRF (std)	RRF (std)	RRF (std)	Average RRF (initial)	Average RRF (initial)	%RSD	%RSD
1	ICAL SVE9119	09/19/11	Phenol (1st internal standard)	2.369	2.369	2.307	2.307	5.64	5.64	5.64	5.64
			Naphthalene (2nd internal standard)	0.500	0.500	0.477	0.477	7.30	7.30	7.30	7.30
			Fluorene (3rd internal standard)	0.341	0.341	0.313	0.313	8.45	8.45	8.45	8.45
			Pentachlorophenol (4th internal standard)	0.150	0.150	0.159	0.159	8.72	8.72	8.72	8.72
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.491	0.491	0.466	0.466	5.50	5.50	5.50	5.50
			Benzo(a)pyrene (6th internal standard)	1.462	1.462	1.462	1.462	7.13	7.13	7.13	7.13
2	ICAL SVEH17	10/17/11	Phenol (1st internal standard)	1.301	1.301	1.322	1.322	3.70	3.70	3.70	3.70
			Naphthalene (2nd internal standard)	0.985	0.985	0.993	0.993	4.64	4.64	4.64	4.64
			Fluorene (3rd internal standard)	1.300	1.300	1.320	1.320	5.01	5.01	5.01	5.01
			Pentachlorophenol (4th internal standard)	0.161	0.161	0.155	0.155	5.65	5.65	5.65	5.65
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.421	0.421	0.407	0.407	8.80	8.80	8.80	8.80
			Benzo(a)pyrene (6th internal standard)	1.034	1.034	1.034	1.034	1.54	1.54	1.54	1.54
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.

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

**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 =  $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$  Where: ave. RRF = initial calibration average RRF  
 RRF =  $(A_x)(C_{is}) / (A_{is})(C_x)$  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		Recalculated	
					RRF (CC)	%D	RRF (CC)	%D
1	PK1007	11/9/11	Phenol (1st internal standard)	2.307	2.180	5.5	2.180	5.5
			Naphthalene (2nd internal standard)	0.477	0.483	1.3	0.483	1.3
			Fluorene (3rd internal standard)	0.313	0.257	17.9	0.257	17.9
			Pentachlorophenol (4th internal standard)	0.159	0.151	5.0	0.151	5.0
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.466	0.415	10.9	0.415	10.9
			Benzo(a)pyrene (6th internal standard)	1.462	1.387	5.1	1.387	5.1
			Phenol (1st internal standard)	1.322	1.238	6.4	1.238	6.4
2	RK1093	11/9/11	Naphthalene (2nd internal standard)	0.993	0.951	4.2	0.951	4.2
			Fluorene (3rd internal standard)	1.320	1.327	0.5	1.327	0.5
			Pentachlorophenol (4th internal standard)	0.155	0.153	1.2	0.153	1.2
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.718	0.724	0.8	0.724	0.8
			Benzo(a)pyrene (6th internal standard)	1.034	0.985	4.7	0.985	4.7
			Phenol (1st internal standard)	1.187	1.187	10.2	1.187	10.2
			Naphthalene (2nd internal standard)	0.950	0.950	3.5	0.950	3.5
3	RK1138	11/10/11	Fluorene (3rd internal standard)	1.348	1.348	2.1	1.348	2.1
			Pentachlorophenol (4th internal standard)	0.154	0.154	0.6	0.154	0.6
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.736	0.736	2.5	0.736	2.5
			Benzo(a)pyrene (6th internal standard)	1.023	1.023	1.1	1.023	1.1
			Phenol (1st internal standard)	1.187	1.187	10.2	1.187	10.2

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.

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 SpikedSample ID: #22

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	10	6.90	69.0	69.0	0
2-Fluorobiphenyl	↓	8.43	84.3	84.3	
Terphenyl-d14	↓	10.09	101	101	↓
Phenol-d5	30	21.05	70.2	70.2	
2-Fluorophenol	↓	19.95	66.5	66.5	↓
2,4,6-Tribromophenol	↓	25.47	84.9	84.9	↓
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					

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

**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      SC = Sample concentration  
 SA = Spike added

RPD =  $100 * MSC / (MSC + MSDC)$       MSC = Matrix spike concentration      MSDC = Matrix spike duplicate concentration

MS/MSD samples: 24 + 25

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	755	755	ND	460	440	61	61	58	58	4	4
N-Nitroso-di-n-propylamine				450	464	60	60	62	62	3	3
4-Chloro-3-methylphenol				498	497	66	66	66	66	0	0
Acenaphthene				546	536	72	72	71	71	2	2
Pentachlorophenol				504	475	67	67	63	63	6	6
Pyrene				571	619	76	76	82	82	8	8

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.

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

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 =  $100 * (LCS - LCSDC) / (LCS + LCSDC)$       LCSC = Laboratory control sample concentration      LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 1051P 801L

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS		LCSD		Percent Recovery		Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalc	Reported	Recalculated		
Phenol	667	667	461	404	69	69	61	61	61	61	13	13		
N-Nitroso-di-n-propylamine			462	403	69	69	60	60	60	60	14	14		
4-Chloro-3-methylphenol			514	439	77	77	66	66	66	66	16	16		
Acenaphthene			530	423	80	80	72	72	72	72	9	9		
Pentachlorophenol			554	476	83	83	71	71	71	71	15	15		
Pyrene			697	556	105	105	83	83	83	83	22	22		

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.

VALIDATION FINDINGS WORKSHEET  
Sample Calculation Verification

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A  
Y N N/A

Were all reported results recalculated and verified for all level IV samples?

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<sub>x</sub> = Area of the characteristic ion (EICP) for the compound to be measured
- A<sub>is</sub> = Area of the characteristic ion (EICP) for the specific internal standard
- I<sub>s</sub> = Amount of internal standard added in nanograms (ng)
- V<sub>o</sub> = Volume or weight of sample extract in milliliters (ml) or grams (g).
- V<sub>i</sub> = Volume of extract injected in microliters (ul)
- V<sub>t</sub> = 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. = ( ) ( ) ( ) ( ) ( )  
( ) ( ) ( ) ( ) ( )

= [Signature]

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** October 31 through November 3, 2011  
**LDC Report Date:** February 22, 2012  
**Matrix:** Soil  
**Parameters:** Polynuclear Aromatic Hydrocarbons  
**Validation Level:** Level IV  
**Laboratory:** EMAX Laboratories, Inc.  
**Sample Delivery Group (SDG):** 11K007

### Sample Identification

SL-001-SA7-SB-4.0-5.0	SL-171-SA7-SB-9.0-10.0
SL-120-SA7-SB-4.0-5.0	SL-120-SA7-SB-9.0-10.0MS
SL-120-SA7-SB-9.0-10.0	SL-120-SA7-SB-9.0-10.0MSD
SL-121-SA7-SB-4.0-5.0	SL-048-SA7-SB-9.0-10.0MS
SL-121-SA7-SB-9.0-10.0	SL-048-SA7-SB-9.0-10.0MSD
SL-123-SA7-SB-4.0-5.0	
SL-123-SA7-SB-9.0-10.0	
SL-160-SA7-SB-0.0-1.0	
SL-175-SA7-SB-4.0-5.0	
SL-175-SA7-SB-9.0-10.0	
SL-185-SA7-SB-3.0-4.0	
DUP-01-SA7-QC-110111	
SL-048-SA7-SB-4.0-5.0	
SL-048-SA7-SB-9.0-10.0	
SL-161-SA7-SB-4.0-5.0	
DUP02-SA7-QC-110211	
SL-108-SA7-SB-2.9-3.9	
SL-128-SA7-SB-4.0-5.0	
SL-128-SA7-SB-9.0-10.0	
SL-171-SA7-SB-4.0-5.0	

## Introduction

This data review covers 25 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 Polynuclear Aromatic Hydrocarbons.

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 polynuclear aromatic hydrocarbon 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. 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 11K007	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-175-SA7-SB-4.0-5.0 and DUP-01-SA7-QC-110111 and samples SL-048-SA7-SB-9.0-10.0 and DUP02-SA7-QC-110211 were identified as field duplicates. No polynuclear aromatic hydrocarbons were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-175-SA7-SB-4.0-5.0	DUP-01-SA7-QC-110111			
Bis(2-ethylhexyl)phthalate	18U	16	200 (≤50)	J (all detects) UJ (all non-detects)	A

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-048-SA7-SB-9.0-10.0	DUP02-SA7-QC-110211			
Acenaphthene	1.8U	1.2	200 (≤50)	J (all detects) UJ (all non-detects)	A
Acenaphthylene	1.8U	1.2	200 (≤50)	J (all detects) UJ (all non-detects)	A
Naphthalene	1.8U	1.7	200 (≤50)	J (all detects) UJ (all non-detects)	A
2-Methylnaphthalene	1.8U	1.4	200 (≤50)	J (all detects) UJ (all non-detects)	A
1-Methylnaphthalene	1.8U	1.3	200 (≤50)	J (all detects) UJ (all non-detects)	A
Bis(2-ethylhexyl)phthalate	18U	22	200 (≤50)	J (all detects) UJ (all non-detects)	A
N-Nitrosodimethylamine	1.8U	1.9	200 (≤50)	J (all detects) UJ (all non-detects)	A

**Santa Susana Field Laboratory  
Polynuclear Aromatic Hydrocarbons - Data Qualification Summary - SDG 11K007**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
11K007	SL-001-SA7-SB-4.0-5.0 SL-120-SA7-SB-4.0-5.0 SL-120-SA7-SB-9.0-10.0 SL-121-SA7-SB-4.0-5.0 SL-121-SA7-SB-9.0-10.0 SL-123-SA7-SB-4.0-5.0 SL-123-SA7-SB-9.0-10.0 SL-160-SA7-SB-0.0-1.0 SL-175-SA7-SB-4.0-5.0 SL-175-SA7-SB-9.0-10.0 SL-185-SA7-SB-3.0-4.0 DUP-01-SA7-QC-110111 SL-048-SA7-SB-4.0-5.0 SL-048-SA7-SB-9.0-10.0 SL-161-SA7-SB-4.0-5.0 DUP02-SA7-QC-110211 SL-108-SA7-SB-2.9-3.9 SL-128-SA7-SB-4.0-5.0 SL-128-SA7-SB-9.0-10.0 SL-171-SA7-SB-4.0-5.0 SL-171-SA7-SB-9.0-10.0	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
11K007	SL-175-SA7-SB-4.0-5.0 DUP-01-SA7-QC-110111	Bis(2-ethylhexyl)phthalate	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)
11K007	SL-048-SA7-SB-9.0-10.0 DUP02-SA7-QC-110211	Acenaphthene Acenaphthylene Naphthalene 2-Methylnaphthalene 1-Methylnaphthalene Bis(2-ethylhexyl)phthalate N-Nitrosodimethylamine	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

**Santa Susana Field Laboratory  
Polynuclear Aromatic Hydrocarbons - Laboratory Blank Data Qualification Summary - SDG 11K007**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Polynuclear Aromatic Hydrocarbons - Field Blank Data Qualification Summary - SDG 11K007**

No Sample Data Qualified in this SDG

LDC #: 27103A2b

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: 11K007

Level IV

Laboratory: ~~Lancaster Laboratories~~ *EMA*

Date: 2/21/12

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**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	$\Delta$	Sampling dates: <u>10/31 - 11/03/11</u>
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	$\Delta$	% RSD $\leq 30$ , $r^2$
IV.	Continuing calibration/ICV	$\Delta$	ICV / CV $\leq 25$
V.	Blanks	$\Delta$	
VI.	Surrogate spikes	$\Delta$	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	ics / P
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	$\Delta$	
XI.	Target compound identification	$\Delta$	
XII.	Compound quantitation (RL/LOQ/LODs)	$\Delta$	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 9, 12      14, 16
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-001-SA7-SB-4.0-5.0	11	<sup>185</sup> SL-475-SA7-SB-3.0-4.0	21	SL-171-SA7-SB-9.0-10.0	31	MBLKIS
2	SL-120-SA7-SB-4.0-5.0	12	DUP-01-SA7-QC-110111	22	SL-120-SA7-SB-9.0-10.0MS	32	MBLKIS
3	SL-120-SA7-SB-9.0-10.0	13	SL-048-SA7-SB-4.0-5.0	23	SL-120-SA7-SB-9.0-10.0MSD	33	
4	SL-121-SA7-SB-4.0-5.0	14	SL-048-SA7-SB-9.0-10.0	24	SL-048-SA7-SB-9.0-10.0MS	34	
5	SL-121-SA7-SB-9.0-10.0	15	SL-161-SA7-SB-4.0-5.0	25	SL-048-SA7-SB-9.0-10.0MSD	35	
6	SL-123-SA7-SB-4.0-5.0	16	DUP02-SA7-QC-110211	26		36	
7	SL-123-SA7-SB-9.0-10.0	17	SL-108-SA7-SB-2.9-3.9	27		37	
8	SL-160-SA7-SB-0.0-1.0	18	SL-128-SA7-SB-4.0-5.0	28		38	
9	SL-175-SA7-SB-4.0-5.0	19	SL-128-SA7-SB-9.0-10.0	29		39	
10	SL-175-SA7-SB-9.0-10.0	20	SL-171-SA7-SB-4.0-5.0	30		40	

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
<b>II. GC/MS Instrument performance check</b>				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
<b>III. Initial calibration</b>				
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) $> 0.05$ ?	✓			
<b>IV. Continuing calibration</b>				
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) $\geq 0.05$ ?	✓			
<b>V. Blanks</b>				
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.		✓		
<b>VI. Surrogate spikes</b>				
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?			✓	
<b>VII. Matrix spike/matrix spike duplicates</b>				
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?	✓			
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	✓			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X. Internal standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within + 30 seconds from the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. Compound quantitation/CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Tentatively identified compounds (TIC)</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XVI. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XVII. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

# 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 #: 27103A2h

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 2  
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?

(FF)

Compound	Concentration (ug/kg)		RPD
	14	16	
EEE	18u	16	200 J/U/A

Compound	Concentration (ug/kg)		RPD
	14	16	
GG	1.8u	1.2	200 J/U/A
DD	1.8u	1.2	
S	1.8u	1.7	
W	1.8u	1.4	
TTT	1.8u	1.3	

Compound	Concentration (ug/kg)		RPD
	14	16	
EEE	18u	22	J/U/A
000	1.8u	1.9	

Compound	Concentration ( )		RPD

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

**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		Recalculated		Reported		Recalculated	
				RRF (10 std)	RRF (10 std)	RRF (10 std)	RRF (10 std)	Average RRF (initial)	%RSD	Average RRF (initial)	%RSD
1	5YE4175	10/18/11	Phenol (1st internal standard)	3.817	3.817	3.668	3.668		5.9	3.668	5.9
			Naphthalene (2nd internal standard)	1.182	1.182	1.01	1.01		3.92	1.01	3.92
			Fluorene (3rd internal standard)	1.107	1.107	0.983	0.983		8.55	0.983	8.55
			Bis(2-ethylhexyl)phthalate (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 #: 27/03226

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

Page: 1 of 1  
 Reviewer: FT  
 2nd Reviewer: [Signature]

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference =  $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$  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		Recalculated		
					RRF (CC)	%D	RRF (CC)	%D	
1	RK 1093	11/09/11	Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)	3.668		3.359	8.4	8.4	
			Anthracene (3rd internal standard)	1.101		1.073	2.5	2.5	
			Fluorene (3rd internal standard)	0.983		1.006	2.3	2.3	
			Benzofluorene (4th internal standard)						
			Benzotriphenylene (4th internal standard)						
2	RK 138	11/10/11	Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)	3.668		3.253	11.3	11.3	
			Anthracene (3rd internal standard)	1.101		1.056	4.1	4.1	
			Benzofluorene (4th internal standard)	0.983		1.067	8.5	8.5	
3			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (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.

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 SpikedSample ID: 17

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	10	4.96	49.6	49.6	0
2-Fluorobiphenyl	↓	5.56	55.6	55.6	↓
Terphenyl-d14	↓	8.81	88.1	88.1	↓
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					

VALIDATION FINDINGS WORKSHEET

Reviewer: FT

2nd Reviewer: CA

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the 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 - MSC1| \* 2 / (MSC + MSC1)

MSC = Matrix spike concentration

MSC1 = Matrix spike duplicate concentration

MS/MSD samples: 221 23

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
Acenaphthene	377	377	ND	298	294	79	79	78	78	1	1
Phenol	↓	↓	ND	363	343	96	96	91	91	6	6
Pyrene											
4-Nitroso-dim-propylamines											
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 #: 27103A2b

Page: 1 of 1

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification**

Reviewer: FT  
2nd Reviewer: SC

**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: ves 10 (MPLK2S)

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS		LCSD		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalc	Reported	Recalc	Reported	Recalc
	Phenol													
N-Nitroso-di-n-propylamine														
4-Chloro-3-methylphenol														
Acenaphthene	333	333	268	266	80	80	80	80	80	80	80	80	1	1
Pentachlorophenol														
Pyrene	↓	↓	302	307	91	91	92	92	92	92	92	92	2	2

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.

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270)

Y/N N/A  
Y/N N/A

Were all reported results recalculated and verified for all level IV samples?  
 Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration =  $\frac{(A_x)(I_s)(V_i)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_f)(\%S)}$

- A<sub>x</sub> = Area of the characteristic ion (EICP) for the compound to be measured
- A<sub>is</sub> = Area of the characteristic ion (EICP) for the specific internal standard
- I<sub>s</sub> = Amount of internal standard added in nanograms (ng)
- V<sub>o</sub> = Volume or weight of sample extract in milliliters (ml) or grams (g).
- V<sub>i</sub> = Volume of extract injected in microliters (ul)
- V<sub>f</sub> = Volume of the concentrated extract in microliters (ul)
- Df = Dilution Factor.
- %S = Percent solids, applicable to soil and solid matrices only.
- 2.0 = Factor of 2 to account for GPC cleanup

Example:

Sample I.D. # 7, S:

$$\text{Conc.} = \frac{(1058) \times (40) \times (1) \times (100)}{(25504) \times (3.668) \times (30) \times (0.884)}$$

=  
1.7 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:** October 31 through November 3, 2011  
**LDC Report Date:** February 22, 2012  
**Matrix:** Soil/Water  
**Parameters:** Polychlorinated Biphenyls  
**Validation Level:** Level IV  
**Laboratory:** EMAX Laboratories, Inc.  
**Sample Delivery Group (SDG):** 11K007

### Sample Identification

FB-SA7-110111	SL-171-SA7-SB-4.0-5.0
SL-001-SA7-SB-4.0-5.0	SL-171-SA7-SB-9.0-10.0
SL-120-SA7-SB-4.0-5.0	EB-SA7-SB-110311
SL-120-SA7-SB-9.0-10.0	SL-120-SA7-SB-9.0-10.0MS
SL-121-SA7-SB-4.0-5.0	SL-120-SA7-SB-9.0-10.0MSD
SL-121-SA7-SB-9.0-10.0	SL-048-SA7-SB-9.0-10.0MS
SL-123-SA7-SB-4.0-5.0	SL-048-SA7-SB-9.0-10.0MSD
SL-123-SA7-SB-9.0-10.0	
SL-160-SA7-SB-0.0-1.0	
SL-175-SA7-SB-4.0-5.0	
SL-175-SA7-SB-9.0-10.0	
SL-185-SA7-SB-3.0-4.0	
DUP-01-SA7-QC-110111	
SL-048-SA7-SB-4.0-5.0	
SL-048-SA7-SB-9.0-10.0	
SL-161-SA7-SB-4.0-5.0	
DUP02-SA7-QC-110211	
SL-108-SA7-SB-2.9-3.9	
SL-128-SA7-SB-4.0-5.0	
SL-128-SA7-SB-9.0-10.0	

## Introduction

This data review covers 25 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.

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 EB-SA7-SB-110311 was identified as an equipment blank. No polychlorinated biphenyl contaminants were found.

Sample FB-SA7-110111 was identified as a field 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.

## 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.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG 11K007	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-175-SA7-SB-4.0-5.0 and DUP-01-SA7-QC-110111 and samples SL-048-SA7-SB-9.0-10.0 and DUP02-SA7-QC-110211 were identified as field duplicates. No polychlorinated biphenyl contaminants were detected in any of the samples.

**Santa Susana Field Laboratory  
 Polychlorinated Biphenyls - Data Qualification Summary - SDG 11K007**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
11K007	FB-SA7-110111 SL-001-SA7-SB-4.0-5.0 SL-120-SA7-SB-4.0-5.0 SL-120-SA7-SB-9.0-10.0 SL-121-SA7-SB-4.0-5.0 SL-121-SA7-SB-9.0-10.0 SL-123-SA7-SB-4.0-5.0 SL-123-SA7-SB-9.0-10.0 SL-160-SA7-SB-0.0-1.0 SL-175-SA7-SB-4.0-5.0 SL-175-SA7-SB-9.0-10.0 SL-185-SA7-SB-3.0-4.0 DUP-01-SA7-QC-110111 SL-048-SA7-SB-4.0-5.0 SL-048-SA7-SB-9.0-10.0 SL-161-SA7-SB-4.0-5.0 DUP02-SA7-QC-110211 SL-108-SA7-SB-2.9-3.9 SL-128-SA7-SB-4.0-5.0 SL-128-SA7-SB-9.0-10.0 SL-171-SA7-SB-4.0-5.0 SL-171-SA7-SB-9.0-10.0 EB-SA7-SB-110311	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 11K007**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
 Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG 11K007**

No Sample Data Qualified in this SDG

LDC #: 27103A3b

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: 11K007

Level IV

Laboratory: EMAX Laboratories, Inc.

Date: 2/21/12

Page: 1 of 1

Reviewer: *[Signature]*2nd Reviewer: *[Signature]***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: 10/31 - 11/03/11
II.	GC/ECD Instrument Performance Check	NA	
III.	Initial calibration	Δ	% RSD ≤ 20
IV.	Continuing calibration/ICV	A	% ICV/CCV ≤ 20
V.	Blanks	Δ	
VI.	Surrogate spikes	Δ	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	see LP
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	Δ	
XIII.	Compound quantitation (RD)/LOQ/LODs	Δ	
XIV.	Overall assessment of data	Δ	
XV.	Field duplicates	ND	D = 10, 13, 15, 17
XVI.	Field blanks	ND	FB = 1, EB = 23

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	FB-SA7-110111	11	SL-175-SA7-SB-9.0-10.0	21	SL-171-SA7-SB-4.0-5.0	31	MBLK1W
2	SL-001-SA7-SB-4.0-5.0	12	SL-175-SA7-SB-3.0-4.0	22	SL-171-SA7-SB-9.0-10.0	32	MBLK2S
3	SL-120-SA7-SB-4.0-5.0	13	DUP-01-SA7-QC-110111	23	EB-SA7-SB-110311	33	MBLK29
4	SL-120-SA7-SB-9.0-10.0	14	SL-048-SA7-SB-4.0-5.0	24	SL-120-SA7-SB-9.0-10.0MS	34	
5	SL-121-SA7-SB-4.0-5.0	15	SL-048-SA7-SB-9.0-10.0	25	SL-120-SA7-SB-9.0-10.0MSD	35	
6	SL-121-SA7-SB-9.0-10.0	16	SL-161-SA7-SB-4.0-5.0	26	SL-048-SA7-SB-9.0-10.0MS	36	
7	SL-123-SA7-SB-4.0-5.0	17	DUP02-SA7-QC-110211	27	SL-048-SA7-SB-9.0-10.0MSD	37	
8	SL-123-SA7-SB-9.0-10.0	18	SL-108-SA7-SB-2.9-3.9	28		38	
9	SL-160-SA7-SB-0.0-1.0	19	SL-128-SA7-SB-4.0-5.0	29		39	
10	SL-175-SA7-SB-4.0-5.0	20	SL-128-SA7-SB-9.0-10.0	30		40	

Notes:

LDC #: 27103A3b  
 SDG #: per owner

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
<b>II. Initial calibration</b>				
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?	/			
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	/			
Were all percent differences (%D) < 20% or percent recoveries 80-120%?	/			
Were all the retention times within the acceptance windows?	/			
<b>V. Blanks</b>				
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.		/		
<b>VI. Surrogate spikes</b>				
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?			/	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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?	/			
<b>VIII. Laboratory control samples</b>				
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?	/			
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?			/	
Were the performance evaluation (PE) samples within the acceptance limits?			/	

LDC #: 27103A3b  
 SDG #: per count

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

LDC #: 27103A36  
 SDG #: per work

**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		Recalculated		Reported		Recalculated	
				CF (SD, std)	CF (SD, std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD		
1	1CAL	9/01/11	Araclof 1260-1 ZB Pa-1 ZB Pa-2	4457.88 14665	4457.88 14665	4706.103 16502.1	4706.103 16502.1	9.9 18.3	9.9 18.3		
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 #: 77103A3b  
 SDG #: per center

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

Page: 1 of 7  
 Reviewer: FD  
 2nd Reviewer: JD

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 =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  Where: ave. CF = initial calibration average CF  
 CF = A/C CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	KK11002A	11/11/11	Arroclor 1260	500.0	440.852	12	440.85	12
			ZB-1	500.0	441.20	12	441.20	12
2	KK11016A	11/11/11	↓	↓	457.358	10	449.76	10
			↓	↓	449.976	10	448.779	10
	KK11034A	11/12/11	↓	↓	453.989	9	453.99	9
3	KK11046A	11/13/11	↓	↓	451.818	10	451.82	10
			↓	↓	481.532	3	481.53	3
4					475.283	5	475.28	5

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.

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery:  $SF/SS * 100$  Where: SF = Surrogate Found  
 SS = Surrogate Spiked

Sample ID: # 2

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
PCB	ZB-P25-2	40	34.94	87.3	81.3	0
TCMX	↓	40	28.11	70.3	70.3	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	

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

**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: 24 + 24

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)											
Aroclor 1260	75.5	75.5	ND	64.8	63.4	86	86	84	84	2	2

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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:

$$\% \text{ Recovery} = 100 \times (\text{SSC} - \text{SC}) / \text{SA}$$

$$\text{RPD} = | \text{LCS} - \text{LCSD} | * 2 / (\text{LCS} + \text{LCSD})$$

Where: SSC = Spiked sample concentration  
 SA = Spike added  
 LCS = Laboratory control sample percent recovery  
 LCSD = Laboratory control sample duplicate percent recovery  
 SC = Concentration

LCS/LCSD samples: was 10 (MSKLS)

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS		LCSD	
	LCS	LCSD	LCS	LCSD	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)								
Aroclor 1260	66.7	66.7	60.1	61.5	90	90	92	92

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.

**VALIDATION FINDINGS WORKSHEET**  
Sample Calculation Verification

LDC #: 27103A3b  
 SDG #: fu ganey

METHOD: GC HPLC

Were all reported results recalculated and verified for all level IV samples?  
 Were all recalculated results for detected target compounds within 10% of the reported results?

Y / N / N/A  
Y / N / N/A

Concentration =  $\frac{A}{(RF)(V_s \text{ or } W_s)(\%S/100)}$  (A)/(Fv)(Df)  
 Example: Sample ID: # 19 Compound Name: Atrochlor 1254

Final Concentration = 23.16 (3)  
(30.03) (0.919)  
 = 3.4 ug/kg

- 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

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications
	<u>1254-1 = 11376</u>	<u>= 3.42</u>	<u>1254-1 =</u>	<u>3.42</u>	
	<u>3322.2</u>		<u>-2 =</u>	<u>6.43</u>	
			<u>-3 =</u>	<u>3.75</u>	
			<u>-4 =</u>	<u>4.20</u>	
			<u>-5 =</u>	<u>8.36</u>	
				<u>23.16</u>	

Comments: \_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** October 31 through November 3, 2011  
**LDC Report Date:** February 15, 2012  
**Matrix:** Soil/Water  
**Parameters:** Metals  
**Validation Level:** Level IV  
**Laboratory:** EMAX Laboratories, Inc.  
**Sample Delivery Group (SDG):** 11K007/11K008/11K021/11K036/11K037

### Sample Identification

FB-SA7-110111	SL-171-SA7-SB-4.0-5.0
SL-001-SA7-SB-4.0-5.0	SL-171-SA7-SB-9.0-10.0
SL-120-SA7-SB-4.0-5.0	EB-SA7-SB-110311
SL-120-SA7-SB-9.0-10.0	SL-120-SA7-SB-9.0-10.0MS
SL-121-SA7-SB-4.0-5.0	SL-120-SA7-SB-9.0-10.0MSD
SL-121-SA7-SB-9.0-10.0	SL-048-SA7-SB-9.0-10.0MS
SL-123-SA7-SB-4.0-5.0	SL-048-SA7-SB-9.0-10.0MSD
SL-123-SA7-SB-9.0-10.0	
SL-160-SA7-SB-0.0-1.0	
SL-175-SA7-SB-4.0-5.0	
SL-175-SA7-SB-9.0-10.0	
SL-175-SA7-SB-3.0-4.0	
DUP-01-SA7-QC-110111	
SL-048-SA7-SB-4.0-5.0	
SL-048-SA7-SB-9.0-10.0	
SL-161-SA7-SB-4.0-5.0	
DUP02-SA7-QC-110211	
SL-108-SA7-SB-2.9-3.9	
SL-128-SA7-SB-4.0-5.0	

## Introduction

This data review covers 25 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 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)	Manganese Titanium	0.000297 mg/L 0.000547 mg/L	All water samples in SDG 11K007/11K008/11K021/11K036/ 11K037
ICB/CCB	Thallium	0.204 ug/L	SL-001-SA7-SB-4.0-5.0 SL-120-SA7-SB-4.0-5.0 SL-121-SA7-SB-4.0-5.0 SL-121-SA7-SB-9.0-10.0 SL-123-SA7-SB-4.0-5.0 SL-123-SA7-SB-9.0-10.0 SL-160-SA7-SB-0.0-1.0 SL-175-SA7-SB-4.0-5.0 SL-175-SA7-SB-9.0-10.0 SL-175-SA7-SB-3.0-4.0 DUP-01-SA7-QC-110111 SL-048-SA7-SB-4.0-5.0 SL-161-SA7-SB-4.0-5.0
ICB/CCB	Thallium	0.203 ug/L	DUP02-SA7-QC-110211 SL-108-SA7-SB-2.9-3.9 SL-128-SA7-SB-4.0-5.0 SL-128-SA7-SB-9.0-10.0 SL-171-SA7-SB-4.0-5.0 SL-171-SA7-SB-9.0-10.0

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-120-SA7-SB-4.0-5.0	Thallium	0.221 mg/Kg	0.221U mg/Kg
SL-121-SA7-SB-4.0-5.0	Thallium	0.255 mg/Kg	0.255U mg/Kg
SL-123-SA7-SB-4.0-5.0	Thallium	0.232 mg/Kg	0.232U mg/Kg
SL-160-SA7-SB-0.0-1.0	Thallium	0.167 mg/Kg	0.167U mg/Kg
SL-175-SA7-SB-4.0-5.0	Thallium	0.255 mg/Kg	0.255U mg/Kg
SL-185-SA7-SB-3.0-4.0	Thallium	0.236 mg/Kg	0.236U mg/Kg
DUP-01-SA7-QC-110111	Thallium	0.253 mg/Kg	0.253U mg/Kg
SL-161-SA7-SB-4.0-5.0	Thallium	0.252 mg/Kg	0.252U mg/Kg
DUP02-SA7-QC-110211	Thallium	0.215 mg/Kg	0.215U mg/Kg
SL-108-SA7-SB-2.9-3.9	Thallium	0.230 mg/Kg	0.230U mg/Kg
SL-128-SA7-SB-4.0-5.0	Thallium	0.223 mg/Kg	0.223U mg/Kg
SL-128-SA7-SB-9.0-10.0	Thallium	0.210 mg/Kg	0.210U mg/Kg
SL-171-SA7-SB-4.0-5.0	Thallium	0.178 mg/Kg	0.178U mg/Kg
SL-171-SA7-SB-9.0-10.0	Thallium	0.223 mg/Kg	0.223U mg/Kg

Sample EB-SA7-SB-110311 was identified as an equipment blank. No metal contaminants were found with the following exceptions:

Equipment Blank ID	Sampling Date	Analyte	Concentration	Associated Samples
EB-SA7-SB-110311	11/3/11	Copper	0.000561 mg/L	SL-108-SA7-SB-2.9-3.9 SL-128-SA7-SB-4.0-5.0 SL-128-SA7-SB-9.0-10.0 SL-171-SA7-SB-4.0-5.0 SL-171-SA7-SB-9.0-10.0

Sample FB-SA7-110111 was identified as a field blank. No metal contaminants were found.

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks.

**V. ICP Interference Check Sample (ICS) Analysis**

The frequency of analysis was met.

The criteria for analysis were met.

**VI. Matrix Spike Analysis**

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-120-SA7-SB-9.0-10.0MS/MSD (SL-001-SA7-SB-4.0-5.0 SL-120-SA7-SB-4.0-5.0 SL-120-SA7-SB-9.0-10.0 SL-121-SA7-SB-4.0-5.0 SL-121-SA7-SB-9.0-10.0 SL-123-SA7-SB-4.0-5.0 SL-123-SA7-SB-9.0-10.0 SL-160-SA7-SB-0.0-1.0 SL-175-SA7-SB-4.0-5.0 SL-175-SA7-SB-9.0-10.0 SL-175-SA7-SB-3.0-4.0 DUP-01-SA7-QC-110111)	Antimony Chromium Cobalt Copper Nickel Potassium Sodium Phosphorus Zirconium	72 (75-125) 23 (75-125) 64 (75-125) 36 (75-125) 38 (75-125) 73 (75-125) 73 (75-125) 64 (75-125) 52 (75-125)	73 (75-125) 24 (75-125) 63 (75-125) 37 (75-125) 39 (75-125) 68 (75-125) 74 (75-125) 62 (75-125) 54 (75-125)	- - - - - - - - -	J (all detects) UJ (all non-detects)	A
SL-048-SA7-SB-9.0-10.0MS/MSD (SL-048-SA7-SB-4.0-5.0 SL-048-SA7-SB-9.0-10.0 SL-161-SA7-SB-4.0-5.0 DUP02-SA7-QC-110211 SL-108-SA7-SB-2.9-3.9 SL-128-SA7-SB-4.0-5.0 SL-128-SA7-SB-9.0-10.0 SL-171-SA7-SB-4.0-5.0 SL-171-SA7-SB-9.0-10.0)	Copper Magnesium Nickel Potassium Vanadium Phosphorus Zirconium	70 (75-125) 57 (75-125) - - - 50 (75-125) 42 (75-125)	66 (75-125) 49 (75-125) 72 (75-125) 67 (75-125) 66 (75-125) 49 (75-125) 37 (75-125)	- - - - - - -	J (all detects) UJ (all non-detects)	A

**VII. Duplicate Sample Analysis**

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable.

### 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-120-SA7-SB-9.0-10.0	Potassium	18 (≤10)	SL-001-SA7-SB-4.0-5.0 SL-120-SA7-SB-4.0-5.0 SL-120-SA7-SB-9.0-10.0 SL-121-SA7-SB-4.0-5.0 SL-121-SA7-SB-9.0-10.0 SL-123-SA7-SB-4.0-5.0 SL-123-SA7-SB-9.0-10.0 SL-160-SA7-SB-0.0-1.0 SL-175-SA7-SB-4.0-5.0 SL-175-SA7-SB-9.0-10.0 SL-175-SA7-SB-3.0-4.0 DUP-01-SA7-QC-110111	J (all detects) UJ (all non-detects)	A
SL-048-SA7-SB-9.0-10.0	Aluminum Calcium Magnesium Potassium Vanadium	14 (≤10) 17 (≤10) 14 (≤10) 11 (≤10) 13 (≤10)	SL-048-SA7-SB-4.0-5.0 SL-048-SA7-SB-9.0-10.0 SL-161-SA7-SB-4.0-5.0 DUP02-SA7-QC-110211 SL-108-SA7-SB-2.9-3.9 SL-128-SA7-SB-4.0-5.0 SL-128-SA7-SB-9.0-10.0 SL-171-SA7-SB-4.0-5.0 SL-171-SA7-SB-9.0-10.0	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 11K007/11K008/11K021/ 11K036/11K037	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-175-SA7-SB-4.0-5.0 and DUP-01-SA7-QC-110111 and samples SL-048-SA7-SB-9.0-10.0 and DUP02-SA7-QC-110211 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-175-SA7-SB-4.0-5.0	DUP-01-SA7-QC-110111			
Aluminum	12500	10600	16 (≤50)	-	-
Antimony	0.146	0.139	5 (≤50)	-	-
Arsenic	5.39	4.67	14 (≤50)	-	-
Barium	66.1	60.0	10 (≤50)	-	-
Beryllium	0.549	0.486	12 (≤50)	-	-
Cadmium	0.123	0.119	3 (≤50)	-	-
Calcium	2360	2270	4 (≤50)	-	-
Chromium	15.8	15.3	3 (≤50)	-	-
Cobalt	4.02	4.28	6 (≤50)	-	-
Copper	5.13	4.91	4 (≤50)	-	-
Iron	16200	15200	6 (≤50)	-	-
Lead	5.06	4.34	15 (≤50)	-	-
Magnesium	3350	3300	2 (≤50)	-	-
Manganese	218	223	2 (≤50)	-	-

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-175-SA7-SB-4.0-5.0	DUP-01-SA7-QC-110111			
Molybdenum	0.499	0.432	14 (≤50)	-	-
Nickel	7.73	7.92	2 (≤50)	-	-
Potassium	2430	2500	3 (≤50)	-	-
Sodium	58.6	55.0	6 (≤50)	-	-
Strontium	13.4	11.3	17 (≤50)	-	-
Thallium	0.255	0.253	1 (≤50)	-	-
Titanium	852	847	1 (≤50)	-	-
Vanadium	25.0	22.4	11 (≤50)	-	-
Zinc	55.4	48.0	14 (≤50)	-	-
Lithium	19.8	20.3	2 (≤50)	-	-
Phosphorus	280	280	0 (≤50)	-	-

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-048-SA7-SB-9.0-10.0	DUP02-SA7-QC-110211			
Aluminum	10800	9950	8 (≤50)	-	-
Antimony	0.145	0.137	6 (≤50)	-	-
Arsenic	2.87	2.92	2 (≤50)	-	-
Barium	85.2	75.3	12 (≤50)	-	-
Beryllium	0.442	0.454	3 (≤50)	-	-
Cadmium	0.205	0.119	53 (≤50)	J (all detects)	A
Calcium	1970	1940	2 (≤50)	-	-
Chromium	14.6	14.5	1 (≤50)	-	-
Cobalt	3.99	3.77	6 (≤50)	-	-

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-048-SA7-SB-9.0-10.0	DUP02-SA7-QC-110211			
Copper	6.95	4.25	48 (≤50)	-	-
Iron	18600	15600	18 (≤50)	-	-
Lead	3.70	3.83	3 (≤50)	-	-
Magnesium	4130	3240	24 (≤50)	-	-
Manganese	299	191	44 (≤50)	-	-
Molybdenum	0.454	0.373	20 (≤50)	-	-
Nickel	8.98	7.41	19 (≤50)	-	-
Potassium	3330	2200	41 (≤50)	-	-
Sodium	91.9	72.4	24 (≤50)	-	-
Strontium	14.0	12.7	10 (≤50)	-	-
Thallium	0.219	0.215	2 (≤50)	-	-
Titanium	957	901	6 (≤50)	-	-
Vanadium	25.8	23.2	11 (≤50)	-	-
Zinc	54.4	46.7	15 (≤50)	-	-
Lithium	23.6	21.4	10 (≤50)	-	-
Phosphorus	391	244	46 (≤50)	-	-

**Santa Susana Field Laboratory**

**Metals - Data Qualification Summary - SDG**  
**11K007/11K008/11K021/11K036/11K037**

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-001-SA7-SB-4.0-5.0 SL-120-SA7-SB-4.0-5.0 SL-120-SA7-SB-9.0-10.0 SL-121-SA7-SB-4.0-5.0 SL-121-SA7-SB-9.0-10.0 SL-123-SA7-SB-4.0-5.0 SL-123-SA7-SB-9.0-10.0 SL-160-SA7-SB-0.0-1.0 SL-175-SA7-SB-4.0-5.0 SL-175-SA7-SB-9.0-10.0 SL-175-SA7-SB-3.0-4.0 DUP-01-SA7-QC-110111	Antimony Chromium Cobalt Copper Nickel Potassium Sodium Phosphorus Zirconium	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-048-SA7-SB-4.0-5.0 SL-048-SA7-SB-9.0-10.0 SL-161-SA7-SB-4.0-5.0 DUP02-SA7-QC-110211 SL-108-SA7-SB-2.9-3.9 SL-128-SA7-SB-4.0-5.0 SL-128-SA7-SB-9.0-10.0 SL-171-SA7-SB-4.0-5.0 SL-171-SA7-SB-9.0-10.0	Copper Magnesium Nickel Potassium Vanadium Phosphorus Zirconium	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-001-SA7-SB-4.0-5.0 SL-120-SA7-SB-4.0-5.0 SL-120-SA7-SB-9.0-10.0 SL-121-SA7-SB-4.0-5.0 SL-121-SA7-SB-9.0-10.0 SL-123-SA7-SB-4.0-5.0 SL-123-SA7-SB-9.0-10.0 SL-160-SA7-SB-0.0-1.0 SL-175-SA7-SB-4.0-5.0 SL-175-SA7-SB-9.0-10.0 SL-175-SA7-SB-3.0-4.0 DUP-01-SA7-QC-110111	Potassium	J (all detects) UJ (all non-detects)	A	ICP serial dilution (%D) (A)
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-048-SA7-SB-4.0-5.0 SL-048-SA7-SB-9.0-10.0 SL-161-SA7-SB-4.0-5.0 DUP02-SA7-QC-110211 SL-108-SA7-SB-2.9-3.9 SL-128-SA7-SB-4.0-5.0 SL-128-SA7-SB-9.0-10.0 SL-171-SA7-SB-4.0-5.0 SL-171-SA7-SB-9.0-10.0	Aluminum Calcium Magnesium Potassium Vanadium	J (all detects) UJ (all non-detects)	A	ICP serial dilution (%D) (A)

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
11K007/ 11K008/ 11K021/ 11K036/ 11K037	FB-SA7-110111 SL-001-SA7-SB-4.0-5.0 SL-120-SA7-SB-4.0-5.0 SL-120-SA7-SB-9.0-10.0 SL-121-SA7-SB-4.0-5.0 SL-121-SA7-SB-9.0-10.0 SL-123-SA7-SB-4.0-5.0 SL-123-SA7-SB-9.0-10.0 SL-160-SA7-SB-0.0-1.0 SL-175-SA7-SB-9.0-10.0 SL-175-SA7-SB-3.0-4.0 DUP-01-SA7-QC-110111 SL-048-SA7-SB-4.0-5.0 SL-048-SA7-SB-9.0-10.0 SL-161-SA7-SB-4.0-5.0 DUP02-SA7-QC-110211 SL-108-SA7-SB-2.9-3.9 SL-128-SA7-SB-4.0-5.0 SL-128-SA7-SB-9.0-10.0 SL-171-SA7-SB-4.0-5.0 SL-171-SA7-SB-9.0-10.0 EB-SA7-SB-110311	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-048-SA7-SB-9.0-10.0 DUP02-SA7-QC-110211	Cadmium	J (all detects)	A	Field duplicates (RPD) (FD)

**Santa Susana Field Laboratory  
Metals - Laboratory Blank Data Qualification Summary - SDG  
11K007/11K008/11K021/11K036/11K037**

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-120-SA7-SB-4.0-5.0	Thallium	0.221U mg/Kg	A	B
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-121-SA7-SB-4.0-5.0	Thallium	0.255U mg/Kg	A	B
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-123-SA7-SB-4.0-5.0	Thallium	0.232U mg/Kg	A	B

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-160-SA7-SB-0.0-1.0	Thallium	0.167U mg/Kg	A	B
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-175-SA7-SB-4.0-5.0	Thallium	0.255U mg/Kg	A	B
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-185-SA7-SB-3.0-4.0	Thallium	0.236U mg/Kg	A	B
11K007/ 11K008/ 11K021/ 11K036/ 11K037	DUP-01-SA7-QC-110111	Thallium	0.253U mg/Kg	A	B
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-161-SA7-SB-4.0-5.0	Thallium	0.252U mg/Kg	A	B
11K007/ 11K008/ 11K021/ 11K036/ 11K037	DUP02-SA7-QC-110211	Thallium	0.215U mg/Kg	A	B
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-108-SA7-SB-2.9-3.9	Thallium	0.230U mg/Kg	A	B
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-128-SA7-SB-4.0-5.0	Thallium	0.223U mg/Kg	A	B
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-128-SA7-SB-9.0-10.0	Thallium	0.210U mg/Kg	A	B

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-171-SA7-SB-4.0-5.0	Thallium	0.178U mg/Kg	A	B
11K007/ 11K008/ 11K021/ 11K036/ 11K037	SL-171-SA7-SB-9.0-10.0	Thallium	0.223U mg/Kg	A	B

**Santa Susana Field Laboratory  
Metals - Field Blank Data Qualification Summary - SDG  
11K007/11K008/11K021/11K036/11K037**

No Sample Data Qualified in this SDG

**METHOD:** Metals (EPA SW 846 Method 6010B/6020A/7000) 7470A/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: 10/31-11/3/11
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	A	
VI.	Matrix Spike Analysis	SW	MS/D
VII.	Duplicate Sample Analysis	N	
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	
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	SW	(10, 13) (15, 17)
XV.	Field Blanks	SW	FB=1, EB=23

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: *soil/water*

1	FB-SA7-110111	W	11	SL-175-SA7-SB-9.0-10.0	21	SL-171-SA7-SB-4.0-5.0	31	
2	SL-001-SA7-SB-4.0-5.0		12	SL-175-SA7-SB-3.0-4.0	22	SL-171-SA7-SB-9.0-10.0	32	
3	SL-120-SA7-SB-4.0-5.0		13	DUP-01-SA7-QC-110111	23	EB-SA7-SB-110311	W	33
4	SL-120-SA7-SB-9.0-10.0		14	SL-048-SA7-SB-4.0-5.0	24	SL-120-SA7-SB-9.0-10.0MS		34
5	SL-121-SA7-SB-4.0-5.0		15	SL-048-SA7-SB-9.0-10.0	25	SL-120-SA7-SB-9.0-10.0MSD		35
6	SL-121-SA7-SB-9.0-10.0		16	SL-161-SA7-SB-4.0-5.0	26	SL-048-SA7-SB-9.0-10.0MS		36
7	SL-123-SA7-SB-4.0-5.0		17	DUP02-SA7-QC-110211	27	SL-048-SA7-SB-9.0-10.0MSD		37
8	SL-123-SA7-SB-9.0-10.0		18	SL-108-SA7-SB-2.9-3.9	28			38
9	SL-160-SA7-SB-0.0-1.0		19	SL-128-SA7-SB-4.0-5.0	29			39
10	SL-175-SA7-SB-4.0-5.0		20	SL-128-SA7-SB-9.0-10.0	30			40

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. ICP/MS Tune</b>				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were %RSD of isotopes in the tuning solution $\leq 5\%$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Calibration</b>				
Were all instruments calibrated daily, each set-up time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the proper number of standards used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury) QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all initial calibration correlation coefficients $> 0.995$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. ICP Interference Check Sample</b>				
Were ICP interference check samples performed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\pm RL$ ( $\pm 2X RL$ for soil) was used for samples that were $\leq 5X$ the RL, including when only one of the duplicate sample values were $\leq 5X$ the RL.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Validation Area	Yes	No	NA	Findings/Comments
<b>VIII. Furnace Atomic Absorption QC</b>				
If MSA was performed, was the correlation coefficients > 0.995?			/	
Do all applicable analyses 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?			/	
<b>IX. ICP Serial Dilution</b>				
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.		/		
<b>X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)</b>				
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?	/			
<b>XI. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?		/		
Were the performance evaluation (PE) samples within the acceptance limits?		/		
<b>XII. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	/			
Target analytes were detected in the field duplicates.	/			
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	/			
Target analytes were detected in the field blanks.	/			

# VALIDATION FINDINGS WORKSHEET

## Sample Specific Element Reference

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1-23		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, Ti, 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, Ti, Sn, Ti, V, Zn, Zr
Q: 24-27		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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, Sn, Ti, V, Zn, Zr
<b>Analysis Method</b>		
ICP		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, Ti, Sn, Ti, V, Zn, Zr
ICP-MS		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, Ti, Sn, Ti, V, Zn, Zr

Comments: Mercury by CVAA if performed

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (mg/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	No Qualifiers
Mn		0.000297		0.00149	
Ti		0.000547		0.00274	

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 2, 3, 5-14, 16

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	3	5	7	9	10	12	13	16
Ti		0.204	0.255	0.221	0.255	0.232	0.167	0.255	0.236	0.253	0.252

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 17-22

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	17	18	19	20	21	22
Ti		0.203	0.254	0.215	0.230	0.223	0.210	0.178	0.223

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.

VALIDATION FINDINGS WORKSHEET  
Field Blanks

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L Associated sample units: mg/Kg

Sampling date: 11/3/11 Soil factor applied 25 100x

Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: 18-22

Analyte	Blank ID	Action Level	No Qualifiers	Sample Identification																
	23																			
Cu	0.000561	0.07 0.2865																		

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 #: 2710384

**VALIDATION FINDINGS WORKSHEET**  
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1  
 Reviewer: CR  
 2nd Reviewer: [Signature]

METHOD: Trace metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y  N  N/A 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)  $\leq$  20% for water samples and  $\leq$  35% for soil samples?

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
	24125	S	Sb	72	73		2-B	5/5/1A (Q)
			Cr	64	63			
			Co	36	37			
			Cu	38	39			
			Ni	73	68			
			Mn	73	74			PS=99%
			P	64	62			
			Zr	52	54			
	26127	S	Cu	70	66		14-22	
			Mg	57	49			
			Ni		72			
			K		67			
			V		66			
			P	50	49			
			Zr	42	37			

Comments:

LDC #: 2103AH

VALIDATION FINDINGS WORKSHEET  
ICP Serial Dilution

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".  
 N N/A If analyte concentrations were > 50X the MDL (ICP) or >100X the MDL (ICP/MS), was a serial dilution analyzed?  
 Y N/A Were ICP serial dilution percent differences (%D) ≤10%?  
 Y N/A Is there evidence of negative interference? If yes, professional judgement will be used to qualify the data.

LEVEL IV ONLY:

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	K	18	2-13	J/W/A (A)
		15	S	Al	14	14-22	J
				G	17	J	
				Mg	14	J	
				K	11	J	
				V	13	J	

Comments:

LDC#: 27103A4

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 3  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

**METHOD:** Metals (EPA Method 6010B/7000)

Analyte	Concentration (mg/Kg)		RPD (≤50)	Qualify Parents Only
	10	13		
Aluminum	12500	10600	16	
Antimony	0.146	0.139	5	
Arsenic	5.39	4.67	14	
Barium	66.1	60.0	10	
Beryllium	0.549	0.486	12	
Cadmium	0.123	0.119	3	
Calcium	2360	2270	4	
Chromium	15.8	15.3	3	
Cobalt	4.02	4.28	6	
Copper	5.13	4.91	4	
Iron	16200	15200	6	
Lead	5.06	4.34	15	
Magnesium	3350	3300	2	
Manganese	218	223	2	
Molybdenum	0.499	0.432	14	
Nickel	7.73	7.92	2	
Potassium	2430	2500	3	
Sodium	58.6	55.0	6	
Strontium	13.4	11.3	17	

LDC#: 27103A4

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 23 of 3  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

**METHOD:** Metals (EPA Method 6010B/7000)

Analyte	Concentration (mg/Kg)		RPD (≤50)	Qualify Parents Only
	10	13		
Thallium	0.255	0.253	1	
Titanium	852	847	1	
Vanadium	25.0	22.4	11	
Zinc	55.4	48.0	14	
Lithium	19.8	20.3	2	
Phosphorus	280	280	0	

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Analyte	Concentration (mg/Kg)		RPD (≤50)	Qualify Parents Only
	15	17		
Aluminum	10800	9950	8	
Antimony	0.145	0.137	6	
Arsenic	2.87	2.92	2	
Barium	85.2	75.3	12	
Beryllium	0.442	0.454	3	
Cadmium	0.205	0.119	53	Jdet/A (FD)
Calcium	1970	1940	2	
Chromium	14.6	14.5	1	
Cobalt	3.99	3.77	6	
Copper	6.95	4.25	48	
Iron	18600	15600	18	

LDC#: 27103A4

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 33 of 33  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

**METHOD:** Metals (EPA Method 6010B/7000)

Analyte	Concentration (mg/Kg)		RPD (≤50)	Qualify Parents Only
	15	17		
Lead	3.70	3.83	3	
Magnesium	4130	3240	24	
Manganese	299	191	44	
Molybdenum	0.454	0.373	20	
Nickel	8.98	7.41	19	
Potassium	3330	2200	41	
Sodium	91.9	72.4	24	
Strontium	14.0	12.7	10	
Thallium	0.219	0.215	2	
Titanium	957	901	6	
Vanadium	25.8	23.2	11	
Zinc	54.4	46.7	15	
Lithium	23.6	21.4	10	
Phosphorus	391	244	46	

LDC #: 270874

### VALIDATION FINDINGS WORKSHEET Initial and Continuing Calibration Calculation Verification

Page: 1 of 1  
Reviewer: OR  
2nd Reviewer: R

**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:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$
  
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		Reported		Acceptable (Y/N)
					%R		%R		
	ICP (Initial calibration)								
ICV	ICPMS (Initial calibration)	Cu	38.42	30	108		108		Y
L	CVAA (Initial calibration)	ITS	207	2	104		100		Y
	ICP (Continuing calibration)								
CCV (10:01 pm)	ICPMS (Continuing calibration)	Sn	21.72	25	99		99		Y
CCV	CVAA (Continuing calibration)	ITS	4.89	5	98		100		Y
	GFAA (Initial calibration)								
	GFAA (Continuing calibration)								

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 #: 270379

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

Page: 1 of 1  
Reviewer: QR  
2nd Reviewer: [Signature]

**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:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$
  
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:

$$\text{RPD} = \frac{|S-D|}{(S+D)/2} \times 100$$
  
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		Reported		Acceptable (Y/N)
					%R / RPD / %D	%R / RPD / %D			
ICSAFB	ICP interference check	Zn	20,85	20	104	104	104	Y	
LCS	Laboratory control sample	Sb	11,9	12,5	95	95	95	Y	
2H	Matrix spike	Se	(SSR-SR) 12,6	13,7	92	92	92	Y	
2H2S	Duplicate	Se	52,5	52,4	0	0	0	Y	
4	ICP serial dilution	V	59,3	60,3	2	2	2	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.

## VALIDATION FINDINGS WORKSHEET

### Sample Calculation Verification

**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 Se were recalculated and verified using the following equation:

Concentration =  $\frac{(RD)(FV)(Dil)}{(In. Vol.)}$

Recalculation:

- RD = Raw data concentration
- FV = Final volume (ml)
- In. Vol. = Initial volume (ml) or weight (G)
- Dil = Dilution factor

$$\frac{50 \text{ mL } (1.834 \text{ mg/L}) (10)}{2.07 \text{ g } (1000) (0.936)} = 0.473 \text{ mg/kg}$$

#	Sample ID	Analyte	Reported Concentration (mg/Kg)	Calculated Concentration (mg/Kg)	Acceptable (Y/N)
0.96	2	Aluminum	11400	11400	Y
		Antimony	0.261	0.261	
		Arsenic	5.38	5.38	
		Barium	88.4	88.4	
		Beryllium	0.634	0.634	
		Cadmium	0.229	0.229	
		Calcium	2780	2780	
		Chromium	19.5	19.5	
		Cobalt	7.65	7.65	
		Copper	8.15	8.15	
		Iron	23100	23100	
		Lead	4.57	4.57	
		Magnesium	5020	5020	
		Manganese	530	530	
		Molybdenum	1.12	1.12	
		Nickel	13.2	13.2	
		Potassium	2490	2490	
		Selenium	0.473	0.473	
		Sodium	68.8	68.8	
		Strontium	14.0	14.0	
		Thallium	0.295	0.295	
		Titanium	1210	1210	
		Vanadium	38.0	38.0	
		Zinc	55.6	55.6	

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

**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 Pb were recalculated and verified using the following equation:

Concentration =  $\frac{(RD)(FV)(Dil)}{(In. Vol.)}$

Recalculation:

$\frac{50mL(10) 18.75ng/L}{2.05g(1000)(0.953)} = 4.80mg/kg$

- 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)
	2	Lithium	21.9	21.9	Y
		Phosphorus	422	422	Y
<u>0 of 3</u>	3	Aluminum	14900	14900	Y
		Antimony	0.207	0.207	
		Arsenic	3.59	3.59	
		Barium	94.0	94.0	
		Beryllium	0.644	0.644	
		Boron	3.63	3.63	
		Cadmium	0.121	0.121	
		Calcium	1800	1800	
		Chromium	15.9	15.9	
		Cobalt	4.24	4.24	
		Copper	5.84	5.84	
		Iron	16500	16500	
		Lead	4.80	4.80	
		Magnesium	3540	3540	
		Manganese	183	183	
		Molybdenum	0.603	0.603	
		Nickel	8.13	8.13	
		Potassium	1910	1910	
		Sodium	71.7	71.7	
		Strontium	19.4	19.4	
		Thallium	0.221	0.221	Y

## VALIDATION FINDINGS WORKSHEET

### Sample Calculation Verification

**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 Ba were recalculated and verified using the following equation:

Concentration =  $\frac{(RD)(FV)(Dil)}{(In. Vol.)}$

Recalculation:

- RD = Raw data concentration
- FV = Final volume (ml)
- In. Vol. = Initial volume (ml) or weight (G)
- Dil = Dilution factor

$$\frac{50 \text{ mL} (10) (451.2 \text{ mg/L})}{2.03 \text{ g} (0.883) (1000)} = 126 \text{ mg/kg}$$

#	Sample ID	Analyte	Reported Concentration (mg/Kg)	Calculated Concentration (mg/Kg)	Acceptable (Y/N)
	3	Titanium	993	993	Y
		Vanadium	29.5	29.5	Y
		Zinc	42.8	42.8	Y
		Lithium	18.1	18.1	Y
		Phosphorus	239	239	Y
<u>0.883</u>	4	Aluminum	26700	26700	Y
		Antimony	0.277	0.277	Y
		Arsenic	5.64	5.64	Y
		Barium	126	126	Y
		Beryllium	0.911	0.911	Y
		Boron	9.11	9.11	Y
		Cadmium	0.408	0.408	Y
		Calcium	20600	20600	Y
		Chromium	33.9	33.9	Y
		Cobalt	9.57	9.57	Y
		Copper	17.6	17.6	Y
		Iron	29200	29200	Y
		Lead	8.75	8.75	Y
		Magnesium	7730	7730	Y
		Manganese	436	436	Y
		Molybdenum	0.494	0.494	Y
		Nickel	20.0	20.0	Y
		Potassium	3460	3460	Y

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

**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 Page Before*

- 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)
	4	Sodium	273	273	Y
		Strontium	39.9	39.9	↓
		Thallium	0.288	0.288	
		Titanium	806	806	
		Vanadium	59.3	59.3	
		Zinc	67.3	67.3	
		Lithium	22.0	22.0	
		Phosphorus	371	371	

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** October 31 through November 3, 2011  
**LDC Report Date:** February 15, 2012  
**Matrix:** Soil/Water  
**Parameters:** Wet Chemistry  
**Validation Level:** Level IV  
**Laboratory:** EMAX Laboratories, Inc.  
**Sample Delivery Group (SDG):** 11K007/11K008/11K021/11K036/11K037

### Sample Identification

FB-SA7-110111	SL-171-SA7-SB-4.0-5.0
SL-001-SA7-SB-4.0-5.0	SL-171-SA7-SB-9.0-10.0
SL-120-SA7-SB-4.0-5.0	EB-SA7-SB-110311
SL-120-SA7-SB-9.0-10.0	SL-120-SA7-SB-9.0-10.0MS
SL-121-SA7-SB-4.0-5.0	SL-120-SA7-SB-9.0-10.0MSD
SL-121-SA7-SB-9.0-10.0	SL-048-SA7-SB-9.0-10.0MS
SL-123-SA7-SB-4.0-5.0	SL-048-SA7-SB-9.0-10.0MSD
SL-123-SA7-SB-9.0-10.0	
SL-160-SA7-SB-0.0-1.0	
SL-175-SA7-SB-4.0-5.0	
SL-175-SA7-SB-9.0-10.0	
SL-175-SA7-SB-3.0-4.0	
DUP-01-SA7-QC-110111	
SL-048-SA7-SB-4.0-5.0	
SL-048-SA7-SB-9.0-10.0	
SL-161-SA7-SB-4.0-5.0	
DUP02-SA7-QC-110211	
SL-108-SA7-SB-2.9-3.9	
SL-128-SA7-SB-4.0-5.0	
SL-128-SA7-SB-9.0-10.0	

## Introduction

This data review covers 25 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 9010A and 9014 for Cyanide, EPA Method 300.0 for Nitrate, Nitrite, 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 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
FB-SA7-110111	Hexavalent chromium	24.25 hours	24 hours	J (all detects) UJ (all non-detects)	P

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Initial Calibration

All criteria for the initial calibration of each method were met.

## III. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

## IV. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

Sample EB-SA7-SB-110311 was identified as an equipment blank. No contaminant concentrations were found.

Sample FB-SA7-110111 was identified as a field blank. No contaminant concentrations were found.

## V. 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.

## VI. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable.

## 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 11K007/11K008/11K021/11K036/11K037	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-175-SA7-SB-4.0-5.0 and DUP-01-SA7-QC-110111 and samples SL-048-SA7-SB-9.0-10.0 and DUP02-SA7-QC-110211 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)	Flags	A or P
	SL-175-SA7-SB-4.0-5.0	DUP-01-SA7-QC-110111			
Fluoride	2.18	2.24	3 (≤50)	-	-

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-048-SA7-SB-9.0-10.0	DUP02-SA7-QC-11021			
Fluoride	2.10	2.08	1 (≤50)	-	-
Nitrate	1.16	1.20	3 (≤50)	-	-

**Santa Susana Field Laboratory  
Wet Chemistry - Data Qualification Summary - SDG  
11K007/11K008/11K021/11K036/11K037**

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
11K007/ 11K008/ 11K021/ 11K036/ 11K037	FB-SA7-110111	Hexavalent chromium	J (all detects) UJ (all non-detects)	P	Technical holding times (H)
11K007/ 11K008/ 11K021/ 11K036/ 11K037	FB-SA7-110111 SL-001-SA7-SB-4.0-5.0 SL-120-SA7-SB-4.0-5.0 SL-120-SA7-SB-9.0-10.0 SL-121-SA7-SB-4.0-5.0 SL-121-SA7-SB-9.0-10.0 SL-123-SA7-SB-4.0-5.0 SL-123-SA7-SB-9.0-10.0 SL-160-SA7-SB-0.0-1.0 SL-175-SA7-SB-9.0-10.0 SL-175-SA7-SB-3.0-4.0 DUP-01-SA7-QC-110111 SL-048-SA7-SB-4.0-5.0 SL-048-SA7-SB-9.0-10.0 SL-161-SA7-SB-4.0-5.0 DUP02-SA7-QC-110211 SL-108-SA7-SB-2.9-3.9 SL-128-SA7-SB-4.0-5.0 SL-128-SA7-SB-9.0-10.0 SL-171-SA7-SB-4.0-5.0 SL-171-SA7-SB-9.0-10.0 EB-SA7-SB-110311	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  
11K007/11K008/11K021/11K036/11K037**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Wet Chemistry - Field Blank Data Qualification Summary - SDG  
11K007/11K008/11K021/11K036/11K037**

No Sample Data Qualified in this SDG

**METHOD: (Analyte)** Cyanide (EPA SW846 Method 9010A/9014), Nitrate~~N~~, Nitrite~~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	SW	Sampling dates: 10/31 - 11/3/11
Ila.	Initial calibration	A	
Ilb.	Calibration verification	A	
III.	Blanks	A	
IV	Matrix Spike/Matrix Spike Duplicates	A	MS/D
V	Duplicates	N	
VI.	Laboratory control samples	A	LCS/D
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	(10, 13), (15, 17)
X	Field blanks	ND	FB=1; EB=23

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

Validated Samples: Soil/Water

1	FB-SA7-110111 W	11	SL-175-SA7-SB-9.0-10.0	21	SL-171-SA7-SB-4.0-5.0	31	
2	SL-001-SA7-SB-4.0-5.0	12	SL-175-SA7-SB-3.0-4.0	22	SL-171-SA7-SB-9.0-10.0	32	
3	SL-120-SA7-SB-4.0-5.0	13	DUP-01-SA7-QC-110111	23	EB-SA7-SB-110311 W	33	
4	SL-120-SA7-SB-9.0-10.0	14	SL-048-SA7-SB-4.0-5.0	24	SL-120-SA7-SB-9.0-10.0MS	34	
5	SL-121-SA7-SB-4.0-5.0	15	SL-048-SA7-SB-9.0-10.0	25	SL-120-SA7-SB-9.0-10.0MSD	35	
6	SL-121-SA7-SB-9.0-10.0	16	SL-161-SA7-SB-4.0-5.0	26	SL-048-SA7-SB-9.0-10.0MS	36	
7	SL-123-SA7-SB-4.0-5.0	17	DUP02-SA7-QC-110211	27	SL-048-SA7-SB-9.0-10.0MSD	37	
8	SL-123-SA7-SB-9.0-10.0	18	SL-108-SA7-SB-2.9-3.9	28		38	
9	SL-160-SA7-SB-0.0-1.0	19	SL-128-SA7-SB-4.0-5.0	29		39	
10	SL-175-SA7-SB-4.0-5.0	20	SL-128-SA7-SB-9.0-10.0	30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Method: Inorganics (EPA Method See cover)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.		<input checked="" type="checkbox"/>		
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>			
<b>II. Calibration</b>				
Were all instruments calibrated daily, each set-up time?	<input checked="" type="checkbox"/>			
Were the proper number of standards used?	<input checked="" type="checkbox"/>			
Were all initial calibration correlation coefficients $\geq 0.995$ ?	<input checked="" type="checkbox"/>			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	<input checked="" type="checkbox"/>			
Were titrant checks performed as required? (Level IV only)			<input checked="" type="checkbox"/>	
Were balance checks performed as required? (Level IV only)			<input checked="" type="checkbox"/>	
<b>III. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		<input checked="" type="checkbox"/>		
<b>IV. Matrix spike/Matrix spike duplicates and Duplicates</b>				
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.	<input checked="" type="checkbox"/>			
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.	<input checked="" type="checkbox"/>			
Were the MS/MSD or duplicate relative percent differences (RPD) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\leq \text{CRDL}$ ( $\leq 2\text{X CRDL}$ for soil) was used for samples that were $\leq 5\text{X}$ the CRDL, including when only one of the duplicate sample values were $\leq 5\text{X}$ the CRDL.	<input checked="" type="checkbox"/>			
<b>V. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>			
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	<input checked="" type="checkbox"/>			
<b>VI. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?		<input checked="" type="checkbox"/>		
Were the performance evaluation (PE) samples within the acceptance limits?			<input checked="" type="checkbox"/>	

Validation Area	Yes	No	NA	Findings/Comments
<b>VII. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
Were detection limits < RL?	/			
<b>VIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>IX. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	/			
Target analytes were detected in the field duplicates.	/			
<b>X. Field blanks</b>				
Field blanks were identified in this SDG.	/			
Target analytes were detected in the field blanks.		/		

All circled methods are applicable to each sample.

Sample ID	Parameter
1,23	pH TDS Cl (F) NO <sub>3</sub> (NO <sub>2</sub> ) SO <sub>4</sub> O-PO <sub>4</sub> Alk (CN) NH <sub>3</sub> TKN TOC (Cr6+) (ClO <sub>4</sub> )
2-22	pH TDS Cl (F) NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC (Cr6+) (ClO <sub>4</sub> )
3,4,14,15,17, 18-22	pH TDS Cl F (NO <sub>3</sub> ) (NO <sub>2</sub> ) SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
3-8,10,11, 13-15,17	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk (CN) NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
24,25	pH TDS Cl (F) (NO <sub>3</sub> ) (NO <sub>2</sub> ) SO <sub>4</sub> O-PO <sub>4</sub> Alk (CN) NH <sub>3</sub> TKN TOC Cr6+ (ClO <sub>4</sub> )
26,27	pH TDS Cl (F) (NO <sub>3</sub> ) (NO <sub>2</sub> ) SO <sub>4</sub> O-PO <sub>4</sub> Alk (CN) NH <sub>3</sub> TKN TOC Cr6+ (ClO <sub>4</sub> )
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>
	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> O-PO <sub>4</sub> Alk CN NH <sub>3</sub> TKN TOC Cr6+ ClO <sub>4</sub>

Comments: \_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
**Technical Holding Times**

All circled dates have exceeded the technical holding time.  
 N N/A Were all samples preserved as applicable to each method?  
 N N/A Were all cooler temperatures within validation criteria?

<b>Method:</b>		7199					
<b>Parameters:</b>		G <sub>0+</sub>					
<b>Technical holding time:</b>		24hrs					
Sample ID	Sampling date	Analysis date	Analysis date	Analysis date	Analysis date	Analysis date	Qualifier
1	11/1/11 10:45	11/2/11 10:58	(24.25hr)				J/W/P

LDC# 27103A6

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

Inorganics, Method See Cover

Analyte	Concentration (mg/Kg)		RPD (≤50)	
	10	13		
Fluoride	2.18	2.24	3	

V:\FIELD DUPLICATES\FD\_inorganic\27103A6.wpd

Analyte	Concentration (mg/Kg)		RPD (≤50)	
	15	17		
Fluoride	2.10	2.08	1	
Nitrate	1.16	1.20	3	

LDC #: 2763A6

**Validation Findings Worksheet  
Initial and Continuing Calibration Calculation Verification**

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

**Method:** Inorganics, Method      See Cover     

The correlation coefficient (r) for the calibration of F was recalculated. Calibration date: 9/30/11

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. (ug/L)	Area	Recalculated		Reported		Acceptable (Y/N)
					r	or r <sup>2</sup>	r	or r <sup>2</sup>	
Initial calibration	F	s1	0.1	2.41700	0.999964	0.999963	98.6	98.6	Y
		s2	0.2	5.01400					
		s3	0.5	13.40000					
		s4	1	28.03000					
		s5	2	58.89000					
		s6	5	148.60000					
Calibration verification	<del>CCV</del> NB3		1	0.986	98.6	98.6	98.6		
Calibration verification	Clay	CCV	15	15.053	100	100	100		
Calibration verification	Clay	J	2	1.846	92	92	92		

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 #: 27127AS

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

Page: 1 of 1  
 Reviewer: OR  
 2nd Reviewer: [Signature]

**METHOD:** Inorganics, Method See cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{\text{Found} \times 100}{\text{True}}$$
 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		Reported %R / RPD	Acceptable (Y/N)
					%R / RPD	%R / RPD		
LCS	Laboratory control sample	F	2.06	2	103	103	103	Y
24	Matrix spike sample	NO3	15.16 (SSR-SR)	15.1	100	100	100	Y
24125	Duplicate sample	Cr6+	9.36	9.36	1	1	1	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.

**VALIDATION FINDINGS WORKSHEET**  
Sample Calculation Verification

METHOD: Inorganics, Method See cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- Y  N  N/A Have results been reported and calculated correctly?
- Y  N  N/A Are results within the calibrated range of the instruments?
- Y  N  N/A Are all detection limits below the CRQL?

Compound (analyte) results for F reported with a positive detect were recalculated and verified using the following equation:

Concentration =  
 $F = 0.0333906 \text{ Area} + 0.039963$

$\text{NO}_3^- = 0.0219574 (\text{Area}) + 0.0522169$

Recalculation:  $4: F = \frac{(0.0333906(21.94) + 0.039963) 60\text{mL}}{20.0044\text{g} (0.883)} = 2.62 \text{ mg/lks}$

$3: F = \frac{(0.0219574(3.155) + 0.0522169) 60\text{mL}}{20.0009 (0.953)} \times \frac{62}{14} = 1.69 \text{ mg/lks}$

$2: F = \frac{0.0333906 (5.147) + 0.039963}{20.0034\text{g} (0.936)} \times 60\text{mL} = 0.679 \text{ mg/lks}$

#	Sample ID	Analyte	Reported Concentration (mg/lks)	Calculated Concentration (mg/lks)	Acceptable (Y/N)
<u>0.936</u>	<u>2</u>	<u>F</u>	<u>0.679</u>	<u>0.679</u>	<u>Y</u>
<u>0.936</u>	<u>3</u>	<u>F</u>	<u>1.46</u>	<u>1.46</u>	<u>Y</u>
		<u>NO3</u>	<u>1.70</u>	<u><del>1.61</del> 1.69</u>	<u>↓</u>
<u>0.883</u>	<u>4</u>	<u>F</u>	<u>2.62</u>	<u>2.62</u>	<u>Y</u>
		<u>NO3</u>	<u>8.14</u>	<u>8.14</u>	<u>↓</u>

Note: \_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** October 31 through November 3, 2011  
**LDC Report Date:** February 22, 2012  
**Matrix:** Soil/Water  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Level IV  
**Laboratory:** EMAX Laboratories, Inc.  
**Sample Delivery Group (SDG):** 11K007

### Sample Identification

FB-SA7-110111	TB-110311
SL-120-SA7-SB-4.5	EB-SA7-SB-110311
SL-120-SA7-SB-9.5	SL-120-SA7-SB-9.5MS
SL-121-SA7-SB-4.5	SL-120-SA7-SB-9.5MSD
SL-121-SA7-SB-9.5	SL-048-SA7-SB-9.5MS
SL-123-SA7-SB-4.5	SL-048-SA7-SB-9.5MSD
SL-123-SA7-SB-9.5	
SL-175-SA7-SB-4.5	
SL-175-SA7-SB-9.5	
DUP-01-SA7-QC-110111	
TB-110111	
SL-048-SA7-SB-4.5	
SL-048-SA7-SB-9.5	
DUP02-SA7-QC-110211	
TB-110211	
SL-108-SA7-SB-3.3	
SL-128-SA7-SB-4.5	
SL-128-SA7-SB-9.5	
SL-171-SA7-SB-4.5	
SL-171-SA7-SB-9.5	

## Introduction

This data review covers 21 soil samples and 5 water 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 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.

Samples TB-110111, TB-110211, and TB-110311 were identified as trip blanks. No total petroleum hydrocarbons as gasoline contaminants were found with the following exceptions:

Trip Blank ID	Sampling Date	Compound	Concentration	Associated Samples
TB-110111	11/1/11	Gasoline range organics	21 ug/L	FB-SA7-110111 SL-120-SA7-SB-4.5 SL-120-SA7-SB-9.5 SL-121-SA7-SB-4.5 SL-121-SA7-SB-9.5 SL-123-SA7-SB-4.5 SL-123-SA7-SB-9.5 SL-175-SA7-SB-4.5 SL-175-SA7-SB-9.5 DUP-01-SA7-QC-110111
TB-110211	11/2/11	Gasoline range organics	18 ug/L	SL-048-SA7-SB-4.5 SL-048-SA7-SB-9.5 DUP02-SA7-QC-110211

Trip Blank ID	Sampling Date	Compound	Concentration	Associated Samples
TB-110311	11/3/11	Gasoline range organics	26 ug/L	SL-108-SA7-SB-3.3 SL-128-SA7-SB-4.5 SL-128-SA7-SB-9.5 SL-171-SA7-SB-4.5 SL-171-SA7-SB-9.5 EB-SA7-SB-110311

Sample EB-SA7-SB-110311 was identified as an equipment blank. No total petroleum hydrocarbons as gasoline contaminants were found.

Sample FB-SA7-110111 was identified as a field blank. No total petroleum hydrocarbons as gasoline contaminants were found with the following exceptions:

Field Blank ID	Sampling Date	Compound	Concentration	Associated Samples
FB-SA7-110111	11/3/11	Gasoline range organics	47 ug/L	SL-123-SA7-SB-4.5 SL-123-SA7-SB-9.5 SL-175-SA7-SB-4.5 SL-175-SA7-SB-9.5 DUP-01-SA7-QC-110111

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
FB-SA7-110111	Gasoline range organics	47 ug/L	50U ug/L

## V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

### VIII. Target Compound Identification

All target compound identifications were within validation criteria.

### IX. Compound Quantitation and 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 11K007	All compounds reported below the RL.	J (all detects)	A

### X. System Performance

The system performance was acceptable.

### XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

### XII. Field Duplicates

Samples SL-175-SA7-SB-4.5 and DUP-01-SA7-QC-110111 and samples SL-048-SA7-SB-9.5 and DUP02-SA7-QC-110211 were identified as field duplicates. No total petroleum hydrocarbons as gasoline were detected in any of the samples with the following exceptions:

Compound	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-048-SA7-SB-9.5	DUP02-SA7-QC-110211			
Gasoline range organics	1.1U	0.77	200 (≤50)	J (all detects) UJ (all non-detects)	A

**Santa Susana Field Laboratory  
 Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG  
 11K007**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
11K007	FB-SA7-110111 SL-120-SA7-SB-4.5 SL-120-SA7-SB-9.5 SL-121-SA7-SB-4.5 SL-121-SA7-SB-9.5 SL-123-SA7-SB-4.5 SL-123-SA7-SB-9.5 SL-175-SA7-SB-4.5 SL-175-SA7-SB-9.5 DUP-01-SA7-QC-110111 TB-110111 SL-048-SA7-SB-4.5 SL-048-SA7-SB-9.5 DUP02-SA7-QC-110211 TB-110211 SL-108-SA7-SB-3.3 SL-128-SA7-SB-4.5 SL-128-SA7-SB-9.5 SL-171-SA7-SB-4.5 SL-171-SA7-SB-9.5 TB-110311 EB-SA7-SB-110311	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
11K007	SL-120-SA7-SB-9.5 DUP-01-SA7-QC-110111 SL-048-SA7-SB-9.5 DUP02-SA7-QC-110211	Gasoline range organics	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

**Santa Susana Field Laboratory  
 Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 11K007**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
 Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG 11K007**

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
11K007	FB-SA7-110111	Gasoline range organics	50U ug/L	A	T

LDC #: 27103A7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 2/17/12

SDG #: 11K007

Level IV

Page: 1 of 1

Laboratory: EMAX Laboratories, Inc.

Reviewer: [Signature]  
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: 10/31 - 11/3/11
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	ics/D
VIII.	Target compound identification	A	
IX.	Compound quantitation (BL/LOQ/LODs)	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	SW	*D = 8, 10, 13, 14
XIII.	Field blanks	SW	FB = 1, TB = 11, 15, 21, *EB = 22

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	FB-SA7-110111	W	11	TB-110111	W	21	TB-110311	W	31	MBLKW
2	SL-120-SA7-SB-4.5		12	SL-048-SA7-SB-4.5		22	EB-SA7-SB-110311	W	32	MBLKW
3	SL-120-SA7-SB-9.5		13	SL-048-SA7-SB-9.5		23	SL-120-SA7-SB-9.5MS		33	MBLKW
4	SL-121-SA7-SB-4.5		14	DUP02-SA7-QC-110211		24	SL-120-SA7-SB-9.5MSD		34	MBLKW
5	SL-121-SA7-SB-9.5		15	TB-110211	W	25	SL-048-SA7-SB-9.5MS		35	
6	SL-123-SA7-SB-4.5	✓	16	SL-108-SA7-SB-3.3		26	SL-048-SA7-SB-9.5MSD		36	
7	SL-123-SA7-SB-9.5		17	SL-128-SA7-SB-4.5		27			37	
8	SL-175-SA7-SB-4.5		18	SL-128-SA7-SB-9.5		28			38	
9	SL-175-SA7-SB-9.5		19	SL-171-SA7-SB-4.5		29			39	
10	DUP-01-SA7-QC-110111		20	SL-171-SA7-SB-9.5		30			40	

Notes: \_\_\_\_\_

LDC #: 27103 A7  
 SDG #: per owner

VALIDATION FINDINGS CHECKLIST

Page: / of 2  
 Reviewer: FL  
 2nd Reviewer: CA

Method:  GC  HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 27103A7  
 SDG #: per count

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	/			
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
<b>XII. System performance</b>				
System performance was found to be acceptable.	/			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	/			
Target compounds were detected in the field duplicates.	/			
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	/			
Target compounds were detected in the field blanks.	/			



# VALIDATION FINDINGS WORKSHEET

## Field Blanks

LDC #: 27103A7  
 Page: 6 of 7  
 Reviewer: FT  
 2nd Reviewer: [Signature]

**METHOD:** GC HPLC  
 Were field blanks identified in this SDG? Y/N N/A  
 Were target compounds detected in the field blanks? Y/N N/A  
 Blank units: ug/L Associated sample units: ug/L + mg/kg  
 Sampling date: 11/3/11  
 Field blank type: (circle one) Field Blank / Trip Blank / Atmospheric Blank / Ambient Blank  
 Rinsate / Equipment Rinsate / Equipment Blank / Source Blank / Other:

Associated Samples: ~~2~~ ~~10~~ ~~11~~ ~~12~~ ~~13~~ ~~14~~ ~~15~~ ~~16~~ → 20  
22 (ND)

Compound	Blank ID	Blank ID	Sample Identification																			
	21																					
<u>Gasoline Range</u>	26																					
<u>Organics</u>																						
CRQL																						

Blank units: ug/L Associated sample units: mg/kg  
 Sampling date: 11/01/11  
 Field blank type: (circle one) Field Blank / Trip Blank / Atmospheric Blank / Ambient Blank  
 Rinsate / Equipment Rinsate / Equipment Blank / Source Blank / Other: FB

Associated Samples: 6-10 (ND)

Compound	Blank ID	Blank ID	Sample Identification																			
	1																					
<u>↓</u>	47																					
CRQL																						

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:  
 Samples with compound concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

# VALIDATION FINDINGS WORKSHEET

## Field Duplicates

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 ( <u>mg/kg</u> )		%RPD Limit <u>≤50</u>	Qualification Parent only / All Samples
<del>Gasoline Range Organics</del>	<del>3</del>	<del>10</del>	<del>200</del>	<del>JWS/A (F9)</del>
	0.68	1.14		

Compound	Concentration ( <u>mg/kg</u> )		%RPD Limit <u>≤50</u>	Qualification Parent only / All Samples
	13	14		
↓	1.14	0.77	200	JWS/A (F9)

LDC #: 27103A7  
 SDG #: see work

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: FJ  
 2nd Reviewer: A

METHOD: GC  HPLC

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C  
 average CF = sum of the CF/number of standards  
 %RSD =  $100 * (S/X)$   
 A = Area of compound,  
 C = Concentration of compound,  
 S = Standard deviation of the CF  
 X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported		Recalculated		Reported		Recalculated	
				CF (SD std)	CF (SD std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD		
1	1CA L	10/17/11	gasoline	1719.3	1719.3	17076.9	17076.9	1.9	1.9		
2											
3											
4											

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27103A7  
 SDG #: see cover

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

Page: 1 of 7  
 Reviewer: FD  
 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 =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  Where: ave. CF = initial calibration average CF  
 CF = A/C  
 CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	EK03002A	11/3/11	↓ GPO 05 - C12	1000	935.96	6	935.96	6
	EK03013A	11/3/11	↓	1000	938.95	6	938.95	6
	EK04002A	11/4/11	↓	1000	904.62	10	904.62	10
2	EK04011A	11/4/11	↓	1000	959.30	4	959.30	4
	EK04002A	11/5/11	↓	1000	955.23	4	955.23	4
	EK04034A	11/5/11	↓	1000	939.65	6	939.65	6
3	EK04045A	11/5/11	↓	1000	927.41	7	927.41	7
	EK07002A	11/7/11	↓	1000	896.09	10	896.09	10
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.

VALIDATION FINDINGS WORKSHEET  
Surrogate Results Verification

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: # 3

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	
4-BFB	<del>PS</del> PB-5	40.0	33.57	83.9	83.9	0

Sample ID: \_\_\_\_\_

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

Sample ID: \_\_\_\_\_

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

**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 =  $((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD) * 100$  MSD = Matrix spike duplicate

MS/MSD samples: 23 + 24

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	
	MS	MSD		MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)	34.5	33.4	0.683	34.2	30.0	97	97	88	88	10	10
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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:

$$\% \text{ Recovery} = 100 \times (\text{SSC} - \text{SC}) / \text{SA}$$

$$\text{RPD} = | \text{LCS} - \text{LCSD} | \times 2 / (\text{LCS} + \text{LCSD})$$

Where: SSC = Spiked sample concentration  
 SA = Spike added  
 LCS = Laboratory control sample percent recovery  
 LCSD = Laboratory control sample duplicate percent recovery  
 SC = Concentration

LCS/LCSD samples: was 10

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)	20.0	20.0	22.5	25.4	90	90	102	102	12	12
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.

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

LDC #: 27103A  
 SDG #: fu sandy

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 =  $\frac{(A)(Fv)(Df)}{(Rf)(Vs or Ws)(\%S/100)}$  Example: \_\_\_\_\_  
 Sample ID: # 3 Compound Name: GRO

$$\text{Concentration} = \frac{(20585)(5)}{(17076.9)(5.07)(0.83)} (1000) = 0.68 \text{ mg/kg}$$

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

#	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:** October 31 through November 3, 2011  
**LDC Report Date:** February 22, 2012  
**Matrix:** Soil/Water  
**Parameters:** Total Petroleum Hydrocarbons as Extractables  
**Validation Level:** Level IV  
**Laboratory:** EMAX Laboratories, Inc.  
**Sample Delivery Group (SDG):** 11K007

### Sample Identification

FB-SA7-110111	SL-120-SA7-SB-9.0-10.0MSD
SL-120-SA7-SB-4.0-5.0	SL-048-SA7-SB-9.0-10.0MS
SL-120-SA7-SB-9.0-10.0	SL-048-SA7-SB-9.0-10.0MSD
SL-121-SA7-SB-4.0-5.0	
SL-121-SA7-SB-9.0-10.0	
SL-123-SA7-SB-4.0-5.0	
SL-123-SA7-SB-9.0-10.0	
SL-175-SA7-SB-4.0-5.0	
SL-175-SA7-SB-9.0-10.0	
DUP-01-SA7-QC-110111	
SL-048-SA7-SB-4.0-5.0	
SL-048-SA7-SB-9.0-10.0	
DUP02-SA7-QC-110211	
SL-108-SA7-SB-2.9-3.9	
SL-128-SA7-SB-4.0-5.0	
SL-128-SA7-SB-9.0-10.0	
SL-171-SA7-SB-4.0-5.0	
SL-171-SA7-SB-9.0-10.0	
EB-SA7-SB-110311	
SL-120-SA7-SB-9.0-10.0MS	

## Introduction

This data review covers 21 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 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 EB-SA7-SB-110311 was identified as an equipment blank. No total petroleum hydrocarbons as extractable contaminants were found.

Sample FB-SA7-110111 was identified as a field 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**

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## **VII. Laboratory Control Samples**

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

### VIII. Target Compound Identification

All target compound identifications were within validation criteria.

### IX. Compound Quantitation and 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 11K007	All compounds reported below the RL.	J (all detects)	A

### X. System Performance

The system performance was acceptable.

### XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

### XII. Field Duplicates

Samples SL-175-SA7-SB-4.0-5.0 and DUP-01-SA7-QC-110111 and samples SL-048-SA7-SB-9.0-10.0 and DUP02-SA7-QC-110211 were identified as field duplicates. No total petroleum hydrocarbons as extractables were detected in any of the samples with the following exceptions:

Compound	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-175-SA7-SB-4.0-5.0	DUP-01-SA7-QC-110111			
Extractable fuel hydrocarbons (C8-C11)	0.64	1.1	53 (≤50)	J (all detects)	A
Extractable fuel hydrocarbons (C21-C30)	2.2	0.99	76 (≤50)	J (all detects)	A
Extractable fuel hydrocarbons (C30-C40)	1.9	0.70	92 (≤50)	J (all detects)	A
Total extractable fuel hydrocarbons (C8-C40)	4.7	2.8	51 (≤50)	J (all detects)	A

Compound	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-048-SA7-SB-9.0-10.0	DUP02-SA7-QC-110211			
Extractable fuel hydrocarbons (C8-C11)	0.59	1.2	68 (≤50)	J (all detects)	A

Compound	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-048-SA7-SB-9.0-10.0	DUP02-SA7-QC-110211			
Extractable fuel hydrocarbons (C21-C30)	1.1	1.6	37 (≤50)	J (all detects)	A
Extractable fuel hydrocarbons (C30-C40)	0.78	1.0	25 (≤50)	J (all detects)	A
Total extractable fuel hydrocarbons (C8-C40)	2.5	3.8	41 (≤50)	J (all detects)	A

**Santa Susana Field Laboratory  
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
SDG 11K007**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
11K007	FB-SA7-110111 SL-120-SA7-SB-4.0-5.0 SL-120-SA7-SB-9.0-10.0 SL-121-SA7-SB-4.0-5.0 SL-121-SA7-SB-9.0-10.0 SL-123-SA7-SB-4.0-5.0 SL-123-SA7-SB-9.0-10.0 SL-175-SA7-SB-4.0-5.0 SL-175-SA7-SB-9.0-10.0 DUP-01-SA7-QC-110111 SL-048-SA7-SB-4.0-5.0 SL-048-SA7-SB-9.0-10.0 DUP02-SA7-QC-110211 SL-108-SA7-SB-2.9-3.9 SL-128-SA7-SB-4.0-5.0 SL-128-SA7-SB-9.0-10.0 SL-171-SA7-SB-4.0-5.0 SL-171-SA7-SB-9.0-10.0 EB-SA7-SB-110311	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
11K007	SL-120-SA7-SB-9.0-10.0 DUP-01-SA7-QC-110111 SL-048-SA7-SB-9.0-10.0 DUP02-SA7-QC-110211	Extractable fuel hydrocarbons (C8-C11) Extractable fuel hydrocarbons (C21-C30) Extractable fuel hydrocarbons (C30-C40) Total extractable fuel hydrocarbons (C8-C40)	J (all detects) J (all detects) J (all detects) J (all detects)	A	Field duplicates (RPD) (FD)

**Santa Susana Field Laboratory  
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data  
Qualification Summary - SDG 11K007**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
Summary - SDG 11K007**

No Sample Data Qualified in this SDG

LDC #: 27103A8

## VALIDATION COMPLETENESS WORKSHEET

SDG #: 11K007

Level IV

Laboratory: EMAX Laboratories, Inc.

Date: 2/17/12

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

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	Δ	Sampling dates: 10/31/11 - 11/03/11
II.	Initial calibration	Δ	% PSD ≤ 20
III.	Calibration verification/ICV	Δ	1W/CW ≤ 20
IV.	Blanks	Δ	
V.	Surrogate recovery	Δ	
VI.	Matrix spike/Matrix spike duplicates	Δ	
VII.	Laboratory control samples	A	res 10
VIII.	Target compound identification	Δ	
IX.	Compound quantitation/RU/LOQ/LODs	A	
X.	System Performance	Δ	
XI.	Overall assessment of data	A	
XII.	Field duplicates	SW	D = 8, 10      12, 13
XIII.	Field blanks	ND	FB = 1      EB = 19

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 <sup>-</sup>	FB-SA7-110111	W	11	SL-048-SA7-SB-4.0-5.0	21	SL-120-SA7-SB-9.0-10.0MSD	31	
2 <sup>+</sup>	SL-120-SA7-SB-4.0-5.0		12	SL-048-SA7-SB-9.0-10.0	22	SL-048-SA7-SB-9.0-10.0MS	32	
3 <sup>+</sup>	SL-120-SA7-SB-9.0-10.0		13	DUP02-SA7-QC-110211	23	SL-048-SA7-SB-9.0-10.0MSD	33	
4	SL-121-SA7-SB-4.0-5.0		14	SL-108-SA7-SB-2.9-3.9	24		34	
5	SL-121-SA7-SB-9.0-10.0		15	SL-128-SA7-SB-4.0-5.0	25		35	
6	SL-123-SA7-SB-4.0-5.0		16	SL-128-SA7-SB-9.0-10.0	26		36	
7	SL-123-SA7-SB-9.0-10.0		17	SL-171-SA7-SB-4.0-5.0	27		37	
8	SL-175-SA7-SB-4.0-5.0		18	SL-171-SA7-SB-9.0-10.0	28		38	
9	SL-175-SA7-SB-9.0-10.0		19	EB-SA7-SB-110311	W	29	39	
10	DUP-01-SA7-QC-110111		20	SL-120-SA7-SB-9.0-10.0MS	30		40	

Notes:

LDC #: 27103A8  
 SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Page: / of 2  
 Reviewer: FL  
 2nd Reviewer: [Signature]

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
<b>II. Initial calibration</b>				
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?	/			
<b>IV. Continuing calibration</b>				
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?	/			
<b>V. Blanks</b>				
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.		/		
<b>VI. Surrogate spikes</b>				
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?			/	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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?	/			
<b>VIII. Laboratory control samples</b>				
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?	/			
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?			/	
Were the performance evaluation (PE) samples within the acceptance limits?			/	

LDC #: 27103A  
 SDG #: see comment

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

LDC#: 27103A8

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: FJ  
2nd Reviewer: A

**METHOD:** 8015B

Y N NA Were field duplicate pairs identified in this SDG?  
Y N NA Were target analytes detected in the field duplicate pairs?

(FJ)

Compound	Concentration (mg/kg)		±SD RPD	
	8	10		
EFH (C8-C11)	0.64	1.1	53	↓/A
EFH (C21-C30)	2.2	0.99	76	↓
EFH (C30-C40)	<del>2.8</del> 1.9	0.70	<del>122</del> 92	↓
TOTAL EFH (C8-C40)	<del>5.7</del> 4.7	2.8	<del>28</del> 51	↓

Compound	Concentration (mg/kg)		±SD RPD	
	12	13		
EFH (C8-C11)	0.59	1.2	68	↓/A
EFH (C21-C30)	1.1	1.6	37	-
EFH (C30-C40)	0.78	1.0	25	-
TOTAL EFH (C8-C40)	2.5	3.8	41	-

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Calculation Verification

LDC #: 27103 12  
 SDG #: see work

Page: 1 of 1  
 Reviewer: FD  
 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 =  $100 \cdot (S/X)$
- 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		Recalculated		Reported		Recalculated	
				CF (100std)	CF (100std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD		
1	1CAL	8/31/11	EFH (08-01)	23664	23664	216867	216867	8.3	8.3		
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 #: 2710348  
 SDG #: per cover

**VALIDATION FINDINGS WORKSHEET**  
Continuing Calibration Results Verification

Page: 1 of 7  
 Reviewer: EP  
 2nd Reviewer: GA

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 =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  Where: ave. CF = initial calibration average CF  
 CF = A/C CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	LK08003A	11/8/11	EFH (cx-c40)	500.0	536.62	7	536.62	7
	LK08019A	11/8/11	↓	↓	553.65	11	553.65	11
2	LK10002A	11/10/11	↓	↓	553.92	11	553.92	11
	LK10014A	11/10/11	↓	↓	556.63	11	556.63	11
4	LK10026A	11/10/11	↓	↓	562.85	13	562.85	13

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.

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

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: #2

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	
Bromobenzene	NS	100	65.980	66.0	66.0	0
Hexacosane	↓	25	20.342	81.4	81.4	0

Sample ID: \_\_\_\_\_

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

Sample ID: \_\_\_\_\_

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

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 =  $100 * ((SSCMS - SSCMSD) * 2) / ((SSCMS + SSCMSD) * 100)$  Where  
 SSC = Spiked sample concentration  
 SA = Spike added  
 MS = Matrix spike  
 SC = Sample concentration  
 MSD = Matrix spike duplicate

MS/MSD samples: 224 23

Compound	Spike Added		Sample Conc.	Spike Sample Concentration		Matrix spike		Matrix Spike Duplicate		MS/MSD	
	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)											
FFH (8416)	52.7	52.7	2.47	49.8	49.6	90	90	89	89	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.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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:

$$\% \text{ Recovery} = 100 * (\text{SSC} - \text{SC}) / \text{SA}$$

$$\text{RPD} = | \text{LCS} - \text{LCSD} | * 2 / (\text{LCS} + \text{LCSD})$$

Where: SSC = Spiked sample concentration  
 SA = Spike added  
 LCS = Laboratory control sample percent recovery  
 LCSD = Laboratory control sample duplicate percent recovery  
 SC = Concentration

LCS/LCSD samples: [Handwritten]

Compound	Spike Added (ug/L)		Spiked Sample Concentration (ug/L)		LCS		LCSD		LCS/LCSD	
	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 <sub>8</sub> -C <sub>10</sub>	5.0	5.0	4.5	4.65	90	90	93	93	3	3

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.

## VALIDATION FINDINGS WORKSHEET

### Sample Calculation Verification

LDC #: 271030X  
 SDG #: fw ganey

METHOD: GC HPLC

Were all reported results recalculated and verified for all level IV samples?  
 Were all recalculated results for detected target compounds within 10% of the reported results?

Y/N N/A  
Y/N N/A

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  
 Vs= Initial volume of the sample  
 Ws= Initial weight of the sample  
 %S= Percent Solid

Example:  
 Sample ID: #2 Compound Name: EFTF (CX-c1)

Concentration =  $\frac{(228247)}{(21686.7)} \frac{(3)}{(30.02)} (0.953)$

= 1.1 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:** October 31 through November 3, 2011  
**LDC Report Date:** February 22, 2012  
**Matrix:** Soil/Water  
**Parameters:** Nitroglycerine & PETN  
**Validation Level:** Level IV  
**Laboratory:** EMAX Laboratories, Inc.  
**Sample Delivery Group (SDG):** 11K007

**Sample Identification**

FB-SA7-110111  
SL-120-SA7-SB-4.0-5.0  
SL-120-SA7-SB-9.0-10.0  
SL-048-SA7-SB-4.0-5.0  
SL-048-SA7-SB-9.0-10.0  
DUP02-SA7-QC-110211  
EB-SA7-SB-110311  
SL-120-SA7-SB-9.0-10.0MS  
SL-120-SA7-SB-9.0-10.0MSD  
SL-048-SA7-SB-9.0-10.0MS  
SL-048-SA7-SB-9.0-10.0MSD

## Introduction

This data review covers 9 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 8332 for Nitroglycerine and PETN.

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.

Triplicate injections of the initial calibration were performed.

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.

## **III. Continuing Calibration**

Continuing calibration 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.

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 nitroglycerine or PETN contaminants were found in the method blanks.

Sample EB-SA7-SB-110311 was identified as an equipment blank. No nitroglycerine or PETN contaminants were found.

Sample FB-SA7-110111 was identified as a field blank. No nitroglycerine or PETN contaminants were found.

## **V. Surrogate Recovery**

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## VI. Matrix Spike/(Matrix Spike) Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VIII. Target Compound Identification

All target compound identifications were within validation criteria.

## IX. Compound Quantitation and 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 11K007	All compounds reported below the RL.	J (all detects)	A

## X. System Performance

The system performance was acceptable.

## XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

## XII. Field Duplicates

Samples SL-048-SA7-SB-9.0-10.0 and DUP02-SA7-QC-110211 were identified as field duplicates. No nitroglycerine or PETN was detected in any of the samples.

**Santa Susana Field Laboratory  
Nitroglycerine & PETN - Data Qualification Summary - SDG 11K007**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
11K007	FB-SA7-110111 SL-120-SA7-SB-4.0-5.0 SL-120-SA7-SB-9.0-10.0 SL-048-SA7-SB-4.0-5.0 SL-048-SA7-SB-9.0-10.0 DUP02-SA7-QC-110211 EB-SA7-SB-110311	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

**Santa Susana Field Laboratory  
Nitroglycerine & PETN - Laboratory Blank Data Qualification Summary - SDG 11K007**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Nitroglycerine & PETN - Field Blank Data Qualification Summary - SDG 11K007**

No Sample Data Qualified in this SDG

LDC #: 27103A24  
 SDG #: 11K007  
 Laboratory: EMAX Laboratories, Inc.

**VALIDATION COMPLETENESS WORKSHEET**  
 Level IV

Date: 2/17/12  
 Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**METHOD:** HPLC Nitroglycerine & PETN (EPA SW 846 Method 8332)

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: 10/31 - 11/03/11
II.	Initial calibration	A	% PSD ≤ 20
III.	Calibration verification/ICV	A	1W/CCV ≤ 20
IV.	Blanks	A	
V.	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	ICS 10
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	ND SW	D = 5, 6
XIII.	Field blanks	ND	FB = 1 EB = 7

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: SAL + water

1	FB-SA7-110111	✓	11	SL-048-SA7-SB-9.0-10.0MSD	21	1	MBLKW	31
2	SL-120-SA7-SB-4.0-5.0	✓	12		22	2	MBLKS	32
3	SL-120-SA7-SB-9.0-10.0		13		23			33
4	SL-048-SA7-SB-4.0-5.0		14		24			34
5	SL-048-SA7-SB-9.0-10.0		15		25			35
6	DUP02-SA7-QC-110211		16		26			36
7	EB-SA7-SB-110311	✓	17		27			37
8	SL-120-SA7-SB-9.0-10.0MS		18		28			38
9	SL-120-SA7-SB-9.0-10.0MSD		19		29			39
10	SL-048-SA7-SB-9.0-10.0MS		20		30			40

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC #: 27103A2U  
 SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

Method: GC  HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>			
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>			
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>			
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>			
Was a curve fit used for evaluation?		<input checked="" type="checkbox"/>		
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?			<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>			
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>			
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>			
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>			
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>			
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.				
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>			
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?			<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>			
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>			
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>			
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>			
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?			<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?			<input checked="" type="checkbox"/>	

LDC #: 27103 A24  
 SDG #: per comment

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?			<input checked="" type="checkbox"/>	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>			
<b>XII. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Target compounds were detected in the field duplicates.		<input checked="" type="checkbox"/>		
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	<input checked="" type="checkbox"/>			
Target compounds were detected in the field blanks.		<input checked="" type="checkbox"/>		

LDC #: 27103A04  
 SDG #: *pk wch*

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: *PJ*  
 2nd Reviewer: *R*

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		Recalculated		Reported		Recalculated	
				CF (std)	CF (std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD		
1	1CAL C-18	7/20/11	nitroglycerin	102	102	101.8	101.8	5.1	5.1		
2											
3											
4											

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

LDC #: 27103A04  
 SDG #: for cover

Page: 1 of 7  
 Reviewer: FD  
 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 =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$       Where: ave. CF = initial calibration average CF  
 CF = A/C      CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	PK14002A	11/14/11	nitroglycerin	750	656.91	12	656.91	12
	PK14013A	11/14/11	↓	↓	649.47	13	649.47	13
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.

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

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: #6

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	
1,2 - DNB	NS	200	235.2	235.2	118	0

Sample ID: \_\_\_\_\_

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

Sample ID: \_\_\_\_\_

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

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 =  $(((SSC - SSCMSD) * 2) / (SSCMS + SSCMSD)) * 100$  MSD = Matrix spike duplicate

MS/MSD samples: 8 1 97

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)											
Nitroglycerin	7500	7502	ND	7890	7810	99	97	104	104	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 #: 27103A24

SDG #: GC

### VALIDATION FINDINGS WORKSHEET

### Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

METHOD: GC HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery =  $100 * (SSC-SC)/SA$   
 RPD =  $(LCS - LCSD) / ((LCS + LCSD) / 2)$

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: yes/no

Compound	Spike Added		Spiked Sample Concentration		LCS		LCSD		LCS/LCSD	
	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)										
Nitroglycerin	7500	7500	7070	6520	94	94	87	87	7	7

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.

VALIDATION FINDINGS WORKSHEET  
Sample Calculation Verification

Page: 1 of 1  
 Reviewer: \_\_\_\_\_  
 2nd Reviewer: \_\_\_\_\_

LDC #: 27163A24  
 SDG #: fu goney

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)  
 Example: \_\_\_\_\_ Compound Name \_\_\_\_\_  
 Sample ID: \_\_\_\_\_  
 Concentration = \_\_\_\_\_

*MP*

- 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

#	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:** October 31 through November 3, 2011  
**LDC Report Date:** February 22, 2012  
**Matrix:** Soil/Water  
**Parameters:** Explosives  
**Validation Level:** Level IV  
**Laboratory:** EMAX Laboratories, Inc.  
**Sample Delivery Group (SDG):** 11K007

### Sample Identification

FB-SA7-110111  
SL-120-SA7-SB-4.0-5.0  
SL-120-SA7-SB-9.0-10.0  
SL-048-SA7-SB-4.0-5.0  
SL-048-SA7-SB-9.0-10.0  
DUP02-SA7-QC-110211  
EB-SA7-SB-110311  
SL-120-SA7-SB-9.0-10.0MS  
SL-120-SA7-SB-9.0-10.0MSD  
SL-048-SA7-SB-9.0-10.0MS  
SL-048-SA7-SB-9.0-10.0MSD

## Introduction

This data review covers 9 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 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.

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.

Sample EB-SA7-SB-110311 was identified as an equipment blank. No explosive contaminants were found.

Sample FB-SA7-110111 was identified as a field 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

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VIII. Target Compound Identification

All target compound identifications were within validation criteria.

## IX. Compound Quantitation and 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 11K007	All compounds reported below the RL.	J (all detects)	A

## X. System Performance

The system performance was acceptable.

## XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

## XII. Field Duplicates

Samples SL-048-SA7-SB-9.0-10.0 and DUP02-SA7-QC-110211 were identified as field duplicates. No explosives were detected in any of the samples.

**Santa Susana Field Laboratory  
Explosives - Data Qualification Summary - SDG 11K007**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
11K007	FB-SA7-110111 SL-120-SA7-SB-4.0-5.0 SL-120-SA7-SB-9.0-10.0 SL-048-SA7-SB-4.0-5.0 SL-048-SA7-SB-9.0-10.0 DUP02-SA7-QC-110211 EB-SA7-SB-110311	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 11K007**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Explosives - Field Blank Data Qualification Summary - SDG 11K007**

No Sample Data Qualified in this SDG

LDC #: 27103A40

**VALIDATION COMPLETENESS WORKSHEET**

Date: 2/17/12

SDG #: 11K007

Level IV

Page: 1 of 1

Laboratory: EMAX Laboratories, Inc.

Reviewer: [Signature]

2nd Reviewer: [Signature]

**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: 10/31 - 11/03/11
II.	Initial calibration	A	% RSD ≤ 20
III.	Calibration verification/ICV	A	104/CV ≤ 20
IV.	Blanks	A	
V.	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	was 10
VIII.	Target compound identification	A	
IX.	Compound quantitation (R)/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	ND	D = 5 + 6
XIII.	Field blanks	ND	FB = 1 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	FB-SA7-110111	N	11	SL-048-SA7-SB-9.0-10.0MSD	21	MBLKIN	31
2	SL-120-SA7-SB-4.0-5.0	S	12		22	MBLK S	32
3	SL-120-SA7-SB-9.0-10.0		13		23		33
4	SL-048-SA7-SB-4.0-5.0		14		24		34
5	SL-048-SA7-SB-9.0-10.0	D	15		25		35
6	DUP02-SA7-QC-110211	D	16		26		36
7	EB-SA7-SB-110311	N	17		27		37
8	SL-120-SA7-SB-9.0-10.0MS		18		28		38
9	SL-120-SA7-SB-9.0-10.0MSD		19		29		39
10	SL-048-SA7-SB-9.0-10.0MS		20		30		40

Notes:

LDC #: 27103A4U  
 SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Method: GC  HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 27103A41  
 SDG #: per contract

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: F7  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?			/	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
<b>XII. System performance</b>				
System performance was found to be acceptable.	/			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	/			
Target compounds were detected in the field duplicates.		/		
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	/			
Target compounds were detected in the field blanks.		/		

LDC #: 27103AM  
 SDG #: see work

**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		Recalculated		Reported		Recalculated	
				CF (2SD std)	CF (2SD std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD		
1	ICAL Wincor SU Plenary. Hsg. / Pas	9/20/11	<del>RPX</del> RDX HMX	249.36	249.36	245.809	245.809	9.8	9.8		
				236.90	236.90	227.042	227.042	12.9	12.9		
2	ICAL C18	8/26/11	RDX RDX HMX	269	269	261.9	261.9	3.6	3.6		
				225	225	221.9	221.9	5.6	5.6		
3											
4											

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27103740  
SDG #: per cover

# VALIDATION FINDINGS WORKSHEET

## Continuing Calibration Results Verification

Page: 1 of 7  
Reviewer: PJ  
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 =  $100 \cdot (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  Where: ave. CF = initial calibration average CF  
CF = A/C CF = continuing calibration CF  
A = Area of compound  
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	XK14012A	11/14/11	MMX PDX CIS	404.52	1	404.52	1	
				415.96	4	415.96	4	
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 #: 27103AYD  
 SDG #: few down

**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 =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  Where: ave. CF = initial calibration average CF  
 CF = A/C  
 CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	PK09020A	11/09/11	HMX	400.00	385.62	4	385.62	4
			RDX	↓	368.29	8	368.29	5
2	PK09010A	11/09/11	↓	↓	397.95	1	377.95	1
			↓	↓	380.79	5	380.79	5
3	PK09020A	11/10/11	↓	↓	404.70	1	404.70	1
			↓	↓	389.38	3	389.38	3
4	XK14003A	11/14/11	C1X	↓	407.08	2	407.08	2
			↓	↓	410.86	3	410.86	3

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 27103740  
 SDG #: see cover  
 METHOD: GC  HPLC

**VALIDATION FINDINGS WORKSHEET**  
Surrogate Results Verification

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

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS \* 100  
 Where: SF = Surrogate Found  
 SS = Surrogate Spiked

Sample ID: # 2

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
42 - DNB	Luna 5u Phenyl-Hexyl	200	212.4	106	106	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	

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

**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 =  $100 \cdot (SSC - SC) / SA$  Where SSC = Spiked sample concentration SC = Sample concentration  
 SA = Spike added  
 MS = Matrix spike  
 MSD = Matrix spike duplicate

RPD =  $((SSCMS - SSCMSD) \cdot 2) / (SSCMS + SSCMSD) \cdot 100$

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)	2000	2000	ND	2106	2180	105	105	110	110	5	5
2,4,6-Trinitrotoluene (8330)	↓	↓	ND	2040	1800	102	102	91	91	11	11

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.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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:

$\% \text{ Recovery} = 100 * (\text{SSC} - \text{SC}) / \text{SA}$       Where: SSC = Spiked sample concentration      SC = Concentration  
 $\text{RPD} = | \text{LCS} - \text{LCSD} | * 2 / (\text{LCS} + \text{LCSD})$       SA = Spike added  
 LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: WAD soil

Compound	Spike Added (ug/L)		Spiked Sample Concentration (ug/L)		LCS		LCSD		LCS/LCSD	
	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	2000	2120	2160	106	106	108	108	2	2
2,4,6-Trinitrotoluene (8330)	↓	↓	2180	1920	109	109	96	96	13	13

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.

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

LDC #: 27103 AM  
 SDG #: fu goney

METHOD: GC HPLC

Were all reported results recalculated and verified for all level IV samples?  
 Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration =  $(A)/(Fv)(Df)$  Example: \_\_\_\_\_  
 $(RF)(Vs \text{ or } Ws)(\%S/100)$  Sample ID: \_\_\_\_\_ Compound Name: \_\_\_\_\_  
 Concentration = \_\_\_\_\_

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  
 Vs= Initial volume of the sample  
 Ws= Initial weight of the sample  
 %S= Percent Solid

RD

#	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:** October 31 through November 3, 2011  
**LDC Report Date:** February 22, 2012  
**Matrix:** Soil/Water  
**Parameters:** Alcohols  
**Validation Level:** Level IV  
**Laboratory:** EMAX Laboratories, Inc.  
**Sample Delivery Group (SDG):** 11K007

### Sample Identification

FB-SA7-110111	SL-120-SA7-SB-9.0-10.0MSD
SL-120-SA7-SB-4.0-5.0	SL-048-SA7-SB-9.0-10.0MS
SL-120-SA7-SB-9.0-10.0	SL-048-SA7-SB-9.0-10.0MSD
SL-121-SA7-SB-4.0-5.0	
SL-121-SA7-SB-9.0-10.0	
SL-123-SA7-SB-4.0-5.0	
SL-123-SA7-SB-9.0-10.0	
SL-175-SA7-SB-4.0-5.0	
SL-175-SA7-SB-9.0-10.0	
DUP-01-SA7-QC-110111	
SL-048-SA7-SB-4.0-5.0	
SL-048-SA7-SB-9.0-10.0	
DUP02-SA7-QC-110211	
SL-108-SA7-SB-2.9-3.9	
SL-128-SA7-SB-4.0-5.0	
SL-128-SA7-SB-9.0-10.0	
SL-171-SA7-SB-4.0-5.0	
SL-171-SA7-SB-9.0-10.0	
EB-SA7-SB-110311	
SL-120-SA7-SB-9.0-10.0MS	

## Introduction

This data review covers 21 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 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 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% .

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.

Sample EB-SA7-SB-110311 was identified as an equipment blank. No alcohol contaminants were found.

Sample FB-SA7-110111 was identified as a field blank. No alcohol contaminants were found.

## **V. Surrogate Recovery**

Surrogates were not required by the method.

## **VI. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VIII. Target Compound Identification

All target compound identifications were within validation criteria.

## IX. Compound Quantitation and 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 11K007	All compounds reported below the RL.	J (all detects)	A

## X. System Performance

The system performance was acceptable.

## XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

## XII. Field Duplicates

Samples SL-175-SA7-SB-4.0-5.0 and DUP-01-SA7-QC-110111 and samples SL-048-SA7-SB-9.0-10.0 and DUP02-SA7-QC-110211 were identified as field duplicates. No alcohols were detected in any of the samples.

**Santa Susana Field Laboratory  
Alcohols - Data Qualification Summary - SDG 11K007**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
11K007	FB-SA7-110111 SL-120-SA7-SB-4.0-5.0 SL-120-SA7-SB-9.0-10.0 SL-121-SA7-SB-4.0-5.0 SL-121-SA7-SB-9.0-10.0 SL-123-SA7-SB-4.0-5.0 SL-123-SA7-SB-9.0-10.0 SL-175-SA7-SB-4.0-5.0 SL-175-SA7-SB-9.0-10.0 DUP-01-SA7-QC-110111 SL-048-SA7-SB-4.0-5.0 SL-048-SA7-SB-9.0-10.0 DUP02-SA7-QC-110211 SL-108-SA7-SB-2.9-3.9 SL-128-SA7-SB-4.0-5.0 SL-128-SA7-SB-9.0-10.0 SL-171-SA7-SB-4.0-5.0 SL-171-SA7-SB-9.0-10.0 EB-SA7-SB-110311	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 11K007**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Alcohols - Field Blank Data Qualification Summary - SDG 11K007**

No Sample Data Qualified in this SDG

**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: 10/31 - 11/03/11
II.	Initial calibration	Δ	% RSD = 20
III.	Calibration verification/ICV	A	ICV/CV = 20
IV.	Blanks	Δ	
V.	Surrogate recovery	A	not required
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	vs 10
VIII.	Target compound identification	Δ	
IX.	Compound quantitation/RU/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	ND	D = 8, 10 12, 13
XIII.	Field blanks	ND	FB = 1 EB = 17

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:

soil + water

1	FB-SA7-110111 w	11	SL-048-SA7-SB-4.0-5.0	21	SL-120-SA7-SB-9.0-10.0MSD	31	MBLKW
2	SL-120-SA7-SB-4.0-5.0	12	SL-048-SA7-SB-9.0-10.0	22	SL-048-SA7-SB-9.0-10.0MS	32	MBLKS
3	SL-120-SA7-SB-9.0-10.0	13	DUP02-SA7-QC-110211	23	SL-048-SA7-SB-9.0-10.0MSD	33	
4	SL-121-SA7-SB-4.0-5.0	14	SL-108-SA7-SB-2.9-3.9	24		34	
5	SL-121-SA7-SB-9.0-10.0	15	SL-128-SA7-SB-4.0-5.0	25		35	
6	SL-123-SA7-SB-4.0-5.0	16	SL-128-SA7-SB-9.0-10.0	26		36	
7	SL-123-SA7-SB-9.0-10.0	17	SL-171-SA7-SB-4.0-5.0	27		37	
8	SL-175-SA7-SB-4.0-5.0	18	SL-171-SA7-SB-9.0-10.0	28		38	
9	SL-175-SA7-SB-9.0-10.0	19	EB-SA7-SB-110311 w	29		39	
10	DUP-01-SA7-QC-110111	20	SL-120-SA7-SB-9.0-10.0MS	30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC #: 27103A13  
 SDG #: per owner

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: F  
 2nd Reviewer: A

Method:  GC  HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 27103A43  
 SDG #: per count

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?			/	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
<b>XII. System performance</b>				
System performance was found to be acceptable.	/			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	/			
Target compounds were detected in the field duplicates.		/		
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	/			
Target compounds were detected in the field blanks.		/		

LDC #: 27102A43  
 SDG #:                     

**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		Recalculated		Reported		Recalculated	
				CF (10 std)	CF (10 std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD		
1	1CAL	8/29/11	ethanol	13619	13619	13407.9	13407.9	12.5	12.5		
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 #: 27103043

SDG #: per cover

### 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 =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$   
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 (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	BK03003A	11/3/11	ethano	10.0	10.64	7	10.64	7
	BK03015A	11/3/11	ethano	10.0	11.0	10	11.0	10
2	BK03033A	11/3/11	ethano	10.0	10.62	6	10.62	6
3	BK04003A	11/4/11	ethano	10	10.68	7	10.68	7
	BK04023A	11/4/11	ethano	10	9.60	4	9.60	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.

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  
 MS = Matrix spike  
 MSD = Matrix spike duplicate

RPD =  $((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD) * 100$

MS/MSD samples: 20 1 2

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	
	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)											
effluvia	11300	11300	ND	14100	13700	124	124	121	121	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.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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 =  $100 \times (SSC-SC)/SA$       Where: SSC = Spiked sample concentration      SC = Concentration  
 RPD =  $100 \times (LCS - LCSD) / ((LCS + LCSD) / 2)$       SA = Spike added  
 LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LESID soil

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
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)										
ethanol	10000	10000	10600	10300	106	106	103	103	3	3

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.

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

LDC #: 27103 A3  
 SDG #: pu eaney

Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

METHOD: GC HPLC

Were all reported results recalculated and verified for all level IV samples?  
 Were all recalculated results for detected target compounds within 10% of the reported results?

Y N N/A  
 Y N N/A

Concentration =  $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$  Example: \_\_\_\_\_ Compound Name \_\_\_\_\_  
 Sample ID: \_\_\_\_\_ Concentration = \_\_\_\_\_

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  
 Vs= Initial volume of the sample  
 Ws= Initial weight of the sample  
 %S= Percent Solid

NSD

#	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:** October 31 through November 3, 2011  
**LDC Report Date:** February 22, 2012  
**Matrix:** Soil/Water  
**Parameters:** Glycols  
**Validation Level:** Level IV  
**Laboratory:** EMAX Laboratories, Inc.  
**Sample Delivery Group (SDG):** 11K007

### Sample Identification

FB-SA7-110111	SL-120-SA7-SB-9.0-10.0MSD
SL-120-SA7-SB-4.0-5.0	SL-048-SA7-SB-9.0-10.0MS
SL-120-SA7-SB-9.0-10.0	SL-048-SA7-SB-9.0-10.0MSD
SL-121-SA7-SB-4.0-5.0	
SL-121-SA7-SB-9.0-10.0	
SL-123-SA7-SB-4.0-5.0	
SL-123-SA7-SB-9.0-10.0	
SL-175-SA7-SB-4.0-5.0	
SL-175-SA7-SB-9.0-10.0	
DUP-01-SA7-QC-11011	
SL-048-SA7-SB-4.0-5.0	
SL-048-SA7-SB-9.0-10.0	
DUP02-SA7-QC-110211	
SL-108-SA7-SB-2.9-3.9	
SL-128-SA7-SB-4.0-5.0	
SL-128-SA7-SB-9.0-10.0	
SL-171-SA7-SB-4.0-5.0	
SL-171-SA7-SB-9.0-10.0	
EB-SA7-SB-110311	
SL-120-SA7-SB-9.0-10.0MS	

## Introduction

This data review covers 21 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 8015M 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:

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- 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 EB-SA7-SB-110311 was identified as an equipment blank. No glycol contaminants were found.

Sample FB-SA7-110111 was identified as a field blank. No glycol contaminants were found.

## **V. Surrogate Recovery**

Surrogates were not required by the method.

## **VI. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VIII. Target Compound Identification

All target compound identifications were within validation criteria.

## IX. Compound Quantitation and 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 11K007	All compounds reported below the RL.	J (all detects)	A

## X. System Performance

The system performance was acceptable.

## XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

## XII. Field Duplicates

Samples SL-175-SA7-SB-4.0-5.0 and DUP-01-SA7-QC-11011 and samples SL-048-SA7-SB-9.0-10.0 and DUP02-SA7-QC-110211 were identified as field duplicates. No glycols were detected in any of the samples.

**Santa Susana Field Laboratory  
Glycols - Data Qualification Summary - SDG 11K007**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
11K007	FB-SA7-110111 SL-120-SA7-SB-4.0-5.0 SL-120-SA7-SB-9.0-10.0 SL-121-SA7-SB-4.0-5.0 SL-121-SA7-SB-9.0-10.0 SL-123-SA7-SB-4.0-5.0 SL-123-SA7-SB-9.0-10.0 SL-175-SA7-SB-4.0-5.0 SL-175-SA7-SB-9.0-10.0 DUP-01-SA7-QC-11011 SL-048-SA7-SB-4.0-5.0 SL-048-SA7-SB-9.0-10.0 DUP02-SA7-QC-110211 SL-108-SA7-SB-2.9-3.9 SL-128-SA7-SB-4.0-5.0 SL-128-SA7-SB-9.0-10.0 SL-171-SA7-SB-4.0-5.0 SL-171-SA7-SB-9.0-10.0 EB-SA7-SB-110311	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 11K007**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Glycols - Field Blank Data Qualification Summary - SDG 11K007**

No Sample Data Qualified in this SDG

LDC #: 27103A45  
 SDG #: 11K007  
 Laboratory: Lancaster Laboratories

**VALIDATION COMPLETENESS WORKSHEET**  
 Level IV

Date: 2/17/12  
 Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**METHOD:** GC Glycols (EPA SW 846 Method 8015~~2~~)<sup>M</sup>

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: 10/31 - 11/03/11
II.	Initial calibration	A	% RSD ≤ 20
III.	Calibration verification/ICV	A	100% / CV ≤ 20
IV.	Blanks	A	
V.	Surrogate recovery	N	not required
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	was 10
VIII.	Target compound identification	A	
IX.	Compound quantitation/RLL/LOQ/LODs	A	
X.	System Performance	Δ	
XI.	Overall assessment of data	A	
XII.	Field duplicates	ND	D = 8, 10, 12, 13
XIII.	Field blanks	NO	FB = 1, 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:

soil + water

1	FB-SA7-110111	W	11	SL-048-SA7-SB-4.0-5.0	21	SL-120-SA7-SB-9.0-10.0MSD	31	MBK W
2	SL-120-SA7-SB-4.0-5.0	S	12	SL-048-SA7-SB-9.0-10.0	22	SL-048-SA7-SB-9.0-10.0MS	32	MBK S
3	SL-120-SA7-SB-9.0-10.0		13	DUP02-SA7-QC-110211	23	SL-048-SA7-SB-9.0-10.0MSD	33	
4	SL-121-SA7-SB-4.0-5.0		14	SL-108-SA7-SB-2.9-3.9	24		34	
5	SL-121-SA7-SB-9.0-10.0		15	SL-128-SA7-SB-4.0-5.0	25		35	
6	SL-123-SA7-SB-4.0-5.0		16	SL-128-SA7-SB-9.0-10.0	26		36	
7	SL-123-SA7-SB-9.0-10.0		17	SL-171-SA7-SB-4.0-5.0	27		37	
8	SL-175-SA7-SB-4.0-5.0		18	SL-171-SA7-SB-9.0-10.0	28		38	
9	SL-175-SA7-SB-9.0-10.0		19	EB-SA7-SB-110311	W	29	39	
10	DUP-01-SA7-QC-110111		20	SL-120-SA7-SB-9.0-10.0MS	30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC #: 27103A45  
 SDG #: per owner

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: FB  
 2nd Reviewer: LC

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 27103A45  
 SDG #: per count

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?			/	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
<b>XII. System performance</b>				
System performance was found to be acceptable.	/			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	/			
Target compounds were detected in the field duplicates.		/		
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	/			
Target compounds were detected in the field blanks.		/		

LDC #: 27103AVJ

SDG #:                     

### 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		Recalculated		Reported		Recalculated	
				CF ( $\frac{A}{C}$ std)	CF ( $\frac{A}{C}$ std)	Average CF (Initial)	%RSD	Average CF (Initial)	%RSD		
1	1CAL	4/22/11	Propylene Glycol	7613.64	7613.64	7470.95	7470.95	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 #: 27103AMS  
 SDG #: per cover

**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 =  $100 \cdot (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  Where: ave. CF = Initial calibration average CF  
 CF = A/C CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	BK07002A	11/7/11	Ethylene Glycol	50.0	44.12	12	44.12	12
	BK07013A	11/7/11	↓	50.0	54.86	10	54.86	10
2	BK07026A	11/7/11	↓	50.0	54.53	9	54.53	9
3	BK08044A	11/8/11	↓	50	50.31	1	50.31	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.

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

**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  
 MS = Matrix spike  
 MSD = Matrix spike duplicate

RPD =  $(((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD)) * 100$

MS/MSD samples: 20 + 2

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)											
Dicethylene Glycol	56.6	56.6	ND	57.9	56.6	102	102	10X	10X	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.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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 =  $100 \times \frac{SSC - SC}{SSC} \times \frac{SA}{LCS + LCSD}$  Where: SSC = Spiked sample concentration SC = Concentration  
 RPD =  $100 \times \frac{LCS - LCSD}{LCS + LCSD} \times \frac{SA}{LCS + LCSD}$  SA = Spike added  
 LCS = Laboratory control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: 105 10

Compound	Spike Added		Spiked Sample Concentration		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Percent Recovery	Recalc.	Percent Recovery	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)										
Diethylene Glycol	50.0	50.0	52.7	48.0	105	105	96	96	9	9

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.

VALIDATION FINDINGS WORKSHEET  
Sample Calculation Verification

LDC #: 27103 A45  
SDG #: fu samer

Page: 1 of 1  
Reviewer: A  
2nd Reviewer: E

METHOD: GC ✓ HPLC

Were all reported results recalculated and verified for all level IV samples?  
Were all recalculated results for detected target compounds within 10% of the reported results?

Y N N/A  
Y N N/A

Concentration =  $\frac{(A)(FV)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$  Example:  
Sample ID: \_\_\_\_\_ Compound Name \_\_\_\_\_

Concentration = \_\_\_\_\_  
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

*MD*

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: \_\_\_\_\_

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** November 1 through November 2, 2012  
**LDC Report Date:** February 22, 2012  
**Matrix:** Soil  
**Parameters:** Perchlorate  
**Validation Level:** Level IV  
**Laboratory:** EMAX Laboratories, Inc.  
**Sample Delivery Group (SDG):** 11K007

**Sample Identification**

SL-123-SA7-SB-4.0-5.0  
SL-048-SA7-SB-4.0-5.0

## Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 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 30.0% 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 30.0% for labeled compounds.

## **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) 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 11K007	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 11K007**

<b>SDG</b>	<b>Sample</b>	<b>Compound</b>	<b>Flag</b>	<b>A or P</b>	<b>Reason (Code)</b>
11K007	SL-123-SA7-SB-4.0-5.0 SL-048-SA7-SB-4.0-5.0	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 11K007**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
 Perchlorate - Field Blank Data Qualification Summary - SDG 11K007**

No Sample Data Qualified in this SDG

**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	Δ	Sampling dates: 11/01 - 11/02/12
II.	GC/MS Instrument performance check	Δ	
III.	Initial calibration	A	r <sup>2</sup>
IV.	Continuing calibration/ICV	Δ	ICV/CV ≤ 15/30
V.	Blanks	Δ	
VI.	Surrogate spikes	N	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	ics/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	Δ	
XI.	Target compound identification	Δ	
XII.	Compound quantitation/RL/LOQ/LODs	Δ	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	Δ	
XV.	Overall assessment of data	Δ	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

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

Validated Samples: SOIL

1	SL-123-SA7-SB-4.0-5.0	11	MBK15	21	31
2	SL-048-SA7-SB-4.0-5.0	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

Method: Semivolatiles (EPA SW 846 Method 8270C) 6852

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
<b>II. GC/MS instrument performance check</b>				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	/			
Were all samples analyzed within the 12 hour clock criteria?	/			
<b>III. Initial calibration</b>				
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?			/	
<b>IV. Continuing calibration</b>				
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? <u>15/317</u>	/			
<b>V. Blanks</b>				
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.	/			
<b>VI. Surrogate spikes</b>				
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?			/	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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?			/	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	/			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X. Internal standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within + 30 seconds from the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. Compound quantitation (CRQLs)</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Tentatively identified compounds (TICS)</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XVI. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XVII. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC # 27163 787  
 SDG#                     

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: FZ  
 2nd Reviewer:                     

**METHOD:** LCMS 6850  
**Parameter:** Perchlorate

weighted

Date	Instrument	Compound	Y	X
11/01/2011	lcms	perchlorate	0.0851966449	0.0400
			0.1709348749	0.1000
			0.3336474736	0.2000
			0.6241504694	0.4000
			1.6134261656	1.0000

Regression Output:	Regression Output:	Reported
Constant	0.01058	
Std Err of Y Est	0.01625	
R Squared	0.99949	0.99910
No. of Observations	5.00000	
Degrees of Freedom	3.00000	
X Coefficient(s)	1.595E+000	
Std Err of Coef.	0.020875	0.00

LDC #: 27103A87

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

Page: 1 of 1  
 Reviewer: FT  
 2nd Reviewer: A

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference =  $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$       Where:      ave. RRF = initial calibration average RRF  
 RRF =  $(A_x)(C_{is}) / (A_{is})(C_x)$       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		Recalculated	
					RRF (CC)	%R	RRF (CC)	%R
1	MP09013 13:51	11/09/11	<del>Phenol</del> <sup>Perchloro</sup> Phenol (1st internal standard)	1.0	0.90	90	90	
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
2			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification**

**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 =  $100 * (LCS - LCSDC) / (LCS + LCSDC)$       LCSC = Laboratory control sample concentration    LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: ves 1D

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	25.0	25.0	24.3	22.0	97	97	88	88	10	10

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 #: 27103 AS

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

Page: 1 of 1  
 Reviewer: FT  
 2nd reviewer: [Signature]

**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<sub>x</sub> = Area of the characteristic ion (EICP) for the compound to be measured
  - A<sub>is</sub> = Area of the characteristic ion (EICP) for the specific internal standard
  - I<sub>s</sub> = Amount of internal standard added in nanograms (ng)
  - V<sub>o</sub> = Volume or weight of sample extract in milliliters (ml) or grams (g).
  - V<sub>i</sub> = Volume of extract injected in microliters (ul)
  - V<sub>t</sub> = 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. =  $\left( \frac{ }{ } \right) \left( \frac{ }{ } \right) \left( \frac{ }{ } \right) \left( \frac{ }{ } \right)$

=  
*MD*

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

# **SAMPLE DELIVERY GROUP**

**DE242**

## **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-Sep-2011	TB-091311	6404519	TB	5030B	8015M	IV
13-Sep-2011	SL-040-SA7-SS-0.0-0.5	6404508	N	3050B	6010B	IV
13-Sep-2011	SL-040-SA7-SS-0.0-0.5	6404508	N	3050B	6020	IV
13-Sep-2011	SL-040-SA7-SS-0.0-0.5	6404508	N	3060A	7199	IV
13-Sep-2011	SL-040-SA7-SS-0.0-0.5	6404508	N	3550B	8081A	IV
13-Sep-2011	SL-040-SA7-SS-0.0-0.5	6404508	N	3550B	8082	IV
13-Sep-2011	SL-040-SA7-SS-0.0-0.5	6404508	N	3550B	8151A	IV
13-Sep-2011	SL-040-SA7-SS-0.0-0.5	6404508	N	3550B	8270C	IV
13-Sep-2011	SL-040-SA7-SS-0.0-0.5	6404508	N	3550B	8270C SIM	IV
13-Sep-2011	SL-040-SA7-SS-0.0-0.5	6404508	N	METHOD	300.0	IV
13-Sep-2011	SL-040-SA7-SS-0.0-0.5	6404508	N	METHOD	314.0	IV
13-Sep-2011	SL-040-SA7-SS-0.0-0.5	6404508	N	METHOD	7471A	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	3050B	6010B	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	3050B	6020	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	3060A	7199	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	3546	1625C	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	3550B	8015B	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	3550B	8015M	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	3550B	8082	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	3550B	8270C	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	3550B	8270C SIM	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	5035	8015M	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	8330	8330A	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	METHOD	300.0	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	METHOD	314.0	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	METHOD	7471A	IV

III = EPA Level 3 Data Review  
IV = EPA Level 4 Data Validation

N = Normal Sample  
FD = Field Duplicate

TB = Trip Blank  
FB = Field Blank

MS = Matrix Spike  
MSD = Matrix Spike Duplicate

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	METHOD	8015B	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	METHOD	8015M	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	METHOD	8315A	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0	6404514	N	METHOD	9012B	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0DUP	P404514D271852A	DUP	METHOD	9012B	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0MSD	P404514M240303A	MSD	8330	8330A	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0MSD	P404514M251353A	MSD	5035	8015M	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0MS	P404514R240221A	MS	8330	8330A	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0MS	P404514R251320A	MS	5035	8015M	IV
13-Sep-2011	SL-338-SA5B-SB-7.0-8.0MS	P404514R271853A	MS	METHOD	9012B	IV
13-Sep-2011	SL-041-SA7-SS-0.0-0.5	6404509	N	3050B	6010B	IV
13-Sep-2011	SL-041-SA7-SS-0.0-0.5	6404509	N	3050B	6020	IV
13-Sep-2011	SL-041-SA7-SS-0.0-0.5	6404509	N	3060A	7199	IV
13-Sep-2011	SL-041-SA7-SS-0.0-0.5	6404509	N	3550B	8015B	IV
13-Sep-2011	SL-041-SA7-SS-0.0-0.5	6404509	N	3550B	8015M	IV
13-Sep-2011	SL-041-SA7-SS-0.0-0.5	6404509	N	3550B	8081A	IV
13-Sep-2011	SL-041-SA7-SS-0.0-0.5	6404509	N	3550B	8082	IV
13-Sep-2011	SL-041-SA7-SS-0.0-0.5	6404509	N	3550B	8151A	IV
13-Sep-2011	SL-041-SA7-SS-0.0-0.5	6404509	N	3550B	8270C	IV
13-Sep-2011	SL-041-SA7-SS-0.0-0.5	6404509	N	3550B	8270C SIM	IV
13-Sep-2011	SL-041-SA7-SS-0.0-0.5	6404509	N	METHOD	300.0	IV
13-Sep-2011	SL-041-SA7-SS-0.0-0.5	6404509	N	METHOD	314.0	IV
13-Sep-2011	SL-041-SA7-SS-0.0-0.5	6404509	N	METHOD	7471A	IV
13-Sep-2011	SL-041-SA7-SS-0.0-0.5	6404509	N	METHOD	8015B	IV
13-Sep-2011	SL-041-SA7-SS-0.0-0.5	6404509	N	METHOD	8015M	IV
13-Sep-2011	SL-041-SA7-SS-0.0-0.5DUP	P404509D270723B	DUP	METHOD	314.0	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Sep-2011	SL-041-SA7-SS-0.0-0.5MS	P404509R270809B	MS	METHOD	314.0	IV
13-Sep-2011	SL-071-SA7-SS-0.0-0.5	6404511	N	3050B	6010B	IV
13-Sep-2011	SL-071-SA7-SS-0.0-0.5	6404511	N	3050B	6020	IV
13-Sep-2011	SL-071-SA7-SS-0.0-0.5	6404511	N	3060A	7199	IV
13-Sep-2011	SL-071-SA7-SS-0.0-0.5	6404511	N	3550B	8015B	IV
13-Sep-2011	SL-071-SA7-SS-0.0-0.5	6404511	N	3550B	8015M	IV
13-Sep-2011	SL-071-SA7-SS-0.0-0.5	6404511	N	3550B	8081A	IV
13-Sep-2011	SL-071-SA7-SS-0.0-0.5	6404511	N	3550B	8082	IV
13-Sep-2011	SL-071-SA7-SS-0.0-0.5	6404511	N	3550B	8151A	IV
13-Sep-2011	SL-071-SA7-SS-0.0-0.5	6404511	N	3550B	8270C	IV
13-Sep-2011	SL-071-SA7-SS-0.0-0.5	6404511	N	3550B	8270C SIM	IV
13-Sep-2011	SL-071-SA7-SS-0.0-0.5	6404511	N	METHOD	300.0	IV
13-Sep-2011	SL-071-SA7-SS-0.0-0.5	6404511	N	METHOD	314.0	IV
13-Sep-2011	SL-071-SA7-SS-0.0-0.5	6404511	N	METHOD	7471A	IV
13-Sep-2011	SL-071-SA7-SS-0.0-0.5	6404511	N	METHOD	8015B	IV
13-Sep-2011	SL-071-SA7-SS-0.0-0.5	6404511	N	METHOD	8015M	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5	6404507	N	3050B	6010B	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5	6404507	N	3050B	6020	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5	6404507	N	3060A	7199	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5	6404507	N	3550B	8015B	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5	6404507	N	3550B	8015M	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5	6404507	N	3550B	8081A	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5	6404507	N	3550B	8082	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5	6404507	N	3550B	8151A	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5	6404507	N	3550B	8270C	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5	6404507	N	3550B	8270C SIM	IV

III = EPA Level 3 Data Review  
IV = EPA Level 4 Data Validation

N = Normal Sample  
FD = Field Duplicate

TB = Trip Blank  
FB = Field Blank

MS = Matrix Spike  
MSD = Matrix Spike Duplicate

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Sep-2011	SL-037-SA7-SS-0.0-0.5	6404507	N	METHOD	300.0	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5	6404507	N	METHOD	314.0	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5	6404507	N	METHOD	7471A	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5	6404507	N	METHOD	8015B	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5	6404507	N	METHOD	8015M	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5MSD	P404507M322139A	MSD	3550B	8015M	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5MSD	P404507M322223A	MSD	METHOD	8015B	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5MS	P404507R322115A	MS	3550B	8015M	IV
13-Sep-2011	SL-037-SA7-SS-0.0-0.5MS	P404507R322209A	MS	METHOD	8015B	IV
13-Sep-2011	SL-070-SA7-SS-0.0-0.5	6404510	N	3050B	6010B	IV
13-Sep-2011	SL-070-SA7-SS-0.0-0.5	6404510	N	3050B	6020	IV
13-Sep-2011	SL-070-SA7-SS-0.0-0.5	6404510	N	3060A	7199	IV
13-Sep-2011	SL-070-SA7-SS-0.0-0.5	6404510	N	3550B	8015B	IV
13-Sep-2011	SL-070-SA7-SS-0.0-0.5	6404510	N	3550B	8015M	IV
13-Sep-2011	SL-070-SA7-SS-0.0-0.5	6404510	N	3550B	8081A	IV
13-Sep-2011	SL-070-SA7-SS-0.0-0.5	6404510	N	3550B	8082	IV
13-Sep-2011	SL-070-SA7-SS-0.0-0.5	6404510	N	3550B	8151A	IV
13-Sep-2011	SL-070-SA7-SS-0.0-0.5	6404510	N	3550B	8270C	IV
13-Sep-2011	SL-070-SA7-SS-0.0-0.5	6404510	N	3550B	8270C SIM	IV
13-Sep-2011	SL-070-SA7-SS-0.0-0.5	6404510	N	METHOD	300.0	IV
13-Sep-2011	SL-070-SA7-SS-0.0-0.5	6404510	N	METHOD	314.0	IV
13-Sep-2011	SL-070-SA7-SS-0.0-0.5	6404510	N	METHOD	7471A	IV
13-Sep-2011	SL-070-SA7-SS-0.0-0.5	6404510	N	METHOD	8015B	IV
13-Sep-2011	SL-070-SA7-SS-0.0-0.5	6404510	N	METHOD	8015M	IV
13-Sep-2011	SL-146-SA7-SS-0.0-0.5	6404513	N	3050B	6010B	IV
13-Sep-2011	SL-146-SA7-SS-0.0-0.5	6404513	N	3050B	6020	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Sep-2011	SL-146-SA7-SS-0.0-0.5	6404513	N	3060A	7199	IV
13-Sep-2011	SL-146-SA7-SS-0.0-0.5	6404513	N	3550B	8081A	IV
13-Sep-2011	SL-146-SA7-SS-0.0-0.5	6404513	N	3550B	8082	IV
13-Sep-2011	SL-146-SA7-SS-0.0-0.5	6404513	N	3550B	8151A	IV
13-Sep-2011	SL-146-SA7-SS-0.0-0.5	6404513	N	3550B	8270C	IV
13-Sep-2011	SL-146-SA7-SS-0.0-0.5	6404513	N	3550B	8270C SIM	IV
13-Sep-2011	SL-146-SA7-SS-0.0-0.5	6404513	N	METHOD	300.0	IV
13-Sep-2011	SL-146-SA7-SS-0.0-0.5	6404513	N	METHOD	314.0	IV
13-Sep-2011	SL-146-SA7-SS-0.0-0.5	6404513	N	METHOD	6850	IV
13-Sep-2011	SL-146-SA7-SS-0.0-0.5	6404513	N	METHOD	7471A	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	3050B	6010B	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	3050B	6020	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	3060A	7199	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	3546	1625C	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	3550B	8015B	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	3550B	8015M	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	3550B	8082	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	3550B	8270C	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	3550B	8270C SIM	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	5035	8015M	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	8330	8330A	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	METHOD	300.0	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	METHOD	314.0	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	METHOD	6850	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	METHOD	7471A	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	METHOD	8015B	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	METHOD	8015M	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	METHOD	8315A	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0	6404515	N	METHOD	9012B	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0DUP	P404515D271625B	DUP	METHOD	300.0	IV
13-Sep-2011	SL-341-SA5B-SB-4.0-5.0MS	P404515R271640B	MS	METHOD	300.0	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	3050B	6010B	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	3050B	6020	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	3060A	7199	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	3546	1625C	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	3550B	8015B	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	3550B	8015M	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	3550B	8082	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	3550B	8270C	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	3550B	8270C SIM	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	5035	8015M	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	8330	8330A	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	METHOD	300.0	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	METHOD	314.0	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	METHOD	7471A	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	METHOD	8015B	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	METHOD	8015M	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	METHOD	8315A	IV
13-Sep-2011	SL-341-SA5B-SB-9.0-10.0	6404516	N	METHOD	9012B	IV
13-Sep-2011	SL-034-SA7-SS-0.0-0.5	6404505	N	3050B	6010B	IV
13-Sep-2011	SL-034-SA7-SS-0.0-0.5	6404505	N	3050B	6020	IV
13-Sep-2011	SL-034-SA7-SS-0.0-0.5	6404505	N	3060A	7199	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Sep-2011	SL-034-SA7-SS-0.0-0.5	6404505	N	3550B	8081A	IV
13-Sep-2011	SL-034-SA7-SS-0.0-0.5	6404505	N	3550B	8082	IV
13-Sep-2011	SL-034-SA7-SS-0.0-0.5	6404505	N	3550B	8151A	IV
13-Sep-2011	SL-034-SA7-SS-0.0-0.5	6404505	N	3550B	8270C	IV
13-Sep-2011	SL-034-SA7-SS-0.0-0.5	6404505	N	3550B	8270C SIM	IV
13-Sep-2011	SL-034-SA7-SS-0.0-0.5	6404505	N	METHOD	300.0	IV
13-Sep-2011	SL-034-SA7-SS-0.0-0.5	6404505	N	METHOD	314.0	IV
13-Sep-2011	SL-034-SA7-SS-0.0-0.5	6404505	N	METHOD	7471A	IV
13-Sep-2011	SL-034-SA7-SS-0.0-0.5DUP	P404505D271307A	DUP	METHOD	300.0	IV
13-Sep-2011	SL-034-SA7-SS-0.0-0.5MS	P404505R271321A	MS	METHOD	300.0	IV
13-Sep-2011	SL-035-SA7-SS-0.0-0.5	6404506	N	3050B	6010B	IV
13-Sep-2011	SL-035-SA7-SS-0.0-0.5	6404506	N	3050B	6020	IV
13-Sep-2011	SL-035-SA7-SS-0.0-0.5	6404506	N	3060A	7199	IV
13-Sep-2011	SL-035-SA7-SS-0.0-0.5	6404506	N	3550B	8081A	IV
13-Sep-2011	SL-035-SA7-SS-0.0-0.5	6404506	N	3550B	8082	IV
13-Sep-2011	SL-035-SA7-SS-0.0-0.5	6404506	N	3550B	8151A	IV
13-Sep-2011	SL-035-SA7-SS-0.0-0.5	6404506	N	3550B	8270C	IV
13-Sep-2011	SL-035-SA7-SS-0.0-0.5	6404506	N	3550B	8270C SIM	IV
13-Sep-2011	SL-035-SA7-SS-0.0-0.5	6404506	N	METHOD	300.0	IV
13-Sep-2011	SL-035-SA7-SS-0.0-0.5	6404506	N	METHOD	314.0	IV
13-Sep-2011	SL-035-SA7-SS-0.0-0.5	6404506	N	METHOD	7471A	IV
13-Sep-2011	SL-073-SA7-SS-0.0-0.5	6404512	N	3050B	6010B	IV
13-Sep-2011	SL-073-SA7-SS-0.0-0.5	6404512	N	3050B	6020	IV
13-Sep-2011	SL-073-SA7-SS-0.0-0.5	6404512	N	3060A	7199	IV
13-Sep-2011	SL-073-SA7-SS-0.0-0.5	6404512	N	3550B	8015B	IV
13-Sep-2011	SL-073-SA7-SS-0.0-0.5	6404512	N	3550B	8015M	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Sep-2011	SL-073-SA7-SS-0.0-0.5	6404512	N	3550B	8081A	IV
13-Sep-2011	SL-073-SA7-SS-0.0-0.5	6404512	N	3550B	8082	IV
13-Sep-2011	SL-073-SA7-SS-0.0-0.5	6404512	N	3550B	8151A	IV
13-Sep-2011	SL-073-SA7-SS-0.0-0.5	6404512	N	3550B	8270C	IV
13-Sep-2011	SL-073-SA7-SS-0.0-0.5	6404512	N	3550B	8270C SIM	IV
13-Sep-2011	SL-073-SA7-SS-0.0-0.5	6404512	N	METHOD	300.0	IV
13-Sep-2011	SL-073-SA7-SS-0.0-0.5	6404512	N	METHOD	314.0	IV
13-Sep-2011	SL-073-SA7-SS-0.0-0.5	6404512	N	METHOD	7471A	IV
13-Sep-2011	SL-073-SA7-SS-0.0-0.5	6404512	N	METHOD	8015B	IV
13-Sep-2011	SL-073-SA7-SS-0.0-0.5	6404512	N	METHOD	8015M	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	3050B	6010B	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	3050B	6020	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	3060A	7199	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	3546	1625C	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	3550B	8015B	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	3550B	8015M	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	3550B	8082	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	3550B	8270C	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	3550B	8270C SIM	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	5035	8015M	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	8330	8330A	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	METHOD	300.0	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	METHOD	314.0	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	METHOD	7471A	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	METHOD	8015B	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	METHOD	8015M	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	METHOD	8315A	IV
13-Sep-2011	SL-342-SA5B-SB-4.0-5.0	6404517	N	METHOD	9012B	IV
13-Sep-2011	SL-030-SA7-SS-0.0-0.5	6404504	N	3050B	6010B	IV
13-Sep-2011	SL-030-SA7-SS-0.0-0.5	6404504	N	3050B	6020	IV
13-Sep-2011	SL-030-SA7-SS-0.0-0.5	6404504	N	3060A	7199	IV
13-Sep-2011	SL-030-SA7-SS-0.0-0.5	6404504	N	3550B	8081A	IV
13-Sep-2011	SL-030-SA7-SS-0.0-0.5	6404504	N	3550B	8082	IV
13-Sep-2011	SL-030-SA7-SS-0.0-0.5	6404504	N	3550B	8151A	IV
13-Sep-2011	SL-030-SA7-SS-0.0-0.5	6404504	N	3550B	8270C	IV
13-Sep-2011	SL-030-SA7-SS-0.0-0.5	6404504	N	3550B	8270C SIM	IV
13-Sep-2011	SL-030-SA7-SS-0.0-0.5	6404504	N	METHOD	300.0	IV
13-Sep-2011	SL-030-SA7-SS-0.0-0.5	6404504	N	METHOD	314.0	IV
13-Sep-2011	SL-030-SA7-SS-0.0-0.5	6404504	N	METHOD	6850	IV
13-Sep-2011	SL-030-SA7-SS-0.0-0.5	6404504	N	METHOD	7471A	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	3050B	6010B	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	3050B	6020	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	3060A	7199	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	3546	1625C	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	3550B	8015B	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	3550B	8015M	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	3550B	8082	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	3550B	8270C	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	3550B	8270C SIM	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	5035	8015M	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	8330	8330A	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	METHOD	300.0	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	METHOD	314.0	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	METHOD	7471A	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	METHOD	8015B	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	METHOD	8015M	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	METHOD	8315A	IV
13-Sep-2011	SL-342-SA5B-SB-9.0-10.0	6404518	N	METHOD	9012B	IV
13-Sep-2011	SL-030-SA7-SS-0.0-0.5MSD	P404504M242113A	MSD	3550B	8081A	IV
13-Sep-2011	SL-030-SA7-SS-0.0-0.5MSD	P404504M242350A	MSD	3550B	8151A	IV
13-Sep-2011	SL-030-SA7-SS-0.0-0.5MS	P404504R242059A	MS	3550B	8081A	IV
13-Sep-2011	SL-030-SA7-SS-0.0-0.5MS	P404504R242323A	MS	3550B	8151A	IV

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	GENCHEM	
Method:	300.0	Matrix: SO

Sample ID: SL-034-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
FLUORIDE	0.91	J	0.79	MDL	0.98	PQL	mg/Kg	J	Z

Sample ID: SL-338-SA5B-SB-7.0-8.0      Collected: 9/13/2011 9:00:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.1	J	0.85	MDL	1.6	PQL	mg/Kg	J	Z

Sample ID: SL-341-SA5B-SB-4.0-5.0      Collected: 9/13/2011 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
Nitrate-NO3	1.3	J	0.92	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-341-SA5B-SB-9.0-10.0      Collected: 9/13/2011 11:47:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.1	J	0.90	MDL	1.7	PQL	mg/Kg	J	Z

Sample ID: SL-342-SA5B-SB-9.0-10.0      Collected: 9/13/2011 2:55:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.2	J	0.90	MDL	1.7	PQL	mg/Kg	J	Z

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: SL-030-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:55:00      Analysis Type: REA      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MAGNESIUM	4110		0.438	MDL	9.95	PQL	mg/Kg	U	B

Sample ID: SL-030-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:55:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	75.3	J	5.92	MDL	99.5	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Matrix:</b>	SO
<b>Method:</b>	6010B		

Sample ID: SL-030-SA7-SS-0.0-0.5		Collected: 9/13/2011 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
BORON	4.23	J	0.358	MDL	4.98	PQL	mg/Kg	J	Z
TIN	2.91	J	0.318	MDL	9.95	PQL	mg/Kg	U	B
Zirconium	2.73	J	0.458	MDL	4.98	PQL	mg/Kg	J	Z

Sample ID: SL-034-SA7-SS-0.0-0.5		Collected: 9/13/2011 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
MAGNESIUM	4200		0.436	MDL	9.90	PQL	mg/Kg	U	B

Sample ID: SL-034-SA7-SS-0.0-0.5		Collected: 9/13/2011 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	1.04	J	0.356	MDL	4.95	PQL	mg/Kg	U	B
TIN	2.97	J	0.317	MDL	9.90	PQL	mg/Kg	U	B
Zirconium	2.93	J	0.455	MDL	4.95	PQL	mg/Kg	J	Z

Sample ID: SL-035-SA7-SS-0.0-0.5		Collected: 9/13/2011 2:05:00		Analysis Type: REA				Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MAGNESIUM	5110		0.425	MDL	9.66	PQL	mg/Kg	U	B

Sample ID: SL-035-SA7-SS-0.0-0.5		Collected: 9/13/2011 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	1.48	J	0.348	MDL	4.83	PQL	mg/Kg	U	B
TIN	3.80	J	0.309	MDL	9.66	PQL	mg/Kg	U	B

Sample ID: SL-037-SA7-SS-0.0-0.5		Collected: 9/13/2011 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
MAGNESIUM	3800		0.439	MDL	9.97	PQL	mg/Kg	U	B

Sample ID: SL-037-SA7-SS-0.0-0.5		Collected: 9/13/2011 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
SODIUM	81.9	J	5.93	MDL	99.7	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Matrix:</b>	SO
<b>Method:</b>	6010B		

<b>Sample ID:</b> SL-037-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 10:15:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.63	J	0.359	MDL	4.99	PQL	mg/Kg	J	Z
TIN	2.91	J	0.319	MDL	9.97	PQL	mg/Kg	U	B
Zirconium	2.88	J	0.459	MDL	4.99	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-040-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 8:46:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MAGNESIUM	4080		0.435	MDL	9.90	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-040-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 8:46:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	67.8	J	5.89	MDL	99.0	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-040-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 8:46:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.08	J	0.356	MDL	4.95	PQL	mg/Kg	J	Z
TIN	2.98	J	0.317	MDL	9.90	PQL	mg/Kg	U	B
Zirconium	2.96	J	0.455	MDL	4.95	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-041-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 9:09:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MAGNESIUM	3880		0.445	MDL	10.1	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-041-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 9:09:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	70.6	J	6.02	MDL	101	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-041-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 9:09:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.36	J	0.364	MDL	5.06	PQL	mg/Kg	J	Z
TIN	3.00	J	0.324	MDL	10.1	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6010B	<b>Matrix:</b> SO

Sample ID: SL-041-SA7-SS-0.0-0.5      Collected: 9/13/2011 9:09:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	3.32	J	0.465	MDL	5.06	PQL	mg/Kg	J	Z

Sample ID: SL-070-SA7-SS-0.0-0.5      Collected: 9/13/2011 10:35:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	95.8	J	5.75	MDL	96.7	PQL	mg/Kg	J	Z

Sample ID: SL-070-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
BORON	3.86	J	0.348	MDL	4.83	PQL	mg/Kg	J	Z
TIN	2.78	J	0.309	MDL	9.67	PQL	mg/Kg	U	B
Zirconium	2.67	J	0.445	MDL	4.83	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA7-SS-0.0-0.5      Collected: 9/13/2011 9:26:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	72.8	J	5.75	MDL	96.7	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA7-SS-0.0-0.5      Collected: 9/13/2011 9:26:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.95	J	0.348	MDL	4.83	PQL	mg/Kg	J	Z
TIN	2.78	J	0.309	MDL	9.67	PQL	mg/Kg	U	B
Zirconium	3.22	J	0.445	MDL	4.83	PQL	mg/Kg	J	Z

Sample ID: SL-073-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
BORON	3.89	J	0.352	MDL	4.89	PQL	mg/Kg	J	Z
TIN	3.71	J	0.313	MDL	9.78	PQL	mg/Kg	U	B
Zirconium	3.10	J	0.450	MDL	4.89	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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ADR version 1.4.0.111

# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

Sample ID: SL-146-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
BORON	2.17	J	0.353	MDL	4.90	PQL	mg/Kg	U	B
TIN	4.49	J	0.314	MDL	9.80	PQL	mg/Kg	U	B
Zirconium	4.01	J	0.451	MDL	4.90	PQL	mg/Kg	J	Z

Sample ID: SL-338-SA5B-SB-7.0-8.0      Collected: 9/13/2011 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	2.97	J	0.368	MDL	5.11	PQL	mg/Kg	U	B
TIN	2.25	J	0.327	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	2.32	J	0.470	MDL	5.11	PQL	mg/Kg	J	Z

Sample ID: SL-341-SA5B-SB-4.0-5.0      Collected: 9/13/2011 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
BORON	4.29	J	0.398	MDL	5.53	PQL	mg/Kg	J	Z
TIN	3.02	J	0.354	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	3.82	J	0.509	MDL	5.53	PQL	mg/Kg	J	Z

Sample ID: SL-341-SA5B-SB-9.0-10.0      Collected: 9/13/2011 11:47:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.09	J	0.396	MDL	5.49	PQL	mg/Kg	J	Z
TIN	3.05	J	0.352	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.72	J	0.505	MDL	5.49	PQL	mg/Kg	J	Z

Sample ID: SL-342-SA5B-SB-4.0-5.0      Collected: 9/13/2011 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
BORON	4.96	J	0.397	MDL	5.52	PQL	mg/Kg	J	Z
TIN	3.02	J	0.353	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	3.91	J	0.508	MDL	5.52	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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ADR version 1.4.0.111

# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: SL-342-SA5B-SB-9.0-10.0      Collected: 9/13/2011 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
TIN	3.14	J	0.352	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	4.41	J	0.506	MDL	5.50	PQL	mg/Kg	J	Z

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-030-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:55:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.212	J	0.0566	MDL	0.390	PQL	mg/Kg	J	Z, Q

Sample ID: SL-030-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:55:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.634		0.0488	MDL	0.0976	PQL	mg/Kg	J	Q

Sample ID: SL-030-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:55:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIIUM	96.9		0.103	MDL	0.390	PQL	mg/Kg	J	A

Sample ID: SL-030-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:55:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.233		0.0722	MDL	0.195	PQL	mg/Kg	J	Q
BERYLLIUM	0.606		0.0156	MDL	0.0976	PQL	mg/Kg	J	Q
CADMIUM	0.224		0.0429	MDL	0.0976	PQL	mg/Kg	J	Q
CHROMIUM	17.1		0.117	MDL	0.390	PQL	mg/Kg	J	Q
COBALT	5.89		0.0195	MDL	0.0976	PQL	mg/Kg	J	Q, A
COPPER	9.27		0.0781	MDL	0.390	PQL	mg/Kg	J	Q
LEAD	17.1		0.010	MDL	0.195	PQL	mg/Kg	J	Q, A
NICKEL	11.0		0.0976	MDL	0.390	PQL	mg/Kg	J	Q
SILVER	0.0276	J	0.0139	MDL	0.0976	PQL	mg/Kg	J	Z, Q
THALLIUM	0.275		0.0293	MDL	0.0976	PQL	mg/Kg	J	Q
ZINC	84.3		0.547	MDL	2.93	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>									
<b>Method:</b>	<b>6020</b>			<b>Matrix: SO</b>						

<b>Sample ID:</b> SL-034-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 12:15:00			<b>Analysis Type:</b> REA2			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.105	J	0.0563	MDL	0.388	PQL	mg/Kg	J	Z, Q	

<b>Sample ID:</b> SL-034-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 12:15:00			<b>Analysis Type:</b> REA3			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	1.24		0.0485	MDL	0.0971	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-034-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 12:15:00			<b>Analysis Type:</b> REA4			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	98.1		0.103	MDL	0.388	PQL	mg/Kg	J	A	

<b>Sample ID:</b> SL-034-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 12:15:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.340		0.0718	MDL	0.194	PQL	mg/Kg	J	Q	
BERYLLIUM	0.460		0.0155	MDL	0.0971	PQL	mg/Kg	J	Q	
CADMIUM	0.437		0.0427	MDL	0.0971	PQL	mg/Kg	J	Q	
CHROMIUM	47.9		0.117	MDL	0.388	PQL	mg/Kg	J	Q	
COBALT	6.35		0.0194	MDL	0.0971	PQL	mg/Kg	J	Q, A	
COPPER	13.8		0.0777	MDL	0.388	PQL	mg/Kg	J	Q	
LEAD	26.4		0.0099	MDL	0.194	PQL	mg/Kg	J	Q, A	
NICKEL	33.0		0.0971	MDL	0.388	PQL	mg/Kg	J	Q	
SILVER	0.0584	J	0.0138	MDL	0.0971	PQL	mg/Kg	J	Z, Q	
THALLIUM	0.245		0.0291	MDL	0.0971	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-035-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 2:05:00			<b>Analysis Type:</b> REA2			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.168	J	0.0566	MDL	0.390	PQL	mg/Kg	J	Z, Q	

<b>Sample ID:</b> SL-035-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 2:05:00			<b>Analysis Type:</b> REA3			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	1.44		0.0488	MDL	0.0976	PQL	mg/Kg	J	Q	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

<b>Sample ID:</b> SL-035-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 2:05:00		<b>Analysis Type:</b> REA4		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	118		0.103	MDL	0.390	PQL	mg/Kg	J	A

<b>Sample ID:</b> SL-035-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 2:05:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.298		0.0722	MDL	0.195	PQL	mg/Kg	J	Q
BERYLLIUM	0.603		0.0156	MDL	0.0976	PQL	mg/Kg	J	Q
CADMIUM	1.47		0.0429	MDL	0.0976	PQL	mg/Kg	J	Q
CHROMIUM	62.5		0.117	MDL	0.390	PQL	mg/Kg	J	Q
COBALT	8.66		0.0195	MDL	0.0976	PQL	mg/Kg	J	Q, A
COPPER	15.5		0.0781	MDL	0.390	PQL	mg/Kg	J	Q
LEAD	20.3		0.010	MDL	0.195	PQL	mg/Kg	J	Q, A
NICKEL	32.2		0.0976	MDL	0.390	PQL	mg/Kg	J	Q
SILVER	0.0929	J	0.0139	MDL	0.0976	PQL	mg/Kg	J	Z, Q
THALLIUM	0.313		0.0293	MDL	0.0976	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-037-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 10:15:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.144	J	0.0584	MDL	0.403	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-037-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 10:15:00		<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.796		0.0504	MDL	0.101	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-037-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 10:15:00		<b>Analysis Type:</b> REA4		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	125		0.107	MDL	0.403	PQL	mg/Kg	J	A

<b>Sample ID:</b> SL-037-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 10:15:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.253		0.0745	MDL	0.201	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-037-SA7-SS-0.0-0.5      Collected: 9/13/2011 10:15:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.784		0.0161	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.284		0.0443	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	21.4		0.121	MDL	0.403	PQL	mg/Kg	J	Q
COBALT	7.79		0.0201	MDL	0.101	PQL	mg/Kg	J	Q, A
COPPER	10.6		0.0806	MDL	0.403	PQL	mg/Kg	J	Q
LEAD	24.6		0.0103	MDL	0.201	PQL	mg/Kg	J	Q, A
NICKEL	18.4		0.101	MDL	0.403	PQL	mg/Kg	J	Q
SILVER	0.0619	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.323		0.0302	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-040-SA7-SS-0.0-0.5      Collected: 9/13/2011 8:46:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.215	J	0.0585	MDL	0.404	PQL	mg/Kg	J	Z, Q

Sample ID: SL-040-SA7-SS-0.0-0.5      Collected: 9/13/2011 8:46:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.762		0.0505	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-040-SA7-SS-0.0-0.5      Collected: 9/13/2011 8:46:00      Analysis Type: REA4      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	134		0.267	MDL	1.01	PQL	mg/Kg	J	A

Sample ID: SL-040-SA7-SS-0.0-0.5      Collected: 9/13/2011 8:46:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.219		0.0747	MDL	0.202	PQL	mg/Kg	J	Q
BERYLLIUM	0.757		0.0162	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.411		0.0444	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	20.3		0.121	MDL	0.404	PQL	mg/Kg	J	Q
COBALT	7.42		0.0202	MDL	0.101	PQL	mg/Kg	J	Q, A
COPPER	13.1		0.0808	MDL	0.404	PQL	mg/Kg	J	Q
LEAD	13.5		0.0103	MDL	0.202	PQL	mg/Kg	J	Q, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-040-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 8:46:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	18.1		0.101	MDL	0.404	PQL	mg/Kg	J	Q
SILVER	0.0647	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.363		0.0303	MDL	0.101	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-041-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 9:09:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.101	J	0.0581	MDL	0.400	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-041-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 9:09:00		<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.603		0.0501	MDL	0.100	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-041-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 9:09:00		<b>Analysis Type:</b> REA4		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	125		0.106	MDL	0.400	PQL	mg/Kg	J	A

<b>Sample ID:</b> SL-041-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 9:09:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.138	J	0.0741	MDL	0.200	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.588		0.0160	MDL	0.100	PQL	mg/Kg	J	Q
CADMIUM	0.237		0.0440	MDL	0.100	PQL	mg/Kg	J	Q
CHROMIUM	17.3		0.120	MDL	0.400	PQL	mg/Kg	J	Q
COBALT	6.08		0.0200	MDL	0.100	PQL	mg/Kg	J	Q, A
COPPER	10.1		0.0801	MDL	0.400	PQL	mg/Kg	J	Q
LEAD	9.27		0.0102	MDL	0.200	PQL	mg/Kg	J	Q, A
NICKEL	13.8		0.100	MDL	0.400	PQL	mg/Kg	J	Q
SILVER	0.0404	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z, Q
THALLIUM	0.288		0.0300	MDL	0.100	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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ADR version 1.4.0.111

# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-070-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 10:35:00			<b>Analysis Type:</b> REA2			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.120	J	0.0566	MDL	0.390	PQL	mg/Kg	J	Z, Q	

<b>Sample ID:</b> SL-070-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 10:35:00			<b>Analysis Type:</b> REA3			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	0.618		0.0488	MDL	0.0976	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-070-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 10:35:00			<b>Analysis Type:</b> REA4			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	94.4		0.103	MDL	0.390	PQL	mg/Kg	J	A	

<b>Sample ID:</b> SL-070-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 10:35:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.180	J	0.0722	MDL	0.195	PQL	mg/Kg	J	Z, Q	
BERYLLIUM	0.615		0.0156	MDL	0.0976	PQL	mg/Kg	J	Q	
CADMIUM	0.196		0.0429	MDL	0.0976	PQL	mg/Kg	J	Q	
CHROMIUM	17.0		0.117	MDL	0.390	PQL	mg/Kg	J	Q	
COBALT	8.08		0.0195	MDL	0.0976	PQL	mg/Kg	J	Q, A	
COPPER	10.3		0.0781	MDL	0.390	PQL	mg/Kg	J	Q	
LEAD	17.6		0.010	MDL	0.195	PQL	mg/Kg	J	Q, A	
NICKEL	13.5		0.0976	MDL	0.390	PQL	mg/Kg	J	Q	
SILVER	0.0571	J	0.0139	MDL	0.0976	PQL	mg/Kg	J	Z, Q	
THALLIUM	0.271		0.0293	MDL	0.0976	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-071-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 9:26:00			<b>Analysis Type:</b> REA2			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.0949	J	0.0566	MDL	0.390	PQL	mg/Kg	J	Z, Q	

<b>Sample ID:</b> SL-071-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 9:26:00			<b>Analysis Type:</b> REA3			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	0.746		0.0488	MDL	0.0976	PQL	mg/Kg	J	Q	

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Method:</b>	6020	<b>Matrix:</b>	SO
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<b>Sample ID:</b> SL-071-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 9:26:00			<b>Analysis Type:</b> REA4			<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
BARIUM	134		0.103	MDL	0.390	PQL	mg/Kg	J	A		

<b>Sample ID:</b> SL-071-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 9:26:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ANTIMONY	0.151	J	0.0722	MDL	0.195	PQL	mg/Kg	J	Z, Q		
BERYLLIUM	0.714		0.0156	MDL	0.0976	PQL	mg/Kg	J	Q		
CADMIUM	0.218		0.0430	MDL	0.0976	PQL	mg/Kg	J	Q		
CHROMIUM	19.5		0.117	MDL	0.390	PQL	mg/Kg	J	Q		
COBALT	6.75		0.0195	MDL	0.0976	PQL	mg/Kg	J	Q, A		
COPPER	10.8		0.0781	MDL	0.390	PQL	mg/Kg	J	Q		
LEAD	8.94		0.010	MDL	0.195	PQL	mg/Kg	J	Q, A		
NICKEL	15.6		0.0976	MDL	0.390	PQL	mg/Kg	J	Q		
SILVER	0.0578	J	0.0139	MDL	0.0976	PQL	mg/Kg	J	Z, Q		
THALLIUM	0.324		0.0293	MDL	0.0976	PQL	mg/Kg	J	Q		

<b>Sample ID:</b> SL-073-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 2:30:00			<b>Analysis Type:</b> REA2			<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
SELENIUM	0.149	J	0.0567	MDL	0.391	PQL	mg/Kg	J	Z, Q		

<b>Sample ID:</b> SL-073-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 2:30:00			<b>Analysis Type:</b> REA3			<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
MOLYBDENUM	0.742		0.0489	MDL	0.0978	PQL	mg/Kg	J	Q		

<b>Sample ID:</b> SL-073-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 2:30:00			<b>Analysis Type:</b> REA4			<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
BARIUM	125		0.104	MDL	0.391	PQL	mg/Kg	J	A		

<b>Sample ID:</b> SL-073-SA7-SS-0.0-0.5			<b>Collected:</b> 9/13/2011 2:30:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
ANTIMONY	0.164	J	0.0724	MDL	0.196	PQL	mg/Kg	J	Z, Q		

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Method:</b>	6020
		<b>Matrix:</b>	SO

Sample ID: SL-073-SA7-SS-0.0-0.5	Collected: 9/13/2011 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
BERYLLIUM	0.645		0.0156	MDL	0.0978	PQL	mg/Kg	J	Q
CADMIUM	0.271		0.0430	MDL	0.0978	PQL	mg/Kg	J	Q
CHROMIUM	19.0		0.117	MDL	0.391	PQL	mg/Kg	J	Q
COBALT	7.45		0.0196	MDL	0.0978	PQL	mg/Kg	J	Q, A
COPPER	16.5		0.0782	MDL	0.391	PQL	mg/Kg	J	Q
LEAD	16.6		0.010	MDL	0.196	PQL	mg/Kg	J	Q, A
NICKEL	13.3		0.0978	MDL	0.391	PQL	mg/Kg	J	Q
SILVER	0.0336	J	0.0139	MDL	0.0978	PQL	mg/Kg	J	Z, Q
THALLIUM	0.313		0.0293	MDL	0.0978	PQL	mg/Kg	J	Q

Sample ID: SL-146-SA7-SS-0.0-0.5	Collected: 9/13/2011 11:40:00	Analysis Type: REA	Dilution: 5						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	184		0.297	MDL	0.990	PQL	mg/Kg	J	Q

Sample ID: SL-146-SA7-SS-0.0-0.5	Collected: 9/13/2011 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	0.114	J	0.0574	MDL	0.396	PQL	mg/Kg	J	Z, Q

Sample ID: SL-146-SA7-SS-0.0-0.5	Collected: 9/13/2011 11:40:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	7.99		0.0495	MDL	0.0990	PQL	mg/Kg	J	Q

Sample ID: SL-146-SA7-SS-0.0-0.5	Collected: 9/13/2011 11:40:00	Analysis Type: REA4	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	111		0.105	MDL	0.396	PQL	mg/Kg	J	A

Sample ID: SL-146-SA7-SS-0.0-0.5	Collected: 9/13/2011 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	0.452		0.0733	MDL	0.198	PQL	mg/Kg	J	Q
BERYLLIUM	0.441		0.0158	MDL	0.0990	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-146-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
CADMIUM	1.36		0.0436	MDL	0.0990	PQL	mg/Kg	J	Q
COBALT	10.1		0.0198	MDL	0.0990	PQL	mg/Kg	J	Q, A
COPPER	30.4		0.0792	MDL	0.396	PQL	mg/Kg	J	Q
LEAD	41.6		0.0101	MDL	0.198	PQL	mg/Kg	J	Q, A
NICKEL	163		0.0990	MDL	0.396	PQL	mg/Kg	J	Q
SILVER	0.168		0.0141	MDL	0.0990	PQL	mg/Kg	J	Q
THALLIUM	0.239		0.0297	MDL	0.0990	PQL	mg/Kg	J	Q

Sample ID: SL-338-SA5B-SB-7.0-8.0      Collected: 9/13/2011 9:00:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.297		0.0516	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-338-SA5B-SB-7.0-8.0      Collected: 9/13/2011 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
BARIUM	99.5		0.109	MDL	0.413	PQL	mg/Kg	J	A

Sample ID: SL-338-SA5B-SB-7.0-8.0      Collected: 9/13/2011 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	0.146	J	0.0764	MDL	0.206	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.337		0.0165	MDL	0.103	PQL	mg/Kg	J	Q
CADMIUM	0.0949	J	0.0454	MDL	0.103	PQL	mg/Kg	J	Z, Q
CHROMIUM	12.6		0.124	MDL	0.413	PQL	mg/Kg	J	Q
COBALT	6.34		0.0206	MDL	0.103	PQL	mg/Kg	J	Q, A
COPPER	17.3		0.0826	MDL	0.413	PQL	mg/Kg	J	Q
LEAD	3.39		0.0105	MDL	0.206	PQL	mg/Kg	J	Q, A
NICKEL	7.71		0.103	MDL	0.413	PQL	mg/Kg	J	Q
SILVER	0.0201	J	0.0147	MDL	0.103	PQL	mg/Kg	J	Z, Q
THALLIUM	0.140		0.0310	MDL	0.103	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Method:</b>	6020
		<b>Matrix:</b>	SO

<b>Sample ID:</b> SL-341-SA5B-SB-4.0-5.0		<b>Collected:</b> 9/13/2011 11:43:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.420	J	0.0648	MDL	0.447	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-341-SA5B-SB-4.0-5.0		<b>Collected:</b> 9/13/2011 11:43:00		<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.01		0.0559	MDL	0.112	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-341-SA5B-SB-4.0-5.0		<b>Collected:</b> 9/13/2011 11:43:00		<b>Analysis Type:</b> REA4		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIIUM	149		0.118	MDL	0.447	PQL	mg/Kg	J	A

<b>Sample ID:</b> SL-341-SA5B-SB-4.0-5.0		<b>Collected:</b> 9/13/2011 11:43:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.238		0.0827	MDL	0.223	PQL	mg/Kg	J	Q
BERYLLIUM	0.744		0.0179	MDL	0.112	PQL	mg/Kg	J	Q
CADMIUM	0.296		0.0492	MDL	0.112	PQL	mg/Kg	J	Q
CHROMIUM	23.8		0.134	MDL	0.447	PQL	mg/Kg	J	Q
COBALT	7.79		0.0223	MDL	0.112	PQL	mg/Kg	J	Q, A
COPPER	15.8		0.0894	MDL	0.447	PQL	mg/Kg	J	Q
LEAD	8.69		0.0114	MDL	0.223	PQL	mg/Kg	J	Q, A
NICKEL	15.2		0.112	MDL	0.447	PQL	mg/Kg	J	Q
SILVER	0.0506	J	0.0159	MDL	0.112	PQL	mg/Kg	J	Z, Q
THALLIUM	0.323		0.0335	MDL	0.112	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-341-SA5B-SB-9.0-10.0		<b>Collected:</b> 9/13/2011 11:47:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.258	J	0.0613	MDL	0.423	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-341-SA5B-SB-9.0-10.0		<b>Collected:</b> 9/13/2011 11:47:00		<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.06		0.0528	MDL	0.106	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-341-SA5B-SB-9.0-10.0      Collected: 9/13/2011 11:47:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	136		0.112	MDL	0.423	PQL	mg/Kg	J	A

Sample ID: SL-341-SA5B-SB-9.0-10.0      Collected: 9/13/2011 11:47:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.278		0.0782	MDL	0.211	PQL	mg/Kg	J	Q
BERYLLIUM	0.755		0.0169	MDL	0.106	PQL	mg/Kg	J	Q
CADMIUM	0.185		0.0465	MDL	0.106	PQL	mg/Kg	J	Q
CHROMIUM	23.5		0.127	MDL	0.423	PQL	mg/Kg	J	Q
COBALT	8.84		0.0211	MDL	0.106	PQL	mg/Kg	J	Q, A
COPPER	12.5		0.0845	MDL	0.423	PQL	mg/Kg	J	Q
LEAD	7.73		0.0108	MDL	0.211	PQL	mg/Kg	J	Q, A
NICKEL	16.0		0.106	MDL	0.423	PQL	mg/Kg	J	Q
SILVER	0.0483	J	0.0150	MDL	0.106	PQL	mg/Kg	J	Z, Q
THALLIUM	0.347		0.0317	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-342-SA5B-SB-4.0-5.0      Collected: 9/13/2011 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	0.407	J	0.0628	MDL	0.433	PQL	mg/Kg	J	Z, Q

Sample ID: SL-342-SA5B-SB-4.0-5.0      Collected: 9/13/2011 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
MOLYBDENUM	1.01		0.0541	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-342-SA5B-SB-4.0-5.0      Collected: 9/13/2011 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
BARIUM	156		0.115	MDL	0.433	PQL	mg/Kg	J	A

Sample ID: SL-342-SA5B-SB-4.0-5.0      Collected: 9/13/2011 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	0.301		0.0801	MDL	0.216	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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ADR version 1.4.0.111

# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-342-SA5B-SB-4.0-5.0	Collected: 9/13/2011 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
BERYLLIUM	0.898		0.0173	MDL	0.108	PQL	mg/Kg	J	Q
CADMIUM	0.236		0.0476	MDL	0.108	PQL	mg/Kg	J	Q
CHROMIUM	31.8		0.130	MDL	0.433	PQL	mg/Kg	J	Q
COBALT	9.72		0.0216	MDL	0.108	PQL	mg/Kg	J	Q, A
COPPER	16.2		0.0866	MDL	0.433	PQL	mg/Kg	J	Q
LEAD	9.57		0.0110	MDL	0.216	PQL	mg/Kg	J	Q, A
NICKEL	19.4		0.108	MDL	0.433	PQL	mg/Kg	J	Q
SILVER	0.0558	J	0.0154	MDL	0.108	PQL	mg/Kg	J	Z, Q
THALLIUM	0.356		0.0325	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-342-SA5B-SB-9.0-10.0	Collected: 9/13/2011 2:55:00	Analysis Type: REA2	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.199	J	0.0626	MDL	0.431	PQL	mg/Kg	J	Z, Q

Sample ID: SL-342-SA5B-SB-9.0-10.0	Collected: 9/13/2011 2:55:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.21		0.0539	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-342-SA5B-SB-9.0-10.0	Collected: 9/13/2011 2:55:00	Analysis Type: REA4	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	128		0.114	MDL	0.431	PQL	mg/Kg	J	A

Sample ID: SL-342-SA5B-SB-9.0-10.0	Collected: 9/13/2011 2:55:00	Analysis Type: RES	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.183	J	0.0798	MDL	0.216	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.676		0.0173	MDL	0.108	PQL	mg/Kg	J	Q
CADMIUM	0.208		0.0475	MDL	0.108	PQL	mg/Kg	J	Q
CHROMIUM	22.4		0.129	MDL	0.431	PQL	mg/Kg	J	Q
COBALT	7.45		0.0216	MDL	0.108	PQL	mg/Kg	J	Q, A
COPPER	14.5		0.0863	MDL	0.431	PQL	mg/Kg	J	Q
LEAD	7.26		0.0110	MDL	0.216	PQL	mg/Kg	J	Q, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-342-SA5B-SB-9.0-10.0      Collected: 9/13/2011 2:55:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	15.0		0.108	MDL	0.431	PQL	mg/Kg	J	Q
SILVER	0.0535	J	0.0153	MDL	0.108	PQL	mg/Kg	J	Z, Q
THALLIUM	0.313		0.0324	MDL	0.108	PQL	mg/Kg	J	Q

<b>Method Category:</b>	METALS	
<b>Method:</b>	7199	<b>Matrix:</b> SO

Sample ID: SL-034-SA7-SS-0.0-0.5      Collected: 9/13/2011 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	0.61	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-035-SA7-SS-0.0-0.5      Collected: 9/13/2011 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	0.46	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-146-SA7-SS-0.0-0.5      Collected: 9/13/2011 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	0.94	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-342-SA5B-SB-4.0-5.0      Collected: 9/13/2011 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	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-342-SA5B-SB-9.0-10.0      Collected: 9/13/2011 2:55:00      Analysis Type: RES      Dilution: 1

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

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Method:</b>	7471A	<b>Matrix:</b>	SO
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<b>Sample ID:</b> SL-030-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 2:55:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0236	J	0.0068	MDL	0.0965	PQL	mg/Kg	U	B, B

<b>Sample ID:</b> SL-034-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 12:15:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0894	J	0.0066	MDL	0.0938	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-035-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 2:05:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0522	J	0.0067	MDL	0.0955	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-037-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 10:15:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0234	J	0.0069	MDL	0.0983	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-040-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 8:46:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0145	J	0.0070	MDL	0.100	PQL	mg/Kg	U	B, B

<b>Sample ID:</b> SL-041-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 9:09:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0098	J	0.0068	MDL	0.0965	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-070-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 10:35:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0148	J	0.0070	MDL	0.0996	PQL	mg/Kg	U	B, B

<b>Sample ID:</b> SL-071-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 9:26:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0116	J	0.0067	MDL	0.0951	PQL	mg/Kg	U	B, B

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	7471A	Matrix: SO

Sample ID: SL-073-SA7-SS-0.0-0.5	Collected: 9/13/2011 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	0.0257	J	0.0069	MDL	0.0987	PQL	mg/Kg	U	B

Sample ID: SL-338-SA5B-SB-7.0-8.0	Collected: 9/13/2011 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	0.0181	J	0.0071	MDL	0.101	PQL	mg/Kg	U	B, B

Sample ID: SL-341-SA5B-SB-4.0-5.0	Collected: 9/13/2011 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	0.0241	J	0.0077	MDL	0.110	PQL	mg/Kg	U	B

Sample ID: SL-341-SA5B-SB-9.0-10.0	Collected: 9/13/2011 11:47:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0603	J	0.0076	MDL	0.108	PQL	mg/Kg	J	Z

Sample ID: SL-342-SA5B-SB-4.0-5.0	Collected: 9/13/2011 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
MERCURY	0.0266	J	0.0077	MDL	0.110	PQL	mg/Kg	U	B, B

Sample ID: SL-342-SA5B-SB-9.0-10.0	Collected: 9/13/2011 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
MERCURY	0.0178	J	0.0077	MDL	0.110	PQL	mg/Kg	U	B, B

Method Category:	SVOCs	
Method:	6850	Matrix: SO

Sample ID: SL-030-SA7-SS-0.0-0.5	Collected: 9/13/2011 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
PERCHLORATE	2.5	J	2.1	MDL	5.0	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	6850	Matrix:	SO

Sample ID: SL-146-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
PERCHLORATE	3.6	J	2.1	MDL	5.0	PQL	ug/Kg	J	Z

Method Category:	SVOA		
Method:	8015M	Matrix:	SO

Sample ID: SL-037-SA7-SS-0.0-0.5      Collected: 9/13/2011 10:15:00      Analysis Type: REA      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	4.2	J	4.0	MDL	12	PQL	mg/Kg	J	Z

Sample ID: SL-041-SA7-SS-0.0-0.5      Collected: 9/13/2011 9:09:00      Analysis Type: REA      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	0.81	MDL	2.4	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA7-SS-0.0-0.5      Collected: 9/13/2011 9:26:00      Analysis Type: REA      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C12-C14)	0.40	U	0.40	MDL	1.2	PQL	mg/Kg	UJ	S
EFH (C15-C20)	0.40	U	0.40	MDL	1.2	PQL	mg/Kg	UJ	S
EFH (C21-C30)	2.3		0.40	MDL	1.2	PQL	mg/Kg	J	S
EFH (C30-C40)	6.8		0.40	MDL	1.2	PQL	mg/Kg	J	S
EFH (C8-C11)	0.40	U	0.40	MDL	1.2	PQL	mg/Kg	UJ	S

Sample ID: SL-073-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:30:00      Analysis Type: REA      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	4.1	J	2.0	MDL	6.0	PQL	mg/Kg	J	Z

Sample ID: SL-341-SA5B-SB-4.0-5.0      Collected: 9/13/2011 11:43:00      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)	3.2	J	2.3	MDL	6.8	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8015M	Matrix:	SO

Sample ID: SL-341-SA5B-SB-9.0-10.0      Collected: 9/13/2011 11:47:00      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)	6.5	J	2.2	MDL	6.6	PQL	mg/Kg	J	Z

Sample ID: SL-342-SA5B-SB-4.0-5.0      Collected: 9/13/2011 2:50:00      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)	2.7	J	2.2	MDL	6.7	PQL	mg/Kg	J	Z

Method Category:	SVOA		
Method:	8081A	Matrix:	SO

Sample ID: SL-030-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:55:00      Analysis Type: DL-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	2.4		0.33	MDL	1.7	PQL	ug/Kg	J	Q, *XIII

Sample ID: SL-030-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:55:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	3.1	J	0.80	MDL	3.4	PQL	ug/Kg	J	Z, *XIII
DIELDRIN	1.4	U	1.4	MDL	1.4	PQL	ug/Kg	R	Q
ENDOSULFAN I	0.044	U	0.044	MDL	0.17	PQL	ug/Kg	R	Q
ENDOSULFAN II	0.40	U	0.40	MDL	0.40	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.066	U	0.066	MDL	0.34	PQL	ug/Kg	R	Q
ENDRIN	0.45	U	0.45	MDL	0.45	PQL	ug/Kg	R	Q
ENDRIN ALDEHYDE	0.70	U	0.70	MDL	0.70	PQL	ug/Kg	UJ	C
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	C

Sample ID: SL-034-SA7-SS-0.0-0.5      Collected: 9/13/2011 12:15:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	2.4		0.33	MDL	1.7	PQL	ug/Kg	J	S
Chlordane	7.1	J	4.0	MDL	17	PQL	ug/Kg	J	Z, S
gamma-BHC (Lindane)	0.17	U	0.17	MDL	0.83	PQL	ug/Kg	UJ	C

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8081A	Matrix:	SO

Sample ID: SL-035-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:05:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	1.8		0.066	MDL	0.34	PQL	ug/Kg	J	S
Chlordane	7.3		0.80	MDL	3.4	PQL	ug/Kg	J	S, *XIII
ENDOSULFAN II	0.57	U	0.57	MDL	0.57	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.66		0.066	MDL	0.34	PQL	ug/Kg	J	S, C
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	C

Sample ID: SL-037-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
ENDOSULFAN II	0.45	U	0.45	MDL	0.45	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.44	U	0.44	MDL	0.44	PQL	ug/Kg	UJ	C
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	C

Sample ID: SL-040-SA7-SS-0.0-0.5      Collected: 9/13/2011 8:46:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.15	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z
4,4'-DDE	0.15	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z
4,4'-DDT	0.24	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.15	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z, C, *XIII
ENDRIN	0.11	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.22	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z, C
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	C
MIREX	0.24	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z, *XIII

Sample ID: SL-041-SA7-SS-0.0-0.5      Collected: 9/13/2011 9:09:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DELTA-BHC	0.095	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z, *XIII
ENDOSULFAN II	0.16	U	0.16	MDL	0.34	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.33	U	0.33	MDL	0.34	PQL	ug/Kg	UJ	C
gamma-BHC (Lindane)	0.057	J	0.034	MDL	0.17	PQL	ug/Kg	J	Z, C, *XIII

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8081A	Matrix:	SO

Sample ID: SL-070-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
Chlordane	1.9	J	0.80	MDL	3.4	PQL	ug/Kg	J	Z, *XIII
ENDOSULFAN II	0.31	U	0.31	MDL	0.34	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.61	U	0.61	MDL	0.61	PQL	ug/Kg	UJ	C
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	C

Sample ID: SL-071-SA7-SS-0.0-0.5      Collected: 9/13/2011 9:26:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.24	J	0.066	MDL	0.34	PQL	ug/Kg	J	Z
Chlordane	2.2	J	0.80	MDL	3.4	PQL	ug/Kg	J	Z
DELTA-BHC	0.096	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z
ENDOSULFAN II	0.073	U	0.073	MDL	0.34	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.15	U	0.15	MDL	0.34	PQL	ug/Kg	UJ	C
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.047	J	0.034	MDL	0.17	PQL	ug/Kg	J	Z
TOXAPHENE	3.6	J	2.2	MDL	6.6	PQL	ug/Kg	J	Z, *XIII

Sample ID: SL-073-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
Chlordane	1.5	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z, *XIII
ENDOSULFAN II	0.089	U	0.089	MDL	0.34	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.35	U	0.35	MDL	0.35	PQL	ug/Kg	UJ	C
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	C
HEPTACHLOR	0.073	J	0.060	MDL	0.17	PQL	ug/Kg	J	Z, *XIII

Sample ID: SL-146-SA7-SS-0.0-0.5      Collected: 9/13/2011 11:40:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDOSULFAN II	3.7	U	3.7	MDL	3.7	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	4.8	U	4.8	MDL	4.8	PQL	ug/Kg	UJ	C
gamma-BHC (Lindane)	0.17	U	0.17	MDL	0.83	PQL	ug/Kg	UJ	C

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8082
		<b>Matrix:</b>	SO

Sample ID: SL-030-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:55:00      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	160		3.3	MDL	17	PQL	ug/Kg	J	S
AROCLOR 1260	42		3.9	MDL	17	PQL	ug/Kg	J	S
Aroclor 5460	450		10	MDL	33	PQL	ug/Kg	J	S

Sample ID: SL-037-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
Aroclor 5460	2.4	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-041-SA7-SS-0.0-0.5      Collected: 9/13/2011 9:09:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	1.6	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-070-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
AROCLOR 1242	0.70	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-071-SA7-SS-0.0-0.5      Collected: 9/13/2011 9:26:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.95	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-341-SA5B-SB-4.0-5.0      Collected: 9/13/2011 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	0.70	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-341-SA5B-SB-9.0-10.0      Collected: 9/13/2011 11:47:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	2.1		0.36	MDL	1.9	PQL	ug/Kg	J	*XIII
AROCLOR 1260	0.78	J	0.43	MDL	1.9	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8082	Matrix:	SO

Sample ID: SL-342-SA5B-SB-4.0-5.0      Collected: 9/13/2011 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 1254	1.7	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-342-SA5B-SB-9.0-10.0      Collected: 9/13/2011 2:55:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.1	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z

Method Category:	SVOA		
Method:	8151A	Matrix:	SO

Sample ID: SL-030-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
2,4,5-TP (Silvex)	0.075	U	0.075	MDL	0.17	PQL	ug/Kg	UJ	Q
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	UJ	Q

Sample ID: SL-035-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:05:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DB	2.7		0.62	MDL	1.7	PQL	ug/Kg	J	*IX

Sample ID: SL-037-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
2,4,5-T	0.79		0.083	MDL	0.17	PQL	ug/Kg	J	*IX
MCPP	110	J	76	MDL	250	PQL	ug/Kg	J	Z, *IX

Sample ID: SL-071-SA7-SS-0.0-0.5      Collected: 9/13/2011 9:26:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.42	J	0.40	MDL	1.2	PQL	ug/Kg	J	Z, L, *IX

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8151A	Matrix:	SO

Sample ID: SL-146-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
2,4,5-T	0.20		0.082	MDL	0.17	PQL	ug/Kg	J	*IX

Method Category:	SVOA		
Method:	8270C	Matrix:	SO

Sample ID: SL-030-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:55:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	500	PQL	ug/Kg	UJ	L

Sample ID: SL-034-SA7-SS-0.0-0.5      Collected: 9/13/2011 12:15:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	230	J	17	MDL	330	PQL	ug/Kg	J	Z
CHRYSENE	17	J	17	MDL	170	PQL	ug/Kg	J	Z
Di-n-butylphthalate	40	J	17	MDL	170	PQL	ug/Kg	J	Z
PYRENE	17	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-035-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:05:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	38	J	17	MDL	340	PQL	ug/Kg	J	Z
Di-n-butylphthalate	20	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-037-SA7-SS-0.0-0.5      Collected: 9/13/2011 10:15:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	500	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8270C	Matrix:	SO

Sample ID: SL-040-SA7-SS-0.0-0.5	Collected: 9/13/2011 8:46:00	Analysis Type: RES-ACID	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	500	PQL	ug/Kg	UJ	L

Sample ID: SL-041-SA7-SS-0.0-0.5	Collected: 9/13/2011 9:09:00	Analysis Type: RES-ACID	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	510	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	510	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	24	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-070-SA7-SS-0.0-0.5	Collected: 9/13/2011 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
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BENZO(B)FLUORANTHENE	18	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZOIC ACID	170	U	170	MDL	500	PQL	ug/Kg	UJ	L

Sample ID: SL-071-SA7-SS-0.0-0.5	Collected: 9/13/2011 9:26:00	Analysis Type: RES-ACID	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	500	PQL	ug/Kg	UJ	L

Sample ID: SL-073-SA7-SS-0.0-0.5	Collected: 9/13/2011 2:30:00	Analysis Type: RES-ACID	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	500	PQL	ug/Kg	UJ	L

Sample ID: SL-146-SA7-SS-0.0-0.5	Collected: 9/13/2011 11:40:00	Analysis Type: RES-ACID	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BENZO(G,H,I)PERYLENE	21	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZOIC ACID	170	U	170	MDL	500	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C	<b>Matrix:</b>	SO
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Sample ID: SL-146-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	240	J	17	MDL	330	PQL	ug/Kg	J	Z

Sample ID: SL-338-SA5B-SB-7.0-8.0      Collected: 9/13/2011 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
4,6-DINITRO-2-METHYLPHENOL	180	U	180	MDL	530	PQL	ug/Kg	UJ	L
BENZO(G,H,I)PERYLENE	110	J	18	MDL	180	PQL	ug/Kg	J	Z
BENZOIC ACID	180	U	180	MDL	530	PQL	ug/Kg	UJ	L

Sample ID: SL-341-SA5B-SB-4.0-5.0      Collected: 9/13/2011 11:43:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	190	U	190	MDL	560	PQL	ug/Kg	UJ	L
BENZOIC ACID	190	U	190	MDL	560	PQL	ug/Kg	UJ	L

Sample ID: SL-341-SA5B-SB-9.0-10.0      Collected: 9/13/2011 11:47:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	180	U	180	MDL	550	PQL	ug/Kg	UJ	L
BENZOIC ACID	180	U	180	MDL	550	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	60	J	18	MDL	370	PQL	ug/Kg	J	Z
FLUORANTHENE	19	J	18	MDL	180	PQL	ug/Kg	J	Z
PHENANTHRENE	24	J	18	MDL	180	PQL	ug/Kg	J	Z
PYRENE	19	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-342-SA5B-SB-4.0-5.0      Collected: 9/13/2011 2:50:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	190	U	190	MDL	560	PQL	ug/Kg	UJ	L
BENZOIC ACID	190	U	190	MDL	560	PQL	ug/Kg	UJ	L

Sample ID: SL-342-SA5B-SB-9.0-10.0      Collected: 9/13/2011 2:55:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	190	U	190	MDL	560	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C	<b>Matrix:</b>	SO
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Sample ID: SL-342-SA5B-SB-9.0-10.0      Collected: 9/13/2011 2:55:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	190	U	190	MDL	560	PQL	ug/Kg	UJ	L

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C SIM	<b>Matrix:</b>	SO
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Sample ID: SL-030-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:55:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.49	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.97	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-034-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
ANTHRACENE	0.41	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	24		0.67	MDL	1.7	PQL	ug/Kg	J	I
BENZO(B)FLUORANTHENE	23		0.67	MDL	1.7	PQL	ug/Kg	J	I
BENZO(G,H,I)PERYLENE	11		0.67	MDL	1.7	PQL	ug/Kg	J	I
BENZO(K)FLUORANTHENE	25		0.67	MDL	1.7	PQL	ug/Kg	J	I
DIBENZO(A,H)ANTHRACENE	5.5		0.67	MDL	1.7	PQL	ug/Kg	J	I
Di-n-octylphthalate	6.0	U	6.0	MDL	18	PQL	ug/Kg	R	I
INDENO(1,2,3-CD)PYRENE	5.6		0.67	MDL	1.7	PQL	ug/Kg	J	I
NAPHTHALENE	0.98	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-035-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:05:00      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(A)PYRENE	5.9	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z
FLUORANTHENE	4.5	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	3.4	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z
PYRENE	5.3	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C SIM	<b>Matrix:</b>	SO
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Sample ID: SL-037-SA7-SS-0.0-0.5      Collected: 9/13/2011 10:15:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	7.4	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	76	J	30	MDL	91	PQL	ug/Kg	J	Z
Butylbenzylphthalate	43	J	30	MDL	91	PQL	ug/Kg	J	Z
NAPHTHALENE	3.9	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z

Sample ID: SL-040-SA7-SS-0.0-0.5      Collected: 9/13/2011 8:46:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.75	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	0.50	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	0.70	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-041-SA7-SS-0.0-0.5      Collected: 9/13/2011 9:09:00      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	0.87	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.6	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.95	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-070-SA7-SS-0.0-0.5      Collected: 9/13/2011 10:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	3.5	J	1.7	MDL	8.4	PQL	ug/Kg	J	Z
FLUORANTHENE	8.3	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z
NAPHTHALENE	3.7	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z
PYRENE	6.3	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z

Sample ID: SL-071-SA7-SS-0.0-0.5      Collected: 9/13/2011 9:26:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.75	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.67	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	16	J	6.0	MDL	18	PQL	ug/Kg	J	Z
Butylbenzylphthalate	7.7	J	6.0	MDL	18	PQL	ug/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: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVDA	<b>Method:</b>	8270C SIM
		<b>Matrix:</b>	SO

Sample ID: SL-071-SA7-SS-0.0-0.5      Collected: 9/13/2011 9:26:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHENANTHRENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-073-SA7-SS-0.0-0.5      Collected: 9/13/2011 2:30:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	4.5	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	4.3	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	5.4	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z
NAPHTHALENE	3.7	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z

Sample ID: SL-146-SA7-SS-0.0-0.5      Collected: 9/13/2011 11:40:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	30	J	30	MDL	90	PQL	ug/Kg	J	Z
FLUORANTHENE	5.0	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z
NAPHTHALENE	5.2	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z
PYRENE	5.7	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z

Sample ID: SL-338-SA5B-SB-7.0-8.0      Collected: 9/13/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	7.9	J	6.3	MDL	19	PQL	ug/Kg	J	Z
FLUORENE	0.80	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-341-SA5B-SB-4.0-5.0      Collected: 9/13/2011 11:43:00      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	2.3	J	1.9	MDL	9.3	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	4.4	J	3.7	MDL	9.3	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	4.4	J	3.7	MDL	9.3	PQL	ug/Kg	J	Z
NAPHTHALENE	5.2	J	3.7	MDL	9.3	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	Matrix:	SO
Method:	8270C SIM		

Sample ID: SL-341-SA5B-SB-9.0-10.0      Collected: 9/13/2011 11:47:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	1.0	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
ANTHRACENE	1.2	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.4	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
FLUORENE	1.4	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	0.79	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-342-SA5B-SB-4.0-5.0      Collected: 9/13/2011 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
BENZO(B)FLUORANTHENE	0.96	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	0.79	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-342-SA5B-SB-9.0-10.0      Collected: 9/13/2011 2:55:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	1.0	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.7	J	0.74	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.1	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

Method Category:	VOA	Matrix:	SO
Method:	8015B		

Sample ID: SL-037-SA7-SS-0.0-0.5      Collected: 9/13/2011 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
Isopropanol	110	J	100	MDL	500	PQL	ug/Kg	J	Z

Sample ID: SL-041-SA7-SS-0.0-0.5      Collected: 9/13/2011 9:09:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	230	J	100	MDL	510	PQL	ug/Kg	J	Z, *IX

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	VOA	<b>Method:</b>	8015B	<b>Matrix:</b>	SO
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<b>Sample ID:</b> SL-070-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 10:35:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Isopropanol	100	J	100	MDL	500	PQL	ug/Kg	J	Z, *IX
METHANOL	230	J	100	MDL	500	PQL	ug/Kg	J	Z, *IX

<b>Sample ID:</b> SL-071-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 9:26:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	250	J	100	MDL	500	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-073-SA7-SS-0.0-0.5		<b>Collected:</b> 9/13/2011 2:30:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Isopropanol	160	J	100	MDL	500	PQL	ug/Kg	J	Z
METHANOL	330	J	100	MDL	500	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-338-SA5B-SB-7.0-8.0		<b>Collected:</b> 9/13/2011 9:00:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	340	J	110	MDL	530	PQL	ug/Kg	J	Z, *IX

<b>Sample ID:</b> SL-341-SA5B-SB-4.0-5.0		<b>Collected:</b> 9/13/2011 11:43:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	410	J	110	MDL	560	PQL	ug/Kg	J	Z, *IX

<b>Sample ID:</b> SL-341-SA5B-SB-9.0-10.0		<b>Collected:</b> 9/13/2011 11:47:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	420	J	110	MDL	550	PQL	ug/Kg	J	Z, *IX

<b>Sample ID:</b> SL-342-SA5B-SB-4.0-5.0		<b>Collected:</b> 9/13/2011 2:50:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	290	J	110	MDL	560	PQL	ug/Kg	J	Z, *IX

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	VOA	
Method:	8015B	Matrix: SO

Sample ID: SL-342-SA5B-SB-9.0-10.0

Collected: 9/13/2011 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
METHANOL	340	J	110	MDL	560	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
*IX, XIII	Compound Quantitation and RLS
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

\* 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: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

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	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: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

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

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE242

# Method Blank Outlier Report

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P25708CB221307	9/22/2011 1:07:00 PM	BORON CALCIUM MANGANESE PHOSPHORUS STRONTIUM TIN	0.683 mg/Kg 11.1 mg/Kg 0.0780 mg/Kg 0.876 mg/Kg 0.0590 mg/Kg 1.70 mg/Kg	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-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-030-SA7-SS-0.0-0.5(RES)	TIN	2.91 mg/Kg	2.91U mg/Kg
SL-034-SA7-SS-0.0-0.5(RES)	BORON	1.04 mg/Kg	1.04U mg/Kg
SL-034-SA7-SS-0.0-0.5(RES)	TIN	2.97 mg/Kg	2.97U mg/Kg
SL-035-SA7-SS-0.0-0.5(RES)	BORON	1.48 mg/Kg	1.48U mg/Kg
SL-035-SA7-SS-0.0-0.5(RES)	TIN	3.80 mg/Kg	3.80U mg/Kg
SL-037-SA7-SS-0.0-0.5(RES)	TIN	2.91 mg/Kg	2.91U mg/Kg
SL-040-SA7-SS-0.0-0.5(RES)	TIN	2.98 mg/Kg	2.98U mg/Kg
SL-041-SA7-SS-0.0-0.5(RES)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-070-SA7-SS-0.0-0.5(RES)	TIN	2.78 mg/Kg	2.78U mg/Kg
SL-071-SA7-SS-0.0-0.5(RES)	TIN	2.78 mg/Kg	2.78U mg/Kg
SL-073-SA7-SS-0.0-0.5(RES)	TIN	3.71 mg/Kg	3.71U mg/Kg
SL-146-SA7-SS-0.0-0.5(RES)	BORON	2.17 mg/Kg	2.17U mg/Kg
SL-146-SA7-SS-0.0-0.5(RES)	TIN	4.49 mg/Kg	4.49U mg/Kg
SL-338-SA5B-SB-7.0-8.0(RES)	BORON	2.97 mg/Kg	2.97U mg/Kg
SL-338-SA5B-SB-7.0-8.0(RES)	TIN	2.25 mg/Kg	2.25U mg/Kg
SL-341-SA5B-SB-4.0-5.0(RES)	TIN	3.02 mg/Kg	3.02U mg/Kg
SL-341-SA5B-SB-9.0-10.0(RES)	TIN	3.05 mg/Kg	3.05U mg/Kg
SL-342-SA5B-SB-4.0-5.0(RES)	TIN	3.02 mg/Kg	3.02U mg/Kg
SL-342-SA5B-SB-9.0-10.0(RES)	TIN	3.14 mg/Kg	3.14U mg/Kg

# Method Blank Outlier Report

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7471A  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P25711BB220853	9/16/2011 8:53:00 AM	MERCURY	0.0072 mg/Kg	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-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-030-SA7-SS-0.0-0.5(RES)	MERCURY	0.0236 mg/Kg	0.0236U mg/Kg
SL-037-SA7-SS-0.0-0.5(RES)	MERCURY	0.0234 mg/Kg	0.0234U mg/Kg
SL-040-SA7-SS-0.0-0.5(RES)	MERCURY	0.0145 mg/Kg	0.0145U mg/Kg
SL-041-SA7-SS-0.0-0.5(RES)	MERCURY	0.0098 mg/Kg	0.0098U mg/Kg
SL-070-SA7-SS-0.0-0.5(RES)	MERCURY	0.0148 mg/Kg	0.0148U mg/Kg
SL-071-SA7-SS-0.0-0.5(RES)	MERCURY	0.0116 mg/Kg	0.0116U mg/Kg
SL-073-SA7-SS-0.0-0.5(RES)	MERCURY	0.0257 mg/Kg	0.0257U mg/Kg
SL-338-SA5B-SB-7.0-8.0(RES)	MERCURY	0.0181 mg/Kg	0.0181U mg/Kg
SL-341-SA5B-SB-4.0-5.0(RES)	MERCURY	0.0241 mg/Kg	0.0241U mg/Kg
SL-342-SA5B-SB-4.0-5.0(RES)	MERCURY	0.0266 mg/Kg	0.0266U mg/Kg
SL-342-SA5B-SB-9.0-10.0(RES)	MERCURY	0.0178 mg/Kg	0.0178U mg/Kg

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-030-SA7-SS-0.0-0.5MS SL-030-SA7-SS-0.0-0.5MSD (SL-030-SA7-SS-0.0-0.5)	2,4,5-T 2,4-D MCPA	375 - -	- - -	10.00-156.00 17.00-180.00 10.00-213.00	176 (35.00) 46 (35.00) 69 (50.00)	2,4,5-T 2,4-D MCPA	J (all detects)
SL-030-SA7-SS-0.0-0.5MS SL-030-SA7-SS-0.0-0.5MSD (SL-030-SA7-SS-0.0-0.5)	2,4,5-TP (Silvex) DINOSEB	14 6	- 6	24.00-141.00 10.00-46.00	133 (35.00) -	2,4,5-TP (Silvex) DINOSEB	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-030-SA7-SS-0.0-0.5MSD (SL-030-SA7-SS-0.0-0.5)	4,4'-DDE ENDOSULFAN II HEPTACHLOR EPOXIDE	- - -	451 363 188	18.00-161.00 28.00-154.00 13.00-157.00	- 95 (50.00) 64 (50.00)	4,4'-DDE ENDOSULFAN II HEPTACHLOR EPOXIDE	J(all detects)
SL-030-SA7-SS-0.0-0.5MS SL-030-SA7-SS-0.0-0.5MSD (SL-030-SA7-SS-0.0-0.5)	4,4'-DDT DIELDRIN ENDOSULFAN I ENDOSULFAN SULFATE ENDRIN	-19 - - - 0	238 0 0 0 0	10.00-176.00 19.00-154.00 16.00-137.00 21.00-160.00 11.00-149.00	- 200 (50.00) 200 (50.00) 200 (50.00) -	4,4'-DDT DIELDRIN ENDOSULFAN I ENDOSULFAN SULFATE ENDRIN	J(all detects) R(all non-detects) 4,4'-DDT, No Qual, >4x

**Method: 8015M**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-037-SA7-SS-0.0-0.5MS SL-037-SA7-SS-0.0-0.5MSD (SL-037-SA7-SS-0.0-0.5)	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	135 861 1645	262 1603 3199	49.00-123.00 49.00-123.00 49.00-123.00	24 (20.00) - -	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	No Qual, Diluted Out
SL-037-SA7-SS-0.0-0.5MS SL-037-SA7-SS-0.0-0.5MSD (SL-037-SA7-SS-0.0-0.5)	EFH (C12-C14) EFH (C8-C11)	0 0	0 0	49.00-123.00 49.00-123.00	- -	EFH (C12-C14) EFH (C8-C11)	No Qual, Diluted Out
SL-338-SA5B-SB-7.0-8.0MSD (SL-338-SA5B-SB-7.0-8.0)	GASOLINE RANGE ORGANICS (	-	121	39.00-118.00	-	GASOLINE RANGE ORGANICS	No Qual, Diluted Out

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12584AQ242133A (SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5)	DICAMBA	148	-	54.00-121.00	-	DICAMBA	J (all detects)

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

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P25726AQ220852A (SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0)	VANADIUM	121	-	80.00-120.00	-	VANADIUM	No Qual, SRM within QC Limits

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

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P25708CQ221311 P25708CQ221634 (SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0)	ALUMINUM IRON MAGNESIUM	149 141 126	- - -	80.00-120.00 80.00-120.00 80.00-120.00	- - -	ALUMINUM IRON MAGNESIUM	No Qual, SRM within QC Limits

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

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
P8LALCSQ260158 (SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0)	4,6-DINITRO-2-METHYLPHENOL BENZOIC ACID	39 57	- -	46.00-120.00 62.00-113.00	- -	4,6-DINITRO-2-METHYLPHENOL BENZOIC ACID	J(all detects) UJ(all non-detects)

# Surrogate Outlier Report

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8015M  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-071-SA7-SS-0.0 -0.5	CHLOROBENZENE O-TERPHENYL	15 18	37.00-125.00 47.00-145.00	All Target Analytes	J(all detects) UJ(all non-detects)

**Method:** 8081A  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-034-SA7-SS-0.0 -0.5	DECACHLOROBIPHENYL	390	20.00-120.00	All Target Analytes	J(all detects)
SL-035-SA7-SS-0.0 -0.5	DECACHLOROBIPHENYL	151	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-030-SA7-SS-0.0 -0.5	DECACHLOROBIPHENYL	151	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-034-SA7-SS-0.0 -0.5	Terphenyl-d14	157	45.00-135.00	No Affected Compounds	J(all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 300.0  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-034-SA7-SS-0.0-0.5	FLUORIDE	J	0.91	0.98	PQL	mg/Kg	J (all detects)
SL-338-SA5B-SB-7.0-8.0	Nitrate-NO3	J	1.1	1.6	PQL	mg/Kg	J (all detects)
SL-341-SA5B-SB-4.0-5.0	Nitrate-NO3	J	1.3	1.7	PQL	mg/Kg	J (all detects)
SL-341-SA5B-SB-9.0-10.0	Nitrate-NO3	J	1.1	1.7	PQL	mg/Kg	J (all detects)
SL-342-SA5B-SB-9.0-10.0	Nitrate-NO3	J	1.2	1.7	PQL	mg/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-030-SA7-SS-0.0-0.5	BORON	J	4.23	4.98	PQL	mg/Kg	J (all detects)
	SODIUM	J	75.3	99.5	PQL	mg/Kg	
	TIN	J	2.91	9.95	PQL	mg/Kg	
	Zirconium	J	2.73	4.98	PQL	mg/Kg	
SL-034-SA7-SS-0.0-0.5	BORON	J	1.04	4.95	PQL	mg/Kg	J (all detects)
	TIN	J	2.97	9.90	PQL	mg/Kg	
	Zirconium	J	2.93	4.95	PQL	mg/Kg	
SL-035-SA7-SS-0.0-0.5	BORON	J	1.48	4.83	PQL	mg/Kg	J (all detects)
	TIN	J	3.80	9.66	PQL	mg/Kg	
SL-037-SA7-SS-0.0-0.5	BORON	J	4.63	4.99	PQL	mg/Kg	J (all detects)
	SODIUM	J	81.9	99.7	PQL	mg/Kg	
	TIN	J	2.91	9.97	PQL	mg/Kg	
	Zirconium	J	2.88	4.99	PQL	mg/Kg	
SL-040-SA7-SS-0.0-0.5	BORON	J	4.08	4.95	PQL	mg/Kg	J (all detects)
	SODIUM	J	67.8	99.0	PQL	mg/Kg	
	TIN	J	2.98	9.90	PQL	mg/Kg	
	Zirconium	J	2.96	4.95	PQL	mg/Kg	
SL-041-SA7-SS-0.0-0.5	BORON	J	4.36	5.06	PQL	mg/Kg	J (all detects)
	SODIUM	J	70.6	101	PQL	mg/Kg	
	TIN	J	3.00	10.1	PQL	mg/Kg	
	Zirconium	J	3.32	5.06	PQL	mg/Kg	
SL-070-SA7-SS-0.0-0.5	BORON	J	3.86	4.83	PQL	mg/Kg	J (all detects)
	SODIUM	J	95.8	96.7	PQL	mg/Kg	
	TIN	J	2.78	9.67	PQL	mg/Kg	
	Zirconium	J	2.67	4.83	PQL	mg/Kg	
SL-071-SA7-SS-0.0-0.5	BORON	J	3.95	4.83	PQL	mg/Kg	J (all detects)
	SODIUM	J	72.8	96.7	PQL	mg/Kg	
	TIN	J	2.78	9.67	PQL	mg/Kg	
	Zirconium	J	3.22	4.83	PQL	mg/Kg	
SL-073-SA7-SS-0.0-0.5	BORON	J	3.89	4.89	PQL	mg/Kg	J (all detects)
	TIN	J	3.71	9.78	PQL	mg/Kg	
	Zirconium	J	3.10	4.89	PQL	mg/Kg	
SL-146-SA7-SS-0.0-0.5	BORON	J	2.17	4.90	PQL	mg/Kg	J (all detects)
	TIN	J	4.49	9.80	PQL	mg/Kg	
	Zirconium	J	4.01	4.90	PQL	mg/Kg	
SL-338-SA5B-SB-7.0-8.0	BORON	J	2.97	5.11	PQL	mg/Kg	J (all detects)
	TIN	J	2.25	10.2	PQL	mg/Kg	
	Zirconium	J	2.32	5.11	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-341-SA5B-SB-4.0-5.0	BORON	J	4.29	5.53	PQL	mg/Kg	J (all detects)
	TIN	J	3.02	11.1	PQL	mg/Kg	
	Zirconium	J	3.82	5.53	PQL	mg/Kg	
SL-341-SA5B-SB-9.0-10.0	BORON	J	4.09	5.49	PQL	mg/Kg	J (all detects)
	TIN	J	3.05	11.0	PQL	mg/Kg	
	Zirconium	J	3.72	5.49	PQL	mg/Kg	
SL-342-SA5B-SB-4.0-5.0	BORON	J	4.96	5.52	PQL	mg/Kg	J (all detects)
	TIN	J	3.02	11.0	PQL	mg/Kg	
	Zirconium	J	3.91	5.52	PQL	mg/Kg	
SL-342-SA5B-SB-9.0-10.0	TIN	J	3.14	11.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.41	5.50	PQL	mg/Kg	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-030-SA7-SS-0.0-0.5	SELENIUM	J	0.212	0.390	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0276	0.0976	PQL	mg/Kg	
SL-034-SA7-SS-0.0-0.5	SELENIUM	J	0.105	0.388	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0584	0.0971	PQL	mg/Kg	
SL-035-SA7-SS-0.0-0.5	SELENIUM	J	0.168	0.390	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0929	0.0976	PQL	mg/Kg	
SL-037-SA7-SS-0.0-0.5	SELENIUM	J	0.144	0.403	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0619	0.101	PQL	mg/Kg	
SL-040-SA7-SS-0.0-0.5	SELENIUM	J	0.215	0.404	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0647	0.101	PQL	mg/Kg	
SL-041-SA7-SS-0.0-0.5	ANTIMONY	J	0.138	0.200	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.101	0.400	PQL	mg/Kg	
	SILVER	J	0.0404	0.100	PQL	mg/Kg	
SL-070-SA7-SS-0.0-0.5	ANTIMONY	J	0.180	0.195	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.120	0.390	PQL	mg/Kg	
	SILVER	J	0.0571	0.0976	PQL	mg/Kg	
SL-071-SA7-SS-0.0-0.5	ANTIMONY	J	0.151	0.195	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0949	0.390	PQL	mg/Kg	
	SILVER	J	0.0578	0.0976	PQL	mg/Kg	
SL-073-SA7-SS-0.0-0.5	ANTIMONY	J	0.164	0.196	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.149	0.391	PQL	mg/Kg	
	SILVER	J	0.0336	0.0978	PQL	mg/Kg	
SL-146-SA7-SS-0.0-0.5	SELENIUM	J	0.114	0.396	PQL	mg/Kg	J (all detects)
SL-338-SA5B-SB-7.0-8.0	ANTIMONY	J	0.146	0.206	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0949	0.103	PQL	mg/Kg	
	SILVER	J	0.0201	0.103	PQL	mg/Kg	
SL-341-SA5B-SB-4.0-5.0	SELENIUM	J	0.420	0.447	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0506	0.112	PQL	mg/Kg	
SL-341-SA5B-SB-9.0-10.0	SELENIUM	J	0.258	0.423	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0483	0.106	PQL	mg/Kg	
SL-342-SA5B-SB-4.0-5.0	SELENIUM	J	0.407	0.433	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0558	0.108	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-342-SA5B-SB-9.0-10.0	ANTIMONY SELENIUM SILVER	J	0.183	0.216	PQL	mg/Kg	J (all detects)
		J	0.199	0.431	PQL	mg/Kg	
		J	0.0535	0.108	PQL	mg/Kg	

**Method:** 6850  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-030-SA7-SS-0.0-0.5	PERCHLORATE	J	2.5	5.0	PQL	ug/Kg	J (all detects)
SL-146-SA7-SS-0.0-0.5	PERCHLORATE	J	3.6	5.0	PQL	ug/Kg	J (all detects)

**Method:** 7199  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-034-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.61	1.0	PQL	mg/Kg	J (all detects)
SL-035-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.46	1.0	PQL	mg/Kg	J (all detects)
SL-146-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.94	1.0	PQL	mg/Kg	J (all detects)
SL-342-SA5B-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.38	1.1	PQL	mg/Kg	J (all detects)
SL-342-SA5B-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.45	1.1	PQL	mg/Kg	J (all detects)

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-030-SA7-SS-0.0-0.5	MERCURY	J	0.0236	0.0965	PQL	mg/Kg	J (all detects)
SL-034-SA7-SS-0.0-0.5	MERCURY	J	0.0894	0.0938	PQL	mg/Kg	J (all detects)
SL-035-SA7-SS-0.0-0.5	MERCURY	J	0.0522	0.0955	PQL	mg/Kg	J (all detects)
SL-037-SA7-SS-0.0-0.5	MERCURY	J	0.0234	0.0983	PQL	mg/Kg	J (all detects)
SL-040-SA7-SS-0.0-0.5	MERCURY	J	0.0145	0.100	PQL	mg/Kg	J (all detects)
SL-041-SA7-SS-0.0-0.5	MERCURY	J	0.0098	0.0965	PQL	mg/Kg	J (all detects)
SL-070-SA7-SS-0.0-0.5	MERCURY	J	0.0148	0.0996	PQL	mg/Kg	J (all detects)
SL-071-SA7-SS-0.0-0.5	MERCURY	J	0.0116	0.0951	PQL	mg/Kg	J (all detects)
SL-073-SA7-SS-0.0-0.5	MERCURY	J	0.0257	0.0987	PQL	mg/Kg	J (all detects)
SL-338-SA5B-SB-7.0-8.0	MERCURY	J	0.0181	0.101	PQL	mg/Kg	J (all detects)
SL-341-SA5B-SB-4.0-5.0	MERCURY	J	0.0241	0.110	PQL	mg/Kg	J (all detects)
SL-341-SA5B-SB-9.0-10.0	MERCURY	J	0.0603	0.108	PQL	mg/Kg	J (all detects)
SL-342-SA5B-SB-4.0-5.0	MERCURY	J	0.0266	0.110	PQL	mg/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-342-SA5B-SB-9.0-10.0	MERCURY	J	0.0178	0.110	PQL	mg/Kg	J (all detects)

**Method:** 8015B  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-037-SA7-SS-0.0-0.5	Isopropanol	J	110	500	PQL	ug/Kg	J (all detects)
SL-041-SA7-SS-0.0-0.5	METHANOL	J	230	510	PQL	ug/Kg	J (all detects)
SL-070-SA7-SS-0.0-0.5	Isopropanol METHANOL	J J	100 230	500 500	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-071-SA7-SS-0.0-0.5	METHANOL	J	250	500	PQL	ug/Kg	J (all detects)
SL-073-SA7-SS-0.0-0.5	Isopropanol METHANOL	J J	160 330	500 500	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-338-SA5B-SB-7.0-8.0	METHANOL	J	340	530	PQL	ug/Kg	J (all detects)
SL-341-SA5B-SB-4.0-5.0	METHANOL	J	410	560	PQL	ug/Kg	J (all detects)
SL-341-SA5B-SB-9.0-10.0	METHANOL	J	420	550	PQL	ug/Kg	J (all detects)
SL-342-SA5B-SB-4.0-5.0	METHANOL	J	290	560	PQL	ug/Kg	J (all detects)
SL-342-SA5B-SB-9.0-10.0	METHANOL	J	340	560	PQL	ug/Kg	J (all detects)

**Method:** 8015M  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-037-SA7-SS-0.0-0.5	EFH (C15-C20)	J	4.2	12	PQL	mg/Kg	J (all detects)
SL-041-SA7-SS-0.0-0.5	EFH (C15-C20)	J	1.0	2.4	PQL	mg/Kg	J (all detects)
SL-073-SA7-SS-0.0-0.5	EFH (C15-C20)	J	4.1	6.0	PQL	mg/Kg	J (all detects)
SL-341-SA5B-SB-4.0-5.0	EFH (C15-C20)	J	3.2	6.8	PQL	mg/Kg	J (all detects)
SL-341-SA5B-SB-9.0-10.0	EFH (C15-C20)	J	6.5	6.6	PQL	mg/Kg	J (all detects)
SL-342-SA5B-SB-4.0-5.0	EFH (C15-C20)	J	2.7	6.7	PQL	mg/Kg	J (all detects)

**Method:** 8081A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-030-SA7-SS-0.0-0.5	Chlordane	J	3.1	3.4	PQL	ug/Kg	J (all detects)
SL-034-SA7-SS-0.0-0.5	Chlordane	J	7.1	17	PQL	ug/Kg	J (all detects)

## Reporting Limit Outliers

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8081A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-040-SA7-SS-0.0-0.5	4,4'-DDD	J	0.15	0.34	PQL	ug/Kg	J (all detects)
	4,4'-DDE	J	0.15	0.34	PQL	ug/Kg	
	4,4'-DDT	J	0.24	0.34	PQL	ug/Kg	
	ENDOSULFAN II	J	0.15	0.34	PQL	ug/Kg	
	ENDRIN	J	0.11	0.34	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.22	0.34	PQL	ug/Kg	
SL-041-SA7-SS-0.0-0.5	MIREX	J	0.24	0.34	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.095	0.17	PQL	ug/Kg	
	gamma-BHC (Lindane)	J	0.057	0.17	PQL	ug/Kg	J (all detects)
SL-070-SA7-SS-0.0-0.5	Chlordane	J	1.9	3.4	PQL	ug/Kg	J (all detects)
SL-071-SA7-SS-0.0-0.5	4,4'-DDE	J	0.24	0.34	PQL	ug/Kg	J (all detects)
	Chlordane	J	2.2	3.4	PQL	ug/Kg	
	DELTA-BHC	J	0.096	0.17	PQL	ug/Kg	
	HEPTACHLOR EPOXIDE	J	0.047	0.17	PQL	ug/Kg	
	TOXAPHENE	J	3.6	6.6	PQL	ug/Kg	
SL-073-SA7-SS-0.0-0.5	Chlordane	J	1.5	3.4	PQL	ug/Kg	J (all detects)
	HEPTACHLOR	J	0.073	0.17	PQL	ug/Kg	

**Method:** 8082  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-037-SA7-SS-0.0-0.5	Aroclor 5460	J	2.4	3.3	PQL	ug/Kg	J (all detects)
SL-041-SA7-SS-0.0-0.5	Aroclor 5460	J	1.6	3.3	PQL	ug/Kg	J (all detects)
SL-070-SA7-SS-0.0-0.5	AROCLOR 1242	J	0.70	1.7	PQL	ug/Kg	J (all detects)
SL-071-SA7-SS-0.0-0.5	AROCLOR 1254	J	0.95	1.7	PQL	ug/Kg	J (all detects)
SL-341-SA5B-SB-4.0-5.0	AROCLOR 1254	J	0.70	1.9	PQL	ug/Kg	J (all detects)
SL-341-SA5B-SB-9.0-10.0	AROCLOR 1260	J	0.78	1.9	PQL	ug/Kg	J (all detects)
SL-342-SA5B-SB-4.0-5.0	AROCLOR 1254	J	1.7	1.9	PQL	ug/Kg	J (all detects)
SL-342-SA5B-SB-9.0-10.0	AROCLOR 1254	J	1.1	1.9	PQL	ug/Kg	J (all detects)

**Method:** 8151A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-037-SA7-SS-0.0-0.5	MCPPP	J	110	250	PQL	ug/Kg	J (all detects)
SL-071-SA7-SS-0.0-0.5	DICAMBA	J	0.42	1.2	PQL	ug/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-034-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	230	330	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	17	170	PQL	ug/Kg	
	Di-n-butylphthalate	J	40	170	PQL	ug/Kg	
	PYRENE	J	17	170	PQL	ug/Kg	
SL-035-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	38	340	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	20	170	PQL	ug/Kg	
SL-041-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	24	340	PQL	ug/Kg	J (all detects)
SL-070-SA7-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	18	170	PQL	ug/Kg	J (all detects)
SL-146-SA7-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	21	170	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	240	330	PQL	ug/Kg	
SL-338-SA5B-SB-7.0-8.0	BENZO(G,H,I)PERYLENE	J	110	180	PQL	ug/Kg	J (all detects)
SL-341-SA5B-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	60	370	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	19	180	PQL	ug/Kg	
	PHENANTHRENE	J	24	180	PQL	ug/Kg	
	PYRENE	J	19	180	PQL	ug/Kg	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-030-SA7-SS-0.0-0.5	ACENAPHTHYLENE	J	0.49	1.7	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.97	1.7	PQL	ug/Kg	
SL-034-SA7-SS-0.0-0.5	ANTHRACENE	J	0.41	1.7	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	0.98	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	1.7	PQL	ug/Kg	
SL-035-SA7-SS-0.0-0.5	BENZO(A)PYRENE	J	5.9	8.3	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	4.5	8.3	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	3.4	8.3	PQL	ug/Kg	
	PYRENE	J	5.3	8.3	PQL	ug/Kg	
SL-037-SA7-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	7.4	8.4	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	76	91	PQL	ug/Kg	
	Butylbenzylphthalate	J	43	91	PQL	ug/Kg	
	NAPHTHALENE	J	3.9	8.4	PQL	ug/Kg	
SL-040-SA7-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	0.75	1.7	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.50	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	0.70	1.7	PQL	ug/Kg	
SL-041-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.87	1.7	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.6	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.95	1.7	PQL	ug/Kg	
SL-070-SA7-SS-0.0-0.5	CHRYSENE	J	3.5	8.4	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	8.3	8.4	PQL	ug/Kg	
	NAPHTHALENE	J	3.7	8.4	PQL	ug/Kg	
	PYRENE	J	6.3	8.4	PQL	ug/Kg	
SL-071-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.75	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.67	1.7	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	16	18	PQL	ug/Kg	
	Butylbenzylphthalate	J	7.7	18	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	1.7	PQL	ug/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE242

Laboratory: LL

EDD Filename: DE242\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-073-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	4.5	8.3	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	4.3	8.3	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	5.4	8.3	PQL	ug/Kg	
	NAPHTHALENE	J	3.7	8.3	PQL	ug/Kg	
SL-146-SA7-SS-0.0-0.5	Di-n-octylphthalate	J	30	90	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	5.0	8.3	PQL	ug/Kg	
	NAPHTHALENE	J	5.2	8.3	PQL	ug/Kg	
	PYRENE	J	5.7	8.3	PQL	ug/Kg	
SL-338-SA5B-SB-7.0-8.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.9	19	PQL	ug/Kg	J (all detects)
	FLUORENE	J	0.80	1.7	PQL	ug/Kg	
SL-341-SA5B-SB-4.0-5.0	ANTHRACENE	J	2.3	9.3	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	4.4	9.3	PQL	ug/Kg	
	BENZO(A)PYRENE	J	4.4	9.3	PQL	ug/Kg	
	NAPHTHALENE	J	5.2	9.3	PQL	ug/Kg	
SL-341-SA5B-SB-9.0-10.0	ACENAPHTHENE	J	1.0	1.8	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	1.2	1.8	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.4	1.8	PQL	ug/Kg	
	FLUORENE	J	1.4	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	0.79	1.8	PQL	ug/Kg	
SL-342-SA5B-SB-4.0-5.0	BENZO(B)FLUORANTHENE	J	0.96	1.9	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.79	1.9	PQL	ug/Kg	
SL-342-SA5B-SB-9.0-10.0	ANTHRACENE	J	1.0	1.9	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	1.7	1.9	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.1	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.1	1.9	PQL	ug/Kg	

## **Enclosure II**

### **Level IV Validation Reports**

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** September 13, 2011  
**LDC Report Date:** January 4, 2012  
**Matrix:** Soil  
**Parameters:** Semivolatiles  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE242

### Sample Identification

SL-030-SA7-SS-0.0-0.5  
SL-034-SA7-SS-0.0-0.5  
SL-035-SA7-SS-0.0-0.5  
SL-037-SA7-SS-0.0-0.5  
SL-040-SA7-SS-0.0-0.5  
SL-041-SA7-SS-0.0-0.5  
SL-070-SA7-SS-0.0-0.5  
SL-071-SA7-SS-0.0-0.5  
SL-073-SA7-SS-0.0-0.5  
SL-146-SA7-SS-0.0-0.5  
SL-338-SA5B-SB-7.0-8.0  
SL-341-SA5B-SB-4.0-5.0  
SL-341-SA5B-SB-9.0-10.0  
SL-342-SA5B-SB-4.0-5.0  
SL-342-SA5B-SB-9.0-10.0

## 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 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.

No field blanks were identified in this SDG.

## VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
258LALCS	Benzoic acid 4,6-Dinitro-2-methylphenol	57 (62-113) 39 (46-120)	All samples in SDG DE242	J (all detects) UJ (all non-detects) 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 DE242	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 DE242**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE242	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0	Benzoic acid  4,6-Dinitro-2-methylphenol	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L)
DE242	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0	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 DE242**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Semivolatiles - Field Blank Data Qualification Summary - SDG DE242**

No Sample Data Qualified in this SDG

**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: 9/13/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	<del>SW</del> A	% RSD $\leq 30$ , $r^2$
IV.	Continuing calibration/ICV	A	ICV/COV $\leq 25$
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
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	N	
XVII.	Field blanks	N	

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

Validated Samples:  
 56 12

1	SL-030-SA7-SS-0.0-0.5	11	SL-338-SA5B-SB-7.0-8.0	21	SBLK LA 25B	31
2	SL-034-SA7-SS-0.0-0.5	12	SL-341-SA5B-SB-4.0-5.0	22	SBLK LA 2	32
3	SL-035-SA7-SS-0.0-0.5	13	SL-341-SA5B-SB-9.0-10.0	23		33
4	SL-037-SA7-SS-0.0-0.5	14	SL-342-SA5B-SB-4.0-5.0	24		34
5	SL-040-SA7-SS-0.0-0.5	15	SL-342-SA5B-SB-9.0-10.0	25		35
6	SL-041-SA7-SS-0.0-0.5	16		26		36
7	SL-070-SA7-SS-0.0-0.5	17		27		37
8	SL-071-SA7-SS-0.0-0.5	18		28		38
9	SL-073-SA7-SS-0.0-0.5	19		29		39
10	SL-146-SA7-SS-0.0-0.5	20		30		40

## Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/MS Instrument performance check</b>				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples analyzed within the 12 hour clock criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of $\geq 0.990$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) $\leq 30\%$ and relative response factors (RRF) $> 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) $\leq 25\%$ and relative response factors (RRF) $\geq 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X. Internal standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within + 30 seconds from the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. Compound quantitation/CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Tentatively identified compounds (TIC)</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within $\pm$ 20% between the sample and the reference spectra?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XVI. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XVII. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

# 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.

VALIDATION FINDINGS WORKSHEET  
Laboratory Control Samples (LCS)

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 the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

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)	LCS %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		2582ALCS	PPP	57 (62-113)	( )	( )	All	2/4/11 (L)
			PP	37 (46-120)	( )	( )	↓	↓
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

**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,  
 $X$  = Mean of the RRFs  
 $A_{is}$  = Area of associated internal standard  
 $C_{is}$  = Concentration of internal standard  
 $S$  = Standard deviation of the RRFs,  
 $X$  = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported		Recalculated		Reported		Recalculated	
				RRF (std)	RRF (std)	RRF (std)	Average RRF (initial)	Average RRF (initial)	%RSD	%RSD	
1	ICAL	9/12/11	Phenol (1st internal standard)	2.044	2.044	2.033	2.033	2	2	2	2
			Naphthalene (2nd internal standard)	0.450	0.450	0.452	0.452	2	2	2	2
			Fluorene (3rd internal standard)	0.356	0.356	0.370	0.370	5	5	5	5
			Pentachlorophenol (4th internal standard)	0.149	0.149	0.140	0.140	12	12	12	12
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.621	0.621	0.615	0.615	4	4	4	4
			Benzo(a)pyrene (6th internal standard)	1.096	1.096	1.050	1.050	4	4	4	4
2			Phenol (1st internal standard)								
			Naphthalene (2nd internal standard)								
			Fluorene (3rd internal standard)								
			Pentachlorophenol (4th internal standard)								
			Bis(2-ethylhexyl)phthalate (5th internal standard)								
			Benzo(a)pyrene (6th internal standard)								
3			Phenol (1st internal standard)								
			Naphthalene (2nd internal standard)								
			Fluorene (3rd internal standard)								
			Pentachlorophenol (4th internal standard)								
			Bis(2-ethylhexyl)phthalate (5th internal standard)								
			Benzo(a)pyrene (6th internal standard)								

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

**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 =  $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$  Where: ave. RRF = initial calibration average RRF  
 RRF =  $(A_x)(C_b) / (A_b)(C_x)$  RRF = continuing calibration RRF  
 $A_x$  = Area of compound,  $A_b$  = Area of associated internal standard  
 $C_x$  = Concentration of compound,  $C_b$  = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	Reported		Recalculated	
					RRF (CC)	%D	RRF (CC)	%D
1	ave 20:12	9/18/11	Phenol (1st internal standard)	2.033	2.059	1	2.059	1
			Naphthalene (2nd internal standard)	0.452	0.462	2	0.462	2
			Fluorene (3rd internal standard)	0.370	0.367	1	0.367	1
			Pentachlorophenol (4th internal standard)	0.190	0.116	17	0.116	17
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.615	0.626	2	0.626	2
			Benzo(a)pyrene (6th internal standard)	1.050	1.103	5	1.103	5
2	ave 9:37	9/19/11	Phenol (1st internal standard)	2.080	2.080	3	2.080	3
			Naphthalene (2nd internal standard)	0.467	0.469	4	0.469	4
			Fluorene (3rd internal standard)	0.370	0.370	0	0.370	0
			Pentachlorophenol (4th internal standard)	0.127	0.127	9	0.127	9
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.601	0.601	2	0.601	2
			Benzo(a)pyrene (6th internal standard)	1.109	1.109	6	1.109	6
3	ave 19:49	9/19/11	Phenol (1st internal standard)	2.214	2.214	9	2.214	9
			Naphthalene (2nd internal standard)	0.467	0.467	4	0.467	4
			Fluorene (3rd internal standard)	0.388	0.388	5	0.388	5
			Pentachlorophenol (4th internal standard)	0.132	0.132	6	0.132	6
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.636	0.636	3	0.636	3
			Benzo(a)pyrene (6th internal standard)	1.098	1.098	5	1.098	5

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.

# VALIDATION FINDINGS WORKSHEET I

## Surrogate Results Verification

**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	85.544	86	86	0
2-Fluorobiphenyl	↓	85.113	85	85	↓
Terphenyl-d14	↓	81.026	81	81	
Phenol-d5	200	192.805	96	96	
2-Fluorophenol	↓	189.857	95	95	
2,4,6-Tribromophenol	↓	155.541	78	78	
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					

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification**

**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: 258 L ALC >

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
Phenol	1666.67	NA	1616.75	NA	97	97				
N-Nitroso-di-n-propylamine			1515.22		91	91				
4-Chloro-3-methylphenol			1629.77		98	98				
Acenaphthene			1573.49		94	94				
Pentachlorophenol			913.03		55	55				
Pyrene			1595.58		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.

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270)

Y/N/N/A Were all reported results recalculated and verified for all level IV samples?  
Y/N/N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = 
$$\frac{(A_x)(I_s)(V_i)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_t)(\%S)}$$

- A<sub>x</sub> = Area of the characteristic ion (EICP) for the compound to be measured
- A<sub>is</sub> = Area of the characteristic ion (EICP) for the specific internal standard
- I<sub>s</sub> = Amount of internal standard added in nanograms (ng)
- V<sub>o</sub> = Volume or weight of sample extract in milliliters (ml) or grams (g).
- V<sub>i</sub> = Volume of extract injected in microliters (ul)
- V<sub>t</sub> = 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, chrysene

Conc. = 
$$\frac{(19438)(20)(1000)( )}{805804(0.963)(30)( )}$$

= 17 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:** September 13, 2011  
**LDC Report Date:** January 4, 2012  
**Matrix:** Soil  
**Parameters:** Semivolatiles  
**Validation Level:** Level IV  
**Laboratory:** Lancaster laboratories  
**Sample Delivery Group (SDG):** DE242

### Sample Identification

SL-030-SA7-SS-0.0-0.5  
SL-034-SA7-SS-0.0-0.5  
SL-035-SA7-SS-0.0-0.5  
SL-037-SA7-SS-0.0-0.5  
SL-040-SA7-SS-0.0-0.5  
SL-041-SA7-SS-0.0-0.5  
SL-070-SA7-SS-0.0-0.5  
SL-071-SA7-SS-0.0-0.5  
SL-073-SA7-SS-0.0-0.5  
SL-146-SA7-SS-0.0-0.5  
SL-338-SA5B-SB-7.0-8.0  
SL-341-SA5B-SB-4.0-5.0  
SL-341-SA5B-SB-9.0-10.0  
SL-342-SA5B-SB-4.0-5.0  
SL-342-SA5B-SB-9.0-10.0

## 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 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.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination ( $r^2$ ) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

## **IV. Continuing Calibration**

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

## **V. Blanks**

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

No field blanks were identified in this SDG.

## VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

## IX. Regional Quality Assurance and Quality Control

Not applicable.

## X. Internal Standards

All internal standard areas and retention times were within QC limits with the following exceptions:

Sample	Internal Standards	Area (Limits)	Compound	Flag	A or P
SL-034-SA7-SS-0.0-0.5	Perylene-d12	54415 (175106-700424)	Di-n-octylphthalate 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) R (all non-detects)	A

## 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 DE242	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 DE242**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE242	SL-034-SA7-SS-0.0-0.5	Di-n-octylphthalate 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) R (all non-detects)	A	Internal standard (area) (I)
DE242	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0	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 DE242**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Semivolatiles - Field Blank Data Qualification Summary - SDG DE242**

No Sample Data Qualified in this SDG

LDC #: 26859L2b

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE242

Level IV

Laboratory: Lancaster Laboratories

Date: 9/13/11

Page: 1 of 1

Reviewer: FZ

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: 9/13/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% PSD $\leq 30$ , r <sup>2</sup>
IV.	Continuing calibration/ICV	A	100/CCV $\leq 25$
V.	Blanks	A	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LC7
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	SW	
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-030-SA7-SS-0.0-0.5	11	SL-338-SA5B-SB-7.0-8.0	21	SBLKLC758	31	
2	SL-034-SA7-SS-0.0-0.5	12	SL-341-SA5B-SB-4.0-5.0	22		32	
3	SL-035-SA7-SS-0.0-0.5	13	SL-341-SA5B-SB-9.0-10.0	23		33	
4	SL-037-SA7-SS-0.0-0.5	14	SL-342-SA5B-SB-4.0-5.0	24		34	
5	SL-040-SA7-SS-0.0-0.5	15	SL-342-SA5B-SB-9.0-10.0	25		35	
6	SL-041-SA7-SS-0.0-0.5	16		26		36	
7	SL-070-SA7-SS-0.0-0.5	17		27		37	
8	SL-071-SA7-SS-0.0-0.5	18		28		38	
9	SL-073-SA7-SS-0.0-0.5	19		29		39	
10	SL-146-SA7-SS-0.0-0.5	20		30		40	

**Method: Semivolatiles (EPA SW 846 Method 8270C)**

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
<b>II. GC/MS instrument performance check</b>				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	/			
Were all samples analyzed within the 12 hour clock criteria?	/			
<b>III. Initial calibration</b>				
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) $> 0.05$ ?	/			
<b>IV. Continuing calibration</b>				
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) $\geq 0.05$ ?	/			
<b>V. Blanks</b>				
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.		/		
<b>VI. Surrogate spikes</b>				
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?			/	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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?			/	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	/			

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X. Internal standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within + 30 seconds from the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. Compound quantitation/CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Tentatively identified compounds (TICs)</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XVI. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XVII. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

# VALIDATION FINDINGS WORKSHEET

PRY

**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.

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Recovery**

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
		2	TPH	157 (45-135)	NO QUAL

\* QC limits are advisory

S1 (NBZ) = Nitrobenzene-d5	QC Limits (Soil)	23-120	QC Limits (Water)	35-114	QC Limits (Water)	21-100
S2 (FBP) = 2-Fluorobiphenyl	30-115	43-116	33-141	10-123	10-123	10-123
S3 (TPH) = Terphenyl-d14	18-137	24-113	10-94	20-130*	20-130*	33-110*
S4 (PHL) = Phenol-d5				20-130*	20-130*	16-110*
S5 (2FP) = 2-Fluorophenol						
S6 (TBP) = 2,4,6-Tribromophenol						
S7 (2CP) = 2-Chlorophenol-d4						
S8 (DCB) = 1,2-Dichlorobenzene-d4						

Internal Standards

**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 all internal standard area counts within -50 to +100 of the associated calibration standard?

Y (N) (N/A) Were the retention times of the internal standards within +/- 30 seconds of the retention times of the associated calibration standard? (1)

#	Date	Sample ID	Internal Standard	Area (Limits)	RT (Limits)	Qualifications
289		2	PRY	<del>83488</del> (175106-700404) 54415		J/R/A per list

\* QC limits are advisory  
IS1 (DCB) = 1,4-Dichlorobenzene-d4  
IS2 (NPT) = Naphthalene-d8  
IS3 (ANT) = Acenaphthene-d10  
IS4 (PHN) = Phenanthrene-d10  
IS5 (CRY) = Chrysene-d12  
IS6 (PRY) = Perylene-d12

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

**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,  
 $X$  = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported		Recalculated		Reported	Recalculated	Reported	Recalculated
				RRF ( ) std)	RRF ( ) std)	Average RRF (initial)	Average RRF (initial)				
1	1CAL	9/22/11	Phenol (1st internal standard)	1.096	1.096	1.094	1.094	3	3		
			Naphthalene (2nd internal standard)	1.350	1.350	1.317	1.317	5	5		
			Fluorene (3rd internal standard)	1.211	1.211	1.170	1.170	6	6		
			Pentachlorophenol (4th internal standard)	1.325	1.325	1.316	1.316	4	4		
			Bis(2-ethylhexyl)phthalate (5th internal standard)	1.266	1.266	1.213	1.213	5	5		
			Benz(a)pyrene (6th internal standard)								
2	1CAL	10/4/11	Phenol (1st internal standard)	1.120	1.120	1.110	1.110	3	3		
			Naphthalene (2nd internal standard)	1.410	1.410	1.352	1.352	7	7		
			Fluorene (3rd internal standard)	1.217	1.217	1.165	1.165	9	9		
			Pentachlorophenol (4th internal standard)	1.286	1.286	1.263	1.263	3	3		
			Bis(2-ethylhexyl)phthalate (5th internal standard)	1.245	1.245	1.191	1.191	7	7		
			Benz(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)								
			Benz(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.

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

**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:

$RRF = (A_x/C_x)/(A_{is}/C_{is})$   
 average RRF = sum of the RRFs/number of standards  
 $\%RSD = 100 * (S/X)$   
 $A_x$  = Area of compound,  
 $C_x$  = Concentration of compound,  
 $A_{is}$  = Area of associated internal standard  
 $C_{is}$  = Concentration of internal standard  
 $S$  = Standard deviation of the RRFs,  
 $X$  = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported		Recalculated		Reported		Recalculated	
				RRF ( / std)	RRF ( / std)	RRF ( / std)	RRF ( / std)	Average RRF (initial)	Average RRF (initial)	%RSD	%RSD
1	1CAL	9/13/11	Phenol (1st internal standard)	1.155	1.155						
			Naphthalene (2nd internal standard)	1.393	1.393	1.132	1.132	1.132	1.132	3	3
			Fluorene (3rd internal standard)	1.257	1.257	1.345	1.345	1.345	1.345	5	5
			Pentachlorophenol (4th internal standard)	1.379	1.379	1.191	1.191	1.191	1.191	7	7
			Bis(2-ethylhexyl)phthalate (5th internal standard)	1.379	1.379	1.348	1.348	1.348	1.348	5	5
			Benzo(a)pyrene (6th internal standard)	1.296	1.296	1.243	1.243	1.243	1.243	5	5
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 #: 26 859206

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

Page: 1 of 1  
 Reviewer: FT  
 2nd Reviewer: C

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270C)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference =  $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$  Where: ave. RRF = initial calibration average RRF  
 RRF =  $(A_x)(C_b) / (A_b)(C_x)$  RRF = continuing calibration RRF  
 $A_x$  = Area of compound,  $A_b$  = Area of associated internal standard  
 $C_x$  = Concentration of compound,  $C_b$  = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported		Recalculated	
					RRF (CC)	%D	RRF (CC)	%D
1	ceV 18:27	9/21/11	Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)	1.132		1.115	1	
			Fluorene (3rd internal standard)	1.345		1.376	2	
			Anthracene (4th internal standard)	1.191		1.209	2	
			Benzo(a)pyrene (5th internal standard)	1.348		1.320	2	
			Benzo(a)pyrene (6th internal standard)	1.243		1.256	1	
2	ceV 7:01	9/22/11	Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)			1.109	2	
			Fluorene (3rd internal standard)			1.393	4	
			Anthracene (4th internal standard)			1.227	3	
			Benzo(a)pyrene (5th internal standard)			1.332	1	
			Benzo(a)pyrene (6th internal standard)			1.257	1	
3	ceV 16:31	9/23/11	Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)	1.094		1.107	1	
			Fluorene (3rd internal standard)	1.317		1.351	3	
			Anthracene (4th internal standard)	1.170		1.202	3	
			Benzo(a)pyrene (5th internal standard)	1.316		1.321	0	
			Benzo(a)pyrene (6th internal standard)	1.213		1.247	3	

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

# VALIDATION FINDINGS WORKSHEET

## Surrogate Results Verification

**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 SpikedSample ID: 1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	1.0	0.900	90	90	0
2-Fluorobiphenyl	↓	0.838	84	84	↓
Terphenyl-d14	↓	0.840	84	84	↓
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					

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification**

**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: 268592ab

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS		LCSD		Percent Recovery		Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalc	Reported	Recalc	Reported	Recalc
Phenol														
N-Nitroso-di-n-propylamine														
4-Chloro-3-methylphenol														
Acenaphthene	33.33	NA	28.67	NA	86	86								
Pentachlorophenol														
Pyrene	33.33	↓	31.38	↓	94	94								

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.

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A  
Y N N/A

Were all reported results recalculated and verified for all level IV samples?  
 Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

$$\text{Concentration} = \frac{(A_x)(I_s)(V_i)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_f)(\%S)}$$

- A<sub>x</sub> = Area of the characteristic ion (EICP) for the compound to be measured
- A<sub>is</sub> = Area of the characteristic ion (EICP) for the specific internal standard
- I<sub>s</sub> = Amount of internal standard added in nanograms (ng)
- V<sub>o</sub> = Volume or weight of sample extract in milliliters (ml) or grams (g).
- V<sub>i</sub> = Volume of extract injected in microliters (ul)
- V<sub>f</sub> = 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. (g, h, i) perylene

$$\text{Conc.} = \frac{(31930) \times (1.0) \times (1000) \times ( ) \times ( )}{(328354) \times (1.233) \times (30) \times (0.97) \times ( )}$$

=

2.66 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:** September 13, 2011

**LDC Report Date:** December 28, 2011

**Matrix:** Soil

**Parameters:** N-Nitrosodimethylamine

**Validation Level:** Level IV

**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE242

### Sample Identification

SL-338-SA5B-SB-7.0-8.0

SL-341-SA5B-SB-4.0-5.0

SL-341-SA5B-SB-9.0-10.0

SL-342-SA5B-SB-4.0-5.0

SL-342-SA5B-SB-9.0-10.0

## Introduction

This data review covers 5 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA 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 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% .

## **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**

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 DE242	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 DE242**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE242	SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0	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 DE242**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
N-Nitrosodimethylamine - Field Blank Data Qualification Summary - SDG DE242**

No Sample Data Qualified in this SDG

**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	Δ	Sampling dates: 9/13/11
II.	GC/MS Instrument performance check	Δ	
III.	Initial calibration	Δ	% RSD ≤ 30
IV.	Continuing calibration/ <del>ICV</del> ICV	Δ	CV ≤ 20 ICV ≤ 30
V.	Blanks	Δ	
VI.	Surrogate spikes	Δ	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	ICS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	Δ	
XI.	Target compound identification	Δ	
XII.	Compound quantitation/ <del>RW</del> LOQ/LODs	Δ	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	Δ	
XV.	Overall assessment of data	Δ	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinstate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

Validated Samples:

2011

1	SL-338-SA5B-SB-7.0-8.0	11	SBLK LL257	21		31	
2	SL-341-SA5B-SB-4.0-5.0	12		22		32	
3	SL-341-SA5B-SB-9.0-10.0	13		23		33	
4	SL-342-SA5B-SB-4.0-5.0	14		24		34	
5	SL-342-SA5B-SB-9.0-10.0	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

**Method: Semivolatiles (EPA SW 846 Method 8270C)**

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/MS instrument performance check</b>				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples analyzed within the 12 hour clock criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X. Internal standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within + 30 seconds from the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. Compound quantitation/CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Tentatively identified compounds (TICs)</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XVI. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XVII. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

**METHOD:** GC/MS BNA (EPA-SW-846 Method 8270) / 625 C

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		Recalculated		Reported		Recalculated	
				RRF (25 std)	RRF (25 std)	RRF (25 std)	Average RRF (Initial)	%RSD	Average RRF (Initial)	%RSD	
1	ICAL	6/9/11	Phenol (1st internal standard) NPMMA	1.043	1.043	0.983	0.983	13	13		
			Naphthalene (2nd internal standard)								
			Fluorene (3rd internal standard)								
			Pentachlorophenol (4th internal standard)								
			Bis(2-ethylhexyl)phthalate (5th internal standard)								
			<del>Benzo(a)pyrene (6th internal standard)</del>								
2			Phenol (1st internal standard)								
			Naphthalene (2nd internal standard)								
			Fluorene (3rd internal standard)								
			Pentachlorophenol (4th internal standard)								
			Bis(2-ethylhexyl)phthalate (5th internal standard)								
			<del>Benzo(a)pyrene (6th internal standard)</del>								
3			Phenol (1st internal standard)								
			Naphthalene (2nd internal standard)								
			Fluorene (3rd internal standard)								
			Pentachlorophenol (4th internal standard)								
			Bis(2-ethylhexyl)phthalate (5th internal standard)								
			<del>Benzo(a)pyrene (6th internal standard)</del>								

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.

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

**METHOD:** GC/MS BNA (EPA-SW-846 Method 8270C) / 6 X 5 C

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 =  $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$  Where: ave. RRF = initial calibration average RRF  
 RRF =  $(A_x)(C_{is}) / (A_{is})(C_x)$  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		Recalculated	
					RRF (CC)	%D	RRF (CC)	%D
1	ccv 14:55	9/26/11	<del>Phenol (1st internal standard)</del> Naphthalene (2nd internal standard) Fluorene (3rd internal standard) Pentachlorophenol (4th internal standard) Bis(2-ethylhexyl)phthalate (5th internal standard) <del>Benzo(a)pyrene (6th internal standard)</del>	0.8295	0.8998	8.45	8.45	
2	ccv 16:41	9/20/11	<del>Phenol (1st internal standard)</del> Naphthalene (2nd internal standard) Fluorene (3rd internal standard) Pentachlorophenol (4th internal standard) Bis(2-ethylhexyl)phthalate (5th internal standard) <del>Benzo(a)pyrene (6th internal standard)</del>	↓	0.97109	1.20708	1.2	
3	ccv 20:14	9/20/11	<del>Phenol (1st internal standard)</del> Naphthalene (2nd internal standard) Fluorene (3rd internal standard) Pentachlorophenol (4th internal standard) Bis(2-ethylhexyl)phthalate (5th internal standard) <del>Benzo(a)pyrene (6th internal standard)</del>	↓	1.03207	5.078	5.08	

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.

**VALIDATION FINDINGS WORKSHEET I**  
**Surrogate Results Verification**

**METHOD:** GC/MS Semivolatiles (EPA SW 846 Method 8270) 16 SC

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 <u>NDMA-d6</u>	<u>25.0</u>	<u>22.096</u>	<u>88</u>	<u>88</u>	<u>0</u>
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					

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification**

METHOD: GC/MS BNA (EPA SW 846 Method 8270) 1625 C

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: 257LLCS

Compound	Spike Added (ng/kg)		Spike Concentration		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	833.33	NA	882.7%	NA	100	106	NA			
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthylene										
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.

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270) → 1625C

Y N M/A  
Y N N/A

Were all reported results recalculated and verified for all level IV samples?  
Were all recalculated results for detected target compounds agree within 10.0% of the reported results?


$$\text{Concentration} = \frac{(A_x)(I_s)(V_i)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$$

- A<sub>x</sub> = Area of the characteristic ion (EICP) for the compound to be measured
- A<sub>is</sub> = Area of the characteristic ion (EICP) for the specific internal standard
- I<sub>s</sub> = Amount of internal standard added in nanograms (ng)
- V<sub>o</sub> = Volume or weight of sample extract in milliliters (ml) or grams (g).
- V<sub>i</sub> = Volume of extract injected in microliters (ul)
- V<sub>t</sub> = 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. \_\_\_\_\_ , \_\_\_\_\_;

$$\text{Conc.} = \left( \frac{\phantom{000}}{\phantom{000}} \right) \left( \frac{\phantom{000}}{\phantom{000}} \right) \left( \frac{\phantom{000}}{\phantom{000}} \right) \left( \frac{\phantom{000}}{\phantom{000}} \right) \left( \frac{\phantom{000}}{\phantom{000}} \right) \left( \frac{\phantom{000}}{\phantom{000}} \right)$$

= 

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** September 13, 2011  
**LDC Report Date:** December 28, 2011  
**Matrix:** Soil  
**Parameters:** Chlorinated Pesticides  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE242

### Sample Identification

SL-030-SA7-SS-0.0-0.5  
SL-034-SA7-SS-0.0-0.5  
SL-035-SA7-SS-0.0-0.5  
SL-037-SA7-SS-0.0-0.5  
SL-040-SA7-SS-0.0-0.5  
SL-041-SA7-SS-0.0-0.5  
SL-070-SA7-SS-0.0-0.5  
SL-071-SA7-SS-0.0-0.5  
SL-073-SA7-SS-0.0-0.5  
SL-146-SA7-SS-0.0-0.5  
SL-030-SA7-SS-0.0-0.5MS  
SL-030-SA7-SS-0.0-0.5MSD

## Introduction

This data review covers 12 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- 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 single compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable.

## IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
9/21/11	1P10263.12R-CCV	RTXCLP1	gamma-BHC	73.1	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-030-SA7-SS-0.0-0.5MS SL-030-SA7-SS-0.0-0.5MSD PBLK13262	J (all detects) UJ (all non-detects)	A
9/26/11	1P10269.12R-CCV	RTXCLP1	gamma-BHC	113.1	SL-037-SA7-SS-0.0-0.5	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 with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
9/21/11	1P10263.11R-ICV	RTXCLP1	Endosulfan II	26.3	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-030-SA7-SS-0.0-0.5MS SL-030-SA7-SS-0.0-0.5MSD PBLK13262	J (all detects) UJ (all non-detects)	A
9/21/11	1P10263.11R-ICV	RTXCLP2	Endrin aldehyde	21.0	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-030-SA7-SS-0.0-0.5MS SL-030-SA7-SS-0.0-0.5MSD PBLK13262	J (all detects) UJ (all non-detects)	A

Retention times (RT) of all compounds in the calibration standards were within QC limits.

The individual 4,4'-DDT and Endrin breakdowns (%BD) were less than or equal to 15.0% .

## V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

No field blanks were identified in this SDG.

## VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
SL-034-SA7-SS-0.0-0.5	Not specified	Decachlorobiphenyl	390 (20-120)	All TCL compounds	J (all detects)	P
SL-035-SA7-SS-0.0-0.5	Not specified	Decachlorobiphenyl	151 (20-120)	All TCL compounds except 4,4'-DDT	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 with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-030-SA7-SS-0.0-0.5MS/MSD (SL-030-SA7-SS-0.0-0.5)	Heptachlor epoxide	-	188 (13-157)	64 (≤50)	J (all detects)	A
	4,4'-DDE	-	451 (18-161)	-	J (all detects)	
	Endosulfan II	-	363 (28-154)	95 (≤50)	J (all detects)	
SL-030-SA7-SS-0.0-0.5MS/MSD (SL-030-SA7-SS-0.0-0.5)	Endosulfan I	-	0 (16-137)	200 (≤50)	J (all detects)	A
	Dieldrin	-	0 (19-154)	200 (≤50)	R (all non-detects)	
	Endrin	0 (11-149)	0 (11-149)	-		
	Endosulfan sulfate	-	0 (21-160)	200 (≤50)		

## VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

## IX. Regional Quality Assurance and Quality Control

Not applicable.

## X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

## XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

## XII. Target Compound Identification

All target compound identifications were within validation criteria.

## XIII. Compound Quantitation and Reported 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-030-SA7-SS-0.0-0.5	Chlordane (Technical) 4,4'-DDE	95 47.72	J (all detects) J (all detects)	A
SL-035-SA7-SS-0.0-0.5	Chlordane (Technical)	79.75	J (all detects)	A
SL-040-SA7-SS-0.0-0.5	Endosulfan II Mirex	47.18 53.69	J (all detects) J (all detects)	A
SL-041-SA7-SS-0.0-0.5	gamma-BHC delta-BHC	46.87 63.61	J (all detects) J (all detects)	A
SL-070-SA7-SS-0.0-0.5	Chlordane (Technical)	97.98	J (all detects)	A
SL-071-SA7-SS-0.0-0.5	Toxaphene	60.48	J (all detects)	A
SL-073-SA7-SS-0.0-0.5	Heptachlor Chlordane (Technical)	81.77 77.92	J (all detects) J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE242	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  
Chlorinated Pesticides - Data Qualification Summary - SDG DE242**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE242	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5	gamma-BHC	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE242	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5	Endosulfan II Endrin aldehyde	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE242	SL-034-SA7-SS-0.0-0.5	All TCL compounds	J (all detects)	P	Surrogate spikes (%R) (S)
DE242	SL-035-SA7-SS-0.0-0.5	All TCL compounds except 4,4'-DDT	J (all detects)	A	Surrogate spikes (%R) (S)
DE242	SL-030-SA7-SS-0.0-0.5	Heptachlor epoxide Endosulfan II	J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q)
DE242	SL-030-SA7-SS-0.0-0.5	4,4'-DDE	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE242	SL-030-SA7-SS-0.0-0.5	Endosulfan I Dieldrin Endosulfan sulfate	J (all detects) R (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q)
DE242	SL-030-SA7-SS-0.0-0.5	Endrin	J (all detects) R (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE242	SL-030-SA7-SS-0.0-0.5	Chlordane (Technical) 4,4'-DDE	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE242	SL-035-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5	Chlordane (Technical)	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE242	SL-040-SA7-SS-0.0-0.5	Endosulfan II Mirex	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE242	SL-041-SA7-SS-0.0-0.5	gamma-BHC delta-BHC	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE242	SL-071-SA7-SS-0.0-0.5	Toxaphene	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE242	SL-073-SA7-SS-0.0-0.5	Heptachlor Chlordane (Technical)	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE242	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

**Santa Susana Field Laboratory  
Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG DE242**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Chlorinated Pesticides - Field Blank Data Qualification Summary - SDG DE242**

No Sample Data Qualified in this SDG

LDC #: 26859L3a

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE242

Level IV

Laboratory: Lancaster Laboratories

Date: 12/27/11

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC Chlorinated Pesticides (EPA SW846 Method 8081A)

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

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 9/13/11
II.	GC/ECD Instrument Performance Check	A	
III.	Initial calibration	A	0% PSD ≤ 20
IV.	Continuing calibration/ICV	SW	ICV/CW ≤ 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.	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	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-030-SA7-SS-0.0-0.5	11	PBLK13262	21		31
2	SL-034-SA7-SS-0.0-0.5	12	#1 MS	22		32
3	SL-035-SA7-SS-0.0-0.5	13	#1 MSD	23		33
4	SL-037-SA7-SS-0.0-0.5	14		24		34
5	SL-040-SA7-SS-0.0-0.5	15		25		35
6	SL-041-SA7-SS-0.0-0.5	16		26		36
7	SL-070-SA7-SS-0.0-0.5	17		27		37
8	SL-071-SA7-SS-0.0-0.5	18		28		38
9	SL-073-SA7-SS-0.0-0.5	19		29		39
10	SL-146-SA7-SS-0.0-0.5	20		30		40

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

LDC #: 26859L3a  
 SDG #: pu cones

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: F7  
 2nd Reviewer: [Signature]

Method: Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
<b>II. GC/ECD Instrument performance check</b>				
Was the instrument performance found to be acceptable?	/			
<b>III. Initial calibration</b>				
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) $\leq$ 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?	/			
<b>IV. Continuing calibration</b>				
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 $\leq$ 15%.0 for individual breakdown in the Evaluation mix standards?	/			
Was a continuing calibration analyzed daily?	/			
Were all percent differences (%D) $\leq$ 15%.0 or percent recoveries 85-115%? <sup>80-120</sup>		/		
Were all the retention times within the acceptance windows?	/			
<b>V. Blanks</b>				
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.		/		
<b>VI. Surrogate spikes</b>				
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 #: 26859L3a  
 SDG #: su cones

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions, dry weight factors, and clean-up activities applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

# 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 #: 2685923a

## 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  $\leq 20.0\%$ ?

**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 $\leq 20.0$ )	RT (limit)	Associated Samples	Qualifications
	9/21/11	1P10263.11R-10V	RTX-cuP1	L	26.3	( )	<del>AF</del> 1-3,	J/uj/A (C)
			RTX-cuP2	R	21.0	( )	5-010, 12, 13,	
						( )	PBLK13262	
+	9/21/11	1P10263.12R-cov	RTX-cuP1	D	73.1	( )	↓	J/uj/A (C)
						( )		
						( )		
						( )		
+	9/26/11	1P10269.12R-cov	RTX-cuP1	D	113.1	( )	4	J/uj/A (C)
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Recovery**

**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
2		NS	ϕ	390 ( 20 - 120 )	J/P det (S)
3		↓	ϕ	15 ( 20 - 120 )	J/A det all (S) except ϕ

Surrogate Compound	Surrogate Compound	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-Trifluorotoluene	I Fluorobenzene (FBZ)	O Decachlorobiphenyl (DCB)	U Tripentyltin		
D Bromochlorobenzene	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		

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates**

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
12	13	G	( ) ( )	188 (13-157)	64 ( 50 )	# 1	J/A det ↓
		J	( ) ( )	451 (18-161)	( ) ( )		
		H	( ) ( )	0 (16-137)	200 ( 50 )		J/R/A
		I	( ) ( )	0 (19-154)	200 ( 50 )		↓
		K	0 (11-149)	0 (11-149)	( ) ( )		↓
		L	( ) ( )	343 (28-154)	95 ( 50 )		J/A det
14		O	-19 (10-176)	238 (10-176)	( ) ( )		NO QUAL TX
		N	( ) ( )	0 (21-160)	200 ( 50 )	↓	J/R/A
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		
			( ) ( )	( ) ( )	( ) ( )		

**VALIDATION FINDINGS WORKSHEET**  
**Compound Quantitation and Reported CRQLs**

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 Best 2 Findings	Associated Samples	Qualifications
	Chlordane (Technical)	95	1	J / Adet * XIII
	J	47.72		
	Chlordane (Technical)	79.75	3	J / Adet * XIII
	L	47.18	5	↓ * XIII
	Mix	53.69		
	D	46.87	6	↓ * XIII
	C	63.61		
	Chlordane (Technical)	97.98	7	↓ * XIII
	U	60.48	8	↓ * XIII
			X	

Comments: See sample calculation verification worksheet for recalculations

**VALIDATION FINDINGS WORKSHEET**  
**Compound Quantitation and Reported CRQLs**

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 Best 2 w/ Finding $\leq 40$	Associated Samples	Qualifications
	E	8.77	9	<u>✓ A det * X 111</u>
	chlordanes (Technical)	77.92	↓	

Comments: See sample calculation verification worksheet for recalculations

LDC #: 2685923R

SDG #: per each

### VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

Page: 1 of 1

Reviewer: ATB

2nd Reviewer: C

METHOD: GC  HPLC

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

- CF = A/C
- average CF = sum of the CF/number of standards
- %RSD =  $100 * (S/X)$
- A = Area of compound,
- C = Concentration of compound,
- S = Standard deviation of the CF
- X = Mean of the CFs

3

#	Standard ID	Calibration Date	Compound	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
				10/100 CF (std)	10/100 CF (std)	Average CF (initial)	Average CF (initial)	%RSD	%RSD
1	ICAL	9/21/11	endosulfan / RTX cur / methoxychlor ↓	3.63 X 10 <sup>3</sup>	3.63 X 10 <sup>3</sup>	3.60 X 10 <sup>3</sup>	3.60 X 10 <sup>3</sup>	7.0	7.0
	IP10263B			1.34 X 10 <sup>3</sup>	1.34 X 10 <sup>3</sup>	1.31 X 10 <sup>3</sup>	1.31 X 10 <sup>3</sup>	5.0	5.0
2			↓ RTX cur II	2.30 X 10 <sup>3</sup>	2.30 X 10 <sup>3</sup>	2.40 X 10 <sup>3</sup>	2.40 X 10 <sup>3</sup>	7.4	7.4
				6.89 X 10 <sup>2</sup>	6.89 X 10 <sup>2</sup>	6.81 X 10 <sup>2</sup>	6.81 X 10 <sup>2</sup>	3.1	3.1
3	ICAL	9/26/11	↓	4.19 X 10 <sup>3</sup>	4.19 X 10 <sup>3</sup>	4.13 X 10 <sup>3</sup>	4.13 X 10 <sup>3</sup>	4.6	4.6
	IP10269			1.63 X 10 <sup>3</sup>	1.63 X 10 <sup>3</sup>	1.54 X 10 <sup>3</sup>	1.54 X 10 <sup>3</sup>	4.5	4.5
4			↓	3.02 X 10 <sup>3</sup>	3.02 X 10 <sup>3</sup>	3.07 X 10 <sup>3</sup>	3.07 X 10 <sup>3</sup>	6.7	6.7
				1.02 X 10 <sup>3</sup>	1.02 X 10 <sup>3</sup>	9.92 X 10 <sup>2</sup>	9.92 X 10 <sup>2</sup>	5.2	5.2

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 2685923  
 SDG #: for cover

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

Page: 1 of 7  
 Reviewer: FD  
 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 =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  Where: ave. CF = initial calibration average CF  
 CF = A/C CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	cen 9.55	9/26/11	endosulfan / ATXcup / methoxychlor ↓ RTVCLP2	10.0	9.68	3.2	9.68	3.2
				100	100.17	0.2	100.17	0.2
					9.14	8.6	9.14	8.6
2					96.31	3.7	96.31	3.7
3	cen 1244	9/21/11	↓	10.0	10.57	5.7	10.57	5.7
				100	106.95	7.0	106.95	7.0
				10.0	9.70	3.0	9.70	3.0
4			↓	100	100.91	0.9	100.91	0.9

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 #: 2002/20  
 SDG #: pu cover

VALIDATION FINDINGS WORKSHEET  
Surrogate Results Verification

Page: 1 of       
 Reviewer:       
 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						
Tetrachloro-m-xylene	RTXCLP2	1.04	0.959573	92	92	0
Decachlorobiphenyl	RTXCLP1	1.04	1.002435	96	96	0
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 #: 26859635  
 SDG #: all covered

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**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 =  $100 * |MS - MSD| / (MS + MSD)$

MSD = Matrix spike duplicate percent recovery

MS = Matrix spike percent recovery

MS/MSD samples: 12 & 13

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD		MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
gamma-BHC	0.34	0.34	ND	0.25	0.25	79	79	74	74	8	8
4,4'-DDT	0.71	0.71	10.46	12.15	12.15	-19	-19	238	238	16	16

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 #: 26859 L39

SDG #: per email

### VALIDATION FINDINGS WORKSHEET

### Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 6 of 7

Reviewer: [Signature]

2nd Reviewer: [Signature]

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

RPD =  $100 * (LCS - LCSD) / (LCS + LCSD)$

LCS = Laboratory control sample percent recovery  
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: vs 13262

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
gamma-BHC	0.34	NA	0.34	NA	100	100				
4,4'-DDT	0.71	↓	0.76	↓	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 #: 26859232  
 SDG #: pu cover

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

Page: 1 of 1  
 Reviewer: \_\_\_\_\_  
 2nd reviewer: \_\_\_\_\_

**METHOD:** GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

(Y) (N) (N/A)  
(Y) (N) (N/A)

Were all reported results recalculated and verified for all level IV samples?

Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Example:

Sample I.D. #1 44-PDE

$$\text{Conc.} = \frac{(25925)(20)}{(3.60 \times 10^3)(60)(0.995)}$$

$$= 2.4 \text{ ug/kg}$$

#	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:** September 13, 2011  
**LDC Report Date:** January 4, 2012  
**Matrix:** Soil  
**Parameters:** Polychlorinated Biphenyls  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE242

### Sample Identification

SL-030-SA7-SS-0.0-0.5  
SL-034-SA7-SS-0.0-0.5  
SL-035-SA7-SS-0.0-0.5  
SL-037-SA7-SS-0.0-0.5  
SL-040-SA7-SS-0.0-0.5  
SL-041-SA7-SS-0.0-0.5  
SL-070-SA7-SS-0.0-0.5  
SL-071-SA7-SS-0.0-0.5  
SL-073-SA7-SS-0.0-0.5  
SL-146-SA7-SS-0.0-0.5  
SL-338-SA5B-SB-7.0-8.0  
SL-341-SA5B-SB-4.0-5.0  
SL-341-SA5B-SB-9.0-10.0  
SL-342-SA5B-SB-4.0-5.0  
SL-342-SA5B-SB-9.0-10.0

## 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 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 with the following exceptions:

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
PBLK 18260	Not specified	Decachlorobiphenyl	129 (45-120)	All TCL compounds	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) 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-341-SA5B-SB-9.0-10.0	Aroclor-1254	68.40	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE242	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 DE242**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE242	SL-341-SA5B-SB-9.0-10.0	Aroclor-1254	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE242	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0	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 DE242**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG DE242**

No Sample Data Qualified in this SDG

LDC #: 26859L3b

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE2742

Level IV

Laboratory: Lancaster Laboratories

Date: 01/3/12

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**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	Δ	Sampling dates: 9/13/11
II.	GC/ECD Instrument Performance Check	NA	
III.	Initial calibration	Δ	% PSD ≤ 20
IV.	Continuing calibration/ICV	A	100/CCV ≤ 20
V.	Blanks	Δ	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCs 10
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	Δ	
XV.	Field duplicates	N	
XVI.	Field blanks	N	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

Validated Samples:  
 SOIL

1	SL-030-SA7-SS-0.0-0.5	11	SL-338-SA5B-SB-7.0-8.0	21	PBLK/8260	31
2	SL-034-SA7-SS-0.0-0.5	12	SL-341-SA5B-SB-4.0-5.0	22		32
3	SL-035-SA7-SS-0.0-0.5	13	SL-341-SA5B-SB-9.0-10.0	23		33
4	SL-037-SA7-SS-0.0-0.5	14	SL-342-SA5B-SB-4.0-5.0	24		34
5	SL-040-SA7-SS-0.0-0.5	15	SL-342-SA5B-SB-9.0-10.0	25		35
6	SL-041-SA7-SS-0.0-0.5	16		26		36
7	SL-070-SA7-SS-0.0-0.5	17		27		37
8	SL-071-SA7-SS-0.0-0.5	18		28		38
9	SL-073-SA7-SS-0.0-0.5	19		29		39
10	SL-146-SA7-SS-0.0-0.5	20		30		40

Notes: \_\_\_\_\_

LDC #: 2685923D  
 SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: PJ  
 2nd Reviewer: A

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) $\leq$ 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of $\geq$ 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) $\leq$ 20% or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 2685913b  
 SDG #: per comment

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	



**VALIDATION FINDINGS WORKSHEET**  
**Compound Quantitation and Reported CRQLs**

**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 2-101	Finding	Associated Samples	Qualifications
	AA		68.40	13	N/A det * XIII
	AA = Anoclo6		254		

Comments: See sample calculation verification worksheet for recalculations

LDC #: 26859236  
 SDG #: PLC work

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: FJ  
 2nd Reviewer: A

METHOD: GC  HPLC \_\_\_\_\_

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

- CF = A/C
- average CF = sum of the CF/number of standards
- %RSD =  $100 * (S/X)$
- A = Area of compound,
- C = Concentration of compound,
- S = Standard deviation of the CF
- X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported		Recalculated		Reported		Recalculated	
				CF (20Cstd)	CF (20Cstd)	Average CF (initial)	Average CF (initial)	%RSD	%RSD		
1	1CAL 1P25243	9/29/11	1260-1 (MR-1) 1260-1 (MR-2)	85	85	85	85	8.3	8.3	8.3	8.3
				46	46	45	45	9.7	9.7	9.7	9.7
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 #: 26559236  
 SDG #: per cover

**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 =  $100 \cdot (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  Where: ave. CF = initial calibration average CF  
 CF = A/C CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated		
					CF/Conc. CCV	%D	CF/Conc. CCV	%D	
1	CCV 13:59	9/21/11	Atolol 1260 MR-1	200		176	12	176	12
			MR-2	✓		190.74	4.6	190.74	4.6
2	CCV 21:31	9/21/11	↓	200		203.14	1.6	203.14	1.6
			↓	↓		219.67	9.8	219.67	9.8
3	CCV 5:19	9/23/11	↓	↓		206.10	3.1	206.10	3.1
			↓			219.88	9.9	219.88	9.9
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 #: 26859235  
 SDG #: see cover

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

Page: 1 of 1  
 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: # 2 10 X

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	
#TCMX	MR-1	1.041	0.88918	85	85	0
PCB	MR-2	1.041	0.948659	91	91	0

Sample ID: \_\_\_\_\_

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

Sample ID: \_\_\_\_\_

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

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      SC = Concentration  
 RPD =  $|LCS - LCSD| * 2 / (LCS + LCSD)$       SA = Spike added

LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: 100 18260

Compound	Spike Added (ug/kg)		Spiked Sample Concentration		LCS		LCSD	
	LCS	LCSD	LCS	LCSD	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)								
<u>PEB-1260</u>	<u>16.67</u>	<u>NA</u>	<u>16.67</u>	<u>NA</u>	<u>100</u>	<u>100</u>		

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.

VALIDATION FINDINGS WORKSHEET  
Sample Calculation Verification

METHOD:  GC  HPLC

(Y) N N/A  
(Y) N N/A

Were all reported results recalculated and verified for all level IV samples?  
 Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration =  $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$  Example: Sample ID: # 2 Compound Name: Arochlor 1260

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  
 Vs = Initial volume of the sample  
 Ws = Initial weight of the sample  
 %S = Percent Solid

find  
 Concentration = 72.42  
0.995  
= 73 ug/kg

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications
	1260-4 =	13629.37891 (2000) (10) 38 (60) (1000)	= 119.55		
			1260 - 4 =	119.55	
			5 =	35.1308	
			6 =	62.5789	
				72.42	

Comments: \_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** September 13, 2011  
**LDC Report Date:** December 28, 2011  
**Matrix:** Soil  
**Parameters:** Metals  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE242

### Sample Identification

SL-030-SA7-SS-0.0-0.5  
SL-034-SA7-SS-0.0-0.5  
SL-035-SA7-SS-0.0-0.5  
SL-037-SA7-SS-0.0-0.5  
SL-040-SA7-SS-0.0-0.5  
SL-041-SA7-SS-0.0-0.5  
SL-070-SA7-SS-0.0-0.5  
SL-071-SA7-SS-0.0-0.5  
SL-073-SA7-SS-0.0-0.5  
SL-146-SA7-SS-0.0-0.5  
SL-338-SA5B-SB-7.0-8.0  
SL-341-SA5B-SB-4.0-5.0  
SL-341-SA5B-SB-9.0-10.0  
SL-342-SA5B-SB-4.0-5.0  
SL-342-SA5B-SB-9.0-10.0

## 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 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)	Boron Calcium Manganese Mercury Phosphorus Strontium Tin	0.683 mg/Kg 11.091 mg/Kg 0.078 mg/Kg 0.007 mg/Kg 0.876 mg/Kg 0.059 mg/Kg 1.701 mg/Kg	All samples in SDG DE242
ICB/CCB	Magnesium	35.6 ug/L	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5
ICB/CCB	Mercury	0.031 ug/L	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5
ICB/CCB	Mercury	0.027 ug/L	SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
ICB/CCB	Mercury	0.034 ug/L	SL-146-SA7-SS-0.0-0.5 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0

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-030-SA7-SS-0.0-0.5	Mercury Tin	0.024 mg/Kg 2.9 mg/Kg	0.024U mg/Kg 2.9U mg/Kg
SL-034-SA7-SS-0.0-0.5	Boron Tin	1.0 mg/Kg 3.0 mg/Kg	1.0U mg/Kg 3.0U mg/Kg
SL-035-SA7-SS-0.0-0.5	Boron Tin	1.5 mg/Kg 3.8 mg/Kg	1.5U mg/Kg 3.8U mg/Kg
SL-037-SA7-SS-0.0-0.5	Mercury Tin	0.023 mg/Kg 2.9 mg/Kg	0.023U mg/Kg 2.9U mg/Kg
SL-040-SA7-SS-0.0-0.5	Mercury Tin	0.015 mg/Kg 3.0 mg/Kg	0.015U mg/Kg 3.0U mg/Kg
SL-041-SA7-SS-0.0-0.5	Mercury Tin	0.0098 mg/Kg 3.0 mg/Kg	0.0098U mg/Kg 3.0U mg/Kg
SL-070-SA7-SS-0.0-0.5	Mercury Tin	0.015 mg/Kg 2.8 mg/Kg	0.015U mg/Kg 2.8U mg/Kg
SL-071-SA7-SS-0.0-0.5	Mercury Tin	0.012 mg/Kg 2.8 mg/Kg	0.012U mg/Kg 2.8U mg/Kg
SL-073-SA7-SS-0.0-0.5	Mercury Tin	0.026 mg/Kg 3.7 mg/Kg	0.026U mg/Kg 3.7U mg/Kg
SL-146-SA7-SS-0.0-0.5	Boron Tin	2.2 mg/Kg 4.5 mg/Kg	2.2U mg/Kg 4.5U mg/Kg
SL-338-SA5B-SB-7.0-8.0	Boron Mercury Tin	3.0 mg/Kg 0.018 mg/Kg 2.3 mg/Kg	3.0U mg/Kg 0.018U mg/Kg 2.3U mg/Kg
SL-341-SA5B-SB-4.0-5.0	Mercury Tin	0.024 mg/Kg 3.0 mg/Kg	0.024U mg/Kg 3.0U mg/Kg

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-341-SA5B-SB-9.0-10.0	Tin	3.0 mg/Kg	3.0U mg/Kg
SL-342-SA5B-SB-4.0-5.0	Mercury Tin	0.027 mg/Kg 3.0 mg/Kg	0.027U mg/Kg 3.0U mg/Kg
SL-342-SA5B-SB-9.0-10.0	Mercury Tin	0.018 mg/Kg 3.1 mg/Kg	0.018U mg/Kg 3.1U 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-050-SA6-SB-1.0-2.0MS/D (All samples in SDG DE242)	Antimony	66 (75-125)	70 (75-125)	-	J (all detects) UJ (all non-detects)	A
SL-050-SA6-SB-1.0-2.0MS/D (All samples in SDG DE242)	Beryllium	-	135 (75-125)	-	J (all detects)	A
	Cadmium	134 (75-125)	149 (75-125)	-	J (all detects)	
	Chromium	-	131 (75-125)	-	J (all detects)	
	Cobalt	128 (75-125)	142 (75-125)	-	J (all detects)	
	Copper	-	144 (75-125)	-	J (all detects)	
	Lead	-	153 (75-125)	-	J (all detects)	
	Molybdenum	135 (75-125)	147 (75-125)	-	J (all detects)	
	Nickel	-	149 (75-125)	-	J (all detects)	
	Selenium	-	145 (75-125)	-	J (all detects)	
	Silver	131 (75-125)	144 (75-125)	-	J (all detects)	
	Thallium	-	136 (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) 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-050-SA6-SB-1.0-2.0	Barium Cobalt Lead Zinc	12 ( $\leq 10$ ) 13 ( $\leq 10$ ) 12 ( $\leq 10$ ) 11 ( $\leq 10$ )	All samples in SDG DE242	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 DE242	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 DE242**

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE242	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0	Antimony	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE242	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0	Beryllium Cadmium Chromium Cobalt Copper Lead Molybdenum Nickel Selenium Silver Thallium	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)
DE242	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0	Barium Cobalt Lead Zinc	J (all detects) UJ (all non-detects)	A	ICP serial dilution (%D) (A)

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE242	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0	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 DE242**

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE242	SL-030-SA7-SS-0.0-0.5	Mercury Tin	0.024U mg/Kg 2.9U mg/Kg	A	B
DE242	SL-034-SA7-SS-0.0-0.5	Boron Tin	1.0U mg/Kg 3.0U mg/Kg	A	B
DE242	SL-035-SA7-SS-0.0-0.5	Boron Tin	1.5U mg/Kg 3.8U mg/Kg	A	B
DE242	SL-037-SA7-SS-0.0-0.5	Mercury Tin	0.023U mg/Kg 2.9U mg/Kg	A	B
DE242	SL-040-SA7-SS-0.0-0.5	Mercury Tin	0.015U mg/Kg 3.0U mg/Kg	A	B
DE242	SL-041-SA7-SS-0.0-0.5	Mercury Tin	0.0098U mg/Kg 3.0U mg/Kg	A	B
DE242	SL-070-SA7-SS-0.0-0.5	Mercury Tin	0.015U mg/Kg 2.8U mg/Kg	A	B
DE242	SL-071-SA7-SS-0.0-0.5	Mercury Tin	0.012U mg/Kg 2.8U mg/Kg	A	B
DE242	SL-073-SA7-SS-0.0-0.5	Mercury Tin	0.026U mg/Kg 3.7U mg/Kg	A	B
DE242	SL-146-SA7-SS-0.0-0.5	Boron Tin	2.2U mg/Kg 4.5U mg/Kg	A	B

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE242	SL-338-SA5B-SB-7.0-8.0	Boron Mercury Tin	3.0U mg/Kg 0.018U mg/Kg 2.3U mg/Kg	A	B
DE242	SL-341-SA5B-SB-4.0-5.0	Mercury Tin	0.024U mg/Kg 3.0U mg/Kg	A	B
DE242	SL-341-SA5B-SB-9.0-10.0	Tin	3.0U mg/Kg	A	B
DE242	SL-342-SA5B-SB-4.0-5.0	Mercury Tin	0.027U mg/Kg 3.0U mg/Kg	A	B
DE242	SL-342-SA5B-SB-9.0-10.0	Mercury Tin	0.018U mg/Kg 3.1U mg/Kg	A	B

**Santa Susana Field Laboratory  
Metals - Field Blank Data Qualification Summary - SDG DE242**

No Sample Data Qualified in this SDG

LDC #: 26859L4  
 SDG #: DE242  
 Laboratory: Lancaster Laboratories

**VALIDATION COMPLETENESS WORKSHEET**  
 Level IV

Date: 12-23-11  
 Page: of  
 Reviewer: DL  
 2nd Reviewer: ✓

**METHOD:** Metals (EPA SW 846 Method 6010B/6020A/7000) <sup>7471A</sup>

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: 7/13/11
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	SW	
VI.	Matrix Spike Analysis	SW	Client specified, from Env 1724/
VII.	Duplicate Sample Analysis	✓ X A	↓
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	A	
X.	Furnace Atomic Absorption QC	SW N	Not utilized w/ No + Utilized
XI.	ICP Serial Dilution	SW	Not performed
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	N	
XV.	Field Blanks	N	

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

Validated Samples: Soil

1	SL-030-SA7-SS-0.0-0.5	11	SL-338-SA5B-SB-7.0-8.0	21	MM	31	
2	SL-034-SA7-SS-0.0-0.5	12	SL-341-SA5B-SB-4.0-5.0	22		32	
3	SL-035-SA7-SS-0.0-0.5	13	SL-341-SA5B-SB-9.0-10.0	23		33	
4	SL-037-SA7-SS-0.0-0.5	14	SL-342-SA5B-SB-4.0-5.0	24		34	
5	SL-040-SA7-SS-0.0-0.5	15	SL-342-SA5B-SB-9.0-10.0	25		35	
6	SL-041-SA7-SS-0.0-0.5	16		26		36	
7	SL-070-SA7-SS-0.0-0.5	17		27		37	
8	SL-071-SA7-SS-0.0-0.5	18		28		38	
9	SL-073-SA7-SS-0.0-0.5	19		29		39	
10	SL-146-SA7-SS-0.0-0.5	20		30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
<b>II. ICP/MS Tune</b>				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	/			
Were %RSD of isotopes in the tuning solution $\leq 5\%$ ?	/			
<b>III. Calibration</b>				
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 $> 0.995$ ?	/			
<b>IV. Blanks</b>				
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.	/			
<b>V. ICP Interference Check Sample</b>				
Were ICP interference check samples performed daily?	/			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	/			
<b>VI. Matrix spike/Matrix spike duplicates</b>				
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) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\pm RL(\pm 2X RL$ for soil) was used for samples that were $\leq 5X$ the RL, including when only one of the duplicate sample values were $< 5X$ the RL.	✓			
<b>VII. Laboratory control samples</b>				
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 80-120% QC limits for water samples and laboratory established QC limits for soils?	/			

Validation Area	Yes	No	NA	Findings/Comments
<b>VIII. Furnace Atomic Absorption QC</b>				
If MSA was performed, was the correlation coefficients > 0.995?			<input checked="" type="checkbox"/>	
Do all applicable analyses have duplicate injections? (Level IV only)			<input checked="" type="checkbox"/>	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			<input checked="" type="checkbox"/>	
Were analytical spike recoveries within the 85-115% QC limits?			<input checked="" type="checkbox"/>	
<b>IX. ICP Serial Dilution</b>				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL (ICP/MS)?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
Were all percent differences (%Ds) < 10%?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.			<input checked="" type="checkbox"/>	
<b>X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)</b>				
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?	<input checked="" type="checkbox"/>			
If the %Rs were outside the criteria, was a reanalysis performed?	<input checked="" type="checkbox"/>			
<b>XI. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?		<input checked="" type="checkbox"/>		
Were the performance evaluation (PE) samples within the acceptance limits?		<input checked="" type="checkbox"/>		
<b>XII. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.		<input checked="" type="checkbox"/>		
Target analytes were detected in the field duplicates.			<input checked="" type="checkbox"/>	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.		<input checked="" type="checkbox"/>		
Target analytes were detected in the field blanks.			<input checked="" type="checkbox"/>	



VALIDATION FINDINGS WORKSHEET  
 PB/ICB/CCB QUALIFIED SAMPLES

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)  
 Sample Concentration units, unless otherwise noted: mg/Kg

Soil preparation factor applied: 100x (Hg=167x)  
 Associated Samples: All

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
B	0.683			3.415		1.0	1.5							2.2	3.0					
Ca	11.091			55.46																
Mn	0.078			0.39																
Hg	0.007			0.04	0.024			0.023	0.015	0.0098	0.015	0.012	0.026		0.018	0.024		0.027	0.018	
P	0.876			4.38																
Sr	0.059			0.295																
Sn	1.701			8.505	2.9	3.0	3.8	2.9	3.0	3.0	2.8	2.8	3.7	4.5	2.3	3.0	3.0	3.0	3.0	3.1

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 1-6

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit
Mg			35.6	17.8

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 1, 2

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit
Hg			0.031	0.03

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 3-9, 11, 12

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit
Hg			0.027	0.02

LDC #: 26859L4

**VALIDATION FINDINGS WORKSHEET  
PB/ICB/CCB QUALIFIED SAMPLES**

**METHOD:** Trace metals (EPA SW 864 Method 6010B/6020/7000)  
Sample Concentration units, unless otherwise noted: mg/Kg

Soil preparation factor applied: 100x (Hg=167x)  
Associated Samples: 10, 13-15

Page: 22 of 22  
Reviewer: CR  
2nd Reviewer: CR

Analyte	Maximum PB* (mg/Kg)	Maximum PB* (ug/L)	Maximum ICB/CCB* (ug/L)	Action Limit	14	15								
Hg			0.034	0.03	See PB	See PB								

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.

# VALIDATION FINDINGS WORKSHEET

## ICP Interference Check Sample

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".  
 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:

N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	ICS Identification	Analyte	Finding	Associated Samples	Qualifications
	<u>9/22/11</u>	<u>ISSA(12:53/ 15:17)</u>	<u>MA</u>	<u>mg/L 3 (50.36)</u>	<u>1-3, 7, 11, 14, 15</u>	<u>No Qual (&gt;10x)</u>

Comments:

LDC #: 2685944

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates**

Page: 1 of 2  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

METHOD: Trace metals (EPA SW 846 Method 6010/6020/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

N N/A Was a matrix spike analyzed for each matrix in this SDG?  
 Y 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.

N N/A Were all duplicate sample relative percent differences (RPD)  $\leq 20\%$  for water samples and  $\leq 35\%$  for soil samples?

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
1	SL-050-5A6	Soil	Sb	66	70		A1	J/WJ/A (A)
	-SB-10-2.0		Be		135			J/A/A
			Cd	134	149			
			Cu		131			
			Co	128	142			
			Cu		147			
			Pb		153			
			Mo	135	147			
			Mn		149			
			Se		145			
			Ag	131	144			
			Te		136			

Comments:



LDC #: 285574

**VALIDATION FINDINGS WORKSHEET**  
**Initial and Continuing Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: CR  
 2nd Reviewer: CR

**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:

$\%R = \frac{\text{Found}}{\text{True}} \times 100$  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		Reported		Acceptable (Y/N)
					%R	%R	%R	%R	
ICV	ICP (Initial calibration)	Fe	293312	3000	97.8	97.8	97.8	Y	
	ICP/MS (Initial calibration)	Mo	50.12	50	100.2	100.2	100.2	Y	
	CVAA (Initial calibration)	H5	2.41	2.5	96.4	96.4	96.4	Y	
CCV	ICP (Continuing calibration)	Sr	48927	500	97.9	97.9	97.9	Y	
	ICP/MS (Continuing calibration)	Se	25.89	25	103.6	103.6	103.6	Y	
	CVAA (Continuing calibration)	H5	0.95	1	95	95	95	Y	
	GFAA (Initial calibration)								
	GFAA (Continuing calibration)								

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.

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

**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:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$

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		Acceptable (Y/N)
					%R / RPD / %D	Reported %R / RPD / %D	
ICSA3	ICP interference check	Ni	20.1	20	100.5	100.5	Y
LOS	Laboratory control sample	P	1062.7	1000	106	106	Y
SL-050-SAB SB 10-20	Matrix spike	Cu	9.9192 (SSR-SR)	10.1071	98	98	Y
Y	Duplicate	Ba	154.79	110.77	6	6	Y
Y	ICP serial dilution	V	217	220	4	4	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.

## VALIDATION FINDINGS WORKSHEET

### Sample Calculation Verification

**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 Ti were recalculated and verified using the following equation:

$$\text{Concentration} = \frac{(\text{RD})(\text{FV})(\text{Dil})}{(\text{In. Vol.})}$$

Recalculation:

$$\frac{100 \text{ mL } (12,54757 \text{ mg/L})}{0.995 (1.01 \text{ g})} = 1249 \text{ mg/Kg}$$

- 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)
	1	Al	14600	14600	Y
		Sb	0.23	0.23	
		As	5.1	5.1	
		Ba	96.9	96.9	
		Be	0.61	0.61	
		B	4.2	4.2	
		Cd	0.22	0.22	
		Ca	3080	3080	
		Cr	17.1	17.1	
		Co	5.9	5.9	
		Cu	9.3	9.3	
		Fe	18100	18100	
		Pb	17.1	17.1	
		Li	23.9	23.9	
		Mg	4110	4110	
		Mn	263	263	
		Hg	0.024	0.024	
		Mo	0.63	0.63	
		Ni	11.0	11.0	
		P	439	439	
		K	3300	3300	
		Se	0.21	0.21	
		Ag	0.028	0.028	
		Na	75.3	75.3	
		Sr	17.9	17.9	

## VALIDATION FINDINGS WORKSHEET

### Sample Calculation Verification

**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:

- RD = Raw data concentration
- FV = Final volume (ml)
- In. Vol. = Initial volume (ml) or weight (G)
- Dil = Dilution factor

$\frac{100 \text{ mL} (0.01054 \text{ mg/L})}{0.1010 \text{ (1.0g)}} = 1.0 \text{ mg/kg}$

#	Sample ID	Analyte	Reported Concentration (mg/Kg)	Calculated Concentration (mg/Kg)	Acceptable (Y/N)
	1	Ti	0.27	0.27	Y
		Sn	2.9	2.9	
		Ti	1250	1250	
		V	35.9	35.9	
		Zn	84.2	84.2	
		Zr	2.7	2.7	
	2	Al	11300	11300	Y
		Sb	0.34	0.34	
		As	4.4	4.4	
		Ba	98.1	98.1	
		Be	0.46	0.46	
		B	1.0	1.0	
		Cd	0.44	0.44	
		Ca	3920	3920	
		Cr	47.9	47.9	
		Co	6.3	6.3	
		Cu	13.8	13.8	
		Fe	18900	18900	
		Pb	26.4	26.4	
		Li	22.4	22.4	
	Mg	4200	4200		
	Mn	257	257		
	Hg	0.089	0.089		
	Mo	1.2	1.2		
	Ni	33.0	33.0		

## VALIDATION FINDINGS WORKSHEET

### Sample Calculation Verification

**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:

$$\text{Concentration} = \frac{(\text{RD})(\text{FV})(\text{Dil})}{(\text{In. Vol.})}$$

Recalculation:

- RD = Raw data concentration
- FV = Final volume (ml)
- In. Vol. = Initial volume (ml) or weight (G)
- Dil = Dilution factor

See previous page

#	Sample ID	Analyte	Reported Concentration (mg/Kg)	Calculated Concentration (mg/Kg)	Acceptable (Y/N)	
	2	P	445	445	✓	
		K	3920	3920	                       	
		Se	0.11	0.11		
		Ag	0.058	0.058		
		Na	157	157		
		Sr	12.3	12.3		
		Tl	0.25	0.25		
		Sn	3.0	3.0		
		Ti	1220	1220		
		V	38.2	38.2		
		Zn	135	135		
		Zr	2.9	2.9		✓

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** September 13, 2011  
**LDC Report Date:** December 28, 2011  
**Matrix:** Soil  
**Parameters:** Herbicides  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE242

### Sample Identification

SL-030-SA7-SS-0.0-0.5  
SL-034-SA7-SS-0.0-0.5  
SL-035-SA7-SS-0.0-0.5  
SL-037-SA7-SS-0.0-0.5  
SL-040-SA7-SS-0.0-0.5  
SL-041-SA7-SS-0.0-0.5  
SL-070-SA7-SS-0.0-0.5  
SL-071-SA7-SS-0.0-0.5  
SL-073-SA7-SS-0.0-0.5  
SL-146-SA7-SS-0.0-0.5  
SL-030-SA7-SS-0.0-0.5MS  
SL-030-SA7-SS-0.0-0.5MSD

## Introduction

This data review covers 12 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8151A for Herbicides.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the 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 this 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.

## **III. Calibration Verification**

Calibration verification was performed at the required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

## **IV. Blanks**

Method blanks were reviewed for each matrix as applicable. No herbicide contaminants were found in the method blanks.

No field blanks were identified in this SDG.

## **V. Surrogate Recovery**

Surrogates were added to all samples and blanks as required by the method. Surrogate recoveries (%R) were not within QC limits for sample SL-040-SA7-SS-0.0-0.5. Since the sample was diluted out, no data were qualified.

## **VI. Matrix Spike/Matrix Spike Duplicate**

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-030-SA7-SS-0.0-0.5MS/MSD (SL-030-SA7-SS-0.0-0.5)	MCPA 2,4-D 2,4,5-T	- - 375 (10-156)	- - -	69 (≤50) 46 (≤35) 176 (≤35)	J (all detects) J (all detects) J (all detects)	A
SL-030-SA7-SS-0.0-0.5MS/MSD (SL-030-SA7-SS-0.0-0.5)	2,4,5-TP  Dinoseb	14 (24-141)  6 (10-46)	-  6 (10-46)	133 (≤35)  -	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
LCS 24258	Dicamba	148 (54-121)	All samples in SDG DE242	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.

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-035-SA7-SS-0.0-0.5	2,4-DB	97	J (all detects)	A
SL-037-SA7-SS-0.0-0.5	MCPP 2,4,5-T	47 81	J (all detects) J (all detects)	A
SL-071-SA7-SS-0.0-0.5	Dicamba	75	J (all detects)	A
SL-146-SA7-SS-0.0-0.5	2,4,5-T	76	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE242	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  
Herbicides - Data Qualification Summary - SDG DE242**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE242	SL-030-SA7-SS-0.0-0.5	MCPA 2,4-D 2,4,5-T	J (all detects) J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q)
DE242	SL-030-SA7-SS-0.0-0.5	2,4,5-TP	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q)
DE242	SL-030-SA7-SS-0.0-0.5	Dinoseb	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE242	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5	Dicamba	J (all detects)	P	Laboratory control samples (%R) (L)
DE242	SL-035-SA7-SS-0.0-0.5	2,4-DB	J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE242	SL-037-SA7-SS-0.0-0.5	MCPP 2,4,5-T	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE242	SL-071-SA7-SS-0.0-0.5	Dicamba	J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE242	SL-146-SA7-SS-0.0-0.5	2,4,5-T	J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE242	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

**Santa Susana Field Laboratory  
Herbicides - Laboratory Blank Data Qualification Summary - SDG DE242**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**  
**Herbicides - Field Blank Data Qualification Summary - SDG DE242**

No Sample Data Qualified in this SDG

LDC #: 26859L5

## VALIDATION COMPLETENESS WORKSHEET

SDG #: DE242

Level IV

Laboratory: Lancaster Laboratories

Date: 12/26/11

Page: 6 of 7

Reviewer: [Signature]

2nd Reviewer: [Signature]

METHOD: GC Herbicides (EPA SW 846 Method 8151A)

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

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 9/13/11
II.	Initial calibration	A	% PSD ≤ 20
III.	Calibration verification/ICV	Δ	10V/CCV ≤ 20
IV.	Blanks	Δ	
V.	Surrogate recovery	SW	
VI.	Matrix spike/Matrix spike duplicates	SW	
VII.	Laboratory control samples	SW	LCS
VIII.	Target compound identification	Δ	
IX.	Compound quantitation/RL/LOQ/LODs	SW	
X.	System Performance	Δ	
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-030-SA7-SS-0.0-0.5	11	#1 MS	21	PBLK24258	31	
2	SL-034-SA7-SS-0.0-0.5	12	#1 MSU	22		32	
3	SL-035-SA7-SS-0.0-0.5	13		23		33	
4	SL-037-SA7-SS-0.0-0.5	14		24		34	
5	SL-040-SA7-SS-0.0-0.5	15		25		35	
6	SL-041-SA7-SS-0.0-0.5	16		26		36	
7	SL-070-SA7-SS-0.0-0.5	17		27		37	
8	SL-071-SA7-SS-0.0-0.5	18		28		38	
9	SL-073-SA7-SS-0.0-0.5	19		29		39	
10	SL-146-SA7-SS-0.0-0.5	20		30		40	

Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

LDC #: 2689516  
 SDG #: per owner

VALIDATION FINDINGS CHECKLIST

Page: / of 2  
 Reviewer: FP  
 2nd Reviewer: [Signature]

Method:  GC  HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 268925  
 SDG #: per coned

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: F7  
 2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

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. Fensuifothion	V. Benzene
B. Acenaphthylene	B. RDX	B. 2,4-DB	B. Mevinphos	W. Bolstar	CC. Toluene
C. Anthracene	C. 1,3,5-Trinitrobenzene	C. 2,4,6-T	C. Demeton-O	X. EPN	EE. Ethyl Benzene
D. Benzo(a)anthracene	D. 1,3-Dinitrobenzene	D. 2,4,6-TP	D. Demeton-S	Y. Azinphos-methyl	SSS. O-Xylene
E. Benzo(a)pyrene	E. Tetra	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. Sulfotop	BB. Trichloronate	
H. Benzo(k)fluoranthene	H. 4-Amino-2,6-dinitrotoluene	H. Dalepon	H. Phorate	CC. Trichlorinate	
I. Chrysene	I. 2-Amino-4,6-dinitrotoluene	I. MCPP	I. Dimethoate	DD. Trifluralin	
J. Dibenzo(a,h)anthracene	J. 2,4-Dinitrotoluene	J. MCPA	J. Diazinon	EE. Def	
K. Fluoranthene	K. 2,6-Dinitrotoluene	K. Pentachlorophenol	K. Dialufoton	FF. Prowl	
L. Fluorene	L. 2-Nitrotoluene	L. 2,4,6-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. Fenithion		
Q.	Q		Q. Parathion-ethyl		
R.			R. Trichloronate		
S.			S. Merphos		
			T. Stirofos		
			U. Tokuthion		

Notes:

Surrogate Recovery

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
	<u>A5</u>	<u>MS</u>	<u>2,4,9</u>	<u>163</u> ( <u>36-56</u> )	<u>no qual 25 X PL</u>
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

Surrogate Compound		Surrogate Compound		Surrogate Compound		Surrogate Compound
A Chlorobenzene (CBZ)	G	Octacosane	M	Benzo(e)Pyrene	S	1-Chloro-3-Nitrobenzene
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	Triphenyltin
D Bromochlorobenzene	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-Nitrohenol	X	Triphenyl Phosphate

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates**

**MS/MSD ID**    **Compound**    **MS %R (Limits)**    **MSD %R (Limits)**    **RPD (Limits)**    **Associated Samples #**    **Qualifications**

MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples #	Qualifications
11212	MCFA	( )	( )	69 ( 50 )	( 6 )	J/A det
	2,4-D	( )	( )	46 ( 35 )	1	J/UJ/A
	2,4,5-TP	14 ( 24-14h)	( )	133 ( 35 )	1	J/A det
	2,4,5-T	375 ( 10-126)	( )	176 ( 35 )	1	J/UJ/A
	Pinoseb	6 ( 10-46)	6 ( 10-46)	( )	1	J/A det
		( )	( )	( )		
		( )	( )	( )		
		( )	( )	( )		
		( )	( )	( )		
		( )	( )	( )		
		( )	( )	( )		
		( )	( )	( )		
		( )	( )	( )		
		( )	( )	( )		
		( )	( )	( )		
		( )	( )	( )		
		( )	( )	( )		
		( )	( )	( )		
		( )	( )	( )		
		( )	( )	( )		
		( )	( )	( )		
		( )	( )	( )		

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Samples (LCS)**

LDC #: 26859LS  
 SDG #: LCI CONY  
 METHOD:  GC  HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".  
 N  A Were a laboratory control samples (LCS) and laboratory control sample duplicate (LCSD) analyzed for each matrix in this SDG?  
 Y  N  A Were the LCS percent recoveries (%R) and relative percent differences (RPD) within the QC limits?

**Level IV/D Only**  
 Y  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
	<u>LC5 24XB</u>	<u>Dicamba</u>	<u>148 (54-121)</u>	( )	( )	<u>A11</u>	<u>2/ Polt (L)</u>
		<u>§</u>	( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
		<u>Dicamba = (G)</u>	( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 2685925  
 SDG #: per coner

Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**VALIDATION FINDINGS WORKSHEET**  
**Compound Quantitation and Reported CRQLs**

METHOD: GC HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

**Level IV/D Only**

Were CRQLs adjusted for sample dilutions, dry weight factors, etc.?  
 Did the reported results for detected target compounds agree within 10.0% of the recalculated results?  
 Did the percent difference of detected compounds between two columns/detectors  $\leq 40\%$ ?  
 If no, please see findings below.

#	Compound Name	Sample ID	%RPD Between Two Columns/Detectors Limit ( $\leq 40\%$ )	Qualifications
	244-DB	3	97	N/A det * IX
	MEPP	4	47	↓
	245-7		81	↓
	Dicamba	8	75	↓
	245-7	10	76	↓

Comments: See sample calculation verification worksheet for recalculations

LDC #: 2685925  
 SDG #: pk coach

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: [Signature]  
 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

3

#	Standard ID	Calibration Date	Compound	Reported		Recalculated		Reported		Recalculated	
				CF/100.7 (std)	200.6/100.7 CF (std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD	Average CF (Initial)	%RSD
1	1CAL- ZB-X4B	9/19/11	2,4-DB Dinoseb	$6.99 \times 10^{-2}$ $3.6 / \times 10^{-1}$	$6.99 \times 10^{-2}$ $3.6 / \times 10^{-1}$	$6.97 \times 10^{-2}$ $4.1 / \times 10^{-1}$	$6.97 \times 10^{-2}$ $4.1 / \times 10^{-1}$	6.6 17.8	6.6 17.8	6.6 17.8	6.6 17.8
2			ZB-35	$8.52 \times 10^{-2}$ $3.79 \times 10^{-1}$	$8.52 \times 10^{-2}$ $3.79 \times 10^{-1}$	$8.6 \times 10^{-2}$ $4.32 \times 10^{-1}$	$8.6 \times 10^{-2}$ $4.32 \times 10^{-1}$	13.2 19.5	13.2 19.5	13.2 19.5	13.2 19.5
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 #: 2685925  
 SDG #: per cover

**VALIDATION FINDINGS WORKSHEET**  
Continuing Calibration Results Verification

Page: 1 of 7  
 Reviewer: FE  
 2nd Reviewer: CE

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 =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  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 (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	acN 22:00	9/19/11	2.4-DB	200.60	195.62	2.5	195.62	2.5
			ZB-XLB	100.70	88.76	1.9	88.76	11.9
			Dinoseb		195.55	195.55	2.5	195.55
2		9/20/11			89.74	10.9	89.74	10.9
	acN 329		ZB-XLB	200.4	215.33	7.3	215.33	7.3
				100.70	86.02	14.6	86.02	14.6
3					200.16	0.2	200.16	0.2
			ZB-35		86.78	13.8	86.78	13.8
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 #: 2685925  
 SDG #: see cover

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

Page: 1 of 1  
 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: # /

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	
34-PCAA	DB-X4B	6.641	6.116769	92	92	0

Sample ID: \_\_\_\_\_

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

Sample ID: \_\_\_\_\_

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

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 =  $100 * ((SC - SA) / SA)$  Where SC = Spiked sample concentration SA = Spike added  
 RPD =  $(((SCMS - SSCMSD) * 2) / (SCMS + SSCMSD)) * 100$  MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: # 11, 12

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD		MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
Dalapon	20.81	20.81	ND	17.78	14.07	85	85	68	68	23	23
Picamba	0.83	0.83	ND	0.79	0.61	95	95	73	73	26	26

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.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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:

$\% \text{ Recovery} = 100 * (\text{SSC}-\text{SC}) / \text{SA}$       Where: SSC = Spiked sample concentration      SC = Concentration  
 $\text{RPD} = | \text{LCS} - \text{LCSD} | * 2 / (\text{LCS} + \text{LCSD})$       SA = Spike added

LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: WS 2425B

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS		LCSD		Percent Recovery		Percent Recovery		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	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)														
<i>Dalapon</i>	20.88	NA	12.48	NA	60	60	148	148	60	60	148	148	NA	NA
<i>Dicamba</i>	0.83	↓	1.23	↓										

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.

**VALIDATION FINDINGS WORKSHEET**  
Sample Calculation Verification

LDC #: 2685925  
 SDG #: fw goney

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 =  $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$  Example:  
 Sample ID: 3 Compound Name: 3, 4-DB  
 Concentration =  $\frac{2183}{39514} (2) (100)$   
 $(697 \times 10^{-2}) (60) (0.995)$

- 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

2.7 ug/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:** September 13, 2011  
**LDC Report Date:** January 5, 2012  
**Matrix:** Soil  
**Parameters:** Wet Chemistry  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE242

### Sample Identification

SL-030-SA7-SS-0.0-0.5	SL-338-SA5B-SB-7.0-8.0DUP
SL-034-SA7-SS-0.0-0.5	SL-341-SA5B-SB-4.0-5.0MS
SL-035-SA7-SS-0.0-0.5	SL-341-SA5B-SB-4.0-5.0DUP
SL-037-SA7-SS-0.0-0.5	
SL-040-SA7-SS-0.0-0.5	
SL-041-SA7-SS-0.0-0.5	
SL-070-SA7-SS-0.0-0.5	
SL-071-SA7-SS-0.0-0.5	
SL-073-SA7-SS-0.0-0.5	
SL-146-SA7-SS-0.0-0.5	
SL-338-SA5B-SB-7.0-8.0	
SL-341-SA5B-SB-4.0-5.0	
SL-341-SA5B-SB-9.0-10.0	
SL-342-SA5B-SB-4.0-5.0	
SL-342-SA5B-SB-9.0-10.0	
SL-034-SA7-SS-0.0-0.5MS	
SL-034-SA7-SS-0.0-0.5DUP	
SL-041-SA7-SS-0.0-0.5MS	
SL-041-SA7-SS-0.0-0.5DUP	
SL-338-SA5B-SB-7.0-8.0MS	

## Introduction

This data review covers 23 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.

## 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 DE242	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 DE242**

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE242	SL-030-SA7-SS-0.0-0.5 SL-034-SA7-SS-0.0-0.5 SL-035-SA7-SS-0.0-0.5 SL-037-SA7-SS-0.0-0.5 SL-040-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0	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 DE242**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Wet Chemistry - Field Blank Data Qualification Summary - SDG DE242**

No Sample Data Qualified in this SDG

LDC #: 26859L6

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE242

Level IV

Laboratory: Lancaster Laboratories

Date: 1/4/11

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**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: 9/13/11
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	A	
IV	Matrix Spike/Matrix Spike Duplicates	A	} MS / Dup
V	Duplicates	A	
VI.	Laboratory control samples	A	LCS
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	✓	
X	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-030-SA7-SS-0.0-0.5	11	SL-338-SA5B-SB-7.0-8.0	21	# 11 Dup	31	MS
2	SL-034-SA7-SS-0.0-0.5	12	SL-341-SA5B-SB-4.0-5.0	22	# 12 MS	32	
3	SL-035-SA7-SS-0.0-0.5	13	SL-341-SA5B-SB-9.0-10.0	23	↓ Dup	33	
4	SL-037-SA7-SS-0.0-0.5	14	SL-342-SA5B-SB-4.0-5.0	24		34	
5	SL-040-SA7-SS-0.0-0.5	15	SL-342-SA5B-SB-9.0-10.0	25		35	
6	SL-041-SA7-SS-0.0-0.5	16	# 2 MS	26		36	
7	SL-070-SA7-SS-0.0-0.5	17	↓ Dup	27		37	
8	SL-071-SA7-SS-0.0-0.5	18	# 6 MS	28		38	
9	SL-073-SA7-SS-0.0-0.5	19	↓ Dup	29		39	
10	SL-146-SA7-SS-0.0-0.5	20	# 11 MS	30		40	

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Method: Inorganics (EPA Method See Cover)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
<b>II. Calibration</b>				
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)			✓	
<b>III. Blanks</b>				
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.		✓		
<b>IV. Matrix spike/Matrix spike duplicates and Duplicates</b>				
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.	✓			
<b>V. Laboratory control samples</b>				
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 80-120% (85-115% for Method 300.0) QC limits?	✓			
<b>VI. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

Validation Area	Yes	No	NA	Findings/Comments
<b>VII. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
Were detection limits < RL?	/			
<b>VIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>IX. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
<b>X. Field blanks</b>				
Field blanks were identified in this SDG.		✓		
Target analytes were detected in the field blanks.			✓	

All circled methods are applicable to each sample.

Sample ID	Matrix	Parameter
1-15	Soil	pH TDS C (F) NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
11-15	↓	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
16,17	Soil	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
18,19	↓	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
20,21	↓	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
22,23	↓	pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN <sup>-</sup> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>

Comments: \_\_\_\_\_

LDC #: 268926

**Validatin Findings Worksheet**  
**Initial and Continuing Calibration Calculation Verification**

Page: 1 of 2  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

Method: Inorganics, Method See conv

The correlation coefficient (r) for the calibration of F was recalculated. Calibration date: 9/12/11

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		Reported		Acceptable (Y/N)
					r or r <sup>2</sup>	r or r <sup>2</sup>			
Initial calibration	F	s1	0.1	0.019939	0.9972	0.9972			Y
		s2	0.4	0.094313					
		s3	1	0.203237					
		s4	2	0.416888					
		s5	3	0.667727					
Calibration verification	cn	0.15	0.1525		1.02	1.02		Y	
Calibration verification	cbt	200	188		94	94		Y	
Calibration verification	clay	100	106.5		107	106		Y	

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 #: 76 859 46

VALIDATION FINDINGS WORKSHEET  
Level IV Recalculation Worksheet

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

METHOD: Inorganics, Method See comm

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{\text{Found}}{\text{True}} \times 100$  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		Reported %R / RPD	Acceptable (Y/N)
					%R	RPD		
103	Laboratory control sample	W <sup>67</sup>	407	5	81.4		WR	Y
18	Matrix spike sample	CO <sub>2</sub>	477 (SSR-SR)	500	95		95	J
27	Duplicate sample	PO <sub>3</sub>	1.1	1.1	9		9	J

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
Sample Calculation Verification

METHOD: Inorganics, Method See over

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- N N/A Have results been reported and calculated correctly?  
 N N/A Are results within the calibrated range of the instruments?  
 N N/A Are all detection limits below the CRQL?

Compound (analyte) results for 1, 11 reported with a positive detect were recalculated and verified using the following equation:

Concentration = Recalculation:  

$$\# 11 \ F = \frac{(0.021 + 0.0053) \times 0.052 \times}{0.2198 \times 4.989 \times 0.95} = 0.00126 \text{ mg/g} = 1.26 \text{ mg/kg}$$

#	Sample ID	Analyte	Reported Concentration (mg/g)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
1	1	F	1.26	1.26	Y
2	11	F NO <sub>3</sub>	1.3 1.1	1.3 1.1	Y Y
3	3	CO <sub>2</sub>	0.46	0.46	Y

Note: \_\_\_\_\_  
 \_\_\_\_\_

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** September 13, 2011  
**LDC Report Date:** December 28, 2011  
**Matrix:** Soil/Water  
**Parameters:** Total Petroleum Hydrocarbons as Gasoline  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE242

**Sample Identification**

SL-338-SA5B-SB-7.0-8.0  
SL-341-SA5B-SB-4.0-5.0  
SL-341-SA5B-SB-9.0-10.0  
SL-342-SA5B-SB-4.0-5.0  
SL-342-SA5B-SB-9.0-10.0  
TB-091311  
SL-338-SA5B-SB-7.0-8.0MS  
SL-338-SA5B-SB-7.0-8.0MSD

## Introduction

This data review covers 7 soil samples and one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015B for Total Petroleum Hydrocarbons (TPH) as Gasoline.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the compound at an estimated quantity.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

## III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

## IV. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as gasoline contaminants were found in the method blanks.

Sample TB-091311 was identified as a trip blank. No total petroleum hydrocarbons as gasoline contaminants were found.

## V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-338-SA5B-SB-7.0-8.0MS/MSD (SL-338-SA5B-SB-7.0-8.0)	TPH as gasoline	-	121 (39-118)	-	J (all detects)	A

## 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 DE242	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  
DE242**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE242	SL-338-SA5B-SB-7.0-8.0	TPH as gasoline	J (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE242	SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0 TB-091311	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)

**Santa Susana Field Laboratory  
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification  
Summary - SDG DE242**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification  
Summary - SDG DE242**

No Sample Data Qualified in this SDG

LDC #: 26859L7

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12/26/11

SDG #: DE242

Level IV

Page: 1 of 1

Laboratory: Lancaster Laboratories

Reviewer: [Signature]  
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: 9/13/11
II.	Initial calibration	A	% PSD ≤ 20
III.	Calibration verification/ICV	A	1W/CCV ≤ 20
IV.	Blanks	A	
V.	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	SW	
VII.	Laboratory control samples	A	ICS 10
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	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-338-SA5B-SB-7.0-8.0	5	1T1	BLK12	21		31
2	SL-341-SA5B-SB-4.0-5.0	1	123	BLK10	22		32
3	SL-341-SA5B-SB-9.0-10.0		132	BLK07	23		33
4	SL-342-SA5B-SB-4.0-5.0		14		24		34
5	SL-342-SA5B-SB-9.0-10.0		15		25		35
6	TB-091311	W	16		26		36
7	#1MS		17		27		37
8	#1MSP		18		28		38
9			19		29		39
10			20		30		40

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

LDC #: 26859L7  
 SDG #: per woman

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: FR  
 2nd Reviewer: [Signature]

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20% or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 26859L7  
 SDG #: per comment

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: FJ  
 2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
<b>X: Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI: Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII: System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII: Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV: Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XV: Field blanks</b>				
Field blanks were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

LDC #: 2685927  
SDG #: per count

VALIDATION FINDINGS WORKSHEET  
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

METHOD: GC HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".  
Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG?  
Y N N/A Was an MS/MSD analyzed every 20 samples for each matrix or whenever a sample extraction was performed?  
Y (N N/A Were the MS/MSD percent recoveries (%R) and relative percent differences (RPD) within QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	7+8	gasoline	( )	13 / ( 37-118	( )	1	N/A det 18
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 2685967  
 SDG #: GC

**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		Recalculated		Reported		Recalculated	
				CF (STD std)	CF (STD std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD		
1	1CAL	7/21/11	GRD	7092	7092	6764	6764	8.0	8.0	8.0	8.0
2	1CAL	8/2/11	GRU	(220) 31057	(220) 31057	32/27	32/27	8.5	8.5	8.5	8.5
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 #: 2685927  
 SDG #: per cover

**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 =  $100 \cdot (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  Where: ave. CF = initial calibration average CF  
 CF = A/C CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CGV Conc.	Reported		Recalculated	
					CF/Conc. CGV	%D	CF/Conc. CGV	%D
1	CCV 20:50	9/19/11	GRU	550.00	558.99	1.6	558.99	1.6
					204.09	7.2	204.09	7.2
2	CCV 19:57	9/21/11	GRU	220.00	198.84	9.6	198.84	9.6
					207.22	5.8	207.22	5.8
3	CCV 2:37	9/22/11	GRU	220.00				
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.

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

LDC #: 2685917  
 SDG #: see cover  
 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	
<u>7FT</u>	<u>NS</u>	<u>810.39</u>	<u>822.5115</u>	<u>102</u>	<u>102</u>	<u>0</u>

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 #: 2685927  
 SDG #: for cover

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

Page: 1 of 1  
 Reviewer: FR  
 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:

$\% \text{Recovery} = 100 * ((\text{SSC} - \text{SC}) / \text{SA})$  Where SSC = Spiked sample concentration, SA = Spike added, SC = Sample concentration

$\text{RPD} = (((\text{SSC} - \text{SSC}_{\text{MSD}}) * 2) / (\text{SSC}_{\text{MS}} + \text{SSC}_{\text{MSD}})) * 100$  Where MS = Matrix spike, MSD = Matrix spike duplicate

MS/MSD samples: 748

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	
	MS	MSD		MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)	10.98	10.98	ND	10.98	1373	118		121	121	6	6
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
g											

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.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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      SC = Concentration  
RPD =  $1 LCS - LCSD \cdot 2 / (LCS + LCSD)$       SA = Spike added  
LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LC SYA

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS		LCSD		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	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)														
Gas Cs-012	11	NA	8.21	NA	75	75	NA	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.

**VALIDATION FINDINGS WORKSHEET**  
Sample Calculation Verification

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 =  $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

Example: Example: Sample ID: \_\_\_\_\_ Compound Name \_\_\_\_\_  
 Concentration = \_\_\_\_\_

- 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

*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:** September 13, 2011  
**LDC Report Date:** December 28, 2011  
**Matrix:** Soil  
**Parameters:** Total Petroleum Hydrocarbons as Extractables  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE242

### Sample Identification

SL-037-SA7-SS-0.0-0.5  
SL-041-SA7-SS-0.0-0.5  
SL-070-SA7-SS-0.0-0.5  
SL-071-SA7-SS-0.0-0.5  
SL-073-SA7-SS-0.0-0.5  
SL-338-SA5B-SB-7.0-8.0  
SL-341-SA5B-SB-4.0-5.0  
SL-341-SA5B-SB-9.0-10.0  
SL-342-SA5B-SB-4.0-5.0  
SL-342-SA5B-SB-9.0-10.0  
SL-037-SA7-SS-0.0-0.5MS  
SL-037-SA7-SS-0.0-0.5MSD

## Introduction

This data review covers 12 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. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Surrogate	%R (Limits)	Compound	Flag	A or P
SL-071-SA7-SS-0.0-0.5	Chlorobenzene Ortho-Terphenyl	15 (37-125) 18 (47-145)	All TCL compounds	J (all detects) UJ (all non-detects)	A

## 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 not within QC limits. Since the samples were diluted out, no data were qualified.

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

## VIII. Target Compound Identification

All target compound identifications were within validation criteria.

## IX. Compound Quantitation and 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 DE242	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 DE242**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE242	SL-071-SA7-SS-0.0-0.5	All TCL compounds	J (all detects) UJ (all non-detects)	A	Surrogate recovery (%R) (S)
DE242	SL-037-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0	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 DE242**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
 Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
 Summary - SDG DE242**

No Sample Data Qualified in this SDG

LDC #: 26859L8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12/26/11

SDG #: DE242

Level IV

Page: 1 of 1

Laboratory: Lancaster Laboratories

Reviewer: [Signature]  
2nd Reviewer: [Signature]

**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	Δ	Sampling dates: 9/13/11
II.	Initial calibration	Δ	% RSD ≤ 20
III.	Calibration verification/ICV	Δ	ICV/CCV ≤ 20
IV.	Blanks	Δ	
V.	Surrogate recovery	SW	
VI.	Matrix spike/Matrix spike duplicates	SW	
VII.	Laboratory control samples	Δ	
VIII.	Target compound identification	Δ	
IX.	Compound quantitation (BL/LOQ/LODs)	Δ	
X.	System Performance	Δ	
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-037-SA7-SS-0.0-0.5	11	PBLK01264	21		31	
2	SL-041-SA7-SS-0.0-0.5	12	# / MS	22		32	
3	SL-070-SA7-SS-0.0-0.5	13	# / MSD	23		33	
4	SL-071-SA7-SS-0.0-0.5	14		24		34	
5	SL-073-SA7-SS-0.0-0.5	15		25		35	
6	SL-338-SA5B-SB-7.0-8.0	16		26		36	
7	SL-341-SA5B-SB-4.0-5.0	17		27		37	
8	SL-341-SA5B-SB-9.0-10.0	18		28		38	
9	SL-342-SA5B-SB-4.0-5.0	19		29		39	
10	SL-342-SA5B-SB-9.0-10.0	20		30		40	

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

LDC #: 2685948  
 SDG #: per water

VALIDATION FINDINGS CHECKLIST

Page: / of 2  
 Reviewer: FA  
 2nd Reviewer: EL

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 26859 L8  
 SDG #: per control

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### VALIDATION FINDINGS WORKSHEET

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

LDC #: 26 85928  
 SDG #: per current

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".

X 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
	1A	NS	A	15 ( 37-105 )	✓ / N / A (S)
			H	18 ( 47-145 )	✓

Surrogate Compound	Surrogate Compound	Surrogate Compound	Surrogate Compound	Surrogate Compound
A Chlorobenzene (CBZ)	G Octacosane	M Benzofluoranthene	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 Bromochlorobenzene	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 #: 2685924  
 SDG #: per work

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: FA  
 2nd Reviewer: CA

METHOD: GC  HPLC

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C  
 average CF = sum of the CF/number of standards  
 %RSD =  $100 * (S/X)$   
 A = Area of compound,  
 C = Concentration of compound,  
 S = Standard deviation of the CF  
 X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported		Recalculated		Reported		Recalculated	
				CF ( <del>228</del> std)	CF ( <del>228</del> std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD		
1	1CAL	9/13/11	08-C40	22403	22403	22854	22854	2.3	2.3	2.3	2.3
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 #: 7685928  
 SDG #: per Cont.

**VALIDATION FINDINGS WORKSHEET**  
Continuing Calibration Results Verification

Page: 1 of 7  
 Reviewer: FD  
 2nd Reviewer: [Signature]

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 =  $100 \cdot (\text{ave. CF} - \text{CF}) / \text{ave. CF}$     Where:    ave. CF = Initial calibration average CF  
 CF = A/C    CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Recalculated		Reported	
				Average CF(cal)/CCV Cont.	CF/Conc. CCV	CF/Conc. CCV	%D
1	CCN 14:06	9/22/11	28-240	576.00	501.27	521.27	9.5
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.

SDG #: see cover

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: # /

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	
chlorobenzene	MS	1.0	0.672572	67	67	0
o-tolophenyl	↓	1.0	0.808229	81	81	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

LDC #: 2685928  
 SDG #: for cover

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: 12 v 13

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)											
<u>FH (88-44)</u> <u>830-440</u>	<u>2.5</u>	<u>2.5</u>	<u>231.78</u>	<u>273.08</u>	<u>312.07</u>	<u>1645</u>	<u>1645</u>	<u>3199</u>	<u>3199</u>	<u>13</u>	<u>13</u>

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.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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:

$$\% \text{ Recovery} = 100 * (\text{SSC} - \text{SC}) / \text{SA}$$

$$\text{RPD} = | \text{LCS} - \text{LCSD} | * 2 / (\text{LCS} + \text{LCSD})$$

Where: SSC = Spiked sample concentration      SC = Concentration  
 SA = Spike added      LCSD = Laboratory control sample duplicate percent recovery  
 LCS = Laboratory control sample percent recovery

LCS/LCSD samples: LCS 01264

Compound	Spike Added (mg/kg)		Spiked Sample Concentration		LCS		LCSD		Percent Recovery		Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	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)														
<u>EFH (c30.c40)</u>	<u>2.51</u>	<u>ND</u>	<u>2.22</u>	<u>NA</u>	<u>8</u>	<u>8</u>								

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.

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

LDC #: 26 85978  
 SDG #: fu gauer

METHOD: GC HPLC

Y N N/A  
Y N N/A

Were all reported results recalculated and verified for all level IV samples?  
 Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration =  $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$  Example: Sample ID: # / Compound Name: C30-C40

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

Concentration =  $(317 \ 82673) (1000) (10)$   
 $(-576) (60) (0.993) (1000)$   
 $22854$   
 = 233 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:** September 13, 2011  
**LDC Report Date:** December 28, 2011  
**Matrix:** Soil  
**Parameters:** Explosives  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE242

**Sample Identification**

SL-338-SA5B-SB-7.0-8.0  
SL-341-SA5B-SB-4.0-5.0  
SL-341-SA5B-SB-9.0-10.0  
SL-342-SA5B-SB-4.0-5.0  
SL-342-SA5B-SB-9.0-10.0  
SL-338-SA5B-SB-7.0-8.0MS  
SL-338-SA5B-SB-7.0-8.0MSD

## 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 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.

Retention time windows were evaluated and considered technically acceptable.

## **III. Calibration Verification**

Calibration verification was performed at the required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

## **IV. Blanks**

Method blanks were reviewed for each matrix as applicable. No explosive contaminants were found in the method blanks.

No field blanks were identified in this SDG.

## **V. Surrogate Recovery**

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VI. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) 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 DE242	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 DE242**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE242	SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0	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 DE242**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Explosives - Field Blank Data Qualification Summary - SDG DE242**

No Sample Data Qualified in this SDG

LDC #: 26859L40

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE242

Level IV

Laboratory: Lancaster Laboratories

Date: 12/26/11

Page: of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**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	Δ	Sampling dates: 9/13/11
II.	Initial calibration	Δ	% RSD ≤ 20
III.	Calibration verification/ICV	A	100/CCV ≤ 20
IV.	Blanks	Δ	
V.	Surrogate recovery	Δ	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	100/10
VIII.	Target compound identification	Δ	
IX.	Compound quantitation (RL) LOQ/LODs	A	
X.	System Performance	Δ	
XI.	Overall assessment of data	Δ	
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:

80/L

1	SL-338-SA5B-SB-7.0-8.0	11	#1 MS	21		31	
2	SL-341-SA5B-SB-4.0-5.0	12	#1 MS/D	22		32	
3	SL-341-SA5B-SB-9.0-10.0	13		23		33	
4	SL-342-SA5B-SB-4.0-5.0	14		24		34	
5	SL-342-SA5B-SB-9.0-10.0	15	P/B 2K 25 264	25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC #: 26859440  
 SDG #: per owner

VALIDATION FINDINGS CHECKLIST

Page: / of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Method: GC  HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 26859 L4U  
 SDG #: per count

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: F7  
 2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 26159240  
 SDG #: mu can

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: [Signature]  
 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		Recalculated		Reported		Recalculated	
				Sum of CF / (std)	CF (std)	Sum of CF / (std)	CF (std)	Average CF (Initial)	%RSD	Average CF (Initial)	%RSD
1	ICAL champack	8/26/11	1, 3, 5 - TMB 2, 6 - DNT	$2.09 \times 10^2$	$2.09 \times 10^2$	$2.12 \times 10^2$	$2.12 \times 10^2$	$1.4$	$1.4$	$2.12 \times 10^2$	$1.4$
				$1.29 \times 10^2$	$1.29 \times 10^2$	$1.29 \times 10^2$	$1.29 \times 10^2$	$3.7$	$3.7$	$1.29 \times 10^2$	$3.7$
2	capcell	8/26/11	1, 3, 5 - TMB 2, 4 - DNT	$3.63 \times 10^2$	$3.63 \times 10^2$	$3.53 \times 10^2$	$3.53 \times 10^2$	$9.5$	$9.5$	$3.53 \times 10^2$	$9.5$
				$3.53 \times 10^2$	$3.64 \times 10^2$	$3.53 \times 10^2$	$3.53 \times 10^2$	$16.5$	$16.5$	$3.53 \times 10^2$	$16.5$
				$2.64 \times 10^2$		$2.48 \times 10^2$					
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 #: 48740  
SDG #: see cover

VALIDATION FINDINGS WORKSHEET  
Surrogate Results Verification

Page: 1 of 1  
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: A

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
<u>o-m-xylene</u>	<u>Chrompack</u>	<u>2000-L</u>	<u>2278.80786</u>	<u>114</u>	<u>114</u>	<u>0</u>

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 #: 26837420  
 SDG #: see cover

Page: 1 of 1  
 Reviewer: FZ  
 2nd Reviewer: [Signature]

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

**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 =  $100 * ((SC - SC)/SA)$  Where SC = Sample concentration  
 RPD =  $((((SSCMS - SSCMSD) * 2) / ((SSCMS + SSCMSD)) * 100)$  MSD = Matrix spike duplicate

MS/MSD samples: 11/4/12

Compound	Spike Added (ug/kg)		Sample Conf. (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)	2000	2000	ND	1828.92	1833.06	91	91	92	92	0	0
2,4,6-Trinitrotoluene (8330)	1999.2	1999.2	ND	2068.95	2067.25	103	103	103	103	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.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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      SC = Concentration  
 RPD =  $100 * (LCS - LCSD) / (LCS + LCSD)$       SA = Spike added  
 LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: 105 75 264

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS		LCSD		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	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	NA	1831.67	NA	92	92								
2,4,6-Trinitrotoluene (8330)	1999.2	↓	2106.32	↓	105	105								

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.

VALIDATION FINDINGS WORKSHEET  
Sample Calculation Verification

LDC #: 2689740  
SDG #: [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 =  $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$  Example: \_\_\_\_\_ Compound Name \_\_\_\_\_  
Sample ID: \_\_\_\_\_ Concentration = \_\_\_\_\_

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

MP

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications

Comments: \_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** September 13, 2011  
**LDC Report Date:** December 28, 2011  
**Matrix:** Soil  
**Parameters:** Terphenyls  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE242

### Sample Identification

SL-037-SA7-SS-0.0-0.5  
SL-041-SA7-SS-0.0-0.5  
SL-070-SA7-SS-0.0-0.5  
SL-071-SA7-SS-0.0-0.5  
SL-073-SA7-SS-0.0-0.5  
SL-338-SA5B-SB-7.0-8.0  
SL-341-SA5B-SB-4.0-5.0  
SL-341-SA5B-SB-9.0-10.0  
SL-342-SA5B-SB-4.0-5.0  
SL-342-SA5B-SB-9.0-10.0

## 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 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.

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 DE242	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 DE242**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE242	SL-037-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0	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 DE242**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Terphenyls - Field Blank Data Qualification Summary - SDG DE242**

No Sample Data Qualified in this SDG

LDC #: 26859L41

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12/24/11

SDG #: DE242

Level IV

Page: 1 of 1

Laboratory: Lancaster Laboratories

Reviewer: P7

2nd Reviewer: [Signature]

**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: 9/13/11
II.	Initial calibration	A	% RSD ≤ 20
III.	Calibration verification/TOL	A	CCV ≤ 20
IV.	Blanks	A	
V.	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	ics
VIII.	Target compound identification	A	
IX.	Compound quantitation (R)/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:

20/11

1	SL-037-SA7-SS-0.0-0.5	11	PBLK32258	21		31	
2	SL-041-SA7-SS-0.0-0.5	12		22		32	
3	SL-070-SA7-SS-0.0-0.5	13		23		33	
4	SL-071-SA7-SS-0.0-0.5	14		24		34	
5	SL-073-SA7-SS-0.0-0.5	15		25		35	
6	SL-338-SA5B-SB-7.0-8.0	16		26		36	
7	SL-341-SA5B-SB-4.0-5.0	17		27		37	
8	SL-341-SA5B-SB-9.0-10.0	18		28		38	
9	SL-342-SA5B-SB-4.0-5.0	19		29		39	
10	SL-342-SA5B-SB-9.0-10.0	20		30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC #: 2685941  
 SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Method:  GC  HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 26859241  
 SDG #: per conud

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?			/	
<b>XI. Compound quantitation/GRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
<b>XII. System performance</b>				
System performance was found to be acceptable.	/			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.		/		
Target compounds were detected in the field duplicates.			/	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	/			
Target compounds were detected in the field blanks.		/	/	

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

LDC #: 26859441  
SDG #: pk wsh

Page: 1 of 1  
Reviewer: F?  
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

Level 3

#	Standard ID	Calibration Date	Compound	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
				CF (std)	CF (std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD
1	m-Terpeney L CAL	9/8/11	m-Terpeney	16.9944 (std)	16.9944 (std)	2.55 X 10 <sup>4</sup>	2.55 X 10 <sup>4</sup>	5.3	5.3
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 #: 26859241  
 SDG #: pu concn

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

Page: 1 of 2  
 Reviewer: FD  
 2nd Reviewer: [Signature]

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 =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  Where: ave. CF = initial calibration average CF  
 CF = A/C CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	con 2:0/	9/20/11	m-terpheng	33.99	33.98	0.2	0.2	0.2
	con 6:05	↓	↓	33.99	34.95	2.8	2.8	2.8
2	con 10:10	9/20/11	↓	33.99	37.48	10.3	10.3	10.3
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.

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

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
<u>n-Trigonobene - d62</u>	<u>MS</u>	<u>0.3326</u>	<u>0.302697</u>	<u>91</u>	<u>91</u>	<u>0</u>

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

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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:

$\% \text{ Recovery} = 100 * (\text{SSC} - \text{SC}) / \text{SA}$       Where: SSC = Spiked sample concentration      SC = Concentration  
 $\text{RPD} = | \text{LCS} - \text{LCSD} | * 2 / (\text{LCS} + \text{LCSD})$       SA = Spike added  
 LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS 3 225B

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS		LCSD		LCS/LCSD	
	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)										
<u>m-Terphenyl</u>	165	NA	157	NA	95	95	NA	NA	NA	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.

### VALIDATION FINDINGS WORKSHEET

Sample Calculation Verification

LDC #: 26859241  
SDG #: fu goner

METHOD:  GC  HPLC

Y N X/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 =  $(A)/(FV)(Df)$  Example: \_\_\_\_\_ Compound Name \_\_\_\_\_  
 $(RF)(Vs \text{ or } Ws)(\%S/100)$  Sample ID: \_\_\_\_\_  
Concentration = \_\_\_\_\_

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

MD

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications

Comments: \_\_\_\_\_

**Laboratory Data Consultants, Inc.  
Data Validation Report**

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** September 13, 2011  
**LDC Report Date:** December 28, 2011  
**Matrix:** Soil  
**Parameters:** Alcohols  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE242

**Sample Identification**

SL-037-SA7-SS-0.0-0.5  
SL-041-SA7-SS-0.0-0.5  
SL-070-SA7-SS-0.0-0.5  
SL-071-SA7-SS-0.0-0.5  
SL-073-SA7-SS-0.0-0.5  
SL-338-SA5B-SB-7.0-8.0  
SL-341-SA5B-SB-4.0-5.0  
SL-341-SA5B-SB-9.0-10.0  
SL-342-SA5B-SB-4.0-5.0  
SL-342-SA5B-SB-9.0-10.0  
SL-037-SA7-SS-0.0-0.5MS  
SL-037-SA7-SS-0.0-0.5MSD

## Introduction

This data review covers 12 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 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% .

Retention time windows were evaluated and considered technically acceptable.

## **III. Calibration Verification**

Calibration verification was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

## **IV. Blanks**

Method blanks were reviewed for each matrix as applicable. No alcohol contaminants were found in the method blanks.

No field blanks were identified in this SDG.

## **V. Surrogate Recovery**

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VI. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

## VIII. Target Compound Identification

All target compound identifications were within validation criteria.

## IX. Compound Quantitation and 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-041-SA7-SS-0.0-0.5	Methanol	60	J (all detects)	A
SL-070-SA7-SS-0.0-0.5	Methanol Isopropanol	77 58	J (all detects) J (all detects)	A
SL-338-SA5B-SB-7.0-8.0	Methanol	94	J (all detects)	A
SL-341-SA5B-SB-4.0-5.0	Methanol	52	J (all detects)	A
SL-341-SA5B-SB-9.0-10.0	Methanol	62	J (all detects)	A
SL-342-SA5B-SB-4.0-5.0	Methanol	80	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE242	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 DE242**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE242	SL-041-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0	Methanol	J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE242	SL-070-SA7-SS-0.0-0.5	Methanol Isopropanol	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE242	SL-037-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0	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 DE242**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Alcohols - Field Blank Data Qualification Summary - SDG DE242**

No Sample Data Qualified in this SDG

**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: 9/13/11
II.	Initial calibration	Δ	% RSD ≤ 20
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	Δ	
V.	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCs
VIII.	Target compound identification	Δ	
IX.	Compound quantitation/RW/LOQ/LODs	SW	
X.	System Performance	Δ	
XI.	Overall assessment of data	Δ	
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-037-SA7-SS-0.0-0.5	11	#/MS	21/	PBLK 37257	31	
2	SL-041-SA7-SS-0.0-0.5	12	#/MSD	22/2	PBLK 25260	32	
3	SL-070-SA7-SS-0.0-0.5	13		23		33	
4	SL-071-SA7-SS-0.0-0.5	14		24		34	
5	SL-073-SA7-SS-0.0-0.5	15		25		35	
6	SL-338-SA5B-SB-7.0-8.0	16		26		36	
7	SL-341-SA5B-SB-4.0-5.0	17		27		37	
8	SL-341-SA5B-SB-9.0-10.0	18		28		38	
9	SL-342-SA5B-SB-4.0-5.0	19		29		39	
10	SL-342-SA5B-SB-9.0-10.0	20		30		40	

Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

LDC #: 26859L43  
 SDG #: pel water

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20% or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 26859473  
 SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: F7  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	/			
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
<b>XII. System performance</b>				
System performance was found to be acceptable.	/			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.		/		
Target compounds were detected in the field duplicates.			/	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.		/		
Target compounds were detected in the field blanks.			/	

LDC #: 2689243  
 SDG #: per cover

**VALIDATION FINDINGS WORKSHEET**  
**Compound Quantitation and Reported CRQLs**

Page: 1 of 1  
 Reviewer: PF  
 2nd Reviewer: C

METHOD: GC HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".  
 Level N/D Only  
 Were CRQLs adjusted for sample dilutions, dry weight factors, etc.? N/A  
 Did the reported results for detected target compounds agree within 10.0% of the recalculated results? N/A

#	Compound Name	% RPD	Finding	Associated Samples	Qualifications
	methanol	60	Bet 2 w/ ≤ 40	2	J/Adet * IX
	methanol	77		3	↓
	Isopropanol	58			
	methanol	94		6	↓
	methanol	52		7	↓
	↓	62		8	↓
	↓	80		9	↓

Comments: See sample calculation verification worksheet for recalculations

LDC #: 2689243  
 SDG #: pk wach

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: PA  
 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		Recalculated		Reported		Recalculated	
				CF (SDOstd)	CF (SDOstd)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD		
1	ICAL 1M27235	8/23/11	methanol	4.99 x 10 <sup>-1</sup>	4.99 x 10 <sup>-1</sup>	5.19 x 10 <sup>-1</sup>	5.19 x 10 <sup>-1</sup>	6.3	6.3	6.3	6.3
2	ICAL 1M27241A	8/09/11	methanol	7.22 x 10 <sup>0</sup>	7.22 x 10 <sup>0</sup>	7.75 x 10 <sup>0</sup>	7.75 x 10 <sup>0</sup>	4.4	4.4	4.4	4.4
3											
4											

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26 8592 43  
 SDG #: per cover

**VALIDATION FINDINGS WORKSHEET**  
Continuing Calibration Results Verification

Page: 1 of 1  
 Reviewer: FE  
 2nd Reviewer: R

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 =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$     Where:    ave. CF = initial calibration average CF  
 CF = A/C    CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	00V 17:38	9/15/11	methanol	5255.00	5255.18	5.1	5.1	
2	00V 17:05	9/19/11	methanol	5255.00	4697.35	6.1	6.1	
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

LDC #: 26859413  
 SDG #: see cover  
 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	
Aurone	NS	2500	248017334	99	99	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	

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

LDC #: 26859493  
 SDG #: [Signature]

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:

SC = Sample concentration  
 MSD = Matrix spike duplicate

SSC = Spiked sample concentration  
 SA = Spike added  
 MS = Matrix spike

%Recovery =  $100 * (SSC - SC) / SA$   
 RPD =  $((SSC - SSCMSD) * 2) / (SSC + SSCMSD) * 100$

MS/MSD samples: 11 ✓ 12

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.
Methane/ Gasoline (8015)	2500	2500	N/D	2803.04	2697.39	112	112	108	108	4	4
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

LDC #: 26859243  
 SDG #: fcc cover

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:

$$\% \text{ Recovery} = 100 \cdot (\text{SSC} - \text{SC}) / \text{SA}$$

$$\text{RPD} = | \text{LCS} - \text{LCSD} | \cdot 2 / (\text{LCS} + \text{LCSD})$$

Where: SSC = Spiked sample concentration  
 SA = Spike added  
 LCS = Laboratory control sample percent recovery  
 LCSD = Laboratory control sample duplicate percent recovery  
 SC = Concentration

LCS/LCSD samples: 10537257

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Methanol Gasoline (8015)	2500	NA	2415.22	NA	97	97	NA	NA		
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
Sample Calculation Verification

Page: 6 of 7  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

LDC #: 2685943  
 SDG #: fu goner

METHOD:  GC  HPLC

Were all reported results recalculated and verified for all level IV samples?  
 Were all recalculated results for detected target compounds within 10% of the reported results?

Y / N N/A  
Y / N N/A

Concentration =  $\frac{A_i(F_v)(D_f)}{(RF)(V_s \text{ or } W_s)(\%S/100)}$  Example: Sample ID: # 1 Compound Name: Isoproprano

- 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

Concentration =  $133 \times 10^{-10}$  (5)  
 $6.25 \times 10^{-10}$  (10) (0.993)  
~~106.15~~ = 107.15 ng/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:** September 13, 2011  
**LDC Report Date:** December 28, 2011  
**Matrix:** Soil  
**Parameters:** Glycols  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE242

### Sample Identification

SL-037-SA7-SS-0.0-0.5  
SL-041-SA7-SS-0.0-0.5  
SL-070-SA7-SS-0.0-0.5  
SL-071-SA7-SS-0.0-0.5  
SL-073-SA7-SS-0.0-0.5  
SL-338-SA5B-SB-7.0-8.0  
SL-341-SA5B-SB-4.0-5.0  
SL-341-SA5B-SB-9.0-10.0  
SL-342-SA5B-SB-4.0-5.0  
SL-342-SA5B-SB-9.0-10.0

## 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.
- 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**

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 DE242	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 DE242**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE242	SL-037-SA7-SS-0.0-0.5 SL-041-SA7-SS-0.0-0.5 SL-070-SA7-SS-0.0-0.5 SL-071-SA7-SS-0.0-0.5 SL-073-SA7-SS-0.0-0.5 SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0	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 DE242**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Glycols - Field Blank Data Qualification Summary - SDG DE242**

No Sample Data Qualified in this SDG

LDC #: 26859L45

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE242

Level IV

Laboratory: Lancaster Laboratories

Date: 12/26/11

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**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: 9/13/11
II.	Initial calibration	Δ	% PSD ≤ 20
III.	Calibration verification/ICV	A	100/CCV ≤ 20
IV.	Blanks	Δ	
V.	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	yes
VIII.	Target compound identification	Δ	
IX.	Compound quantitation (R)/LOQ/LODs	A	
X.	System Performance	Δ	
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: SO/L

1	SL-037-SA7-SS-0.0-0.5	11	PBLK09262	21		31	
2	SL-041-SA7-SS-0.0-0.5	12		22		32	
3	SL-070-SA7-SS-0.0-0.5	13		23		33	
4	SL-071-SA7-SS-0.0-0.5	14		24		34	
5	SL-073-SA7-SS-0.0-0.5	15		25		35	
6	SL-338-SA5B-SB-7.0-8.0	16		26		36	
7	SL-341-SA5B-SB-4.0-5.0	17		27		37	
8	SL-341-SA5B-SB-9.0-10.0	18		28		38	
9	SL-342-SA5B-SB-4.0-5.0	19		29		39	
10	SL-342-SA5B-SB-9.0-10.0	20		30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC #: 26859245  
 SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Page: / of 2  
 Reviewer: FA  
 2nd Reviewer: C

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 26859L45  
 SDG #: per count

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: F7  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?			/	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
<b>XII. System performance</b>				
System performance was found to be acceptable.	/			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.		/		
Target compounds were detected in the field duplicates.			/	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.		/		
Target compounds were detected in the field blanks.			/	

LDC #: 26859245  
 SDG #: JK coach

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: FJ  
 2nd Reviewer: A

METHOD: GC        HPLC       

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

- CF = A/C
- average CF = sum of the CF/number of standards
- %RSD =  $100 \cdot (S/X)$
- 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		Recalculated		Reported		Recalculated	
				CF	(std)	CF	(std)	Average CF (Initial)	%RSD	Average CF (Initial)	%RSD
1	1CAL	8/22/11	Propylene glycol	105.3594	(std)	1053594	(std)	8.01X10 <sup>2</sup>	3.1	8.01X10 <sup>2</sup>	3.1
2											
3											
4											

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 76859245      Page: 1 of 7  
SDG #: Per Conn      Reviewer: RJ  
2nd Reviewer: R

VALIDATION FINDINGS WORKSHEET  
Continuing Calibration Results Verification

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 =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$       Where: ave. CF = initial calibration average CF  
CF = A/C      CF = continuing calibration CF  
A = Area of compound  
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ GCV Conc.	Reported		Recalculated	
					CF/Conc. GCV	%D	CF/Conc. GCV	%D
1	cen 8:24	9/20/11	propylene glycol	105.36	100.93	100.93	4.2	
	cen 12:15	9/20/11		✓	96.09	96.09	8.8	
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26859245  
 SDG #: see cover  
 METHOD: GC HPLC

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

Page: 1 of 1  
 Reviewer: FT  
 2nd reviewer: [Signature]

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS \* 100  
 Where: SF = Surrogate Found  
 SS = Surrogate Spiked

Sample ID: # /

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
<i>Tetramethylene Glyco /</i>	<i>NS</i>	<i>195.75</i>	<i>144.26895 /</i>	<i>74</i>	<i>74</i>	<i>0</i>

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	

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:

$\% \text{ Recovery} = 100 \cdot (\text{SSC} - \text{SC}) / \text{SA}$       Where: SSC = Spiked sample concentration      SC = Concentration  
 $\text{RPD} = | \text{LCS} - \text{LCSD} | \cdot 2 / (\text{LCS} + \text{LCSD})$       SA = Spike added  
 LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS 09262

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS		LCSD		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Ethylene glycol Gasoline (8016)	194.73	NA	164.73	NA	85	85	NA	NA						
Diesel (8015)														
Benzene (8021B)														
Methane (RSK-175)														
2,4-D (8151)														
Dinoseb (8151)														
Naphthalene (8310)														
Anthracene (8310)														
HMX (8330)														
2,4,6-Trinitrotoluene (8330)														

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

# VALIDATION FINDINGS WORKSHEET

## Sample Calculation Verification

LDC #: 26859145  
 SDG #: fu goney

METHOD: GC HPLC

Were all reported results recalculated and verified for all level IV samples?  
 Y N / N/A  
 Y N / N/A  
 Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration =  $\frac{A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$  Example: ND  
 Sample ID: \_\_\_\_\_ Compound Name ND  
 Concentration = \_\_\_\_\_

- 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

#	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:** September 13, 2011  
**LDC Report Date:** December 28, 2011  
**Matrix:** Soil  
**Parameters:** Formaldehyde  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE242

**Sample Identification**

SL-338-SA5B-SB-7.0-8.0  
SL-341-SA5B-SB-4.0-5.0  
SL-341-SA5B-SB-9.0-10.0  
SL-342-SA5B-SB-4.0-5.0  
SL-342-SA5B-SB-9.0-10.0

## 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 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.

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 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 DE242	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 DE242**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE242	SL-338-SA5B-SB-7.0-8.0 SL-341-SA5B-SB-4.0-5.0 SL-341-SA5B-SB-9.0-10.0 SL-342-SA5B-SB-4.0-5.0 SL-342-SA5B-SB-9.0-10.0	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 DE242**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Formaldehyde - Field Blank Data Qualification Summary - SDG DE242**

No Sample Data Qualified in this SDG

LDC #: 26859L71  
 SDG #: DE242  
 Laboratory: Lancaster Laboratories

**VALIDATION COMPLETENESS WORKSHEET**  
 Level IV

Date: 12/26/11  
 Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**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	Δ	Sampling dates: 9/13/11
II.	Initial calibration	Δ	% PSD ≤ 20
III.	Calibration verification/ICV	Δ	100/CCV ≤ 20
IV.	Blanks	Δ	
V.	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	N	client specified
VII.	Laboratory control samples	A	
VIII.	Target compound identification	Δ	
IX.	Compound quantitation/RLA LOQ/LODs	Δ	
X.	System Performance	Δ	
XI.	Overall assessment of data	Δ	
XII.	Field duplicates	N	
XIII.	Field blanks	N	

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

Validated Samples: 50/L

1	SL-338-SA5B-SB-7.0-8.0	11	PBLK04262	21		31	
2	SL-341-SA5B-SB-4.0-5.0	12		22		32	
3	SL-341-SA5B-SB-9.0-10.0	13		23		33	
4	SL-342-SA5B-SB-4.0-5.0	14		24		34	
5	SL-342-SA5B-SB-9.0-10.0	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC #: 26859271  
 SDG #: per owner

VALIDATION FINDINGS CHECKLIST

Page: / of 2  
 Reviewer: PA  
 2nd Reviewer: CE

Method:  GC  HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) $\leq 20\%$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of $> 0.990$ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) $\leq 20\%$ or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 26859171  
 SDG #: per comment

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	/			
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
<b>XII. System performance</b>				
System performance was found to be acceptable.	/			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.		/		
Target compounds were detected in the field duplicates.			/	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.		/		
Target compounds were detected in the field blanks.			/	

LDC #: 26859271  
 SDG #: per work

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: PK  
 2nd Reviewer: K

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		Recalculated		Reported		Recalculated	
				CF (std)	CF (std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD	Average CF (Initial)	%RSD
1	1CAL	9/21/11	For malehyde	3.67X10 <sup>1</sup>	2002.0	5.67X10 <sup>1</sup>	2002.0	5.58X10 <sup>1</sup>	3.1	3.1	5.58X10 <sup>1</sup>
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 #: 26859271

SDG #: per cover

### VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

Page: 1 of 7  
Reviewer: FD  
2nd Reviewer: CA

METHOD: GC ✓ HPLC ✓

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference =  $100 \cdot (\text{ave. CF} - \text{CF}) / \text{ave. CF}$     Where:    ave. CF = initial calibration average CF  
CF = A/C    CF = continuing calibration CF  
A = Area of compound  
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	cen 19:38	9/6/11	Formaldehyde	2002.00	2142.57	7.15	2142.57	7.15
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 #: 26839411  
 SDG #: see cover  
 METHOD: GC  HPLC

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

Page: 1 of       
 Reviewer: FT  
 2nd reviewer: C

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS \* 100  
 Where: SF = Surrogate Found  
 SS = Surrogate Spiked

Sample ID: # 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
<i>Butyraldehyde</i>	<i>NS</i>	<i>198/62</i>	<i>3368.746</i>	<i>85</i>	<i>85</i>	<i>0</i>
			<i>2</i>			

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	

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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      SC = Concentration  
 RPD =  $1 LCS - LCSD \div 2(LCS + LCSD)$       SA = Spike added  
 LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LC504262

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS		LCSD		LCS/LCSD	
	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)										
<i>Feinmalyh</i>	SDS	N/A	5410.95	N/A	108	108			N/A	

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.

VALIDATION FINDINGS WORKSHEET  
Sample Calculation Verification

LDC #: 2685927 /  
SDG #: fu goney

Page: 1 of 1  
Reviewer: FB  
2nd Reviewer: CE

METHOD: GC HPLC

Were all reported results recalculated and verified for all level IV samples?  
Were all recalculated results for detected target compounds within 10% of the reported results?

Y/N N/A  
Y/N N/A

Concentration =  $\frac{A)(FV)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$   
Example: Sample ID: #2 Compound Name Formaldehyde

Concentration =  $(246490) (20) (0.1)$   
 $(5.58 \times 10^1) (20) (0.886)$   
 $= 4985.7 \mu\text{g}/\text{kg}$

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

#	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:** September 13, 2011  
**LDC Report Date:** December 28, 2011  
**Matrix:** Soil  
**Parameters:** Perchlorate  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE242

### Sample Identification

SL-030-SA7-SS-0.0-0.5  
SL-146-SA7-SS-0.0-0.5  
SL-341-SA5B-SB-4.0-5.0

## Introduction

This data review covers 3 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6850 for Perchlorate.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- 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

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 DE242	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 DE242**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE242	SL-030-SA7-SS-0.0-0.5 SL-146-SA7-SS-0.0-0.5 SL-341-SA5B-SB-4.0-5.0	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 DE242**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Perchlorate - Field Blank Data Qualification Summary - SDG DE242**

No Sample Data Qualified in this SDG

**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	△	Sampling dates: 9/13/11
II.	GC/MS Instrument performance check	△	
III.	Initial calibration	△	rv
IV.	Continuing calibration/ICV	△	1CV/CW ± 15/50 LODV ± 50
V.	Blanks	△	
VI.	Surrogate spikes	N	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	△	
XI.	Target compound identification	△	
XII.	Compound quantitation/RL/LOQ/LODs	△	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	△	
XV.	Overall assessment of data	△	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

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

Validated Samples:

*SOIL*

1†	SL-030-SA7-SS-0.0-0.5	11	PBLK24260	21		31
2†	SL-146-SA7-SS-0.0-0.5	12		22		32
3 <sup>-</sup>	SL-341-SA5B-SB-4.0-5.0	13		23		33
4		14		24		34
5		15		25		35
6		16		26		36
7		17		27		37
8		18		28		38
9		19		29		39
10		20		30		40

Method: Semivolatiles (EPA SW 846 Method 8270C) 6850

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/MS Instrument performance check</b>				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples analyzed within the 12 hour clock criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a curve fit used for evaluation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of $\geq 0.990$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) $\leq 30\%$ and relative response factors (RRF) $> 0.05$ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were all percent differences (%D) $\leq 25\%$ and relative response factors (RRF) $\geq 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15/50
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X. Internal standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within + 30 seconds from the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. Compound quantitation/CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Tentatively identified compounds (TICs)</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XVI. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XVII. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC # 26859487  
 SDG#                     

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Calculation Verification

Page: 1 of 1  
 Reviewer:                       
 2nd Reviewer:                     

**METHOD:** Method 6850  
**Parameter:** perchlorate

Date	Column	Compound	y	x
09/20/2011	LCMS	perchlorate	0.0402827	0.040
			0.0909110	0.100
			0.2033273	0.200
			0.4162495	0.400
			1.0974669	1.000
			2.9739612	2.500

	Regression Output:	Regression Output:	Reported
Constant		-0.04179	
Std Err of Y Est		0.03766	
R Squared		0.99911	0.99999
No. of Observations		6.00000	
Degrees of Freedom		4.00000	
X Coefficient(s)		1.196E+000	
Std Err of Coef.		0.017824	0.04

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

**METHOD:** GC/MS BNA (EPA-SW-846-Method 8270C) 6852

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 =  $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$  Where: ave. RRF = initial calibration average RRF  
 RRF =  $(A_x)(C_{is}) / (A_{is})(C_x)$  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		Recalculated	
					RRF (CC)	%D	RRF (CC)	%D
1	M55 P262102	9/20/11	Phenol (1st internal standard)	0.4	0.452	13	0.452	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			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.

**VALIDATION FINDINGS WORKSHEET**

**Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification**

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 =  $|(LCSC - LCSDC) / ((LCSC + LCSDC) / 2)|$

LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LCS 2424 U

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
Phenol										
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene										
Pentachlorophenol										
Pyrene										
Perchlorate	100	NA	104.99	NA	105	105	NA	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.

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270)

Y M N/A Were all reported results recalculated and verified for all level IV samples?  
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

$$\text{Concentration} = \frac{(A_x)(I_s)(V_i)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$$

- A<sub>x</sub> = Area of the characteristic ion (EICP) for the compound to be measured
- A<sub>is</sub> = Area of the characteristic ion (EICP) for the specific internal standard
- I<sub>s</sub> = Amount of internal standard added in nanograms (ng)
- V<sub>o</sub> = Volume or weight of sample extract in milliliters (ml) or grams (g).
- V<sub>i</sub> = Volume of extract injected in microliters (ul)
- V<sub>t</sub> = 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. \_\_\_\_\_, \_\_\_\_\_:

$$\text{Conc.} = \frac{(\quad)(\quad)(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)(\quad)}$$

= 2.5 ug/kg

%S = 0.95

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification
		#1 Perchlorate			
		$\frac{1976}{159256} = 0.1160 \left( \frac{x}{10} \right)$	-0.0159		
		X = 2.440			
		$\text{final} = \frac{2.44}{0.95} =$	2.568 ug/kg		

# **SAMPLE DELIVERY GROUP**

**DE243**

## **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-Sep-2011	SL-028-SA7-SS-0.0-0.5	6406189	N	3050B	6010B	III
14-Sep-2011	SL-028-SA7-SS-0.0-0.5	6406189	N	3050B	6020	III
14-Sep-2011	SL-028-SA7-SS-0.0-0.5	6406189	N	3060A	7199	III
14-Sep-2011	SL-028-SA7-SS-0.0-0.5	6406189	N	3550B	8081A	III
14-Sep-2011	SL-028-SA7-SS-0.0-0.5	6406189	N	3550B	8082	III
14-Sep-2011	SL-028-SA7-SS-0.0-0.5	6406189	N	3550B	8151A	III
14-Sep-2011	SL-028-SA7-SS-0.0-0.5	6406189	N	3550B	8270C	III
14-Sep-2011	SL-028-SA7-SS-0.0-0.5	6406189	N	3550B	8270C SIM	III
14-Sep-2011	SL-028-SA7-SS-0.0-0.5	6406189	N	METHOD	300.0	III
14-Sep-2011	SL-028-SA7-SS-0.0-0.5	6406189	N	METHOD	314.0	III
14-Sep-2011	SL-028-SA7-SS-0.0-0.5	6406189	N	METHOD	7471A	III
14-Sep-2011	SL-028-SA7-SS-0.0-0.5MSD	P406189M241744A	MSD	3550B	8082	III
14-Sep-2011	SL-028-SA7-SS-0.0-0.5MSD	P406189M261153	MSD	3550B	8270C SIM	III
14-Sep-2011	SL-028-SA7-SS-0.0-0.5MS	P406189R241725A	MS	3550B	8082	III
14-Sep-2011	SL-028-SA7-SS-0.0-0.5MS	P406189R261120	MS	3550B	8270C SIM	III
14-Sep-2011	SL-029-SA7-SS-0.0-0.5	6406190	N	3050B	6010B	III
14-Sep-2011	SL-029-SA7-SS-0.0-0.5	6406190	N	3050B	6020	III
14-Sep-2011	SL-029-SA7-SS-0.0-0.5	6406190	N	3060A	7199	III
14-Sep-2011	SL-029-SA7-SS-0.0-0.5	6406190	N	3550B	8081A	III
14-Sep-2011	SL-029-SA7-SS-0.0-0.5	6406190	N	3550B	8082	III
14-Sep-2011	SL-029-SA7-SS-0.0-0.5	6406190	N	3550B	8151A	III
14-Sep-2011	SL-029-SA7-SS-0.0-0.5	6406190	N	3550B	8270C	III
14-Sep-2011	SL-029-SA7-SS-0.0-0.5	6406190	N	3550B	8270C SIM	III
14-Sep-2011	SL-029-SA7-SS-0.0-0.5	6406190	N	METHOD	300.0	III
14-Sep-2011	SL-029-SA7-SS-0.0-0.5	6406190	N	METHOD	314.0	III
14-Sep-2011	SL-029-SA7-SS-0.0-0.5	6406190	N	METHOD	7471A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Sep-2011	TB-091411	6406207	TB	5030B	8015M	III
14-Sep-2011	SL-076-SA7-SS-0.0-0.5	6406196	N	3050B	6010B	III
14-Sep-2011	SL-076-SA7-SS-0.0-0.5	6406196	N	3050B	6020	III
14-Sep-2011	SL-076-SA7-SS-0.0-0.5	6406196	N	3060A	7199	III
14-Sep-2011	SL-076-SA7-SS-0.0-0.5	6406196	N	3550B	8015B	III
14-Sep-2011	SL-076-SA7-SS-0.0-0.5	6406196	N	3550B	8015M	III
14-Sep-2011	SL-076-SA7-SS-0.0-0.5	6406196	N	3550B	8081A	III
14-Sep-2011	SL-076-SA7-SS-0.0-0.5	6406196	N	3550B	8082	III
14-Sep-2011	SL-076-SA7-SS-0.0-0.5	6406196	N	3550B	8151A	III
14-Sep-2011	SL-076-SA7-SS-0.0-0.5	6406196	N	3550B	8270C	III
14-Sep-2011	SL-076-SA7-SS-0.0-0.5	6406196	N	3550B	8270C SIM	III
14-Sep-2011	SL-076-SA7-SS-0.0-0.5	6406196	N	METHOD	300.0	III
14-Sep-2011	SL-076-SA7-SS-0.0-0.5	6406196	N	METHOD	314.0	III
14-Sep-2011	SL-076-SA7-SS-0.0-0.5	6406196	N	METHOD	7471A	III
14-Sep-2011	SL-076-SA7-SS-0.0-0.5	6406196	N	METHOD	8015B	III
14-Sep-2011	SL-076-SA7-SS-0.0-0.5	6406196	N	METHOD	8015M	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	3050B	6010B	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	3050B	6020	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	3060A	7199	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	3546	1625C	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	3550B	8015B	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	3550B	8015M	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	3550B	8082	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	3550B	8270C	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	3550B	8270C SIM	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	5035	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	8330	8330A	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	Gen Prep	314.0	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	METHOD	300.0	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	METHOD	7471A	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	METHOD	8015B	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	METHOD	8015M	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	METHOD	8315A	III
14-Sep-2011	SL-340-SA5B-SB-9.0-10.0	6406204	N	METHOD	9012B	III
14-Sep-2011	SL-036-SA7-SS-0.0-0.5	6406193	N	3050B	6010B	III
14-Sep-2011	SL-036-SA7-SS-0.0-0.5	6406193	N	3050B	6020	III
14-Sep-2011	SL-036-SA7-SS-0.0-0.5	6406193	N	3060A	7199	III
14-Sep-2011	SL-036-SA7-SS-0.0-0.5	6406193	N	3550B	8081A	III
14-Sep-2011	SL-036-SA7-SS-0.0-0.5	6406193	N	3550B	8082	III
14-Sep-2011	SL-036-SA7-SS-0.0-0.5	6406193	N	3550B	8151A	III
14-Sep-2011	SL-036-SA7-SS-0.0-0.5	6406193	N	3550B	8270C	III
14-Sep-2011	SL-036-SA7-SS-0.0-0.5	6406193	N	3550B	8270C SIM	III
14-Sep-2011	SL-036-SA7-SS-0.0-0.5	6406193	N	METHOD	300.0	III
14-Sep-2011	SL-036-SA7-SS-0.0-0.5	6406193	N	METHOD	314.0	III
14-Sep-2011	SL-036-SA7-SS-0.0-0.5	6406193	N	METHOD	7471A	III
14-Sep-2011	SL-039-SA7-SS-0.0-0.5	6406195	N	3050B	6010B	III
14-Sep-2011	SL-039-SA7-SS-0.0-0.5	6406195	N	3050B	6020	III
14-Sep-2011	SL-039-SA7-SS-0.0-0.5	6406195	N	3060A	7199	III
14-Sep-2011	SL-039-SA7-SS-0.0-0.5	6406195	N	3550B	8015B	III
14-Sep-2011	SL-039-SA7-SS-0.0-0.5	6406195	N	3550B	8015M	III
14-Sep-2011	SL-039-SA7-SS-0.0-0.5	6406195	N	3550B	8081A	III
14-Sep-2011	SL-039-SA7-SS-0.0-0.5	6406195	N	3550B	8082	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Sep-2011	SL-039-SA7-SS-0.0-0.5	6406195	N	3550B	8151A	III
14-Sep-2011	SL-039-SA7-SS-0.0-0.5	6406195	N	3550B	8270C	III
14-Sep-2011	SL-039-SA7-SS-0.0-0.5	6406195	N	3550B	8270C SIM	III
14-Sep-2011	SL-039-SA7-SS-0.0-0.5	6406195	N	METHOD	300.0	III
14-Sep-2011	SL-039-SA7-SS-0.0-0.5	6406195	N	METHOD	314.0	III
14-Sep-2011	SL-039-SA7-SS-0.0-0.5	6406195	N	METHOD	7471A	III
14-Sep-2011	SL-039-SA7-SS-0.0-0.5	6406195	N	METHOD	8015B	III
14-Sep-2011	SL-039-SA7-SS-0.0-0.5	6406195	N	METHOD	8015M	III
14-Sep-2011	SL-077-SA7-SS-0.0-0.5	6406197	N	3050B	6010B	III
14-Sep-2011	SL-077-SA7-SS-0.0-0.5	6406197	N	3050B	6020	III
14-Sep-2011	SL-077-SA7-SS-0.0-0.5	6406197	N	3060A	7199	III
14-Sep-2011	SL-077-SA7-SS-0.0-0.5	6406197	N	3550B	8015B	III
14-Sep-2011	SL-077-SA7-SS-0.0-0.5	6406197	N	3550B	8015M	III
14-Sep-2011	SL-077-SA7-SS-0.0-0.5	6406197	N	3550B	8081A	III
14-Sep-2011	SL-077-SA7-SS-0.0-0.5	6406197	N	3550B	8082	III
14-Sep-2011	SL-077-SA7-SS-0.0-0.5	6406197	N	3550B	8151A	III
14-Sep-2011	SL-077-SA7-SS-0.0-0.5	6406197	N	3550B	8270C	III
14-Sep-2011	SL-077-SA7-SS-0.0-0.5	6406197	N	3550B	8270C SIM	III
14-Sep-2011	SL-077-SA7-SS-0.0-0.5	6406197	N	METHOD	300.0	III
14-Sep-2011	SL-077-SA7-SS-0.0-0.5	6406197	N	METHOD	314.0	III
14-Sep-2011	SL-077-SA7-SS-0.0-0.5	6406197	N	METHOD	7471A	III
14-Sep-2011	SL-077-SA7-SS-0.0-0.5	6406197	N	METHOD	8015B	III
14-Sep-2011	SL-077-SA7-SS-0.0-0.5	6406197	N	METHOD	8015M	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5	6406198	N	3050B	6010B	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5	6406198	N	3050B	6020	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5	6406198	N	3060A	7199	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Sep-2011	SL-078-SA7-SS-0.0-0.5	6406198	N	3550B	8015B	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5	6406198	N	3550B	8015M	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5	6406198	N	3550B	8081A	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5	6406198	N	3550B	8082	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5	6406198	N	3550B	8151A	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5	6406198	N	3550B	8270C	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5	6406198	N	3550B	8270C SIM	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5	6406198	N	METHOD	300.0	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5	6406198	N	METHOD	314.0	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5	6406198	N	METHOD	6850	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5	6406198	N	METHOD	7471A	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5	6406198	N	METHOD	8015B	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5	6406198	N	METHOD	8015M	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5DUP	P406198D272231B	DUP	METHOD	314.0	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5DUP	P406198D272342B	DUP	METHOD	300.0	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5MS	P406198R272340B	MS	METHOD	314.0	III
14-Sep-2011	SL-078-SA7-SS-0.0-0.5MS	P406198R272355B	MS	METHOD	300.0	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	3050B	6010B	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	3050B	6020	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	3060A	7199	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	3546	1625C	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	3550B	8015B	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	3550B	8015M	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	3550B	8082	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	3550B	8270C	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	3550B	8270C SIM	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	5035	8015M	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	8330	8330A	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	Gen Prep	314.0	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	METHOD	300.0	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	METHOD	7471A	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	METHOD	8015B	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	METHOD	8015M	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	METHOD	8315A	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0	6406203	N	METHOD	9012B	III
14-Sep-2011	SL-339-SA5B-SB-9.0-10.0MS	P406203R261731	MS	3546	1625C	III
14-Sep-2011	SL-099-SA7-SS-0.0-0.5	6406199	N	3050B	6010B	III
14-Sep-2011	SL-099-SA7-SS-0.0-0.5	6406199	N	3050B	6020	III
14-Sep-2011	SL-099-SA7-SS-0.0-0.5	6406199	N	3060A	7199	III
14-Sep-2011	SL-099-SA7-SS-0.0-0.5	6406199	N	3550B	8015B	III
14-Sep-2011	SL-099-SA7-SS-0.0-0.5	6406199	N	3550B	8015M	III
14-Sep-2011	SL-099-SA7-SS-0.0-0.5	6406199	N	3550B	8081A	III
14-Sep-2011	SL-099-SA7-SS-0.0-0.5	6406199	N	3550B	8082	III
14-Sep-2011	SL-099-SA7-SS-0.0-0.5	6406199	N	3550B	8151A	III
14-Sep-2011	SL-099-SA7-SS-0.0-0.5	6406199	N	3550B	8270C	III
14-Sep-2011	SL-099-SA7-SS-0.0-0.5	6406199	N	3550B	8270C SIM	III
14-Sep-2011	SL-099-SA7-SS-0.0-0.5	6406199	N	METHOD	300.0	III
14-Sep-2011	SL-099-SA7-SS-0.0-0.5	6406199	N	METHOD	314.0	III
14-Sep-2011	SL-099-SA7-SS-0.0-0.5	6406199	N	METHOD	7471A	III
14-Sep-2011	SL-099-SA7-SS-0.0-0.5	6406199	N	METHOD	8015B	III
14-Sep-2011	SL-099-SA7-SS-0.0-0.5	6406199	N	METHOD	8015M	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	3050B	6010B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	3050B	6020	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	3060A	7199	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	3550B	8015B	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	3550B	8015M	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	3550B	8081A	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	3550B	8082	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	3550B	8151A	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	3550B	8270C	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	3550B	8270C SIM	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	METHOD	300.0	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	METHOD	314.0	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	METHOD	6850	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	METHOD	7471A	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	METHOD	8015B	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	METHOD	8015M	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5	6406188	N	METHOD	9012B	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5DUP	P406188D220939A	DUP	3050B	6020	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5DUP	P406188D220939B	DUP	3050B	6020	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5DUP	P406188D220939C	DUP	3050B	6020	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5DUP	P406188D220939D	DUP	3050B	6020	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5DUP	P406188D221041	DUP	METHOD	7471A	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5DUP	P406188D221351	DUP	3050B	6010B	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5DUP	P406188D271754A	DUP	METHOD	314.0	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5DUP	P406188D272051A	DUP	METHOD	300.0	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MSD	P406188M220945A	MSD	3050B	6020	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MSD	P406188M220945B	MSD	3050B	6020	III

III = EPA Level 3 Data Review  
IV = EPA Level 4 Data Validation

N = Normal Sample  
FD = Field Duplicate

TB = Trip Blank  
FB = Field Blank

MS = Matrix Spike  
MSD = Matrix Spike Duplicate

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MSD	P406188M220945C	MSD	3050B	6020	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MSD	P406188M220945D	MSD	3050B	6020	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MSD	P406188M221044	MSD	METHOD	7471A	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MSD	P406188M221359	MSD	3050B	6010B	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MSD	P406188M240017A	MSD	3550B	8151A	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MSD	P406188M241302A	MSD	3550B	8081A	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MSD	P406188M260748	MSD	3550B	8270C	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MSD	P406188M320049A	MSD	3550B	8015M	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MSD	P406188M320106A	MSD	3550B	8015B	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MS	P406188R220942A	MS	3050B	6020	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MS	P406188R220942B	MS	3050B	6020	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MS	P406188R220942C	MS	3050B	6020	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MS	P406188R220942D	MS	3050B	6020	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MS	P406188R221043	MS	METHOD	7471A	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MS	P406188R221355	MS	3050B	6010B	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MS	P406188R241248A	MS	3550B	8081A	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MS	P406188R242254A	MS	3550B	8151A	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MS	P406188R260725	MS	3550B	8270C	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MS	P406188R271817A	MS	METHOD	314.0	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MS	P406188R272104A	MS	METHOD	300.0	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MS	P406188R320025A	MS	3550B	8015M	III
14-Sep-2011	SL-024-SA7-SS-0.0-0.5MS	P406188R320044A	MS	3550B	8015B	III
14-Sep-2011	SL-183-SA7-SS-0.0-0.5	6406202	N	3050B	6010B	III
14-Sep-2011	SL-183-SA7-SS-0.0-0.5	6406202	N	3050B	6020	III
14-Sep-2011	SL-183-SA7-SS-0.0-0.5	6406202	N	3060A	7199	III
14-Sep-2011	SL-183-SA7-SS-0.0-0.5	6406202	N	3550B	8081A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Sep-2011	SL-183-SA7-SS-0.0-0.5	6406202	N	3550B	8082	III
14-Sep-2011	SL-183-SA7-SS-0.0-0.5	6406202	N	3550B	8151A	III
14-Sep-2011	SL-183-SA7-SS-0.0-0.5	6406202	N	3550B	8270C	III
14-Sep-2011	SL-183-SA7-SS-0.0-0.5	6406202	N	3550B	8270C SIM	III
14-Sep-2011	SL-183-SA7-SS-0.0-0.5	6406202	N	Gen Prep	314.0	III
14-Sep-2011	SL-183-SA7-SS-0.0-0.5	6406202	N	METHOD	300.0	III
14-Sep-2011	SL-183-SA7-SS-0.0-0.5	6406202	N	METHOD	7471A	III
14-Sep-2011	SL-038-SA7-SS-0.0-0.5	6406194	N	3050B	6010B	III
14-Sep-2011	SL-038-SA7-SS-0.0-0.5	6406194	N	3050B	6020	III
14-Sep-2011	SL-038-SA7-SS-0.0-0.5	6406194	N	3060A	7199	III
14-Sep-2011	SL-038-SA7-SS-0.0-0.5	6406194	N	3550B	8081A	III
14-Sep-2011	SL-038-SA7-SS-0.0-0.5	6406194	N	3550B	8082	III
14-Sep-2011	SL-038-SA7-SS-0.0-0.5	6406194	N	3550B	8151A	III
14-Sep-2011	SL-038-SA7-SS-0.0-0.5	6406194	N	3550B	8270C	III
14-Sep-2011	SL-038-SA7-SS-0.0-0.5	6406194	N	3550B	8270C SIM	III
14-Sep-2011	SL-038-SA7-SS-0.0-0.5	6406194	N	METHOD	300.0	III
14-Sep-2011	SL-038-SA7-SS-0.0-0.5	6406194	N	METHOD	314.0	III
14-Sep-2011	SL-038-SA7-SS-0.0-0.5	6406194	N	METHOD	7471A	III
14-Sep-2011	SL-041-SA7-SB-4.0-5.0	6406205	N	3050B	6010B	III
14-Sep-2011	SL-041-SA7-SB-4.0-5.0	6406205	N	3050B	6020	III
14-Sep-2011	SL-041-SA7-SB-4.0-5.0	6406205	N	3060A	7199	III
14-Sep-2011	SL-041-SA7-SB-4.0-5.0	6406205	N	3550B	8015B	III
14-Sep-2011	SL-041-SA7-SB-4.0-5.0	6406205	N	3550B	8015M	III
14-Sep-2011	SL-041-SA7-SB-4.0-5.0	6406205	N	3550B	8082	III
14-Sep-2011	SL-041-SA7-SB-4.0-5.0	6406205	N	3550B	8270C	III
14-Sep-2011	SL-041-SA7-SB-4.0-5.0	6406205	N	3550B	8270C SIM	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Sep-2011	SL-041-SA7-SB-4.0-5.0	6406205	N	5035	8015M	III
14-Sep-2011	SL-041-SA7-SB-4.0-5.0	6406205	N	Gen Prep	314.0	III
14-Sep-2011	SL-041-SA7-SB-4.0-5.0	6406205	N	METHOD	300.0	III
14-Sep-2011	SL-041-SA7-SB-4.0-5.0	6406205	N	METHOD	7471A	III
14-Sep-2011	SL-041-SA7-SB-4.0-5.0	6406205	N	METHOD	8015B	III
14-Sep-2011	SL-041-SA7-SB-4.0-5.0	6406205	N	METHOD	8015M	III
14-Sep-2011	SL-033-SA7-SS-0.0-0.5	6406192	N	3050B	6010B	III
14-Sep-2011	SL-033-SA7-SS-0.0-0.5	6406192	N	3050B	6020	III
14-Sep-2011	SL-033-SA7-SS-0.0-0.5	6406192	N	3060A	7199	III
14-Sep-2011	SL-033-SA7-SS-0.0-0.5	6406192	N	3550B	8081A	III
14-Sep-2011	SL-033-SA7-SS-0.0-0.5	6406192	N	3550B	8082	III
14-Sep-2011	SL-033-SA7-SS-0.0-0.5	6406192	N	3550B	8151A	III
14-Sep-2011	SL-033-SA7-SS-0.0-0.5	6406192	N	3550B	8270C	III
14-Sep-2011	SL-033-SA7-SS-0.0-0.5	6406192	N	3550B	8270C SIM	III
14-Sep-2011	SL-033-SA7-SS-0.0-0.5	6406192	N	METHOD	300.0	III
14-Sep-2011	SL-033-SA7-SS-0.0-0.5	6406192	N	METHOD	314.0	III
14-Sep-2011	SL-033-SA7-SS-0.0-0.5	6406192	N	METHOD	7471A	III
14-Sep-2011	SL-145-SA7-SS-0.0-0.5	6406201	N	3050B	6010B	III
14-Sep-2011	SL-145-SA7-SS-0.0-0.5	6406201	N	3050B	6020	III
14-Sep-2011	SL-145-SA7-SS-0.0-0.5	6406201	N	3060A	7199	III
14-Sep-2011	SL-145-SA7-SS-0.0-0.5	6406201	N	3550B	8081A	III
14-Sep-2011	SL-145-SA7-SS-0.0-0.5	6406201	N	3550B	8082	III
14-Sep-2011	SL-145-SA7-SS-0.0-0.5	6406201	N	3550B	8151A	III
14-Sep-2011	SL-145-SA7-SS-0.0-0.5	6406201	N	3550B	8270C	III
14-Sep-2011	SL-145-SA7-SS-0.0-0.5	6406201	N	3550B	8270C SIM	III
14-Sep-2011	SL-145-SA7-SS-0.0-0.5	6406201	N	Gen Prep	314.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Sep-2011	SL-145-SA7-SS-0.0-0.5	6406201	N	METHOD	300.0	III
14-Sep-2011	SL-145-SA7-SS-0.0-0.5	6406201	N	METHOD	7471A	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	3005A	6010B	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	3020A	6020	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	3510C	8015B	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	3510C	8015M	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	3510C	8081A	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	3510C	8082	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	3510C	8270C	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	3510C	8270C SIM	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	3520C	1625C	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	8330	8330A	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	Gen Prep	300.0	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	Gen Prep	314.0	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	Gen Prep	7199	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	Gen Prep	8015B	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	Gen Prep	8015M	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	METHOD	7470A	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	METHOD	8151A	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	METHOD	8315A	III
14-Sep-2011	EB-SA7-SS-091411	6406208	EB	METHOD	9012B	III
14-Sep-2011	SL-144-SA7-SS-0.0-0.5	6406200	N	3050B	6010B	III
14-Sep-2011	SL-144-SA7-SS-0.0-0.5	6406200	N	3050B	6020	III
14-Sep-2011	SL-144-SA7-SS-0.0-0.5	6406200	N	3060A	7199	III
14-Sep-2011	SL-144-SA7-SS-0.0-0.5	6406200	N	3550B	8081A	III
14-Sep-2011	SL-144-SA7-SS-0.0-0.5	6406200	N	3550B	8082	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Sep-2011	SL-144-SA7-SS-0.0-0.5	6406200	N	3550B	8151A	III
14-Sep-2011	SL-144-SA7-SS-0.0-0.5	6406200	N	3550B	8270C	III
14-Sep-2011	SL-144-SA7-SS-0.0-0.5	6406200	N	3550B	8270C SIM	III
14-Sep-2011	SL-144-SA7-SS-0.0-0.5	6406200	N	Gen Prep	314.0	III
14-Sep-2011	SL-144-SA7-SS-0.0-0.5	6406200	N	METHOD	300.0	III
14-Sep-2011	SL-144-SA7-SS-0.0-0.5	6406200	N	METHOD	7471A	III
14-Sep-2011	SL-071-SA7-SB-4.0-5.0	6406206	N	3050B	6010B	III
14-Sep-2011	SL-071-SA7-SB-4.0-5.0	6406206	N	3050B	6020	III
14-Sep-2011	SL-071-SA7-SB-4.0-5.0	6406206	N	3060A	7199	III
14-Sep-2011	SL-071-SA7-SB-4.0-5.0	6406206	N	3550B	8015B	III
14-Sep-2011	SL-071-SA7-SB-4.0-5.0	6406206	N	3550B	8015M	III
14-Sep-2011	SL-071-SA7-SB-4.0-5.0	6406206	N	3550B	8082	III
14-Sep-2011	SL-071-SA7-SB-4.0-5.0	6406206	N	3550B	8270C	III
14-Sep-2011	SL-071-SA7-SB-4.0-5.0	6406206	N	3550B	8270C SIM	III
14-Sep-2011	SL-071-SA7-SB-4.0-5.0	6406206	N	5035	8015M	III
14-Sep-2011	SL-071-SA7-SB-4.0-5.0	6406206	N	Gen Prep	314.0	III
14-Sep-2011	SL-071-SA7-SB-4.0-5.0	6406206	N	METHOD	300.0	III
14-Sep-2011	SL-071-SA7-SB-4.0-5.0	6406206	N	METHOD	7471A	III
14-Sep-2011	SL-071-SA7-SB-4.0-5.0	6406206	N	METHOD	8015B	III
14-Sep-2011	SL-071-SA7-SB-4.0-5.0	6406206	N	METHOD	8015M	III
14-Sep-2011	SL-071-SA7-SB-4.0-5.0DUP	P406206D271944A	DUP	3060A	7199	III
14-Sep-2011	SL-071-SA7-SB-4.0-5.0MS	P406206R271901A	MS	3060A	7199	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	3050B	6010B	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	3050B	6020	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	3060A	7199	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	3546	1625C	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	3550B	8015B	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	3550B	8015M	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	3550B	8081A	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	3550B	8082	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	3550B	8151A	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	3550B	8270C	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	3550B	8270C SIM	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	8330	8330A	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	METHOD	300.0	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	METHOD	314.0	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	METHOD	7471A	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	METHOD	8015B	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	METHOD	8015M	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	METHOD	8315A	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5	6406191	N	METHOD	9012B	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5MSD	P406191M322153A	MSD	METHOD	8015M	III
14-Sep-2011	SL-032-SA7-SS-0.0-0.5MS	P406191R322140A	MS	METHOD	8015M	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	GENCHEM	
Method:	300.0	Matrix: SO

Sample ID: SL-024-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.80	U	0.80	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-028-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:35:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-029-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:55:00      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		0.81	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-032-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.80	U	0.80	MDL	1.0	PQL	mg/Kg	UJ	Q
Nitrate-NO3	1.1	J	0.80	MDL	1.5	PQL	mg/Kg	J	Z

Sample ID: SL-033-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	1.3		0.81	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-036-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.79	U	0.79	MDL	0.99	PQL	mg/Kg	UJ	Q

Sample ID: SL-038-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	1.6		0.79	MDL	0.99	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	GENCHEM	
<b>Method:</b>	300.0	<b>Matrix:</b> SO

Sample ID: SL-039-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	1.7		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-041-SA7-SB-4.0-5.0      Collected: 9/14/2011 12:36:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.0		0.83	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-071-SA7-SB-4.0-5.0      Collected: 9/14/2011 2:41:00      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		0.84	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-076-SA7-SS-0.0-0.5      Collected: 9/14/2011 8:20:00      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		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-077-SA7-SS-0.0-0.5      Collected: 9/14/2011 9:40:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.5		0.80	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-078-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	2.3		0.80	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-099-SA7-SS-0.0-0.5      Collected: 9/14/2011 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		0.81	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-144-SA7-SS-0.0-0.5      Collected: 9/14/2011 2:35:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.80	U	0.80	MDL	1.0	PQL	mg/Kg	UJ	Q

\* 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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	GENCHEM	
<b>Method:</b>	300.0	<b>Matrix:</b> SO

Sample ID: SL-145-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	1.2		0.81	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-183-SA7-SS-0.0-0.5      Collected: 9/14/2011 11:30:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.97	J	0.81	MDL	1.0	PQL	mg/Kg	J	Z, Q

Sample ID: SL-339-SA5B-SB-9.0-10.0      Collected: 9/14/2011 10:09:00      Analysis Type: RES      Dilution: 1

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

Sample ID: SL-340-SA5B-SB-9.0-10.0      Collected: 9/14/2011 8:38:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.90	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	0.91	J	0.90	MDL	1.7	PQL	mg/Kg	J	Z

<b>Method Category:</b>	METALS	
<b>Method:</b>	6010E	<b>Matrix:</b> AQ

Sample ID: EB-SA7-SS-091411      Collected: 9/14/2011 2:00:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.0114	J	0.0022	MDL	0.0500	PQL	mg/L	U	B
MAGNESIUM	0.0078	J	0.0067	MDL	0.100	PQL	mg/L	U	B
STRONTIUM	0.00023	J	0.00022	MDL	0.0050	PQL	mg/L	U	B
Zirconium	0.0046	J	0.0042	MDL	0.0500	PQL	mg/L	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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: SL-024-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	3.97	J	0.360	MDL	5.01	PQL	mg/Kg	U	F
IRON	16300		2.61	MDL	20.0	PQL	mg/Kg	J	A
POTASSIUM	2750		11.3	MDL	50.1	PQL	mg/Kg	J	Q
SODIUM	83.2	J	5.96	MDL	100	PQL	mg/Kg	J	Z
TIN	3.11	J	0.320	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	2.43	J	0.461	MDL	5.01	PQL	mg/Kg	J	Z

Sample ID: SL-028-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:35:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
IRON	18600		2.61	MDL	20.0	PQL	mg/Kg	J	A
POTASSIUM	3280		11.3	MDL	50.1	PQL	mg/Kg	J	Q
TIN	2.66	J	0.320	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	4.12	J	0.461	MDL	5.01	PQL	mg/Kg	J	Z

Sample ID: SL-029-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:55:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.63	J	0.361	MDL	5.02	PQL	mg/Kg	U	F
IRON	20100		2.62	MDL	20.1	PQL	mg/Kg	J	A
POTASSIUM	3120		11.3	MDL	50.2	PQL	mg/Kg	J	Q
TIN	2.84	J	0.321	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	2.26	J	0.461	MDL	5.02	PQL	mg/Kg	U	F

Sample ID: SL-032-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	3.45	J	0.363	MDL	5.05	PQL	mg/Kg	U	B, F
IRON	15900		2.64	MDL	20.2	PQL	mg/Kg	J	A
POTASSIUM	3240		11.4	MDL	50.5	PQL	mg/Kg	J	Q
TIN	2.76	J	0.323	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	2.29	J	0.464	MDL	5.05	PQL	mg/Kg	U	F

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6010E	Matrix: SO

Sample ID: SL-033-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
BORON	4.82	J	0.358	MDL	4.97	PQL	mg/Kg	U	F
IRON	18200		2.60	MDL	19.9	PQL	mg/Kg	J	A
POTASSIUM	3940		11.2	MDL	49.7	PQL	mg/Kg	J	Q
SODIUM	90.3	J	5.92	MDL	99.4	PQL	mg/Kg	J	Z
TIN	2.88	J	0.318	MDL	9.94	PQL	mg/Kg	U	B
Zirconium	3.16	J	0.457	MDL	4.97	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	3.14	J	0.359	MDL	4.99	PQL	mg/Kg	U	B, F
IRON	16700		2.60	MDL	20.0	PQL	mg/Kg	J	A
POTASSIUM	3040		11.3	MDL	49.9	PQL	mg/Kg	J	Q
SODIUM	88.4	J	5.94	MDL	99.8	PQL	mg/Kg	J	Z
TIN	3.01	J	0.319	MDL	9.98	PQL	mg/Kg	U	B
Zirconium	2.96	J	0.459	MDL	4.99	PQL	mg/Kg	J	Z

Sample ID: SL-038-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
BORON	3.97	J	0.350	MDL	4.86	PQL	mg/Kg	U	F
IRON	16800		2.53	MDL	19.4	PQL	mg/Kg	J	A
POTASSIUM	3230		11.0	MDL	48.6	PQL	mg/Kg	J	Q
SODIUM	74.3	J	5.78	MDL	97.1	PQL	mg/Kg	J	Z
TIN	3.01	J	0.311	MDL	9.71	PQL	mg/Kg	U	B
Zirconium	2.59	J	0.447	MDL	4.86	PQL	mg/Kg	J	Z

Sample ID: SL-039-SA7-SS-0.0-0.5      Collected: 9/14/2011 9:05:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.33	J	0.370	MDL	5.14	PQL	mg/Kg	U	F
IRON	19700		2.68	MDL	20.5	PQL	mg/Kg	J	A
POTASSIUM	2430		11.6	MDL	51.4	PQL	mg/Kg	J	Q
TIN	2.58	J	0.329	MDL	10.3	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: SL-041-SA7-SB-4.0-5.0	Collected: 9/14/2011 12:36:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.28		0.369	MDL	5.12	PQL	mg/Kg	U	F, Z
IRON	17200		2.67	MDL	20.5	PQL	mg/Kg	J	A
POTASSIUM	1810		11.6	MDL	51.2	PQL	mg/Kg	J	Q
TIN	2.98	J	0.328	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	3.03	J	0.471	MDL	5.12	PQL	mg/Kg	J	Z

Sample ID: SL-071-SA7-SB-4.0-5.0	Collected: 9/14/2011 2:41:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.31	J	0.368	MDL	5.11	PQL	mg/Kg	U	B, F
IRON	18300		2.67	MDL	20.4	PQL	mg/Kg	J	A
POTASSIUM	1490		11.5	MDL	51.1	PQL	mg/Kg	J	Q
TIN	3.11	J	0.327	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	2.76	J	0.470	MDL	5.11	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA7-SS-0.0-0.5	Collected: 9/14/2011 8:20:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.83	J	0.356	MDL	4.95	PQL	mg/Kg	U	F
IRON	19000		2.58	MDL	19.8	PQL	mg/Kg	J	A
POTASSIUM	2360		11.2	MDL	49.5	PQL	mg/Kg	J	Q
TIN	2.34	J	0.317	MDL	9.90	PQL	mg/Kg	U	B

Sample ID: SL-077-SA7-SS-0.0-0.5	Collected: 9/14/2011 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	4.09	J	0.357	MDL	4.96	PQL	mg/Kg	U	F
IRON	15200		2.59	MDL	19.8	PQL	mg/Kg	J	A
POTASSIUM	2600		11.2	MDL	49.6	PQL	mg/Kg	J	Q
SODIUM	67.6	J	5.90	MDL	99.1	PQL	mg/Kg	J	Z
TIN	2.82	J	0.317	MDL	9.91	PQL	mg/Kg	U	B
Zirconium	2.73	J	0.456	MDL	4.96	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: SL-078-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	4.50	J	0.361	MDL	5.02	PQL	mg/Kg	U	F
IRON	16800		2.62	MDL	20.1	PQL	mg/Kg	J	A
POTASSIUM	2570		11.3	MDL	50.2	PQL	mg/Kg	J	Q
SODIUM	66.6	J	5.97	MDL	100	PQL	mg/Kg	J	Z
TIN	3.28	J	0.321	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	3.38	J	0.462	MDL	5.02	PQL	mg/Kg	J	Z

Sample ID: SL-099-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
BORON	3.24	J	0.361	MDL	5.01	PQL	mg/Kg	U	B, F
IRON	16000		2.61	MDL	20.0	PQL	mg/Kg	J	A
POTASSIUM	2530		11.3	MDL	50.1	PQL	mg/Kg	J	Q
SODIUM	65.5	J	5.96	MDL	100	PQL	mg/Kg	J	Z
TIN	4.26	J	0.320	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	3.18	J	0.461	MDL	5.01	PQL	mg/Kg	J	Z

Sample ID: SL-144-SA7-SS-0.0-0.5      Collected: 9/14/2011 2:35:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.16	J	0.356	MDL	4.94	PQL	mg/Kg	U	B, F
IRON	18200		2.58	MDL	19.8	PQL	mg/Kg	J	A
POTASSIUM	3890		11.2	MDL	49.4	PQL	mg/Kg	J	Q
SODIUM	82.1	J	5.88	MDL	98.8	PQL	mg/Kg	J	Z
TIN	3.04	J	0.316	MDL	9.88	PQL	mg/Kg	U	B
Zirconium	2.51	J	0.454	MDL	4.94	PQL	mg/Kg	J	Z

Sample ID: SL-145-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	2.84	J	0.359	MDL	4.98	PQL	mg/Kg	U	B, F
IRON	18200		2.60	MDL	19.9	PQL	mg/Kg	J	A
POTASSIUM	3310		11.3	MDL	49.8	PQL	mg/Kg	J	Q
SODIUM	85.7	J	5.93	MDL	99.7	PQL	mg/Kg	J	Z
TIN	3.02	J	0.319	MDL	9.97	PQL	mg/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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

<b>Sample ID: SL-145-SA7-SS-0.0-0.5</b>		<b>Collected: 9/14/2011 1:55:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	2.90	J	0.459	MDL	4.98	PQL	mg/Kg	J	Z

<b>Sample ID: SL-183-SA7-SS-0.0-0.5</b>		<b>Collected: 9/14/2011 11:30:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.56	J	0.365	MDL	5.07	PQL	mg/Kg	U	F
IRON	16600		2.64	MDL	20.3	PQL	mg/Kg	J	A
POTASSIUM	3340		11.4	MDL	50.7	PQL	mg/Kg	J	Q
TIN	2.94	J	0.324	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	2.89	J	0.466	MDL	5.07	PQL	mg/Kg	J	Z

<b>Sample ID: SL-339-SA5B-SB-9.0-10.0</b>		<b>Collected: 9/14/2011 10:09:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.59	J	0.375	MDL	5.20	PQL	mg/Kg	U	B
IRON	20500		2.72	MDL	20.8	PQL	mg/Kg	J	A
POTASSIUM	3250		11.8	MDL	52.0	PQL	mg/Kg	J	Q
TIN	2.70	J	0.333	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	0.844	J	0.479	MDL	5.20	PQL	mg/Kg	U	B

<b>Sample ID: SL-340-SA5B-SB-9.0-10.0</b>		<b>Collected: 9/14/2011 8:38:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.12	J	0.402	MDL	5.58	PQL	mg/Kg	J	Z
IRON	16800		2.91	MDL	22.3	PQL	mg/Kg	J	A
POTASSIUM	2800		12.6	MDL	55.8	PQL	mg/Kg	J	Q
TIN	2.98	J	0.357	MDL	11.2	PQL	mg/Kg	U	B
Zirconium	3.78	J	0.513	MDL	5.58	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-024-SA7-SS-0.0-0.5		<b>Collected:</b> 9/14/2011 11:00:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.208	J	0.0575	MDL	0.397	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-024-SA7-SS-0.0-0.5		<b>Collected:</b> 9/14/2011 11:00:00		<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.734		0.0496	MDL	0.0991	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-024-SA7-SS-0.0-0.5		<b>Collected:</b> 9/14/2011 11:00:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.204		0.0734	MDL	0.198	PQL	mg/Kg	UJ	Q, B
BERYLLIUM	0.682		0.0159	MDL	0.0991	PQL	mg/Kg	J	Q
CADMIUM	0.210		0.0436	MDL	0.0991	PQL	mg/Kg	J	Q
CHROMIUM	17.4		0.119	MDL	0.397	PQL	mg/Kg	J	Q
COBALT	5.83		0.0198	MDL	0.0991	PQL	mg/Kg	J	Q
COPPER	9.12		0.0793	MDL	0.397	PQL	mg/Kg	J	Q
NICKEL	12.5		0.0991	MDL	0.397	PQL	mg/Kg	J	Q
SILVER	0.0473	J	0.0141	MDL	0.0991	PQL	mg/Kg	J	Z, Q
THALLIUM	0.340		0.0297	MDL	0.0991	PQL	mg/Kg	J	Q
VANADIUM	34.9		0.0218	MDL	0.0991	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-028-SA7-SS-0.0-0.5		<b>Collected:</b> 9/14/2011 7:35:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0791	J	0.0570	MDL	0.393	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-028-SA7-SS-0.0-0.5		<b>Collected:</b> 9/14/2011 7:35:00		<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.573		0.0491	MDL	0.0982	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-028-SA7-SS-0.0-0.5		<b>Collected:</b> 9/14/2011 7:35:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.112	J	0.0727	MDL	0.196	PQL	mg/Kg	UJ	Q, 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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-028-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:35:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.313		0.0157	MDL	0.0982	PQL	mg/Kg	J	Q
CADMIUM	0.255		0.0432	MDL	0.0982	PQL	mg/Kg	J	Q
CHROMIUM	14.5		0.118	MDL	0.393	PQL	mg/Kg	J	Q
COBALT	6.65		0.0196	MDL	0.0982	PQL	mg/Kg	J	Q
COPPER	13.4		0.0786	MDL	0.393	PQL	mg/Kg	J	Q
NICKEL	10.0		0.0982	MDL	0.393	PQL	mg/Kg	J	Q
SILVER	0.0389	J	0.0139	MDL	0.0982	PQL	mg/Kg	J	Z, Q
THALLIUM	0.175		0.0295	MDL	0.0982	PQL	mg/Kg	J	Q
VANADIUM	41.1		0.0216	MDL	0.0982	PQL	mg/Kg	J	Q

Sample ID: SL-029-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:55:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.124	J	0.0582	MDL	0.401	PQL	mg/Kg	J	Z, Q

Sample ID: SL-029-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:55:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.578		0.0502	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: SL-029-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:55:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0949	J	0.0742	MDL	0.201	PQL	mg/Kg	UJ	Q, B
BERYLLIUM	0.403		0.0161	MDL	0.100	PQL	mg/Kg	J	Q
CADMIUM	0.181		0.0441	MDL	0.100	PQL	mg/Kg	J	Q
CHROMIUM	16.1		0.120	MDL	0.401	PQL	mg/Kg	J	Q
COBALT	7.56		0.0201	MDL	0.100	PQL	mg/Kg	J	Q
COPPER	13.4		0.0803	MDL	0.401	PQL	mg/Kg	J	Q
NICKEL	10.6		0.100	MDL	0.401	PQL	mg/Kg	J	Q
SILVER	0.0266	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z, Q
THALLIUM	0.204		0.0301	MDL	0.100	PQL	mg/Kg	J	Q
VANADIUM	41.5		0.0221	MDL	0.100	PQL	mg/Kg	J	Q

\* 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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-032-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.151	J	0.0563	MDL	0.388	PQL	mg/Kg	J	Z, Q

Sample ID: SL-032-SA7-SS-0.0-0.5      Collected: 9/14/2011 3:10:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.91		0.0485	MDL	0.0971	PQL	mg/Kg	J	Q

Sample ID: SL-032-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.344		0.0718	MDL	0.194	PQL	mg/Kg	J	Q
BERYLLIUM	0.500		0.0155	MDL	0.0971	PQL	mg/Kg	J	Q
CADMIUM	0.305		0.0427	MDL	0.0971	PQL	mg/Kg	J	Q
CHROMIUM	68.1		0.116	MDL	0.388	PQL	mg/Kg	J	Q
COBALT	7.21		0.0194	MDL	0.0971	PQL	mg/Kg	J	Q
COPPER	12.2		0.0777	MDL	0.388	PQL	mg/Kg	J	Q
NICKEL	36.4		0.0971	MDL	0.388	PQL	mg/Kg	J	Q
SILVER	0.0836	J	0.0138	MDL	0.0971	PQL	mg/Kg	J	Z, Q
THALLIUM	0.241		0.0291	MDL	0.0971	PQL	mg/Kg	J	Q
VANADIUM	39.4		0.0214	MDL	0.0971	PQL	mg/Kg	J	Q

Sample ID: SL-033-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.158	J	0.0582	MDL	0.402	PQL	mg/Kg	J	Z, Q

Sample ID: SL-033-SA7-SS-0.0-0.5      Collected: 9/14/2011 1:35:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.843		0.0502	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: SL-033-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.337		0.0743	MDL	0.201	PQL	mg/Kg	J	Q

\* 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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-033-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
BERYLLIUM	0.803		0.0161	MDL	0.100	PQL	mg/Kg	J	Q
CADMIUM	0.387		0.0442	MDL	0.100	PQL	mg/Kg	J	Q
CHROMIUM	26.3		0.120	MDL	0.402	PQL	mg/Kg	J	Q
COBALT	7.96		0.0201	MDL	0.100	PQL	mg/Kg	J	Q
COPPER	13.9		0.0803	MDL	0.402	PQL	mg/Kg	J	Q
NICKEL	17.3		0.100	MDL	0.402	PQL	mg/Kg	J	Q
SILVER	0.0712	J	0.0143	MDL	0.100	PQL	mg/Kg	J	Z, Q
THALLIUM	0.359		0.0301	MDL	0.100	PQL	mg/Kg	J	Q
VANADIUM	51.6		0.0221	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: SL-036-SA7-SS-0.0-0.5      Collected: 9/14/2011 8:40:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.225	J	0.0579	MDL	0.399	PQL	mg/Kg	J	Z, Q

Sample ID: SL-036-SA7-SS-0.0-0.5      Collected: 9/14/2011 8:40:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.600		0.0499	MDL	0.0998	PQL	mg/Kg	J	Q

Sample ID: SL-036-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.0896	J	0.0738	MDL	0.200	PQL	mg/Kg	UJ	Q, B
BERYLLIUM	0.534		0.0160	MDL	0.0998	PQL	mg/Kg	J	Q
CADMIUM	0.143		0.0439	MDL	0.0998	PQL	mg/Kg	J	Q
CHROMIUM	16.1		0.120	MDL	0.399	PQL	mg/Kg	J	Q
COBALT	5.84		0.0200	MDL	0.0998	PQL	mg/Kg	J	Q
COPPER	8.51		0.0798	MDL	0.399	PQL	mg/Kg	J	Q
NICKEL	10.4		0.0998	MDL	0.399	PQL	mg/Kg	J	Q
SILVER	0.0302	J	0.0142	MDL	0.0998	PQL	mg/Kg	J	Z, Q
THALLIUM	0.230		0.0299	MDL	0.0998	PQL	mg/Kg	J	Q
VANADIUM	34.3		0.0219	MDL	0.0998	PQL	mg/Kg	J	Q

\* 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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS		
Method:	6020	Matrix:	SO

Sample ID: SL-038-SA7-SS-0.0-0.5	Collected: 9/14/2011 11:50:00	Analysis Type: REA2	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.155	J	0.0563	MDL	0.389	PQL	mg/Kg	J	Z, Q

Sample ID: SL-038-SA7-SS-0.0-0.5	Collected: 9/14/2011 11:50:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.804		0.0486	MDL	0.0971	PQL	mg/Kg	J	Q

Sample ID: SL-038-SA7-SS-0.0-0.5	Collected: 9/14/2011 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
ANTIMONY	0.287		0.0719	MDL	0.194	PQL	mg/Kg	UJ	Q, B
BERYLLIUM	0.636		0.0155	MDL	0.0971	PQL	mg/Kg	J	Q
CADMIUM	0.285		0.0427	MDL	0.0971	PQL	mg/Kg	J	Q
CHROMIUM	18.1		0.117	MDL	0.389	PQL	mg/Kg	J	Q
COBALT	6.34		0.0194	MDL	0.0971	PQL	mg/Kg	J	Q
COPPER	10.4		0.0777	MDL	0.389	PQL	mg/Kg	J	Q
NICKEL	13.2		0.0971	MDL	0.389	PQL	mg/Kg	J	Q
SILVER	0.0497	J	0.0138	MDL	0.0971	PQL	mg/Kg	J	Z, Q
THALLIUM	0.273		0.0291	MDL	0.0971	PQL	mg/Kg	J	Q
VANADIUM	44.0		0.0214	MDL	0.0971	PQL	mg/Kg	J	Q

Sample ID: SL-039-SA7-SS-0.0-0.5	Collected: 9/14/2011 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	0.0723	J	0.0596	MDL	0.411	PQL	mg/Kg	J	Z, Q

Sample ID: SL-039-SA7-SS-0.0-0.5	Collected: 9/14/2011 9:05:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.550		0.0514	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-039-SA7-SS-0.0-0.5	Collected: 9/14/2011 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	0.0874	J	0.0760	MDL	0.205	PQL	mg/Kg	UJ	Q, 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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-039-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
BERYLLIUM	0.329		0.0164	MDL	0.103	PQL	mg/Kg	J	Q
CADMIUM	0.144		0.0452	MDL	0.103	PQL	mg/Kg	J	Q
CHROMIUM	16.6		0.123	MDL	0.411	PQL	mg/Kg	J	Q
COBALT	7.42		0.0205	MDL	0.103	PQL	mg/Kg	J	Q
COPPER	15.6		0.0822	MDL	0.411	PQL	mg/Kg	J	Q
NICKEL	10.5		0.103	MDL	0.411	PQL	mg/Kg	J	Q
SILVER	0.0161	J	0.0146	MDL	0.103	PQL	mg/Kg	J	Z, Q
THALLIUM	0.207		0.0308	MDL	0.103	PQL	mg/Kg	J	Q
VANADIUM	55.4		0.0226	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-041-SA7-SB-4.0-5.0      Collected: 9/14/2011 12:36:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.116	J	0.0594	MDL	0.410	PQL	mg/Kg	J	Z, Q

Sample ID: SL-041-SA7-SB-4.0-5.0      Collected: 9/14/2011 12:36:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.662		0.0512	MDL	0.102	PQL	mg/Kg	J	Q

Sample ID: SL-041-SA7-SB-4.0-5.0      Collected: 9/14/2011 12:36:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0758	U	0.0758	MDL	0.205	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.920		0.0164	MDL	0.102	PQL	mg/Kg	J	Q
CADMIUM	0.0779	J	0.0451	MDL	0.102	PQL	mg/Kg	J	Z, Q
CHROMIUM	20.9		0.123	MDL	0.410	PQL	mg/Kg	J	Q
COBALT	7.90		0.0205	MDL	0.102	PQL	mg/Kg	J	Q
COPPER	6.49		0.0819	MDL	0.410	PQL	mg/Kg	J	Q
NICKEL	13.8		0.102	MDL	0.410	PQL	mg/Kg	J	Q
SILVER	0.0887	J	0.0145	MDL	0.102	PQL	mg/Kg	J	Z, Q
THALLIUM	0.319		0.0307	MDL	0.102	PQL	mg/Kg	J	Q
VANADIUM	43.4		0.0225	MDL	0.102	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-071-SA7-SB-4.0-5.0		<b>Collected:</b> 9/14/2011 2:41:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.149	J	0.0610	MDL	0.421	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-071-SA7-SB-4.0-5.0		<b>Collected:</b> 9/14/2011 2:41:00		<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.557		0.0526	MDL	0.105	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-071-SA7-SB-4.0-5.0		<b>Collected:</b> 9/14/2011 2:41:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0779	U	0.0779	MDL	0.210	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.920		0.0168	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	21.5		0.126	MDL	0.421	PQL	mg/Kg	J	Q
COBALT	5.00		0.0210	MDL	0.105	PQL	mg/Kg	J	Q
COPPER	5.94		0.0842	MDL	0.421	PQL	mg/Kg	J	Q
NICKEL	10.7		0.105	MDL	0.421	PQL	mg/Kg	J	Q
SILVER	0.0443	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z, Q
THALLIUM	0.265		0.0316	MDL	0.105	PQL	mg/Kg	J	Q
VANADIUM	47.6		0.0231	MDL	0.105	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-076-SA7-SS-0.0-0.5		<b>Collected:</b> 9/14/2011 8:20:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.112	J	0.0591	MDL	0.408	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-076-SA7-SS-0.0-0.5		<b>Collected:</b> 9/14/2011 8:20:00		<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.574		0.0510	MDL	0.102	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-076-SA7-SS-0.0-0.5		<b>Collected:</b> 9/14/2011 8:20:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.189	J	0.0755	MDL	0.204	PQL	mg/Kg	UJ	Q, B
BERYLLIUM	0.376		0.0163	MDL	0.102	PQL	mg/Kg	J	Q

\* 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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-076-SA7-SS-0.0-0.5      Collected: 9/14/2011 8:20:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.127		0.0449	MDL	0.102	PQL	mg/Kg	J	Q
CHROMIUM	21.9		0.122	MDL	0.408	PQL	mg/Kg	J	Q
COBALT	8.46		0.0204	MDL	0.102	PQL	mg/Kg	J	Q
COPPER	17.6		0.0816	MDL	0.408	PQL	mg/Kg	J	Q
NICKEL	13.0		0.102	MDL	0.408	PQL	mg/Kg	J	Q
SILVER	0.0176	J	0.0145	MDL	0.102	PQL	mg/Kg	J	Z, Q
THALLIUM	0.210		0.0306	MDL	0.102	PQL	mg/Kg	J	Q
VANADIUM	61.2		0.0224	MDL	0.102	PQL	mg/Kg	J	Q

Sample ID: SL-077-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.237	J	0.0575	MDL	0.397	PQL	mg/Kg	J	Z, Q

Sample ID: SL-077-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
MOLYBDENUM	0.855		0.0496	MDL	0.0991	PQL	mg/Kg	J	Q

Sample ID: SL-077-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.110	J	0.0734	MDL	0.198	PQL	mg/Kg	UJ	Q, B
BERYLLIUM	0.741		0.0159	MDL	0.0991	PQL	mg/Kg	J	Q
CADMIUM	0.142		0.0436	MDL	0.0991	PQL	mg/Kg	J	Q
CHROMIUM	18.0		0.119	MDL	0.397	PQL	mg/Kg	J	Q
COBALT	6.02		0.0198	MDL	0.0991	PQL	mg/Kg	J	Q
COPPER	8.26		0.0793	MDL	0.397	PQL	mg/Kg	J	Q
NICKEL	12.0		0.0991	MDL	0.397	PQL	mg/Kg	J	Q
SILVER	0.0374	J	0.0141	MDL	0.0991	PQL	mg/Kg	J	Z, Q
THALLIUM	0.298		0.0297	MDL	0.0991	PQL	mg/Kg	J	Q
VANADIUM	37.3		0.0218	MDL	0.0991	PQL	mg/Kg	J	Q

\* 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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-078-SA7-SS-0.0-0.5      Collected: 9/14/2011 10:00:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.215	J	0.0582	MDL	0.402	PQL	mg/Kg	J	Z, Q

Sample ID: SL-078-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
MOLYBDENUM	1.15		0.0502	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: SL-078-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.223		0.0743	MDL	0.201	PQL	mg/Kg	UJ	Q, B
BERYLLIUM	0.907		0.0161	MDL	0.100	PQL	mg/Kg	J	Q
CADMIUM	0.217		0.0442	MDL	0.100	PQL	mg/Kg	J	Q
CHROMIUM	21.5		0.120	MDL	0.402	PQL	mg/Kg	J	Q
COBALT	6.39		0.0201	MDL	0.100	PQL	mg/Kg	J	Q
COPPER	9.35		0.0803	MDL	0.402	PQL	mg/Kg	J	Q
NICKEL	12.5		0.100	MDL	0.402	PQL	mg/Kg	J	Q
SILVER	0.0404	J	0.0143	MDL	0.100	PQL	mg/Kg	J	Z, Q
THALLIUM	0.280		0.0301	MDL	0.100	PQL	mg/Kg	J	Q
VANADIUM	43.3		0.0221	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: SL-099-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.215	J	0.0587	MDL	0.405	PQL	mg/Kg	J	Z, Q

Sample ID: SL-099-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	1.16		0.0506	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-099-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.202	J	0.0748	MDL	0.202	PQL	mg/Kg	UJ	Q, 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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-099-SA7-SS-0.0-0.5	Collected: 9/14/2011 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
BERYLLIUM	0.866		0.0162	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.192		0.0445	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	20.1		0.121	MDL	0.405	PQL	mg/Kg	J	Q
COBALT	6.07		0.0202	MDL	0.101	PQL	mg/Kg	J	Q
COPPER	14.4		0.0809	MDL	0.405	PQL	mg/Kg	J	Q
NICKEL	13.6		0.101	MDL	0.405	PQL	mg/Kg	J	Q
SILVER	0.0454	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.286		0.0303	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	41.2		0.0222	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-144-SA7-SS-0.0-0.5	Collected: 9/14/2011 2:35:00	Analysis Type: REA2	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.114	J	0.0573	MDL	0.395	PQL	mg/Kg	J	Z, Q

Sample ID: SL-144-SA7-SS-0.0-0.5	Collected: 9/14/2011 2:35:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.88		0.0494	MDL	0.0988	PQL	mg/Kg	J	Q

Sample ID: SL-144-SA7-SS-0.0-0.5	Collected: 9/14/2011 2:35:00	Analysis Type: RES	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.178	J	0.0731	MDL	0.198	PQL	mg/Kg	UJ	Q, B
BERYLLIUM	0.581		0.0158	MDL	0.0988	PQL	mg/Kg	J	Q
CADMIUM	0.427		0.0435	MDL	0.0988	PQL	mg/Kg	J	Q
CHROMIUM	111		0.119	MDL	0.395	PQL	mg/Kg	J	Q
COBALT	7.50		0.0198	MDL	0.0988	PQL	mg/Kg	J	Q
COPPER	12.3		0.0790	MDL	0.395	PQL	mg/Kg	J	Q
NICKEL	59.5		0.0988	MDL	0.395	PQL	mg/Kg	J	Q
SILVER	0.101		0.0140	MDL	0.0988	PQL	mg/Kg	J	Q
THALLIUM	0.326		0.0296	MDL	0.0988	PQL	mg/Kg	J	Q
VANADIUM	43.8		0.0217	MDL	0.0988	PQL	mg/Kg	J	Q

\* 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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-145-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.150	J	0.0572	MDL	0.395	PQL	mg/Kg	J	Z, Q

Sample ID: SL-145-SA7-SS-0.0-0.5      Collected: 9/14/2011 1:55:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.621		0.0494	MDL	0.0987	PQL	mg/Kg	J	Q

Sample ID: SL-145-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.164	J	0.0730	MDL	0.197	PQL	mg/Kg	UJ	Q, B
BERYLLIUM	0.624		0.0158	MDL	0.0987	PQL	mg/Kg	J	Q
CADMIUM	0.149		0.0434	MDL	0.0987	PQL	mg/Kg	J	Q
CHROMIUM	22.0		0.118	MDL	0.395	PQL	mg/Kg	J	Q
COBALT	6.81		0.0197	MDL	0.0987	PQL	mg/Kg	J	Q
COPPER	9.68		0.0790	MDL	0.395	PQL	mg/Kg	J	Q
NICKEL	13.5		0.0987	MDL	0.395	PQL	mg/Kg	J	Q
SILVER	0.0383	J	0.0140	MDL	0.0987	PQL	mg/Kg	J	Z, Q
THALLIUM	0.332		0.0296	MDL	0.0987	PQL	mg/Kg	J	Q
VANADIUM	44.5		0.0217	MDL	0.0987	PQL	mg/Kg	J	Q

Sample ID: SL-183-SA7-SS-0.0-0.5      Collected: 9/14/2011 11:30:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.124	J	0.0582	MDL	0.401	PQL	mg/Kg	J	Z, Q

Sample ID: SL-183-SA7-SS-0.0-0.5      Collected: 9/14/2011 11:30:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.818		0.0502	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: SL-183-SA7-SS-0.0-0.5      Collected: 9/14/2011 11:30:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.205		0.0742	MDL	0.201	PQL	mg/Kg	UJ	Q, B

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category: METALS

Method: 6020

Matrix: SO

Sample ID: SL-183-SA7-SS-0.0-0.5

Collected: 9/14/2011 11:30:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.652		0.0161	MDL	0.100	PQL	mg/Kg	J	Q
CADMIUM	0.580		0.0441	MDL	0.100	PQL	mg/Kg	J	Q
CHROMIUM	20.3		0.120	MDL	0.401	PQL	mg/Kg	J	Q
COBALT	6.83		0.0201	MDL	0.100	PQL	mg/Kg	J	Q
COPPER	13.1		0.0803	MDL	0.401	PQL	mg/Kg	J	Q
NICKEL	14.1		0.100	MDL	0.401	PQL	mg/Kg	J	Q
SILVER	0.0693	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z, Q
THALLIUM	0.262		0.0301	MDL	0.100	PQL	mg/Kg	J	Q
VANADIUM	41.4		0.0221	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: SL-339-SA5B-SB-9.0-10.0

Collected: 9/14/2011 10:09:00

Analysis Type: REA2

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.150	J	0.0621	MDL	0.429	PQL	mg/Kg	J	Z, Q

Sample ID: SL-339-SA5B-SB-9.0-10.0

Collected: 9/14/2011 10:09:00

Analysis Type: REA3

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.991		0.0536	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-339-SA5B-SB-9.0-10.0

Collected: 9/14/2011 10:09:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.166	J	0.0793	MDL	0.214	PQL	mg/Kg	UJ	Q, B
BERYLLIUM	0.684		0.0171	MDL	0.107	PQL	mg/Kg	J	Q
CADMIUM	0.196		0.0471	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	22.8		0.129	MDL	0.429	PQL	mg/Kg	J	Q
COBALT	6.84		0.0214	MDL	0.107	PQL	mg/Kg	J	Q
COPPER	11.7		0.0857	MDL	0.429	PQL	mg/Kg	J	Q
NICKEL	14.1		0.107	MDL	0.429	PQL	mg/Kg	J	Q
SILVER	0.0520	J	0.0152	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.293		0.0321	MDL	0.107	PQL	mg/Kg	J	Q
VANADIUM	42.8		0.0236	MDL	0.107	PQL	mg/Kg	J	Q

\* 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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-340-SA5B-SB-9.0-10.0      Collected: 9/14/2011 8:38:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.175	J	0.0641	MDL	0.442	PQL	mg/Kg	J	Z, Q

Sample ID: SL-340-SA5B-SB-9.0-10.0      Collected: 9/14/2011 8:38:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.04		0.0553	MDL	0.111	PQL	mg/Kg	J	Q

Sample ID: SL-340-SA5B-SB-9.0-10.0      Collected: 9/14/2011 8:38:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.122	J	0.0818	MDL	0.221	PQL	mg/Kg	UJ	Q, B
BERYLLIUM	0.526		0.0177	MDL	0.111	PQL	mg/Kg	J	Q
CADMIUM	0.325		0.0486	MDL	0.111	PQL	mg/Kg	J	Q
CHROMIUM	19.8		0.133	MDL	0.442	PQL	mg/Kg	J	Q
COBALT	5.75		0.0221	MDL	0.111	PQL	mg/Kg	J	Q
COPPER	10.6		0.0884	MDL	0.442	PQL	mg/Kg	J	Q
NICKEL	13.1		0.111	MDL	0.442	PQL	mg/Kg	J	Q
SILVER	0.0417	J	0.0157	MDL	0.111	PQL	mg/Kg	J	Z, Q
THALLIUM	0.260		0.0332	MDL	0.111	PQL	mg/Kg	J	Q
VANADIUM	39.7		0.0243	MDL	0.111	PQL	mg/Kg	J	Q

<b>Method Category:</b>	METALS	
<b>Method:</b>	7199	<b>Matrix:</b> SO

Sample ID: SL-024-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.60	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-029-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:55:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.48	J	0.20	MDL	1.0	PQL	mg/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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7199</b>	<b>Matrix: SO</b>

<b>Sample ID: SL-032-SA7-SS-0.0-0.5</b>		<b>Collected: 9/14/2011 3:10:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.40	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

<b>Sample ID: SL-033-SA7-SS-0.0-0.5</b>		<b>Collected: 9/14/2011 1:35:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.38	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

<b>Sample ID: SL-036-SA7-SS-0.0-0.5</b>		<b>Collected: 9/14/2011 8:40:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.36	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

<b>Sample ID: SL-041-SA7-SB-4.0-5.0</b>		<b>Collected: 9/14/2011 12:36:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.56	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

<b>Sample ID: SL-071-SA7-SB-4.0-5.0</b>		<b>Collected: 9/14/2011 2:41:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.99	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

<b>Sample ID: SL-078-SA7-SS-0.0-0.5</b>		<b>Collected: 9/14/2011 10:00:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.60	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

<b>Sample ID: SL-144-SA7-SS-0.0-0.5</b>		<b>Collected: 9/14/2011 2:35:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.59	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

<b>Sample ID: SL-183-SA7-SS-0.0-0.5</b>		<b>Collected: 9/14/2011 11:30:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.56	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	7199	<b>Matrix:</b> SO

Sample ID: SL-339-SA5B-SB-9.0-10.0      Collected: 9/14/2011 10:09:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.47	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

<b>Method Category:</b>	METALS	
<b>Method:</b>	7471A	<b>Matrix:</b> SO

Sample ID: SL-024-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.0177	J	0.0068	MDL	0.0973	PQL	mg/Kg	U	B

Sample ID: SL-028-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:35:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0543	J	0.0072	MDL	0.102	PQL	mg/Kg	J	Z

Sample ID: SL-029-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:55:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0417	J	0.0067	MDL	0.0954	PQL	mg/Kg	J	Z

Sample ID: SL-032-SA7-SS-0.0-0.5      Collected: 9/14/2011 3:10:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0810	J	0.0068	MDL	0.0970	PQL	mg/Kg	J	Z

Sample ID: SL-033-SA7-SS-0.0-0.5      Collected: 9/14/2011 1:35:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0242	J	0.0067	MDL	0.0954	PQL	mg/Kg	J	Z

Sample ID: SL-036-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.0166	J	0.0070	MDL	0.0988	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	7471A	Matrix: SO

Sample ID: SL-038-SA7-SS-0.0-0.5	Collected: 9/14/2011 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
MERCURY	0.0193	J	0.0068	MDL	0.0963	PQL	mg/Kg	J	Z

Sample ID: SL-039-SA7-SS-0.0-0.5	Collected: 9/14/2011 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	0.0412	J	0.0070	MDL	0.0996	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA7-SS-0.0-0.5	Collected: 9/14/2011 8:20:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0451	J	0.0071	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-077-SA7-SS-0.0-0.5	Collected: 9/14/2011 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	0.0081	J	0.0070	MDL	0.0998	PQL	mg/Kg	J	Z

Sample ID: SL-078-SA7-SS-0.0-0.5	Collected: 9/14/2011 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
MERCURY	0.0115	J	0.0070	MDL	0.0989	PQL	mg/Kg	J	Z

Sample ID: SL-099-SA7-SS-0.0-0.5	Collected: 9/14/2011 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
MERCURY	0.0147	J	0.0071	MDL	0.102	PQL	mg/Kg	J	Z

Sample ID: SL-144-SA7-SS-0.0-0.5	Collected: 9/14/2011 2:35:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0210	J	0.0069	MDL	0.0985	PQL	mg/Kg	J	Z

Sample ID: SL-183-SA7-SS-0.0-0.5	Collected: 9/14/2011 11:30:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0309	J	0.0068	MDL	0.0967	PQL	mg/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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	7471A	Matrix: SO

Sample ID: SL-339-SA5B-SB-9.0-10.0      Collected: 9/14/2011 10:09:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0210	J	0.0072	MDL	0.103	PQL	mg/Kg	J	Z

Sample ID: SL-340-SA5B-SB-9.0-10.0      Collected: 9/14/2011 8:38:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0151	J	0.0075	MDL	0.106	PQL	mg/Kg	J	Z

Method Category:	SVOA	
Method:	1625C	Matrix: SO

Sample ID: SL-339-SA5B-SB-9.0-10.0      Collected: 9/14/2011 10:09:00      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	95.4		17.7	MDL	35.5	PQL	ng/Kg	J	Q, S

Method Category:	SVOA	
Method:	8015M	Matrix: AQ

Sample ID: EB-SA7-SS-091411      Collected: 9/14/2011 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
DIETHYLENE GLYCOL	20	U	20	MDL	200	PQL	mg/L	UJ	L, E
ETHYLENE GLYCOL	20	U	20	MDL	200	PQL	mg/L	UJ	L, E
Propylene glycol	20	U	20	MDL	200	PQL	mg/L	UJ	E

Sample ID: EB-SA7-SS-091411      Collected: 9/14/2011 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
EFH (C15-C20)	0.10	U	0.10	MDL	0.62	PQL	mg/L	UJ	E
EFH (C21-C30)	0.10	U	0.10	MDL	0.62	PQL	mg/L	UJ	E
EFH (C30-C40)	0.10	U	0.10	MDL	0.62	PQL	mg/L	UJ	L, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8015M	Matrix:	SO

Sample ID: SL-024-SA7-SS-0.0-0.5      Collected: 9/14/2011 11:00:00      Analysis Type: REA      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C12-C14)	0.40	U	0.40	MDL	1.2	PQL	mg/Kg	R	Q, S
EFH (C15-C20)	0.59	J	0.40	MDL	1.2	PQL	mg/Kg	J	Z, Q, Q, S
EFH (C21-C30)	6.1		0.40	MDL	1.2	PQL	mg/Kg	J	Q, Q, S
EFH (C30-C40)	15		0.40	MDL	1.2	PQL	mg/Kg	J	S
EFH (C8-C11)	0.40	U	0.40	MDL	1.2	PQL	mg/Kg	R	Q, S

Sample ID: SL-032-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
DIETHYLENE GLYCOL	5.0	U	5.0	MDL	10	PQL	mg/Kg	UJ	Q
ETHYLENE GLYCOL	5.0	U	5.0	MDL	10	PQL	mg/Kg	UJ	Q

Sample ID: SL-041-SA7-SB-4.0-5.0      Collected: 9/14/2011 12:36:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	1.3	J	0.42	MDL	1.3	PQL	mg/Kg	U	B

Sample ID: SL-076-SA7-SS-0.0-0.5      Collected: 9/14/2011 8:20:00      Analysis Type: REA      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	5.5	J	4.1	MDL	12	PQL	mg/Kg	J	Z

Sample ID: SL-078-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
EFH (C15-C20)	0.56	J	0.41	MDL	1.2	PQL	mg/Kg	U	B

Sample ID: SL-099-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
EFH (C12-C14)	0.41	U	0.41	MDL	1.2	PQL	mg/Kg	R	S
EFH (C15-C20)	0.41	U	0.41	MDL	1.2	PQL	mg/Kg	R	S
EFH (C21-C30)	2.5		0.41	MDL	1.2	PQL	mg/Kg	J	S
EFH (C30-C40)	9.2		0.41	MDL	1.2	PQL	mg/Kg	J	S
EFH (C8-C11)	0.41	U	0.41	MDL	1.2	PQL	mg/Kg	R	S

\* 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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8015M	Matrix:	SO

Sample ID: SL-339-SA5B-SB-9.0-10.0      Collected: 9/14/2011 10:09:00      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)	2.3	J	2.2	MDL	6.5	PQL	mg/Kg	J	Z

Sample ID: SL-340-SA5B-SB-9.0-10.0      Collected: 9/14/2011 8:38:00      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)	5.3	J	2.3	MDL	6.8	PQL	mg/Kg	J	Z

Method Category:	SVOA		
Method:	8081A	Matrix:	SO

Sample ID: SL-024-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
Chlordane	1.8	J	0.80	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-028-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:35:00      Analysis Type: DL-BASE/NEUTRAL      Dilution: 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	4.6	J	1.3	MDL	6.9	PQL	ug/Kg	J	Z

Sample ID: SL-032-SA7-SS-0.0-0.5      Collected: 9/14/2011 3:10:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	4.5	J	4.0	MDL	17	PQL	ug/Kg	J	Z

Sample ID: SL-033-SA7-SS-0.0-0.5      Collected: 9/14/2011 1:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.42	U	0.42	MDL	0.42	PQL	ug/Kg	UJ	S
ALDRIN	0.067	U	0.067	MDL	0.17	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	S
BETA-BHC	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	S
Chlordane	1.4	U	1.4	MDL	3.4	PQL	ug/Kg	UJ	S
DELTA-BHC	0.036	U	0.036	MDL	0.17	PQL	ug/Kg	UJ	S
DIELDRIN	0.47	U	0.47	MDL	0.47	PQL	ug/Kg	UJ	S

\* 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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8081A
		<b>Matrix:</b>	SO

Sample ID: SL-033-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
ENDOSULFAN I	0.044	U	0.044	MDL	0.17	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.17	U	0.17	MDL	0.34	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.067	U	0.067	MDL	0.34	PQL	ug/Kg	UJ	S
ENDRIN	0.15	U	0.15	MDL	0.34	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.21	U	0.21	MDL	0.34	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.067	U	0.067	MDL	0.34	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.15	U	0.15	MDL	0.17	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	UJ	S
MIREX	0.16	U	0.16	MDL	0.34	PQL	ug/Kg	UJ	S
TOXAPHENE	20	U	20	MDL	20	PQL	ug/Kg	UJ	S

Sample ID: SL-036-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
Chlordane	2.1	J	0.80	MDL	3.4	PQL	ug/Kg	J	Z
HEPTACHLOR EPOXIDE	0.060	J	0.034	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-039-SA7-SS-0.0-0.5      Collected: 9/14/2011 9:05:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN KETONE	0.29	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z

Sample ID: SL-076-SA7-SS-0.0-0.5      Collected: 9/14/2011 8:20:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDOSULFAN SULFATE	0.18	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z

Sample ID: SL-078-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
Chlordane	1.6	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.20	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8081A	Matrix:	SO

Sample ID: SL-099-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
Chlordane	1.1	J	0.81	MDL	3.5	PQL	ug/Kg	J	Z
DELTA-BHC	0.058	J	0.037	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-144-SA7-SS-0.0-0.5      Collected: 9/14/2011 2:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	1.8	J	0.80	MDL	3.4	PQL	ug/Kg	J	Z
DELTA-BHC	0.041	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-183-SA7-SS-0.0-0.5      Collected: 9/14/2011 11:30:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	9.4	J	4.0	MDL	17	PQL	ug/Kg	J	Z

Method Category:	SVOA		
Method:	8082	Matrix:	SO

Sample ID: SL-024-SA7-SS-0.0-0.5      Collected: 9/14/2011 11:00:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.0	U	1.0	MDL	3.3	PQL	ug/Kg	UJ	E
Aroclor 5442	1.0	U	1.0	MDL	3.3	PQL	ug/Kg	UJ	E
Aroclor 5460	3.6		1.0	MDL	3.3	PQL	ug/Kg	J	E

Sample ID: SL-028-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:35:00      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 1242	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	UJ	Q
AROCLOR 1248	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	UJ	Q
AROCLOR 1254	12		0.34	MDL	1.7	PQL	ug/Kg	J	Q
AROCLOR 1260	8.2		0.40	MDL	1.7	PQL	ug/Kg	J	Q, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA
<b>Method:</b>	8062
<b>Matrix:</b>	SO

Sample ID: SL-032-SA7-SS-0.0-0.5 Collected: 9/14/2011 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
AROCLOR 1254	25		0.33	MDL	1.7	PQL	ug/Kg	J	S
AROCLOR 1260	9.7		0.39	MDL	1.7	PQL	ug/Kg	J	S
Aroclor 5460	23		1.0	MDL	3.3	PQL	ug/Kg	J	S

Sample ID: SL-039-SA7-SS-0.0-0.5 Collected: 9/14/2011 9:05:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.80	J	0.34	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	2.1	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-076-SA7-SS-0.0-0.5 Collected: 9/14/2011 8:20:00 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	0.39	J	0.34	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-077-SA7-SS-0.0-0.5 Collected: 9/14/2011 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
Aroclor 5460	2.9	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-078-SA7-SS-0.0-0.5 Collected: 9/14/2011 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
Aroclor 5460	2.4	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-339-SA5B-SB-9.0-10.0 Collected: 9/14/2011 10:09:00 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	0.70	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-340-SA5B-SB-9.0-10.0 Collected: 9/14/2011 8:38:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.81	J	0.44	MDL	1.9	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8151A	Matrix: SO

Sample ID: SL-024-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
DINOSEB	1.6	U	1.6	MDL	4.8	PQL	ug/Kg	R	L

Sample ID: SL-028-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-029-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:55:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-032-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-033-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-036-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
DICAMBA	0.71	J	0.40	MDL	1.2	PQL	ug/Kg	J	Z
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-038-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

\* 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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8151A	Matrix: SO

Sample ID: SL-039-SA7-SS-0.0-0.5			Collected: 9/14/2011 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	
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L	

Sample ID: SL-076-SA7-SS-0.0-0.5			Collected: 9/14/2011 8:20:00			Analysis Type: RES-BASE/NEUTRAL			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L	

Sample ID: SL-077-SA7-SS-0.0-0.5			Collected: 9/14/2011 9:40:00			Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
DICAMBA	0.48	J	0.40	MDL	1.2	PQL	ug/Kg	J	Z	
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L	

Sample ID: SL-078-SA7-SS-0.0-0.5			Collected: 9/14/2011 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	
DICAMBA	0.61	J	0.40	MDL	1.2	PQL	ug/Kg	J	Z	
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L	

Sample ID: SL-099-SA7-SS-0.0-0.5			Collected: 9/14/2011 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	
DICAMBA	0.65	J	0.41	MDL	1.2	PQL	ug/Kg	J	Z	
DINOSEB	0.82	U	0.82	MDL	2.4	PQL	ug/Kg	R	L	

Sample ID: SL-144-SA7-SS-0.0-0.5			Collected: 9/14/2011 2:35:00			Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
DICAMBA	0.46	J	0.40	MDL	1.2	PQL	ug/Kg	J	Z	
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L	

Sample ID: SL-145-SA7-SS-0.0-0.5			Collected: 9/14/2011 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	
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8151A	Matrix: SO

Sample ID: SL-183-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
2,4,5-T	0.087	J	0.083	MDL	0.17	PQL	ug/Kg	J	Z
2,4,5-TP (Silvex)	0.16	J	0.076	MDL	0.17	PQL	ug/Kg	J	Z
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Method Category:	SVOA	
Method:	8270C	Matrix: SO

Sample ID: SL-024-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
BENZIDINE	1200	U	1200	MDL	3400	PQL	ug/Kg	R	Q

Sample ID: SL-032-SA7-SS-0.0-0.5      Collected: 9/14/2011 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(G,H,I)PERYLENE	18	J	17	MDL	170	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	91	J	17	MDL	330	PQL	ug/Kg	J	Z

Sample ID: SL-339-SA5B-SB-9.0-10.0      Collected: 9/14/2011 10:09:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	26	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-340-SA5B-SB-9.0-10.0      Collected: 9/14/2011 8:38:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORANTHENE	23	J	18	MDL	180	PQL	ug/Kg	J	Z

Method Category:	SVOA	
Method:	8270C SIM	Matrix: AQ

Sample ID: EB-SA7-SS-091411      Collected: 9/14/2011 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	0.11	J	0.051	MDL	1.0	PQL	ug/L	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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C SIM	<b>Matrix:</b> AQ

Sample ID: EB-SA7-SS-091411      Collected: 9/14/2011 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
Diethylphthalate	0.31	J	0.051	MDL	1.0	PQL	ug/L	J	Z
Di-n-butylphthalate	0.94	J	0.051	MDL	1.0	PQL	ug/L	J	Z

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C SIM	<b>Matrix:</b> SO

Sample ID: SL-024-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
ACENAPHTHYLENE	0.36	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.73	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.3	J	6.0	MDL	18	PQL	ug/Kg	J	Z
Di-n-octylphthalate	10	J	6.0	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.2	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.75	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-028-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.38	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.6	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.4	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	12	J	6.1	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.3	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.6	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-029-SA7-SS-0.0-0.5      Collected: 9/14/2011 7:55:00      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	0.45	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-032-SA7-SS-0.0-0.5      Collected: 9/14/2011 3:10:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	9.6	J	6.7	MDL	17	PQL	ug/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: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	#270C SIM	Matrix: SO

Sample ID: SL-032-SA7-SS-0.0-0.5      Collected: 9/14/2011 3:10:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORANTHENE	11	J	6.7	MDL	17	PQL	ug/Kg	J	Z
PYRENE	8.7	J	6.7	MDL	17	PQL	ug/Kg	J	Z

Sample ID: SL-033-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
ACENAPHTHYLENE	0.37	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.83	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.2	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	0.68	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.2	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	0.74	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.96	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	0.71	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-038-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
1-METHYLNAPHTHALENE	1.6	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
ACENAPHTHENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	14	J	6.0	MDL	18	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-039-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.91	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.95	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	9.2	J	6.2	MDL	18	PQL	ug/Kg	J	Z

Sample ID: SL-076-SA7-SS-0.0-0.5      Collected: 9/14/2011 8:20:00      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(B)FLUORANTHENE	1.2	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

1/19/2012 8:05:22 AM

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

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

**Sample ID:** SL-076-SA7-SS-0.0-0.5 **Collected:** 9/14/2011 8:20:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.48	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	0.77	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

**Sample ID:** SL-077-SA7-SS-0.0-0.5 **Collected:** 9/14/2011 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	0.67	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	0.46	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z

**Sample ID:** SL-078-SA7-SS-0.0-0.5 **Collected:** 9/14/2011 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(A)ANTHRACENE	0.96	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

**Sample ID:** SL-099-SA7-SS-0.0-0.5 **Collected:** 9/14/2011 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
ANTHRACENE	0.35	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.4	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	16	J	6.1	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.69	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

**Sample ID:** SL-144-SA7-SS-0.0-0.5 **Collected:** 9/14/2011 2:35:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	15	J	6.7	MDL	17	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	15	J	6.7	MDL	17	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	8.3	J	6.7	MDL	17	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	6.9	J	6.7	MDL	17	PQL	ug/Kg	J	Z
FLUORANTHENE	11	J	6.7	MDL	17	PQL	ug/Kg	J	Z
PYRENE	10	J	6.7	MDL	17	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	5270C SIM	Matrix: SO

Sample ID: SL-145-SA7-SS-0.0-0.5      Collected: 9/14/2011 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)ANTHRACENE	1.3	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.91	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.2	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	0.73	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.78	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.96	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-183-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
ACENAPHTHYLENE	0.47	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	1.2	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-339-SA5B-SB-9.0-10.0      Collected: 9/14/2011 10:09:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	1.1	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	1.6	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	1.6	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	1.6	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-340-SA5B-SB-9.0-10.0      Collected: 9/14/2011 8:38:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.85	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.1	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
ACENAPHTHENE	1.3	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.6	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.6	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.79	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
FLUORENE	1.4	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
NAPHTHALENE	0.96	J	0.75	MDL	1.9	PQL	ug/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: DE243

EDD Filename: PrepDE243\_v3

Laboratory: LL

eQAPP Name: CDM\_SSFL\_110509

\* denotes a non-reportable result

**Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling**

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# Data Qualifier Summary

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
*#	Professional Judgment
A	ICP Serial Dilution
B	Calibration Blank Contamination
B	Method Blank Contamination
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Lower Rejection
L	Laboratory Control Spike Upper Estimation
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Lower Estimation
S	Surrogate/Tracer Recovery Lower Rejection
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit
Z	Reporting Limit Trace Value

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE243

# Method Blank Outlier Report

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

**Method: 6010B**  
**Matrix: AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P26148AB222045	9/23/2011 8:45:00 PM	BORON MAGNESIUM STRONTIUM Zirconium	0.0172 mg/L 0.0198 mg/L 0.00038 mg/L 0.0048 mg/L	EB-SA7-SS-091411

*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
EB-SA7-SS-091411(REA2)	BORON	0.0114 mg/L	0.0114U mg/L
EB-SA7-SS-091411(REA2)	MAGNESIUM	0.0078 mg/L	0.0078U mg/L
EB-SA7-SS-091411(REA2)	STRONTIUM	0.00023 mg/L	0.00023U mg/L
EB-SA7-SS-091411(REA2)	Zirconium	0.0046 mg/L	0.0046U mg/L

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P25908BB221332	9/24/2011 1:32:00 PM	ALUMINUM BORON CALCIUM IRON PHOSPHORUS STRONTIUM TIN	9.04 mg/Kg 0.725 mg/Kg 13.9 mg/Kg 3.80 mg/Kg 1.52 mg/Kg 0.0820 mg/Kg 1.78 mg/Kg	SL-024-SA7-SS-0.0-0.5 SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-041-SA7-SB-4.0-5.0 SL-071-SA7-SB-4.0-5.0 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5 SL-339-SA5B-SB-9.0-10.0 SL-340-SA5B-SB-9.0-10.0
P25908BB222014	9/26/2011 8:14:00 PM	MAGNESIUM	0.639 mg/Kg	SL-024-SA7-SS-0.0-0.5 SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-041-SA7-SB-4.0-5.0 SL-071-SA7-SB-4.0-5.0 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5 SL-339-SA5B-SB-9.0-10.0 SL-340-SA5B-SB-9.0-10.0

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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*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-SA7-SS-0.0-0.5(RES)	TIN	3.11 mg/Kg	3.11U mg/Kg
SL-028-SA7-SS-0.0-0.5(RES)	TIN	2.66 mg/Kg	2.66U mg/Kg
SL-029-SA7-SS-0.0-0.5(RES)	TIN	2.84 mg/Kg	2.84U mg/Kg
SL-032-SA7-SS-0.0-0.5(RES)	BORON	3.45 mg/Kg	3.45U mg/Kg
SL-032-SA7-SS-0.0-0.5(RES)	TIN	2.76 mg/Kg	2.76U mg/Kg
SL-033-SA7-SS-0.0-0.5(RES)	TIN	2.88 mg/Kg	2.88U mg/Kg
SL-036-SA7-SS-0.0-0.5(RES)	BORON	3.14 mg/Kg	3.14U mg/Kg
SL-036-SA7-SS-0.0-0.5(RES)	TIN	3.01 mg/Kg	3.01U mg/Kg
SL-038-SA7-SS-0.0-0.5(RES)	TIN	3.01 mg/Kg	3.01U mg/Kg
SL-039-SA7-SS-0.0-0.5(RES)	TIN	2.58 mg/Kg	2.58U mg/Kg
SL-041-SA7-SB-4.0-5.0(RES)	TIN	2.98 mg/Kg	2.98U mg/Kg
SL-071-SA7-SB-4.0-5.0(RES)	BORON	3.31 mg/Kg	3.31U mg/Kg
SL-071-SA7-SB-4.0-5.0(RES)	TIN	3.11 mg/Kg	3.11U mg/Kg
SL-076-SA7-SS-0.0-0.5(RES)	TIN	2.34 mg/Kg	2.34U mg/Kg
SL-077-SA7-SS-0.0-0.5(RES)	TIN	2.82 mg/Kg	2.82U mg/Kg
SL-078-SA7-SS-0.0-0.5(RES)	TIN	3.28 mg/Kg	3.28U mg/Kg
SL-099-SA7-SS-0.0-0.5(RES)	BORON	3.24 mg/Kg	3.24U mg/Kg
SL-099-SA7-SS-0.0-0.5(RES)	TIN	4.26 mg/Kg	4.26U mg/Kg
SL-144-SA7-SS-0.0-0.5(RES)	BORON	3.16 mg/Kg	3.16U mg/Kg
SL-144-SA7-SS-0.0-0.5(RES)	TIN	3.04 mg/Kg	3.04U mg/Kg
SL-145-SA7-SS-0.0-0.5(RES)	BORON	2.84 mg/Kg	2.84U mg/Kg
SL-145-SA7-SS-0.0-0.5(RES)	TIN	3.02 mg/Kg	3.02U mg/Kg
SL-183-SA7-SS-0.0-0.5(RES)	TIN	2.94 mg/Kg	2.94U mg/Kg
SL-339-SA5B-SB-9.0-10.0(RES)	BORON	3.59 mg/Kg	3.59U mg/Kg
SL-339-SA5B-SB-9.0-10.0(RES)	TIN	2.70 mg/Kg	2.70U mg/Kg
SL-340-SA5B-SB-9.0-10.0(RES)	TIN	2.98 mg/Kg	2.98U mg/Kg

**Method: 7470A**  
**Matrix: AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P25913DB220822	9/19/2011 8:22:00 AM	MERCURY	0.000028 mg/L	EB-SA7-SS-091411

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

<b>Method:</b>	8015M
<b>Matrix:</b>	SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P68681AB322016A	9/26/2011 8:16:00 PM	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	0.42 mg/Kg 1.2 mg/Kg 1.5 mg/Kg	SL-041-SA7-SB-4.0-5.0 SL-078-SA7-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-041-SA7-SB-4.0-5.0(REA2)	EFH (C30-C40)	1.3 mg/Kg	1.3U mg/Kg
SL-078-SA7-SS-0.0-0.5(REA)	EFH (C15-C20)	0.56 mg/Kg	1.2U mg/Kg

<b>Method:</b>	8151A
<b>Matrix:</b>	SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P63633AB242132A	9/21/2011 9:32:00 PM	MCPP	100 ug/Kg	SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5

<b>Method:</b>	8270C SIM
<b>Matrix:</b>	AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWC26B260546	9/23/2011 5:46:00 AM	BIS(2-ETHYLHEXYL)PHTHALATE	0.064 ug/L	EB-SA7-SS-091411

*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
EB-SA7-SS-091411(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.11 ug/L	1.0U ug/L

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

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

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-SA7-SS-091411(REA2)	9/14/2011 2:00:00 PM	BORON MAGNESIUM STRONTIUM Zirconium	0.0114 mg/L 0.0078 mg/L 0.00023 mg/L 0.0046 mg/L	SL-024-SA7-SS-0.0-0.5 SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-041-SA7-SB-4.0-5.0 SL-071-SA7-SB-4.0-5.0 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5 SL-339-SA5B-SB-9.0-10.0 SL-340-SA5B-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-024-SA7-SS-0.0-0.5(RES)	BORON	3.97 mg/Kg	3.97U mg/Kg
SL-029-SA7-SS-0.0-0.5(RES)	BORON	4.63 mg/Kg	4.63U mg/Kg
SL-029-SA7-SS-0.0-0.5(RES)	Zirconium	2.26 mg/Kg	2.26U mg/Kg
SL-032-SA7-SS-0.0-0.5(RES)	BORON	3.45 mg/Kg	3.45U mg/Kg
SL-032-SA7-SS-0.0-0.5(RES)	Zirconium	2.29 mg/Kg	2.29U mg/Kg
SL-033-SA7-SS-0.0-0.5(RES)	BORON	4.82 mg/Kg	4.82U mg/Kg
SL-036-SA7-SS-0.0-0.5(RES)	BORON	3.14 mg/Kg	3.14U mg/Kg
SL-038-SA7-SS-0.0-0.5(RES)	BORON	3.97 mg/Kg	3.97U mg/Kg
SL-039-SA7-SS-0.0-0.5(RES)	BORON	4.33 mg/Kg	4.33U mg/Kg
SL-041-SA7-SB-4.0-5.0(RES)	BORON	5.28 mg/Kg	5.28U mg/Kg
SL-071-SA7-SB-4.0-5.0(RES)	BORON	3.31 mg/Kg	3.31U mg/Kg
SL-076-SA7-SS-0.0-0.5(RES)	BORON	4.83 mg/Kg	4.83U mg/Kg
SL-077-SA7-SS-0.0-0.5(RES)	BORON	4.09 mg/Kg	4.09U mg/Kg
SL-078-SA7-SS-0.0-0.5(RES)	BORON	4.50 mg/Kg	4.50U mg/Kg
SL-099-SA7-SS-0.0-0.5(RES)	BORON	3.24 mg/Kg	3.24U mg/Kg
SL-144-SA7-SS-0.0-0.5(RES)	BORON	3.16 mg/Kg	3.16U mg/Kg
SL-145-SA7-SS-0.0-0.5(RES)	BORON	2.84 mg/Kg	2.84U mg/Kg
SL-183-SA7-SS-0.0-0.5(RES)	BORON	4.56 mg/Kg	4.56U mg/Kg

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: DE243\_v3.

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-024-SA7-SS-0.0-0.5MSD (SL-024-SA7-SS-0.0-0.5)	ETHANOL Isopropanol METHANOL	- - -	- - -	48.00-130.00 12.00-149.00 43.00-138.00	71 (20.00) 107 (20.00) 79 (20.00)	ETHANOL Isopropanol METHANOL	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-032-SA7-SS-0.0-0.5MS (SL-032-SA7-SS-0.0-0.5)	DIETHYLENE GLYCOL ETHYLENE GLYCOL	35 61	30 58	59.00-109.00 63.00-107.00	- -	DIETHYLENE GLYCOL ETHYLENE GLYCOL	J(all detects) UJ(all non-detects)

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-024-SA7-SS-0.0-0.5MS (SL-024-SA7-SS-0.0-0.5)	2,4,5-T 2,4-D 2,4-DB DALAPON	- - 486 -	- - 517 -	10.00-156.00 17.00-180.00 10.00-201.00 10.00-125.00	131 (35.00) 50 (35.00) - 80 (50.00)	2,4,5-T 2,4-D 2,4-DB DALAPON	J(all detects)
SL-024-SA7-SS-0.0-0.5MS (SL-024-SA7-SS-0.0-0.5)	DINOSEB MCPP	6 -30	0 -28	10.00-46.00 10.00-184.00	200 (35.00) -	DINOSEB MCPP	J(all detects) R(all non-detects)

**Method: 8082**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-028-SA7-SS-0.0-0.5MSD (SL-028-SA7-SS-0.0-0.5)	AROCLOR 1260	-	9	39.00-149.00	57 (50.00)	AROCLOR 1260, AROCLOR 1242, AROCLOR 1248, AROCLOR 1254	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-024-SA7-SS-0.0-0.5MS (SL-024-SA7-SS-0.0-0.5)	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30) EFH (C30-C40) EFH (C8-C11)	0 -8 -118 -203 0	0 0 -175 -291 0	49.00-123.00 49.00-123.00 49.00-123.00 49.00-123.00 49.00-123.00	- 200 (20.00) 40 (20.00) 26 (20.00) -	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30) EFH (C30-C40) EFH (C8-C11)	J(all detects) R(all non-detects)  EFH (C30-C40) No Qual, >4x

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: DE243\_v3.

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-SA7-SS-0.0-0.5MS SL-024-SA7-SS-0.0-0.5MSD (SL-024-SA7-SS-0.0-0.5 SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-041-SA7-SB-4.0-5.0 SL-071-SA7-SB-4.0-5.0 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5 SL-339-SA5B-SB-9.0-10.0 SL-340-SA5B-SB-9.0-10.0)	BERYLLIUM CADMIUM CHROMIUM COBALT COPPER NICKEL SILVER THALLIUM VANADIUM	138 148 130 142 136 139 147 127 135	- 127 - 127 - - 129 - -	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	- - - - - - - - -	BERYLLIUM CADMIUM CHROMIUM COBALT COPPER NICKEL SILVER THALLIUM VANADIUM	J(all detects)
SL-024-SA7-SS-0.0-0.5MS SL-024-SA7-SS-0.0-0.5MSD (SL-024-SA7-SS-0.0-0.5 SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-041-SA7-SB-4.0-5.0 SL-071-SA7-SB-4.0-5.0 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5 SL-339-SA5B-SB-9.0-10.0 SL-340-SA5B-SB-9.0-10.0)	ANTIMONY ZINC	59 -	47 65	75.00-125.00 75.00-125.00	- -	ANTIMONY ZINC	J(all detects) UJ(all non-detects)  Zn No Qual, >4x
SL-024-SA7-SS-0.0-0.5MS (SL-024-SA7-SS-0.0-0.5 SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-041-SA7-SB-4.0-5.0 SL-071-SA7-SB-4.0-5.0 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5 SL-339-SA5B-SB-9.0-10.0 SL-340-SA5B-SB-9.0-10.0)	SELENIUM	128	-	75.00-125.00	-	SELENIUM	J(all detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE243  
 EDD Filename: DE243\_v3.

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-024-SA7-SS-0.0-0.5MS SL-024-SA7-SS-0.0-0.5MSD (SL-024-SA7-SS-0.0-0.5 SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-041-SA7-SB-4.0-5.0 SL-071-SA7-SB-4.0-5.0 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5 SL-339-SA5B-SB-9.0-10.0 SL-340-SA5B-SB-9.0-10.0)	MOLYBDENUM	148	130	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-024-SA7-SS-0.0-0.5MSD (SL-024-SA7-SS-0.0-0.5 SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-041-SA7-SB-4.0-5.0 SL-071-SA7-SB-4.0-5.0 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5 SL-339-SA5B-SB-9.0-10.0 SL-340-SA5B-SB-9.0-10.0)	BARIUM	-	58	75.00-125.00	-	BARIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: DE243\_v3.

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-SA7-SS-0.0-0.5MS SL-024-SA7-SS-0.0-0.5MSD (SL-024-SA7-SS-0.0-0.5 SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-041-SA7-SB-4.0-5.0 SL-071-SA7-SB-4.0-5.0 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5 SL-339-SA5B-SB-9.0-10.0 SL-340-SA5B-SB-9.0-10.0)	ALUMINUM CALCIUM MAGNESIUM POTASSIUM TITANIUM	1331 142 227 126 308	1236 - 207 - 241	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	ALUMINUM CALCIUM MAGNESIUM POTASSIUM TITANIUM	J(all detects)  Al, Ca, Mg, Ti No Qual, >4x
SL-024-SA7-SS-0.0-0.5MS SL-024-SA7-SS-0.0-0.5MSD (SL-024-SA7-SS-0.0-0.5 SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-041-SA7-SB-4.0-5.0 SL-071-SA7-SB-4.0-5.0 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5 SL-339-SA5B-SB-9.0-10.0 SL-340-SA5B-SB-9.0-10.0)	IRON	627	5	75.00-125.00	-	IRON	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-024-SA7-SS-0.0-0.5MS SL-024-SA7-SS-0.0-0.5MSD (SL-024-SA7-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: DE243

Laboratory: LL

EDD Filename: DE243\_v3.

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-028-SA7-SS-0.0-0.5MS SL-028-SA7-SS-0.0-0.5MSD (SL-028-SA7-SS-0.0-0.5)	N-NITROSODIMETHYLAMINE	353	353	48.00-113.00	-	N-NITROSODIMETHYLAMINE	J(all detects)

**Method: 300.0**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-024-SA7-SS-0.0-0.5MS (SL-024-SA7-SS-0.0-0.5 SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5)	FLUORIDE	66	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-078-SA7-SS-0.0-0.5MS (SL-041-SA7-SB-4.0-5.0 SL-071-SA7-SB-4.0-5.0 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5 SL-339-SA5B-SB-9.0-10.0 SL-340-SA5B-SB-9.0-10.0)	FLUORIDE	59	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

**Method: 1625C**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-339-SA5B-SB-9.0-10.0MS SL-339-SA5B-SB-9.0-10.0MSD (SL-339-SA5B-SB-9.0-10.0)	N-NITROSODIMETHYLAMINE	55	44	70.00-130.00	-	N-NITROSODIMETHYLAMINE	J(all detects) UJ(all non-detects)

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

**Method: 7199**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-071-SA7-SB-4.0-5.0DUP (SL-024-SA7-SS-0.0-0.5 SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-041-SA7-SB-4.0-5.0 SL-071-SA7-SB-4.0-5.0 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5 SL-339-SA5B-SB-9.0-10.0 SL-340-SA5B-SB-9.0-10.0)	HEXAVALENT CHROMIUM	61	20.00	No Qual, OK by Difference

**Method: 300.0**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-024-SA7-SS-0.0-0.5DUP (SL-024-SA7-SS-0.0-0.5 SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5)	FLUORIDE Nitrate-NO3	200 24	20.00 20.00	No Qual, OK by Difference

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method: 7471A  
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-024-SA7-SS-0.0-0.5DUP (SL-024-SA7-SS-0.0-0.5 SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-041-SA7-SB-4.0-5.0 SL-071-SA7-SB-4.0-5.0 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5 SL-339-SA5B-SB-9.0-10.0 SL-340-SA5B-SB-9.0-10.0)	MERCURY	30	20.00	No Qual, OK by Difference

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

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
P12607AQ322215A P12607AY322239A (EB-SA7-SS-091411)	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	- - 65	- - -	77.00-125.00 68.00-124.00 80.00-121.00	32 (30.00) 33 (30.00) 36 (30.00)	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	J (all detects) UJ (all non-detects)
P12635AQ321345A P12635AY321358A (EB-SA7-SS-091411)	DIETHYLENE GLYCOL ETHYLENE GLYCOL	- -	75 79	78.00-126.00 80.00-124.00	50 (20.00) 42 (20.00)	DIETHYLENE GLYCOL ETHYLENE GLYCOL	J(all detects) UJ(all non-detects)

**Method: 3151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12633AQ242159A (SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5)	DINOSEB	5	-	10.00-36.00	-	DINOSEB	J(all detects) R(all non-detects)
P12675AQ241549A (SL-024-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5)	DINOSEB	4	-	10.00-36.00	-	DINOSEB	J(all detects) R(all non-detects)

**Method: 8082**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12673AQ241102A P12673AY241120A (SL-024-SA7-SS-0.0-0.5)	Aroclor 5442	118	-	36.00-106.00	40 (30.00)	Aroclor 5442 Aroclor 5432 Aroclor 5460	J(all detects) UJ(all non-detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

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
P25926AQ220930A (SL-024-SA7-SS-0.0-0.5 SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-041-SA7-SB-4.0-5.0 SL-071-SA7-SB-4.0-5.0 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5 SL-339-SA5B-SB-9.0-10.0 SL-340-SA5B-SB-9.0-10.0)	VANADIUM	122	-	80.00-120.00	-	VANADIUM	No Qual, SRM within QC limits

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

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P25908BQ221336 P25908BQ222018 (SL-024-SA7-SS-0.0-0.5 SL-028-SA7-SS-0.0-0.5 SL-029-SA7-SS-0.0-0.5 SL-032-SA7-SS-0.0-0.5 SL-033-SA7-SS-0.0-0.5 SL-036-SA7-SS-0.0-0.5 SL-038-SA7-SS-0.0-0.5 SL-039-SA7-SS-0.0-0.5 SL-041-SA7-SB-4.0-5.0 SL-071-SA7-SB-4.0-5.0 SL-076-SA7-SS-0.0-0.5 SL-077-SA7-SS-0.0-0.5 SL-078-SA7-SS-0.0-0.5 SL-099-SA7-SS-0.0-0.5 SL-144-SA7-SS-0.0-0.5 SL-145-SA7-SS-0.0-0.5 SL-183-SA7-SS-0.0-0.5 SL-339-SA5B-SB-9.0-10.0 SL-340-SA5B-SB-9.0-10.0)	ALUMINUM MAGNESIUM	142 131	- -	80.00-120.00 80.00-120.00	- -	ALUMINUM MAGNESIUM	No Qual, SRM within QC limits

# Surrogate Outlier Report

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

**Method:** 1625C  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-339-SA5B-SB-9.0-10.0	N-Nitrosodimethylamine-d6	162	50.00-150.00	All Target Analytes	J(all detects)
SL-340-SA5B-SB-9.0-10.0	N-Nitrosodimethylamine-d6	159	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-024-SA7-SS-0.0-0.5	n-Triacontane-d62	346	19.00-152.00	All Target Analytes	J (all detects)
	ACETONE	141	42.00-138.00		
SL-076-SA7-SS-0.0-0.5	n-Triacontane-d62	302	19.00-152.00	All Target Analytes	J(all detects)
SL-099-SA7-SS-0.0-0.5	ACETONE	145	42.00-138.00	All Target Analytes	J(all detects)

**Method:** 8015M  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-024-SA7-SS-0.0-0.5	CHLOROBENZENE	33	37.00-125.00	All Target Analytes	J(all detects) UJ(all non-detects)
	O-TERPHENYL	39	47.00-145.00		
SL-099-SA7-SS-0.0-0.5	CHLOROBENZENE	6	37.00-125.00	All Target Analytes	J(all detects) R(all non-detects)
	O-TERPHENYL	9	47.00-145.00		

**Method:** 8081A  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-033-SA7-SS-0.0-0.5	TETRACHLORO-M-XYLENE	48	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-038-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	123	20.00-120.00	All Target Analytes	No Qual, Diluted Out

**Method:** 8082  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-032-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	262	45.00-120.00	All Target Analytes	J(all detects)

# Surrogate Outlier Report

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

Method: 8151A  
Matrix: SO

<i>Sample ID</i>	<i>Surrogate</i>	<i>Sample % Recovery</i>	<i>% Recovery Limits</i>	<i>Affected Compounds</i>	<i>Flag</i>
SL-029-SA7-SS-0.0-0.5	2,4-Dichlorophenylacetic acid	225	36.00-156.00	All Target Analytes	J(all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6010B  
**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SS-091411	BORON	J	0.0114	0.0500	PQL	mg/L	J (all detects)
	MAGNESIUM	J	0.0078	0.100	PQL	mg/L	
	STRONTIUM	J	0.00023	0.0050	PQL	mg/L	
	Zirconium	J	0.0046	0.0500	PQL	mg/L	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SS-091411	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.11	1.0	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.31	1.0	PQL	ug/L	
	Di-n-butylphthalate	J	0.94	1.0	PQL	ug/L	

**Method:** 300.0  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-032-SA7-SS-0.0-0.5	Nitrate-NO3	J	1.1	1.5	PQL	mg/Kg	J (all detects)
SL-183-SA7-SS-0.0-0.5	FLUORIDE	J	0.97	1.0	PQL	mg/Kg	J (all detects)
SL-340-SA5B-SB-9.0-10.0	Nitrate-NO3	J	0.91	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-SA7-SB-4.0-5.0	BORON		5.28	5.12	PQL	mg/Kg	
SL-024-SA7-SS-0.0-0.5	BORON	J	3.97	5.01	PQL	mg/Kg	J (all detects)
	SODIUM	J	83.2	100	PQL	mg/Kg	
	TIN	J	3.11	10.0	PQL	mg/Kg	
	Zirconium	J	2.43	5.01	PQL	mg/Kg	
SL-028-SA7-SS-0.0-0.5	TIN	J	2.66	10.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.12	5.01	PQL	mg/Kg	
SL-029-SA7-SS-0.0-0.5	BORON	J	4.63	5.02	PQL	mg/Kg	J (all detects)
	TIN	J	2.84	10.0	PQL	mg/Kg	
	Zirconium	J	2.26	5.02	PQL	mg/Kg	
SL-032-SA7-SS-0.0-0.5	BORON	J	3.45	5.05	PQL	mg/Kg	J (all detects)
	TIN	J	2.76	10.1	PQL	mg/Kg	
	Zirconium	J	2.29	5.05	PQL	mg/Kg	
SL-033-SA7-SS-0.0-0.5	BORON	J	4.82	4.97	PQL	mg/Kg	J (all detects)
	SODIUM	J	90.3	99.4	PQL	mg/Kg	
	TIN	J	2.88	9.94	PQL	mg/Kg	
	Zirconium	J	3.16	4.97	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA7-SS-0.0-0.5	BORON	J	3.14	4.99	PQL	mg/Kg	J (all detects)
	SODIUM	J	88.4	99.8	PQL	mg/Kg	
	TIN	J	3.01	9.98	PQL	mg/Kg	
	Zirconium	J	2.96	4.99	PQL	mg/Kg	
SL-038-SA7-SS-0.0-0.5	BORON	J	3.97	4.86	PQL	mg/Kg	J (all detects)
	SODIUM	J	74.3	97.1	PQL	mg/Kg	
	TIN	J	3.01	9.71	PQL	mg/Kg	
	Zirconium	J	2.59	4.86	PQL	mg/Kg	
SL-039-SA7-SS-0.0-0.5	BORON	J	4.33	5.14	PQL	mg/Kg	J (all detects)
	TIN	J	2.58	10.3	PQL	mg/Kg	
SL-041-SA7-SB-4.0-5.0	TIN	J	2.98	10.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.03	5.12	PQL	mg/Kg	
SL-071-SA7-SB-4.0-5.0	BORON	J	3.31	5.11	PQL	mg/Kg	J (all detects)
	TIN	J	3.11	10.2	PQL	mg/Kg	
	Zirconium	J	2.76	5.11	PQL	mg/Kg	
SL-076-SA7-SS-0.0-0.5	BORON	J	4.83	4.95	PQL	mg/Kg	J (all detects)
	TIN	J	2.34	9.90	PQL	mg/Kg	
SL-077-SA7-SS-0.0-0.5	BORON	J	4.09	4.96	PQL	mg/Kg	J (all detects)
	SODIUM	J	67.6	99.1	PQL	mg/Kg	
	TIN	J	2.82	9.91	PQL	mg/Kg	
	Zirconium	J	2.73	4.96	PQL	mg/Kg	
SL-078-SA7-SS-0.0-0.5	BORON	J	4.50	5.02	PQL	mg/Kg	J (all detects)
	SODIUM	J	66.6	100	PQL	mg/Kg	
	TIN	J	3.28	10.0	PQL	mg/Kg	
	Zirconium	J	3.38	5.02	PQL	mg/Kg	
SL-099-SA7-SS-0.0-0.5	BORON	J	3.24	5.01	PQL	mg/Kg	J (all detects)
	SODIUM	J	65.5	100	PQL	mg/Kg	
	TIN	J	4.26	10.0	PQL	mg/Kg	
	Zirconium	J	3.18	5.01	PQL	mg/Kg	
SL-144-SA7-SS-0.0-0.5	BORON	J	3.16	4.94	PQL	mg/Kg	J (all detects)
	SODIUM	J	82.1	98.8	PQL	mg/Kg	
	TIN	J	3.04	9.88	PQL	mg/Kg	
	Zirconium	J	2.51	4.94	PQL	mg/Kg	
SL-145-SA7-SS-0.0-0.5	BORON	J	2.84	4.98	PQL	mg/Kg	J (all detects)
	SODIUM	J	85.7	99.7	PQL	mg/Kg	
	TIN	J	3.02	9.97	PQL	mg/Kg	
	Zirconium	J	2.90	4.98	PQL	mg/Kg	
SL-183-SA7-SS-0.0-0.5	BORON	J	4.56	5.07	PQL	mg/Kg	J (all detects)
	TIN	J	2.94	10.1	PQL	mg/Kg	
	Zirconium	J	2.89	5.07	PQL	mg/Kg	
SL-339-SA5B-SB-9.0-10.0	BORON	J	3.59	5.20	PQL	mg/Kg	J (all detects)
	TIN	J	2.70	10.4	PQL	mg/Kg	
	Zirconium	J	0.844	5.20	PQL	mg/Kg	
SL-340-SA5B-SB-9.0-10.0	BORON	J	5.12	5.58	PQL	mg/Kg	J (all detects)
	TIN	J	2.98	11.2	PQL	mg/Kg	
	Zirconium	J	3.78	5.58	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.208	0.397	PQL	mg/Kg	J (all detects)
		J	0.0473	0.0991	PQL	mg/Kg	
SL-028-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.112	0.196	PQL	mg/Kg	J (all detects)
		J	0.0791	0.393	PQL	mg/Kg	
		J	0.0389	0.0982	PQL	mg/Kg	
SL-029-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.0949	0.201	PQL	mg/Kg	J (all detects)
		J	0.124	0.401	PQL	mg/Kg	
		J	0.0266	0.100	PQL	mg/Kg	
SL-032-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.151	0.388	PQL	mg/Kg	J (all detects)
		J	0.0836	0.0971	PQL	mg/Kg	
SL-033-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.158	0.402	PQL	mg/Kg	J (all detects)
		J	0.0712	0.100	PQL	mg/Kg	
SL-036-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.0896	0.200	PQL	mg/Kg	J (all detects)
		J	0.225	0.399	PQL	mg/Kg	
		J	0.0302	0.0998	PQL	mg/Kg	
SL-038-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.155	0.389	PQL	mg/Kg	J (all detects)
		J	0.0497	0.0971	PQL	mg/Kg	
SL-039-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.0874	0.205	PQL	mg/Kg	J (all detects)
		J	0.0723	0.411	PQL	mg/Kg	
		J	0.0161	0.103	PQL	mg/Kg	
SL-041-SA7-SB-4.0-5.0	CADMIUM SELENIUM SILVER	J	0.0779	0.102	PQL	mg/Kg	J (all detects)
		J	0.116	0.410	PQL	mg/Kg	
		J	0.0887	0.102	PQL	mg/Kg	
SL-071-SA7-SB-4.0-5.0	SELENIUM SILVER	J	0.149	0.421	PQL	mg/Kg	J (all detects)
		J	0.0443	0.105	PQL	mg/Kg	
SL-076-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.189	0.204	PQL	mg/Kg	J (all detects)
		J	0.112	0.408	PQL	mg/Kg	
		J	0.0176	0.102	PQL	mg/Kg	
SL-077-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.110	0.198	PQL	mg/Kg	J (all detects)
		J	0.237	0.397	PQL	mg/Kg	
		J	0.0374	0.0991	PQL	mg/Kg	
SL-078-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.215	0.402	PQL	mg/Kg	J (all detects)
		J	0.0404	0.100	PQL	mg/Kg	
SL-099-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.215	0.405	PQL	mg/Kg	J (all detects)
		J	0.0454	0.101	PQL	mg/Kg	
SL-144-SA7-SS-0.0-0.5	ANTIMONY SELENIUM	J	0.178	0.198	PQL	mg/Kg	J (all detects)
		J	0.114	0.395	PQL	mg/Kg	
SL-145-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.164	0.197	PQL	mg/Kg	J (all detects)
		J	0.150	0.395	PQL	mg/Kg	
		J	0.0383	0.0987	PQL	mg/Kg	
SL-183-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.124	0.401	PQL	mg/Kg	J (all detects)
		J	0.0693	0.100	PQL	mg/Kg	
SL-339-SA5B-SB-9.0-10.0	ANTIMONY SELENIUM SILVER	J	0.166	0.214	PQL	mg/Kg	J (all detects)
		J	0.150	0.429	PQL	mg/Kg	
		J	0.0520	0.107	PQL	mg/Kg	
SL-340-SA5B-SB-9.0-10.0	ANTIMONY SELENIUM SILVER	J	0.122	0.221	PQL	mg/Kg	J (all detects)
		J	0.175	0.442	PQL	mg/Kg	
		J	0.0417	0.111	PQL	mg/Kg	

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7199

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.60	1.0	PQL	mg/Kg	J (all detects)
SL-029-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.48	1.0	PQL	mg/Kg	J (all detects)
SL-032-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.40	1.0	PQL	mg/Kg	J (all detects)
SL-033-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.38	1.0	PQL	mg/Kg	J (all detects)
SL-036-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.36	1.0	PQL	mg/Kg	J (all detects)
SL-041-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.56	1.1	PQL	mg/Kg	J (all detects)
SL-071-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.99	1.1	PQL	mg/Kg	J (all detects)
SL-078-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.60	1.0	PQL	mg/Kg	J (all detects)
SL-144-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.59	1.0	PQL	mg/Kg	J (all detects)
SL-183-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.56	1.0	PQL	mg/Kg	J (all detects)
SL-339-SA5B-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.47	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-SA7-SS-0.0-0.5	MERCURY	J	0.0177	0.0973	PQL	mg/Kg	J (all detects)
SL-028-SA7-SS-0.0-0.5	MERCURY	J	0.0543	0.102	PQL	mg/Kg	J (all detects)
SL-029-SA7-SS-0.0-0.5	MERCURY	J	0.0417	0.0954	PQL	mg/Kg	J (all detects)
SL-032-SA7-SS-0.0-0.5	MERCURY	J	0.0810	0.0970	PQL	mg/Kg	J (all detects)
SL-033-SA7-SS-0.0-0.5	MERCURY	J	0.0242	0.0954	PQL	mg/Kg	J (all detects)
SL-036-SA7-SS-0.0-0.5	MERCURY	J	0.0166	0.0988	PQL	mg/Kg	J (all detects)
SL-038-SA7-SS-0.0-0.5	MERCURY	J	0.0193	0.0963	PQL	mg/Kg	J (all detects)
SL-039-SA7-SS-0.0-0.5	MERCURY	J	0.0412	0.0996	PQL	mg/Kg	J (all detects)
SL-076-SA7-SS-0.0-0.5	MERCURY	J	0.0451	0.101	PQL	mg/Kg	J (all detects)
SL-077-SA7-SS-0.0-0.5	MERCURY	J	0.0081	0.0998	PQL	mg/Kg	J (all detects)
SL-078-SA7-SS-0.0-0.5	MERCURY	J	0.0115	0.0989	PQL	mg/Kg	J (all detects)
SL-099-SA7-SS-0.0-0.5	MERCURY	J	0.0147	0.102	PQL	mg/Kg	J (all detects)
SL-144-SA7-SS-0.0-0.5	MERCURY	J	0.0210	0.0985	PQL	mg/Kg	J (all detects)
SL-183-SA7-SS-0.0-0.5	MERCURY	J	0.0309	0.0967	PQL	mg/Kg	J (all detects)
SL-339-SA5B-SB-9.0-10.0	MERCURY	J	0.0210	0.103	PQL	mg/Kg	J (all detects)
SL-340-SA5B-SB-9.0-10.0	MERCURY	J	0.0151	0.106	PQL	mg/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

**Method: 8015M**  
**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA7-SS-0.0-0.5	EFH (C15-C20)	J	0.59	1.2	PQL	mg/Kg	J (all detects)
SL-076-SA7-SS-0.0-0.5	EFH (C15-C20)	J	5.5	12	PQL	mg/Kg	J (all detects)
SL-078-SA7-SS-0.0-0.5	EFH (C15-C20)	J	0.56	1.2	PQL	mg/Kg	J (all detects)
SL-339-SA5B-SB-9.0-10.0	EFH (C15-C20)	J	2.3	6.5	PQL	mg/Kg	J (all detects)
SL-340-SA5B-SB-9.0-10.0	EFH (C15-C20)	J	5.3	6.8	PQL	mg/Kg	J (all detects)

**Method: 8081A**  
**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA7-SS-0.0-0.5	Chlordane	J	1.8	3.4	PQL	ug/Kg	J (all detects)
SL-028-SA7-SS-0.0-0.5	4,4'-DDT	J	4.6	6.9	PQL	ug/Kg	J (all detects)
SL-032-SA7-SS-0.0-0.5	Chlordane	J	4.5	17	PQL	ug/Kg	J (all detects)
SL-036-SA7-SS-0.0-0.5	Chlordane HEPTACHLOR EPOXIDE	J J	2.1 0.060	3.4 0.17	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-039-SA7-SS-0.0-0.5	ENDRIN KETONE	J	0.29	0.35	PQL	ug/Kg	J (all detects)
SL-076-SA7-SS-0.0-0.5	ENDOSULFAN SULFATE	J	0.18	0.35	PQL	ug/Kg	J (all detects)
SL-078-SA7-SS-0.0-0.5	Chlordane ENDRIN ALDEHYDE	J J	1.6 0.20	3.4 0.34	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-099-SA7-SS-0.0-0.5	Chlordane DELTA-BHC	J J	1.1 0.058	3.5 0.17	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-144-SA7-SS-0.0-0.5	Chlordane DELTA-BHC	J J	1.8 0.041	3.4 0.17	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-183-SA7-SS-0.0-0.5	Chlordane	J	9.4	17	PQL	ug/Kg	J (all detects)

**Method: 8082**  
**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-039-SA7-SS-0.0-0.5	AROCLOR 1254 Aroclor 5460	J J	0.80 2.1	1.8 3.4	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-076-SA7-SS-0.0-0.5	AROCLOR 1254	J	0.39	1.8	PQL	ug/Kg	J (all detects)
SL-077-SA7-SS-0.0-0.5	Aroclor 5460	J	2.9	3.3	PQL	ug/Kg	J (all detects)
SL-078-SA7-SS-0.0-0.5	Aroclor 5460	J	2.4	3.3	PQL	ug/Kg	J (all detects)
SL-339-SA5B-SB-9.0-10.0	AROCLOR 1260	J	0.70	1.8	PQL	ug/Kg	J (all detects)
SL-340-SA5B-SB-9.0-10.0	AROCLOR 1260	J	0.81	1.9	PQL	ug/Kg	J (all detects)

## Reporting Limit Outliers

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8151A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-036-SA7-SS-0.0-0.5	DICAMBA	J	0.71	1.2	PQL	ug/Kg	J (all detects)
SL-077-SA7-SS-0.0-0.5	DICAMBA	J	0.48	1.2	PQL	ug/Kg	J (all detects)
SL-078-SA7-SS-0.0-0.5	DICAMBA	J	0.61	1.2	PQL	ug/Kg	J (all detects)
SL-099-SA7-SS-0.0-0.5	DICAMBA	J	0.65	1.2	PQL	ug/Kg	J (all detects)
SL-144-SA7-SS-0.0-0.5	DICAMBA	J	0.46	1.2	PQL	ug/Kg	J (all detects)
SL-183-SA7-SS-0.0-0.5	2,4,5-T 2,4,5-TP (Silvex)	J J	0.087 0.16	0.17 0.17	PQL PQL	ug/Kg ug/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-032-SA7-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	18	170	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	91	330	PQL	ug/Kg	J (all detects)
SL-339-SA5B-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	26	360	PQL	ug/Kg	J (all detects)
SL-340-SA5B-SB-9.0-10.0	FLUORANTHENE	J	23	180	PQL	ug/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA7-SS-0.0-0.5	ACENAPHTHYLENE	J	0.36	1.7	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.73	1.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	6.3	18	PQL	ug/Kg	
	Di-n-octylphthalate	J	10	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.2	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.75	1.7	PQL	ug/Kg	
SL-028-SA7-SS-0.0-0.5	ANTHRACENE	J	0.38	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.6	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.4	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	12	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.3	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.6	1.7	PQL	ug/Kg	
SL-029-SA7-SS-0.0-0.5	CHRYSENE	J	0.45	1.7	PQL	ug/Kg	J (all detects)
SL-032-SA7-SS-0.0-0.5	BENZO(A)PYRENE	J	9.6	17	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	11	17	PQL	ug/Kg	
	PYRENE	J	8.7	17	PQL	ug/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-033-SA7-SS-0.0-0.5	ACENAPHTHYLENE	J	0.37	1.7	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.83	1.7	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.2	1.7	PQL	ug/Kg	
	CHRYSENE	J	0.68	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.2	1.7	PQL	ug/Kg	
	FLUORENE	J	0.74	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.96	1.7	PQL	ug/Kg	
SL-038-SA7-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	1.6	1.7	PQL	ug/Kg	J (all detects)
ACENAPHTHENE	J	1.0	1.7	PQL	ug/Kg		
Butylbenzylphthalate	J	14	18	PQL	ug/Kg		
DIBENZO(A,H)ANTHRACENE	J	1.4	1.7	PQL	ug/Kg		
SL-039-SA7-SS-0.0-0.5	FLUORENE	J	1.4	1.7	PQL	ug/Kg	J (all detects)
BENZO(A)ANTHRACENE	J	0.91	1.7	PQL	ug/Kg		
	BENZO(G,H,I)PERYLENE	J	0.95	1.7	PQL	ug/Kg	
SL-076-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.2	18	PQL	ug/Kg	J (all detects)
BENZO(B)FLUORANTHENE	J	1.2	1.7	PQL	ug/Kg		
	CHRYSENE	J	0.48	1.7	PQL	ug/Kg	
SL-077-SA7-SS-0.0-0.5	FLUORANTHENE	J	0.77	1.7	PQL	ug/Kg	J (all detects)
BENZO(B)FLUORANTHENE	J	1.1	1.7	PQL	ug/Kg		
	CHRYSENE	J	0.46	1.7	PQL	ug/Kg	J (all detects)
BENZO(A)ANTHRACENE	J	0.96	1.7	PQL	ug/Kg		
	BENZO(A)PYRENE	J	1.1	1.7	PQL	ug/Kg	
BENZO(K)FLUORANTHENE	J	1.2	1.7	PQL	ug/Kg		
SL-099-SA7-SS-0.0-0.5	PHENANTHRENE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
ANTHRACENE	J	0.35	1.7	PQL	ug/Kg		
	BENZO(A)ANTHRACENE	J	1.4	1.7	PQL	ug/Kg	
BIS(2-ETHYLHEXYL)PHTHALATE	J	16	18	PQL	ug/Kg		
SL-144-SA7-SS-0.0-0.5	INDENO(1,2,3-CD)PYRENE	J	0.69	1.7	PQL	ug/Kg	J (all detects)
BENZO(A)PYRENE	J	15	17	PQL	ug/Kg		
	BENZO(G,H,I)PERYLENE	J	15	17	PQL	ug/Kg	
BENZO(K)FLUORANTHENE	J	8.3	17	PQL	ug/Kg		
DIBENZO(A,H)ANTHRACENE	J	6.9	17	PQL	ug/Kg		
FLUORANTHENE	J	11	17	PQL	ug/Kg		
SL-145-SA7-SS-0.0-0.5	PYRENE	J	10	17	PQL	ug/Kg	J (all detects)
BENZO(A)ANTHRACENE	J	1.3	1.7	PQL	ug/Kg		
	BENZO(G,H,I)PERYLENE	J	0.91	1.7	PQL	ug/Kg	
BENZO(K)FLUORANTHENE	J	1.2	1.7	PQL	ug/Kg		
FLUORENE	J	0.73	1.7	PQL	ug/Kg		
INDENO(1,2,3-CD)PYRENE	J	0.78	1.7	PQL	ug/Kg		
SL-183-SA7-SS-0.0-0.5	NAPHTHALENE	J	0.96	1.7	PQL	ug/Kg	J (all detects)
ACENAPHTHYLENE	J	0.47	1.7	PQL	ug/Kg		
	ANTHRACENE	J	1.2	1.7	PQL	ug/Kg	
DIBENZO(A,H)ANTHRACENE	J	1.1	1.7	PQL	ug/Kg		
INDENO(1,2,3-CD)PYRENE	J	1.4	1.7	PQL	ug/Kg	J (all detects)	
CHRYSENE	J	1.1	1.8	PQL	ug/Kg		
	FLUORANTHENE	J	1.6	1.8	PQL		ug/Kg
PHENANTHRENE	J	1.6	1.8	PQL	ug/Kg		
SL-339-SA5B-SB-9.0-10.0	PYRENE	J	1.6	1.8	PQL	ug/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE243

Laboratory: LL

EDD Filename: PrepDE243\_v3

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8270C SIM

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-340-SA5B-SB-9.0-10.0	1-METHYLNAPHTHALENE	J	0.85	1.9	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.1	1.9	PQL	ug/Kg	
	ACENAPHTHENE	J	1.3	1.9	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.6	1.9	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.6	1.9	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.79	1.9	PQL	ug/Kg	
	FLUORENE	J	1.4	1.9	PQL	ug/Kg	
	NAPHTHALENE	J	0.96	1.9	PQL	ug/Kg	

LDC #: 26859M4

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE243

ADR

Laboratory: Lancaster Laboratories

Date: 12/28/11

Page: 1 of 1

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	P	
III.	Calibration	✓	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Fe, Mg, Ti, Zn 74X
VII.	Duplicate Sample Analysis	NA	Hg < 0X
VIII.	Laboratory Control Samples (LCS)	NA	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Fe J/W/A
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	N	
XV.	Field Blanks	SW	EB=20

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-SA7-SS-0.0-0.5	11	SL-078-SA7-SS-0.0-0.5	21	#1 MS	31	
2	SL-028-SA7-SS-0.0-0.5	12	SL-099-SA7-SS-0.0-0.5	22	↓ MSB	32	
3	SL-029-SA7-SS-0.0-0.5	13	SL-144-SA7-SS-0.0-0.5	23	✓ Dup	33	
4	SL-032-SA7-SS-0.0-0.5	14	SL-145-SA7-SS-0.0-0.5	24		34	
5	SL-033-SA7-SS-0.0-0.5	15	SL-183-SA7-SS-0.0-0.5	25		35	
6	SL-036-SA7-SS-0.0-0.5	16	SL-339-SA5B-SB-9.0-10.0	26		36	
7	SL-038-SA7-SS-0.0-0.5	17	SL-340-SA5B-SB-9.0-10.0	27		37	
8	SL-039-SA7-SS-0.0-0.5	18	SL-041-SA7-SB-4.0-5.0	28		38	
9	SL-076-SA7-SS-0.0-0.5	19	SL-071-SA7-SB-4.0-5.0	29		39	
10	SL-077-SA7-SS-0.0-0.5	20	EB-SA7-SS-091411	30		40	

Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)

Sample Concentration units, unless otherwise noted: ug/L

Soil preparation factor applied: ICP: 100X, ICP/MS: 200X, Hg: 167X

Associated Samples: All AQ (ND) Reason: B

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit
Hg			0.015	0.075

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: Zr: 16, Hg: 1 Reason: B

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit
Zr			8.1	4.05
Hg			0.045	0.0376

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: All Soil Reason: B

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit
Sb			0.33	0.33

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit
Sb			0.33	0.33

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.

**VALIDATION FINDINGS WORKSHEET**  
**Field Blanks**

**METHOD:** Trace Metals (EPA SW846 6010B/6020/7000)

**Y** Were field blanks identified in this SDG?

**Y** Were target analytes detected in the field blanks?

**Blank units:** ug/L **Associated sample units:** mg/Kg

**Sampling date:** 9/14/11 Soil factor applied: 100X, Hg: 167X

**Field blank type:** (circle one) Field Blank / Rinsate / Other: Field Blank

Associated Samples: 1-15, 18-19 Reason Code: F

Analyte	Blank ID	Sample Identification											
		Action Level	1	2	3	4	5	6	7	8	9	10	11
B	20	5.7	4.0	4.6	3.4	4.8	3.1	4.0	4.3	4.8	4.1	4.5	3.2
Mg	7.8	3.9											
<del>Hg</del>	<del>0.020</del>	<del>0.02171</del>	<del>0.018</del>				<del>0.047</del>	<del>0.049</del>			<del>0.0081</del>	<del>0.042</del>	<del>0.045</del>
Sr	0.23	0.115											
Zr	4.6	2.3	2.3	2.3									

Analyte	Blank ID	Sample Identification											
		Action Level	13	14	15	16	17	18	19	20	21	22	23
B	20	5.7	3.2	2.8	4.6	3.67	5.1	5.3	3.3				
Mg	7.8	3.9											
<del>Hg</del>	<del>0.026</del>	<del>0.02171</del>	<del>0.024</del>			<del>0.021</del>	<del>0.015</del>						
Sr	0.23	0.115											
Zr	4.6	2.3			<del>4.6</del>								

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".



QUALITY ASSURANCE SUMMARY  
 FORM 5A (MS/MSD)  
 MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
 SDG No.: DE243  
 Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6406188BKG Matrix Spike Lab Sample ID: 6406188MS Matrix Spike Duplicate Lab Sample ID: 6406188MSD  
 & Solids for Sample: 98.9  
 Batch Id(s): P25908B, P25926A, P25911C

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				%R	Q	%R	Q	RPD	Q
Aluminum	121	14604.0325		17216.7807		17030.5997		196.3344	196.3344	MG/KG	1331	1236	1	74X	75-125	20P
Antimony	75	0.2044		0.9168		0.7609		1.2013	1.1896	MG/KG	59 N	47 N	19	75-125	20MS	
Arsenic	137	5.5116		7.6445		7.6290		2.0022	1.9826	MG/KG	107	107	0	75-125	20MS	
Barium	9	103.3526		113.6461		109.1021		10.0111	9.9130	MG/KG	103	58	4	74X	20MS	
Beryllium	111	3.9674	B	1.7888		1.6003		0.8009	0.7930	MG/KG	138 N	116	11	75-125	20MS	
Boron	111	0.2098		1.6921		1.4643		1.0011	0.9913	MG/KG	100	98	1	84-115	20P	
Calcium	52	2555.5757		3114.1665		3030.4230		392.6689	392.6689	MG/KG	142	121	3	75-125	20MS	
Chromium	59	17.3754		30.3737		29.3820		10.0111	9.9130	MG/KG	130 N	121	3	75-125	20MS	
Cobalt	59	5.8308		76.6651		68.5581		50.0556	49.5648	MG/KG	142 N	127 N	11	75-125	20MS	
Copper	63	9.1199		22.7452		20.9362		10.0111	9.9130	MG/KG	136 N	119	8	75-125	20MS	
Iron	208	16286.8664		16902.7232		16291.4810		98.1672	98.1672	MG/KG	627	5	4	74X	20P	
Lead	208	15.9004		18.8609		18.1447		3.0033	2.9739	MG/KG	99	75	4	82-114	20P	
Lithium	98	26.0449		125.5824		123.6848		98.1672	98.1672	MG/KG	101	99	2	82-114	20P	
Magnesium	60	4100.2983		4545.8323		4507.3724		196.3344	196.3344	MG/KG	227	207	1	74X	20P	
Manganese	52	277.6992		329.2401		322.6491		49.0836	49.0836	MG/KG	105	92	2	65-135	20CV	
Mercury	203	0.0177	B	0.2060		0.1926		0.1648	0.1619	MG/KG	114	108	7	75-125	20MS	
Molybdenum	98	0.7342		15.5753		13.6283		10.0111	9.9130	MG/KG	148 N	130 N	13	75-125	20MS	
Nickel	60	12.4606		26.4093		24.8419		10.0111	9.9130	MG/KG	139 N	125	6	75-125	20MS	
Phosphorus	31	341.9726		443.0876		418.0893		98.1672	98.1672	MG/KG	103	78	6	75-125	20P	
Potassium	78	2748.0634		3982.3044		3912.3151		981.6722	981.6722	MG/KG	126 N	119	2	75-125	20P	
Selenium	107	0.2080	B	2.7611		2.5833		2.0022	1.9826	MG/KG	128 N	120	7	75-125	20MS	
Silver	107	0.0473	B	14.7664		12.8730		10.0111	9.9130	MG/KG	147 N	129 N	14	75-125	20MS	
Sodium	203	83.1533	B	1047.5856		1039.0401		981.6722	981.6722	MG/KG	98	97	1	75-125	20P	
Strontium	88	17.7697		116.3488		114.3059		98.1672	98.1672	MG/KG	100	98	2	75-115	20P	
Thallium	203	0.3402		0.8495		0.7920		0.4004	0.3965	MG/KG	127 N	114	7	75-125	20MS	
Tin	119	3.1085	B	357.9569		353.3902		392.6689	392.6689	MG/KG	90	89	1	80-110	20P	
Titanium	78	1120.3526		1422.8170		1356.5473		98.1672	98.1672	MG/KG	308	241	5	74X	20P	
Vanadium	51	34.9333		48.4738		46.7892		10.0111	9.9130	MG/KG	135 N	120	4	75-125	20MS	
Zinc	66	74.5257		85.1545		80.9691		10.0111	9.9130	MG/KG	106	65	5	74X	20MS	
Zirconium	91	2.4277	B	91.6852		91.3878		98.1672	98.1672	MG/KG	91	91	0	75-125	20P	

METHODS: ICP-MS  
 P = ICP-MS Atomic Emission Spectrometer CV = Cold Vapor  
 MS = ICP-MS Mass Spectrometry AF = Cold Vapor Atomic Fluorescence  
 CONCENTRATION QUALIFIERS:  
 U = Below MDL, B = Below LOQ  
 FLAGS:  
 N = Matrix Spike OOS, \* = Duplicate OOS

# **SAMPLE DELIVERY GROUP**

**DE245**

## **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-Sep-2011	SL-026-SA7-SS-0.0-0.5	6409751	N	3050B	6010B	III
14-Sep-2011	SL-026-SA7-SS-0.0-0.5	6409751	N	3050B	6020	III
14-Sep-2011	SL-026-SA7-SS-0.0-0.5	6409751	N	3060A	7199	III
14-Sep-2011	SL-026-SA7-SS-0.0-0.5	6409751	N	3550B	8081A	III
14-Sep-2011	SL-026-SA7-SS-0.0-0.5	6409751	N	3550B	8082	III
14-Sep-2011	SL-026-SA7-SS-0.0-0.5	6409751	N	3550B	8151A	III
14-Sep-2011	SL-026-SA7-SS-0.0-0.5	6409751	N	3550B	8270C	III
14-Sep-2011	SL-026-SA7-SS-0.0-0.5	6409751	N	3550B	8270C SIM	III
14-Sep-2011	SL-026-SA7-SS-0.0-0.5	6409751	N	METHOD	300.0	III
14-Sep-2011	SL-026-SA7-SS-0.0-0.5	6409751	N	METHOD	314.0	III
14-Sep-2011	SL-026-SA7-SS-0.0-0.5	6409751	N	METHOD	7471A	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5	6409752	N	3050B	6010B	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5	6409752	N	3050B	6020	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5	6409752	N	3060A	7199	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5	6409752	N	3550B	8015B	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5	6409752	N	3550B	8015M	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5	6409752	N	3550B	8081A	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5	6409752	N	3550B	8082	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5	6409752	N	3550B	8151A	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5	6409752	N	3550B	8270C	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5	6409752	N	3550B	8270C SIM	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5	6409752	N	METHOD	300.0	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5	6409752	N	METHOD	314.0	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5	6409752	N	METHOD	7471A	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5	6409752	N	METHOD	8015M	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5	6409752	N	METHOD	9012B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MS	6409753	MS	3050B	6010B	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MS	6409753	MS	3050B	6020	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MS	6409753	MS	3060A	7199	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MS	6409753	MS	3550B	8015B	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MS	6409753	MS	3550B	8015M	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MS	6409753	MS	3550B	8081A	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MS	6409753	MS	3550B	8082	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MS	6409753	MS	3550B	8151A	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MS	6409753	MS	3550B	8270C	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MS	6409753	MS	3550B	8270C SIM	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MS	6409753	MS	METHOD	300.0	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MS	6409753	MS	METHOD	314.0	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MS	6409753	MS	METHOD	7471A	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MS	6409753	MS	METHOD	8015M	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MS	6409753	MS	METHOD	9012B	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MSD	6409754	MSD	3050B	6010B	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MSD	6409754	MSD	3050B	6020	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MSD	6409754	MSD	3550B	8015B	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MSD	6409754	MSD	3550B	8015M	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MSD	6409754	MSD	3550B	8081A	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MSD	6409754	MSD	3550B	8082	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MSD	6409754	MSD	3550B	8151A	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MSD	6409754	MSD	3550B	8270C	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MSD	6409754	MSD	3550B	8270C SIM	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MSD	6409754	MSD	METHOD	7471A	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5MSD	6409754	MSD	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
15-Sep-2011	SL-008-SA7-SS-0.0-0.5DUP	6409755	DUP	3050B	6010B	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5DUP	6409755	DUP	3050B	6020	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5DUP	6409755	DUP	3060A	7199	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5DUP	6409755	DUP	METHOD	300.0	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5DUP	6409755	DUP	METHOD	314.0	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5DUP	6409755	DUP	METHOD	7471A	III
15-Sep-2011	SL-008-SA7-SS-0.0-0.5DUP	6409755	DUP	METHOD	9012B	III
15-Sep-2011	DUP01-SA7-QC-091511	6409760	FD	3050B	6010B	III
15-Sep-2011	DUP01-SA7-QC-091511	6409760	FD	3050B	6020	III
15-Sep-2011	DUP01-SA7-QC-091511	6409760	FD	3060A	7199	III
15-Sep-2011	DUP01-SA7-QC-091511	6409760	FD	3550B	8015B	III
15-Sep-2011	DUP01-SA7-QC-091511	6409760	FD	3550B	8015M	III
15-Sep-2011	DUP01-SA7-QC-091511	6409760	FD	3550B	8081A	III
15-Sep-2011	DUP01-SA7-QC-091511	6409760	FD	3550B	8082	III
15-Sep-2011	DUP01-SA7-QC-091511	6409760	FD	3550B	8151A	III
15-Sep-2011	DUP01-SA7-QC-091511	6409760	FD	3550B	8270C	III
15-Sep-2011	DUP01-SA7-QC-091511	6409760	FD	3550B	8270C SIM	III
15-Sep-2011	DUP01-SA7-QC-091511	6409760	FD	METHOD	300.0	III
15-Sep-2011	DUP01-SA7-QC-091511	6409760	FD	METHOD	314.0	III
15-Sep-2011	DUP01-SA7-QC-091511	6409760	FD	METHOD	7471A	III
15-Sep-2011	DUP01-SA7-QC-091511	6409760	FD	METHOD	8015M	III
15-Sep-2011	DUP01-SA7-QC-091511	6409760	FD	METHOD	9012B	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	3050B	6010B	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	3050B	6020	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	3060A	7199	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	3546	1625C	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	3550B	8015B	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	3550B	8015M	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	3550B	8081A	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	3550B	8082	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	3550B	8151A	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	3550B	8270C	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	3550B	8270C SIM	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	8330	8330A	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	METHOD	300.0	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	METHOD	314.0	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	METHOD	7471A	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	METHOD	8015M	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	METHOD	8315A	III
15-Sep-2011	SL-045-SA7-SS-0.0-0.5	6409758	N	METHOD	9012B	III
15-Sep-2011	SL-090-SA7-SS-0.0-0.5	6409759	N	3050B	6010B	III
15-Sep-2011	SL-090-SA7-SS-0.0-0.5	6409759	N	3050B	6020	III
15-Sep-2011	SL-090-SA7-SS-0.0-0.5	6409759	N	3060A	7199	III
15-Sep-2011	SL-090-SA7-SS-0.0-0.5	6409759	N	3550B	8015B	III
15-Sep-2011	SL-090-SA7-SS-0.0-0.5	6409759	N	3550B	8015M	III
15-Sep-2011	SL-090-SA7-SS-0.0-0.5	6409759	N	3550B	8081A	III
15-Sep-2011	SL-090-SA7-SS-0.0-0.5	6409759	N	3550B	8082	III
15-Sep-2011	SL-090-SA7-SS-0.0-0.5	6409759	N	3550B	8151A	III
15-Sep-2011	SL-090-SA7-SS-0.0-0.5	6409759	N	3550B	8270C	III
15-Sep-2011	SL-090-SA7-SS-0.0-0.5	6409759	N	3550B	8270C SIM	III
15-Sep-2011	SL-090-SA7-SS-0.0-0.5	6409759	N	METHOD	300.0	III
15-Sep-2011	SL-090-SA7-SS-0.0-0.5	6409759	N	METHOD	314.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
15-Sep-2011	SL-090-SA7-SS-0.0-0.5	6409759	N	METHOD	7471A	III
15-Sep-2011	SL-090-SA7-SS-0.0-0.5	6409759	N	METHOD	8015M	III
15-Sep-2011	SL-090-SA7-SS-0.0-0.5	6409759	N	METHOD	9012B	III
16-Sep-2011	SL-007-SA7-SS-0.0-0.5	6409747	N	3050B	6010B	III
16-Sep-2011	SL-007-SA7-SS-0.0-0.5	6409747	N	3050B	6020	III
16-Sep-2011	SL-007-SA7-SS-0.0-0.5	6409747	N	3060A	7199	III
16-Sep-2011	SL-007-SA7-SS-0.0-0.5	6409747	N	3550B	8015B	III
16-Sep-2011	SL-007-SA7-SS-0.0-0.5	6409747	N	3550B	8015M	III
16-Sep-2011	SL-007-SA7-SS-0.0-0.5	6409747	N	3550B	8081A	III
16-Sep-2011	SL-007-SA7-SS-0.0-0.5	6409747	N	3550B	8082	III
16-Sep-2011	SL-007-SA7-SS-0.0-0.5	6409747	N	3550B	8151A	III
16-Sep-2011	SL-007-SA7-SS-0.0-0.5	6409747	N	3550B	8270C	III
16-Sep-2011	SL-007-SA7-SS-0.0-0.5	6409747	N	3550B	8270C SIM	III
16-Sep-2011	SL-007-SA7-SS-0.0-0.5	6409747	N	METHOD	300.0	III
16-Sep-2011	SL-007-SA7-SS-0.0-0.5	6409747	N	METHOD	314.0	III
16-Sep-2011	SL-007-SA7-SS-0.0-0.5	6409747	N	METHOD	7471A	III
16-Sep-2011	SL-007-SA7-SS-0.0-0.5	6409747	N	METHOD	8015M	III
16-Sep-2011	SL-007-SA7-SS-0.0-0.5	6409747	N	METHOD	9012B	III
16-Sep-2011	SL-086-SA7-SS-0.0-0.5	6409749	N	3050B	6010B	III
16-Sep-2011	SL-086-SA7-SS-0.0-0.5	6409749	N	3050B	6020	III
16-Sep-2011	SL-086-SA7-SS-0.0-0.5	6409749	N	3060A	7199	III
16-Sep-2011	SL-086-SA7-SS-0.0-0.5	6409749	N	3550B	8015B	III
16-Sep-2011	SL-086-SA7-SS-0.0-0.5	6409749	N	3550B	8015M	III
16-Sep-2011	SL-086-SA7-SS-0.0-0.5	6409749	N	3550B	8081A	III
16-Sep-2011	SL-086-SA7-SS-0.0-0.5	6409749	N	3550B	8082	III
16-Sep-2011	SL-086-SA7-SS-0.0-0.5	6409749	N	3550B	8151A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Sep-2011	SL-086-SA7-SS-0.0-0.5	6409749	N	3550B	8270C	III
16-Sep-2011	SL-086-SA7-SS-0.0-0.5	6409749	N	3550B	8270C SIM	III
16-Sep-2011	SL-086-SA7-SS-0.0-0.5	6409749	N	METHOD	300.0	III
16-Sep-2011	SL-086-SA7-SS-0.0-0.5	6409749	N	METHOD	314.0	III
16-Sep-2011	SL-086-SA7-SS-0.0-0.5	6409749	N	METHOD	7471A	III
16-Sep-2011	SL-086-SA7-SS-0.0-0.5	6409749	N	METHOD	8015M	III
16-Sep-2011	SL-086-SA7-SS-0.0-0.5	6409749	N	METHOD	9012B	III
16-Sep-2011	SL-079-SA7-SB-2.0-3.0	6409742	N	3050B	6010B	III
16-Sep-2011	SL-079-SA7-SB-2.0-3.0	6409742	N	3050B	6020	III
16-Sep-2011	SL-079-SA7-SB-2.0-3.0	6409742	N	3060A	7199	III
16-Sep-2011	SL-079-SA7-SB-2.0-3.0	6409742	N	3550B	8082	III
16-Sep-2011	SL-079-SA7-SB-2.0-3.0	6409742	N	3550B	8270C	III
16-Sep-2011	SL-079-SA7-SB-2.0-3.0	6409742	N	3550B	8270C SIM	III
16-Sep-2011	SL-079-SA7-SB-2.0-3.0	6409742	N	METHOD	300.0	III
16-Sep-2011	SL-079-SA7-SB-2.0-3.0	6409742	N	METHOD	314.0	III
16-Sep-2011	SL-079-SA7-SB-2.0-3.0	6409742	N	METHOD	7471A	III
16-Sep-2011	SL-087-SA7-SS-0.0-0.5	6409750	N	3050B	6010B	III
16-Sep-2011	SL-087-SA7-SS-0.0-0.5	6409750	N	3050B	6020	III
16-Sep-2011	SL-087-SA7-SS-0.0-0.5	6409750	N	3060A	7199	III
16-Sep-2011	SL-087-SA7-SS-0.0-0.5	6409750	N	3550B	8015B	III
16-Sep-2011	SL-087-SA7-SS-0.0-0.5	6409750	N	3550B	8015M	III
16-Sep-2011	SL-087-SA7-SS-0.0-0.5	6409750	N	3550B	8081A	III
16-Sep-2011	SL-087-SA7-SS-0.0-0.5	6409750	N	3550B	8082	III
16-Sep-2011	SL-087-SA7-SS-0.0-0.5	6409750	N	3550B	8151A	III
16-Sep-2011	SL-087-SA7-SS-0.0-0.5	6409750	N	3550B	8270C	III
16-Sep-2011	SL-087-SA7-SS-0.0-0.5	6409750	N	3550B	8270C SIM	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Sep-2011	SL-087-SA7-SS-0.0-0.5	6409750	N	METHOD	300.0	III
16-Sep-2011	SL-087-SA7-SS-0.0-0.5	6409750	N	METHOD	314.0	III
16-Sep-2011	SL-087-SA7-SS-0.0-0.5	6409750	N	METHOD	7471A	III
16-Sep-2011	SL-087-SA7-SS-0.0-0.5	6409750	N	METHOD	8015M	III
16-Sep-2011	SL-087-SA7-SS-0.0-0.5	6409750	N	METHOD	9012B	III
16-Sep-2011	SL-157-SA7-SS-0.0-0.5	6409748	N	3050B	6010B	III
16-Sep-2011	SL-157-SA7-SS-0.0-0.5	6409748	N	3050B	6020	III
16-Sep-2011	SL-157-SA7-SS-0.0-0.5	6409748	N	3060A	7199	III
16-Sep-2011	SL-157-SA7-SS-0.0-0.5	6409748	N	3550B	8015B	III
16-Sep-2011	SL-157-SA7-SS-0.0-0.5	6409748	N	3550B	8015M	III
16-Sep-2011	SL-157-SA7-SS-0.0-0.5	6409748	N	3550B	8081A	III
16-Sep-2011	SL-157-SA7-SS-0.0-0.5	6409748	N	3550B	8082	III
16-Sep-2011	SL-157-SA7-SS-0.0-0.5	6409748	N	3550B	8151A	III
16-Sep-2011	SL-157-SA7-SS-0.0-0.5	6409748	N	3550B	8270C	III
16-Sep-2011	SL-157-SA7-SS-0.0-0.5	6409748	N	3550B	8270C SIM	III
16-Sep-2011	SL-157-SA7-SS-0.0-0.5	6409748	N	METHOD	300.0	III
16-Sep-2011	SL-157-SA7-SS-0.0-0.5	6409748	N	METHOD	314.0	III
16-Sep-2011	SL-157-SA7-SS-0.0-0.5	6409748	N	METHOD	7471A	III
16-Sep-2011	SL-157-SA7-SS-0.0-0.5	6409748	N	METHOD	8015M	III
16-Sep-2011	SL-157-SA7-SS-0.0-0.5	6409748	N	METHOD	9012B	III
16-Sep-2011	SL-035-SA7-SB-4.0-5.0	6409740	N	3050B	6010B	III
16-Sep-2011	SL-035-SA7-SB-4.0-5.0	6409740	N	3050B	6020	III
16-Sep-2011	SL-035-SA7-SB-4.0-5.0	6409740	N	3060A	7199	III
16-Sep-2011	SL-035-SA7-SB-4.0-5.0	6409740	N	3550B	8082	III
16-Sep-2011	SL-035-SA7-SB-4.0-5.0	6409740	N	3550B	8270C	III
16-Sep-2011	SL-035-SA7-SB-4.0-5.0	6409740	N	3550B	8270C SIM	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Sep-2011	SL-035-SA7-SB-4.0-5.0	6409740	N	METHOD	300.0	III
16-Sep-2011	SL-035-SA7-SB-4.0-5.0	6409740	N	METHOD	314.0	III
16-Sep-2011	SL-035-SA7-SB-4.0-5.0	6409740	N	METHOD	7471A	III
16-Sep-2011	SL-035-SA7-SB-9.0-10.0	6409741	N	3050B	6010B	III
16-Sep-2011	SL-035-SA7-SB-9.0-10.0	6409741	N	3050B	6020	III
16-Sep-2011	SL-035-SA7-SB-9.0-10.0	6409741	N	3060A	7199	III
16-Sep-2011	SL-035-SA7-SB-9.0-10.0	6409741	N	3550B	8082	III
16-Sep-2011	SL-035-SA7-SB-9.0-10.0	6409741	N	3550B	8270C	III
16-Sep-2011	SL-035-SA7-SB-9.0-10.0	6409741	N	3550B	8270C SIM	III
16-Sep-2011	SL-035-SA7-SB-9.0-10.0	6409741	N	METHOD	300.0	III
16-Sep-2011	SL-035-SA7-SB-9.0-10.0	6409741	N	METHOD	314.0	III
16-Sep-2011	SL-035-SA7-SB-9.0-10.0	6409741	N	METHOD	7471A	III
16-Sep-2011	SL-034-SA7-SB-4.0-5.0	6409738	N	3050B	6010B	III
16-Sep-2011	SL-034-SA7-SB-4.0-5.0	6409738	N	3050B	6020	III
16-Sep-2011	SL-034-SA7-SB-4.0-5.0	6409738	N	3060A	7199	III
16-Sep-2011	SL-034-SA7-SB-4.0-5.0	6409738	N	3550B	8082	III
16-Sep-2011	SL-034-SA7-SB-4.0-5.0	6409738	N	3550B	8270C	III
16-Sep-2011	SL-034-SA7-SB-4.0-5.0	6409738	N	3550B	8270C SIM	III
16-Sep-2011	SL-034-SA7-SB-4.0-5.0	6409738	N	METHOD	300.0	III
16-Sep-2011	SL-034-SA7-SB-4.0-5.0	6409738	N	METHOD	314.0	III
16-Sep-2011	SL-034-SA7-SB-4.0-5.0	6409738	N	METHOD	6850	III
16-Sep-2011	SL-034-SA7-SB-4.0-5.0	6409738	N	METHOD	7471A	III
16-Sep-2011	SL-034-SA7-SB-4.0-5.0DUP	P409738D270526A	DUP	METHOD	314.0	III
16-Sep-2011	SL-034-SA7-SB-4.0-5.0DUP	P409738D271848A	DUP	METHOD	300.0	III
16-Sep-2011	SL-034-SA7-SB-4.0-5.0MS	P409738R270549A	MS	METHOD	314.0	III
16-Sep-2011	SL-034-SA7-SB-4.0-5.0MS	P409738R271901A	MS	METHOD	300.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Sep-2011	SL-034-SA7-SB-9.0-10.0	6409739	N	3050B	6010B	III
16-Sep-2011	SL-034-SA7-SB-9.0-10.0	6409739	N	3050B	6020	III
16-Sep-2011	SL-034-SA7-SB-9.0-10.0	6409739	N	3060A	7199	III
16-Sep-2011	SL-034-SA7-SB-9.0-10.0	6409739	N	3550B	8082	III
16-Sep-2011	SL-034-SA7-SB-9.0-10.0	6409739	N	3550B	8270C	III
16-Sep-2011	SL-034-SA7-SB-9.0-10.0	6409739	N	3550B	8270C SIM	III
16-Sep-2011	SL-034-SA7-SB-9.0-10.0	6409739	N	METHOD	300.0	III
16-Sep-2011	SL-034-SA7-SB-9.0-10.0	6409739	N	METHOD	314.0	III
16-Sep-2011	SL-034-SA7-SB-9.0-10.0	6409739	N	METHOD	7471A	III
16-Sep-2011	SL-080-SA7-SB-4.0-5.0	6409743	N	3050B	6010B	III
16-Sep-2011	SL-080-SA7-SB-4.0-5.0	6409743	N	3050B	6020	III
16-Sep-2011	SL-080-SA7-SB-4.0-5.0	6409743	N	3060A	7199	III
16-Sep-2011	SL-080-SA7-SB-4.0-5.0	6409743	N	3550B	8082	III
16-Sep-2011	SL-080-SA7-SB-4.0-5.0	6409743	N	3550B	8270C	III
16-Sep-2011	SL-080-SA7-SB-4.0-5.0	6409743	N	3550B	8270C SIM	III
16-Sep-2011	SL-080-SA7-SB-4.0-5.0	6409743	N	METHOD	300.0	III
16-Sep-2011	SL-080-SA7-SB-4.0-5.0	6409743	N	METHOD	314.0	III
16-Sep-2011	SL-080-SA7-SB-4.0-5.0	6409743	N	METHOD	7471A	III
16-Sep-2011	SL-080-SA7-SB-9.0-10.0	6409744	N	3050B	6010B	III
16-Sep-2011	SL-080-SA7-SB-9.0-10.0	6409744	N	3050B	6020	III
16-Sep-2011	SL-080-SA7-SB-9.0-10.0	6409744	N	3060A	7199	III
16-Sep-2011	SL-080-SA7-SB-9.0-10.0	6409744	N	3550B	8082	III
16-Sep-2011	SL-080-SA7-SB-9.0-10.0	6409744	N	3550B	8270C	III
16-Sep-2011	SL-080-SA7-SB-9.0-10.0	6409744	N	3550B	8270C SIM	III
16-Sep-2011	SL-080-SA7-SB-9.0-10.0	6409744	N	METHOD	300.0	III
16-Sep-2011	SL-080-SA7-SB-9.0-10.0	6409744	N	METHOD	314.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Sep-2011	SL-080-SA7-SB-9.0-10.0	6409744	N	METHOD	7471A	III
16-Sep-2011	SL-146-SA7-SB-4.0-5.0	6409745	N	3050B	6010B	III
16-Sep-2011	SL-146-SA7-SB-4.0-5.0	6409745	N	3050B	6020	III
16-Sep-2011	SL-146-SA7-SB-4.0-5.0	6409745	N	3060A	7199	III
16-Sep-2011	SL-146-SA7-SB-4.0-5.0	6409745	N	3550B	8082	III
16-Sep-2011	SL-146-SA7-SB-4.0-5.0	6409745	N	3550B	8270C	III
16-Sep-2011	SL-146-SA7-SB-4.0-5.0	6409745	N	3550B	8270C SIM	III
16-Sep-2011	SL-146-SA7-SB-4.0-5.0	6409745	N	METHOD	300.0	III
16-Sep-2011	SL-146-SA7-SB-4.0-5.0	6409745	N	METHOD	314.0	III
16-Sep-2011	SL-146-SA7-SB-4.0-5.0	6409745	N	METHOD	7471A	III
16-Sep-2011	SL-146-SA7-SB-9.0-10.0	6409746	N	3050B	6010B	III
16-Sep-2011	SL-146-SA7-SB-9.0-10.0	6409746	N	3050B	6020	III
16-Sep-2011	SL-146-SA7-SB-9.0-10.0	6409746	N	3060A	7199	III
16-Sep-2011	SL-146-SA7-SB-9.0-10.0	6409746	N	3550B	8082	III
16-Sep-2011	SL-146-SA7-SB-9.0-10.0	6409746	N	3550B	8270C	III
16-Sep-2011	SL-146-SA7-SB-9.0-10.0	6409746	N	3550B	8270C SIM	III
16-Sep-2011	SL-146-SA7-SB-9.0-10.0	6409746	N	METHOD	300.0	III
16-Sep-2011	SL-146-SA7-SB-9.0-10.0	6409746	N	METHOD	314.0	III
16-Sep-2011	SL-146-SA7-SB-9.0-10.0	6409746	N	METHOD	7471A	III
16-Sep-2011	SL-179-SA7-SS-0.0-0.5	6409761	N	3050B	6010B	III
16-Sep-2011	SL-179-SA7-SS-0.0-0.5	6409761	N	3050B	6020	III
16-Sep-2011	SL-179-SA7-SS-0.0-0.5	6409761	N	3060A	7199	III
16-Sep-2011	SL-179-SA7-SS-0.0-0.5	6409761	N	3550B	8015B	III
16-Sep-2011	SL-179-SA7-SS-0.0-0.5	6409761	N	3550B	8015M	III
16-Sep-2011	SL-179-SA7-SS-0.0-0.5	6409761	N	3550B	8081A	III
16-Sep-2011	SL-179-SA7-SS-0.0-0.5	6409761	N	3550B	8082	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Sep-2011	SL-179-SA7-SS-0.0-0.5	6409761	N	3550B	8151A	III
16-Sep-2011	SL-179-SA7-SS-0.0-0.5	6409761	N	3550B	8270C	III
16-Sep-2011	SL-179-SA7-SS-0.0-0.5	6409761	N	3550B	8270C SIM	III
16-Sep-2011	SL-179-SA7-SS-0.0-0.5	6409761	N	METHOD	300.0	III
16-Sep-2011	SL-179-SA7-SS-0.0-0.5	6409761	N	METHOD	314.0	III
16-Sep-2011	SL-179-SA7-SS-0.0-0.5	6409761	N	METHOD	7471A	III
16-Sep-2011	SL-179-SA7-SS-0.0-0.5	6409761	N	METHOD	8015M	III
16-Sep-2011	SL-179-SA7-SS-0.0-0.5	6409761	N	METHOD	9012B	III
16-Sep-2011	SL-098-SA7-SS-0.0-0.5	6409762	N	3050B	6010B	III
16-Sep-2011	SL-098-SA7-SS-0.0-0.5	6409762	N	3050B	6020	III
16-Sep-2011	SL-098-SA7-SS-0.0-0.5	6409762	N	3060A	7199	III
16-Sep-2011	SL-098-SA7-SS-0.0-0.5	6409762	N	3550B	8015B	III
16-Sep-2011	SL-098-SA7-SS-0.0-0.5	6409762	N	3550B	8015M	III
16-Sep-2011	SL-098-SA7-SS-0.0-0.5	6409762	N	3550B	8081A	III
16-Sep-2011	SL-098-SA7-SS-0.0-0.5	6409762	N	3550B	8082	III
16-Sep-2011	SL-098-SA7-SS-0.0-0.5	6409762	N	3550B	8151A	III
16-Sep-2011	SL-098-SA7-SS-0.0-0.5	6409762	N	3550B	8270C	III
16-Sep-2011	SL-098-SA7-SS-0.0-0.5	6409762	N	3550B	8270C SIM	III
16-Sep-2011	SL-098-SA7-SS-0.0-0.5	6409762	N	METHOD	300.0	III
16-Sep-2011	SL-098-SA7-SS-0.0-0.5	6409762	N	METHOD	314.0	III
16-Sep-2011	SL-098-SA7-SS-0.0-0.5	6409762	N	METHOD	7471A	III
16-Sep-2011	SL-098-SA7-SS-0.0-0.5	6409762	N	METHOD	8015M	III
16-Sep-2011	SL-098-SA7-SS-0.0-0.5	6409762	N	METHOD	9012B	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	GENCHEM	
Method:	300.0	Matrix: SO

Sample ID: DUP01-SA7-QC-091511		Collected: 9/15/2011 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	0.80	U	0.80	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-007-SA7-SS-0.0-0.5		Collected: 9/16/2011 7:45:00		Analysis Type: RES		Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-008-SA7-SS-0.0-0.5		Collected: 9/15/2011 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	1.4		0.80	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-026-SA7-SS-0.0-0.5		Collected: 9/14/2011 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	0.82	U	0.82	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-034-SA7-SB-4.0-5.0		Collected: 9/16/2011 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	3.3		0.89	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-034-SA7-SB-9.0-10.0		Collected: 9/16/2011 11:10:00		Analysis Type: RES		Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.85	U	0.85	MDL	1.1	PQL	mg/Kg	UJ	Q

Sample ID: SL-035-SA7-SB-4.0-5.0		Collected: 9/16/2011 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	4.0		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-035-SA7-SB-9.0-10.0		Collected: 9/16/2011 9:44:00		Analysis Type: RES		Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.2		0.87	MDL	1.1	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	GENCHEM	
<b>Method:</b>	300.0	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-045-SA7-SS-0.0-0.5		<b>Collected:</b> 9/15/2011 2:30:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q

<b>Sample ID:</b> SL-079-SA7-SB-2.0-3.0		<b>Collected:</b> 9/16/2011 8:26:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.8		0.84	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-080-SA7-SB-4.0-5.0		<b>Collected:</b> 9/16/2011 12:15:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.5		0.86	MDL	1.1	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-080-SA7-SB-9.0-10.0		<b>Collected:</b> 9/16/2011 12:18:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.7		0.91	MDL	1.1	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-086-SA7-SS-0.0-0.5		<b>Collected:</b> 9/16/2011 8:10:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.83	U	0.83	MDL	1.0	PQL	mg/Kg	UJ	Q

<b>Sample ID:</b> SL-087-SA7-SS-0.0-0.5		<b>Collected:</b> 9/16/2011 8:45:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 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

<b>Sample ID:</b> SL-090-SA7-SS-0.0-0.5		<b>Collected:</b> 9/15/2011 3:25:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 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

<b>Sample ID:</b> SL-098-SA7-SS-0.0-0.5		<b>Collected:</b> 9/16/2011 3:25:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.80	U	0.80	MDL	0.99	PQL	mg/Kg	UJ	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	GENCHEM	
Method:	300.0	Matrix: SO

Sample ID: SL-146-SA7-SB-4.0-5.0      Collected: 9/16/2011 2:43:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.7		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-146-SA7-SB-9.0-10.0      Collected: 9/16/2011 2:46:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.8		0.87	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-157-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	1.6		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-179-SA7-SS-0.0-0.5      Collected: 9/16/2011 3:10:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.9		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: DUP01-SA7-QC-091511      Collected: 9/15/2011 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	0.814	J	0.352	MDL	4.89	PQL	mg/Kg	UJ	B, FD
SODIUM	70.3	J	5.82	MDL	97.9	PQL	mg/Kg	J	Z
TIN	2.74	J	0.313	MDL	9.79	PQL	mg/Kg	U	B

Sample ID: SL-007-SA7-SS-0.0-0.5      Collected: 9/16/2011 7:45:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.62	J	0.353	MDL	4.90	PQL	mg/Kg	U	B
SODIUM	80.0	J	5.84	MDL	98.1	PQL	mg/Kg	J	Z
TIN	5.16	J	0.314	MDL	9.81	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

<b>Sample ID: SL-008-SA7-SS-0.0-0.5</b>		<b>Collected: 9/15/2011 1:55:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.56	J	0.353	MDL	4.90	PQL	mg/Kg	UJ	B, FD
SODIUM	71.5	J	5.83	MDL	97.9	PQL	mg/Kg	J	Z
TIN	2.96	J	0.313	MDL	9.79	PQL	mg/Kg	U	B

<b>Sample ID: SL-026-SA7-SS-0.0-0.5</b>		<b>Collected: 9/14/2011 3:35:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.13	J	0.360	MDL	5.01	PQL	mg/Kg	U	B
SODIUM	75.4	J	5.96	MDL	100	PQL	mg/Kg	J	Z
TIN	3.00	J	0.320	MDL	10.0	PQL	mg/Kg	U	B

<b>Sample ID: SL-034-SA7-SB-4.0-5.0</b>		<b>Collected: 9/16/2011 11:00:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.32	J	0.383	MDL	5.32	PQL	mg/Kg	U	B
TIN	2.74	J	0.340	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	0.769	J	0.489	MDL	5.32	PQL	mg/Kg	U	B

<b>Sample ID: SL-034-SA7-SB-9.0-10.0</b>		<b>Collected: 9/16/2011 11:10:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.62	J	0.378	MDL	5.25	PQL	mg/Kg	U	B
SODIUM	104	J	6.25	MDL	105	PQL	mg/Kg	J	Z
TIN	2.73	J	0.336	MDL	10.5	PQL	mg/Kg	U	B

<b>Sample ID: SL-035-SA7-SB-4.0-5.0</b>		<b>Collected: 9/16/2011 9:40:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.733	J	0.377	MDL	5.24	PQL	mg/Kg	U	B
TIN	2.73	J	0.336	MDL	10.5	PQL	mg/Kg	U	B

<b>Sample ID: SL-035-SA7-SB-9.0-10.0</b>		<b>Collected: 9/16/2011 9:44:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	102	J	6.35	MDL	107	PQL	mg/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: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6010B	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-035-SA7-SB-9.0-10.0		<b>Collected:</b> 9/16/2011 9:44:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.05	J	0.341	MDL	10.7	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-045-SA7-SS-0.0-0.5		<b>Collected:</b> 9/15/2011 2:30:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.88	J	0.354	MDL	4.92	PQL	mg/Kg	U	B
SODIUM	71.7	J	5.85	MDL	98.4	PQL	mg/Kg	J	Z
TIN	3.46	J	0.315	MDL	9.84	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-079-SA7-SB-2.0-3.0		<b>Collected:</b> 9/16/2011 8:26:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.430	J	0.362	MDL	5.03	PQL	mg/Kg	U	B
SODIUM	75.8	J	5.98	MDL	101	PQL	mg/Kg	J	Z
TIN	2.61	J	0.322	MDL	10.1	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-080-SA7-SB-4.0-5.0		<b>Collected:</b> 9/16/2011 12:15:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.60	J	0.384	MDL	5.33	PQL	mg/Kg	U	B
TIN	2.99	J	0.341	MDL	10.7	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-080-SA7-SB-9.0-10.0		<b>Collected:</b> 9/16/2011 12:18:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.49	J	0.394	MDL	5.48	PQL	mg/Kg	U	B
TIN	2.73	J	0.351	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	1.20	J	0.504	MDL	5.48	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-086-SA7-SS-0.0-0.5		<b>Collected:</b> 9/16/2011 8:10:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	9.65	J	0.325	MDL	10.1	PQL	mg/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: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>									
<b>Method:</b>	<b>6010B</b>			<b>Matrix: SO</b>						

<b>Sample ID: SL-087-SA7-SS-0.0-0.5</b>			<b>Collected: 9/16/2011 8:45:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BORON	1.82	J	0.365	MDL	5.07	PQL	mg/Kg	U	B	
TIN	3.32	J	0.325	MDL	10.1	PQL	mg/Kg	U	B	

<b>Sample ID: SL-090-SA7-SS-0.0-0.5</b>			<b>Collected: 9/15/2011 3:25:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BORON	0.949	J	0.365	MDL	5.07	PQL	mg/Kg	U	B	
SODIUM	84.1	J	6.03	MDL	101	PQL	mg/Kg	J	Z	
TIN	2.98	J	0.324	MDL	10.1	PQL	mg/Kg	U	B	

<b>Sample ID: SL-098-SA7-SS-0.0-0.5</b>			<b>Collected: 9/16/2011 3:25:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BORON	1.01	J	0.349	MDL	4.85	PQL	mg/Kg	U	B	
TIN	3.21	J	0.310	MDL	9.69	PQL	mg/Kg	U	B	

<b>Sample ID: SL-146-SA7-SB-4.0-5.0</b>			<b>Collected: 9/16/2011 2:43:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BORON	1.04	J	0.390	MDL	5.42	PQL	mg/Kg	U	B	
TIN	2.84	J	0.347	MDL	10.8	PQL	mg/Kg	U	B	

<b>Sample ID: SL-146-SA7-SB-9.0-10.0</b>			<b>Collected: 9/16/2011 2:46:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BORON	1.33	J	0.385	MDL	5.35	PQL	mg/Kg	U	B	
SODIUM	80.0	J	6.37	MDL	107	PQL	mg/Kg	J	Z	
TIN	2.84	J	0.342	MDL	10.7	PQL	mg/Kg	U	B	
Zirconium	0.548	J	0.492	MDL	5.35	PQL	mg/Kg	U	B	

<b>Sample ID: SL-157-SA7-SS-0.0-0.5</b>			<b>Collected: 9/16/2011 9:25:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BORON	0.451	J	0.359	MDL	4.99	PQL	mg/Kg	U	B	
SODIUM	86.4	J	5.94	MDL	99.8	PQL	mg/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: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

Sample ID: SL-157-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
TIN	4.64	J	0.319	MDL	9.98	PQL	mg/Kg	U	B

Sample ID: SL-179-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	0.841	J	0.361	MDL	5.02	PQL	mg/Kg	U	B
SODIUM	73.3	J	5.97	MDL	100	PQL	mg/Kg	J	Z
TIN	2.90	J	0.321	MDL	10.0	PQL	mg/Kg	U	B

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: DUP01-SA7-QC-091511      Collected: 9/15/2011 1:55:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	27.3		0.0102	MDL	0.200	PQL	mg/Kg	J	E, A
ZINC	159		0.559	MDL	2.99	PQL	mg/Kg	J	Q, E, A

Sample ID: DUP01-SA7-QC-091511      Collected: 9/15/2011 1:55:00      Analysis Type: REA5      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0766	J	0.0579	MDL	0.399	PQL	mg/Kg	J	Z, Q

Sample ID: DUP01-SA7-QC-091511      Collected: 9/15/2011 1:55:00      Analysis Type: REA6      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.405		0.0499	MDL	0.0998	PQL	mg/Kg	J	Q, FD, E

Sample ID: DUP01-SA7-QC-091511      Collected: 9/15/2011 1:55:00      Analysis Type: REA7      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	96.3		0.106	MDL	0.399	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

<b>Sample ID:</b> DUP01-SA7-QC-091511			<b>Collected:</b> 9/15/2011 1:55:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.216		0.0739	MDL	0.200	PQL	mg/Kg	UJ	Q, B, FD	
ARSENIC	4.24		0.0798	MDL	0.399	PQL	mg/Kg	J	E, FD	
CADMIUM	0.209		0.0439	MDL	0.0998	PQL	mg/Kg	J	Q, E	
CHROMIUM	16.5		0.120	MDL	0.399	PQL	mg/Kg	J	Q, E, A	
COBALT	5.46		0.0200	MDL	0.0998	PQL	mg/Kg	J	Q, A	
COPPER	7.06		0.0798	MDL	0.399	PQL	mg/Kg	J	E	
SILVER	0.0463	J	0.0142	MDL	0.0998	PQL	mg/Kg	J	Z, Q, FD	
VANADIUM	31.4		0.0220	MDL	0.0998	PQL	mg/Kg	J	A	

<b>Sample ID:</b> SL-007-SA7-SS-0.0-0.5			<b>Collected:</b> 9/16/2011 7:45:00			<b>Analysis Type:</b> REA			<b>Dilution:</b> 5	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
CHROMIUM	174		0.300	MDL	1.00	PQL	mg/Kg	J	Q, E, A	
ZINC	205		1.40	MDL	7.50	PQL	mg/Kg	J	Q, E, A	

<b>Sample ID:</b> SL-007-SA7-SS-0.0-0.5			<b>Collected:</b> 9/16/2011 7:45:00			<b>Analysis Type:</b> REA2			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
LEAD	32.8		0.0102	MDL	0.200	PQL	mg/Kg	J	E, A	

<b>Sample ID:</b> SL-007-SA7-SS-0.0-0.5			<b>Collected:</b> 9/16/2011 7:45:00			<b>Analysis Type:</b> REA5			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.0945	J	0.0580	MDL	0.400	PQL	mg/Kg	J	Z, Q	

<b>Sample ID:</b> SL-007-SA7-SS-0.0-0.5			<b>Collected:</b> 9/16/2011 7:45:00			<b>Analysis Type:</b> REA6			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	3.35		0.0500	MDL	0.100	PQL	mg/Kg	J	Q, E	

<b>Sample ID:</b> SL-007-SA7-SS-0.0-0.5			<b>Collected:</b> 9/16/2011 7:45:00			<b>Analysis Type:</b> REA7			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	113		0.106	MDL	0.400	PQL	mg/Kg	J	A	

\* 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: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-007-SA7-SS-0.0-0.5      Collected: 9/16/2011 7:45:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.554		0.0740	MDL	0.200	PQL	mg/Kg	UJ	Q, B
ARSENIC	7.02		0.0800	MDL	0.400	PQL	mg/Kg	J	E
CADMIUM	0.573		0.0440	MDL	0.100	PQL	mg/Kg	J	Q, E
COBALT	7.50		0.0200	MDL	0.100	PQL	mg/Kg	J	Q, A
COPPER	20.5		0.0800	MDL	0.400	PQL	mg/Kg	J	E
SILVER	0.0872	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z, Q
VANADIUM	40.4		0.0220	MDL	0.100	PQL	mg/Kg	J	A

Sample ID: SL-008-SA7-SS-0.0-0.5      Collected: 9/15/2011 1:55:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	17.4		0.0101	MDL	0.198	PQL	mg/Kg	J	E, A

Sample ID: SL-008-SA7-SS-0.0-0.5      Collected: 9/15/2011 1:55:00      Analysis Type: REA5      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.101	J	0.0574	MDL	0.396	PQL	mg/Kg	J	Z, Q

Sample ID: SL-008-SA7-SS-0.0-0.5      Collected: 9/15/2011 1:55:00      Analysis Type: REA6      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.689		0.0494	MDL	0.0989	PQL	mg/Kg	J	Q, FD, E

Sample ID: SL-008-SA7-SS-0.0-0.5      Collected: 9/15/2011 1:55:00      Analysis Type: REA7      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	116		0.105	MDL	0.396	PQL	mg/Kg	J	A

Sample ID: SL-008-SA7-SS-0.0-0.5      Collected: 9/15/2011 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	0.409		0.0732	MDL	0.198	PQL	mg/Kg	UJ	Q, B, FD
ARSENIC	7.85		0.0791	MDL	0.396	PQL	mg/Kg	J	E, FD
CADMIUM	0.199		0.0435	MDL	0.0989	PQL	mg/Kg	J	Q, E
CHROMIUM	18.7		0.119	MDL	0.396	PQL	mg/Kg	J	Q, E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-008-SA7-SS-0.0-0.5      Collected: 9/15/2011 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
COBALT	7.20		0.0198	MDL	0.0989	PQL	mg/Kg	J	Q, A
COPPER	10.6		0.0791	MDL	0.396	PQL	mg/Kg	J	E
SILVER	0.0252	J	0.0140	MDL	0.0989	PQL	mg/Kg	J	Z, Q, FD
VANADIUM	39.7		0.0218	MDL	0.0989	PQL	mg/Kg	J	A
ZINC	165		0.554	MDL	2.97	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-026-SA7-SS-0.0-0.5      Collected: 9/14/2011 3:35:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	14.8		0.0101	MDL	0.198	PQL	mg/Kg	J	E, A

Sample ID: SL-026-SA7-SS-0.0-0.5      Collected: 9/14/2011 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
SELENIUM	0.172	J	0.0575	MDL	0.397	PQL	mg/Kg	J	Z, Q

Sample ID: SL-026-SA7-SS-0.0-0.5      Collected: 9/14/2011 3:35:00      Analysis Type: REA6      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.764		0.0496	MDL	0.0991	PQL	mg/Kg	J	Q, E

Sample ID: SL-026-SA7-SS-0.0-0.5      Collected: 9/14/2011 3:35:00      Analysis Type: REA7      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	118		0.105	MDL	0.397	PQL	mg/Kg	J	A

Sample ID: SL-026-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	0.256		0.0734	MDL	0.198	PQL	mg/Kg	UJ	Q, B
ARSENIC	5.88		0.0793	MDL	0.397	PQL	mg/Kg	J	E
CADMIUM	0.279		0.0436	MDL	0.0991	PQL	mg/Kg	J	Q, E
CHROMIUM	19.7		0.119	MDL	0.397	PQL	mg/Kg	J	Q, E, A
COBALT	6.99		0.0198	MDL	0.0991	PQL	mg/Kg	J	Q, A
COPPER	10.6		0.0793	MDL	0.397	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-026-SA7-SS-0.0-0.5			Collected: 9/14/2011 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
SILVER	0.0368	J	0.0141	MDL	0.0991	PQL	mg/Kg	J	Z, Q
VANADIUM	38.6		0.0218	MDL	0.0991	PQL	mg/Kg	J	A
ZINC	168		0.555	MDL	2.97	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-034-SA7-SB-4.0-5.0			Collected: 9/16/2011 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
LEAD	5.01		0.0108	MDL	0.213	PQL	mg/Kg	J	E, A

Sample ID: SL-034-SA7-SB-4.0-5.0			Collected: 9/16/2011 11:00:00			Analysis Type: REA5		Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.198	J	0.0617	MDL	0.425	PQL	mg/Kg	J	Z, Q

Sample ID: SL-034-SA7-SB-4.0-5.0			Collected: 9/16/2011 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
MOLYBDENUM	1.26		0.0532	MDL	0.106	PQL	mg/Kg	J	Q, E

Sample ID: SL-034-SA7-SB-4.0-5.0			Collected: 9/16/2011 11:00:00			Analysis Type: REA7		Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	153		0.113	MDL	0.425	PQL	mg/Kg	J	A

Sample ID: SL-034-SA7-SB-4.0-5.0			Collected: 9/16/2011 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	0.227		0.0787	MDL	0.213	PQL	mg/Kg	J	Q
ARSENIC	7.97		0.0851	MDL	0.425	PQL	mg/Kg	J	E
CADMIUM	0.165		0.0468	MDL	0.106	PQL	mg/Kg	J	Q, E
CHROMIUM	31.2		0.128	MDL	0.425	PQL	mg/Kg	J	Q, E, A
COBALT	9.99		0.0213	MDL	0.106	PQL	mg/Kg	J	Q, A
COPPER	11.2		0.0851	MDL	0.425	PQL	mg/Kg	J	E
SILVER	0.0627	J	0.0151	MDL	0.106	PQL	mg/Kg	J	Z, Q
VANADIUM	62.8		0.0234	MDL	0.106	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-034-SA7-SB-4.0-5.0	Collected: 9/16/2011 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
ZINC	82.9		0.595	MDL	3.19	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-034-SA7-SB-9.0-10.0	Collected: 9/16/2011 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
LEAD	4.80		0.0110	MDL	0.216	PQL	mg/Kg	J	E, A

Sample ID: SL-034-SA7-SB-9.0-10.0	Collected: 9/16/2011 11:10:00	Analysis Type: REA5	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.121	J	0.0628	MDL	0.433	PQL	mg/Kg	J	Z, Q

Sample ID: SL-034-SA7-SB-9.0-10.0	Collected: 9/16/2011 11:10:00	Analysis Type: REA6	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.720		0.0541	MDL	0.108	PQL	mg/Kg	J	Q, E

Sample ID: SL-034-SA7-SB-9.0-10.0	Collected: 9/16/2011 11:10:00	Analysis Type: REA7	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	127		0.115	MDL	0.433	PQL	mg/Kg	J	A

Sample ID: SL-034-SA7-SB-9.0-10.0	Collected: 9/16/2011 11:10:00	Analysis Type: RES	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.203	J	0.0801	MDL	0.216	PQL	mg/Kg	J	Z, Q
ARSENIC	7.06		0.0866	MDL	0.433	PQL	mg/Kg	J	E
CADMIUM	0.247		0.0476	MDL	0.108	PQL	mg/Kg	J	Q, E
CHROMIUM	23.4		0.130	MDL	0.433	PQL	mg/Kg	J	Q, E, A
COBALT	7.52		0.0216	MDL	0.108	PQL	mg/Kg	J	Q, A
COPPER	11.1		0.0866	MDL	0.433	PQL	mg/Kg	J	E
SILVER	0.0472	J	0.0154	MDL	0.108	PQL	mg/Kg	J	Z, Q
VANADIUM	46.1		0.0238	MDL	0.108	PQL	mg/Kg	J	A
ZINC	74.2		0.606	MDL	3.25	PQL	mg/Kg	J	Q, E, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS		
Method:	6020	Matrix:	SO

Sample ID: SL-035-SA7-SB-4.0-5.0	Collected: 9/16/2011 9:40:00	Analysis Type: REA	Dilution: 2
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	4.18		0.0107	MDL	0.210	PQL	mg/Kg	J	E, A

Sample ID: SL-035-SA7-SB-4.0-5.0	Collected: 9/16/2011 9:40:00	Analysis Type: REA6	Dilution: 2
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.542		0.0524	MDL	0.105	PQL	mg/Kg	J	Q, E

Sample ID: SL-035-SA7-SB-4.0-5.0	Collected: 9/16/2011 9:40:00	Analysis Type: REA7	Dilution: 2
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	105		0.111	MDL	0.419	PQL	mg/Kg	J	A

Sample ID: SL-035-SA7-SB-4.0-5.0	Collected: 9/16/2011 9:40:00	Analysis Type: RES	Dilution: 2
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.137	J	0.0776	MDL	0.210	PQL	mg/Kg	UJ	Q, B
ARSENIC	5.82		0.0839	MDL	0.419	PQL	mg/Kg	J	E
CADMIUM	0.121		0.0461	MDL	0.105	PQL	mg/Kg	J	Q, E
CHROMIUM	23.8		0.126	MDL	0.419	PQL	mg/Kg	J	Q, E, A
COBALT	7.77		0.0210	MDL	0.105	PQL	mg/Kg	J	Q, A
COPPER	9.82		0.0839	MDL	0.419	PQL	mg/Kg	J	E
SILVER	0.0364	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z, Q
VANADIUM	49.3		0.0231	MDL	0.105	PQL	mg/Kg	J	A
ZINC	75.5		0.587	MDL	3.15	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-035-SA7-SB-9.0-10.0	Collected: 9/16/2011 9:44:00	Analysis Type: REA	Dilution: 2
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	3.86		0.0108	MDL	0.211	PQL	mg/Kg	J	E, A

Sample ID: SL-035-SA7-SB-9.0-10.0	Collected: 9/16/2011 9:44:00	Analysis Type: REA5	Dilution: 2
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0893	J	0.0613	MDL	0.423	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS								
Method:	6020	Matrix:	SO						

Sample ID: SL-035-SA7-SB-9.0-10.0      Collected: 9/16/2011 9:44:00      Analysis Type: REA6      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.521		0.0528	MDL	0.106	PQL	mg/Kg	J	Q, E

Sample ID: SL-035-SA7-SB-9.0-10.0      Collected: 9/16/2011 9:44:00      Analysis Type: REA7      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	97.1		0.112	MDL	0.423	PQL	mg/Kg	J	A

Sample ID: SL-035-SA7-SB-9.0-10.0      Collected: 9/16/2011 9:44:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.162	J	0.0782	MDL	0.211	PQL	mg/Kg	UJ	Q, B
ARSENIC	4.91		0.0845	MDL	0.423	PQL	mg/Kg	J	E
CADMIUM	0.0705	J	0.0465	MDL	0.106	PQL	mg/Kg	J	Z, Q, E
CHROMIUM	17.8		0.127	MDL	0.423	PQL	mg/Kg	J	Q, E, A
COBALT	5.98		0.0211	MDL	0.106	PQL	mg/Kg	J	Q, A
COPPER	6.31		0.0845	MDL	0.423	PQL	mg/Kg	J	E
SILVER	0.0207	J	0.0150	MDL	0.106	PQL	mg/Kg	J	Z, Q
VANADIUM	38.3		0.0232	MDL	0.106	PQL	mg/Kg	J	A
ZINC	70.0		0.592	MDL	3.17	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-045-SA7-SS-0.0-0.5      Collected: 9/15/2011 2:30:00      Analysis Type: REA      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	144		1.40	MDL	7.52	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-045-SA7-SS-0.0-0.5      Collected: 9/15/2011 2:30:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	43.2		0.0102	MDL	0.201	PQL	mg/Kg	J	E, A

Sample ID: SL-045-SA7-SS-0.0-0.5      Collected: 9/15/2011 2:30:00      Analysis Type: REA5      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0759	J	0.0582	MDL	0.401	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-045-SA7-SS-0.0-0.5			Collected: 9/15/2011 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	
MOLYBDENUM	0.763		0.0502	MDL	0.100	PQL	mg/Kg	J	Q, E	

Sample ID: SL-045-SA7-SS-0.0-0.5			Collected: 9/15/2011 2:30:00			Analysis Type: REA7			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	101		0.106	MDL	0.401	PQL	mg/Kg	J	A	

Sample ID: SL-045-SA7-SS-0.0-0.5			Collected: 9/15/2011 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	13.2		0.0742	MDL	0.201	PQL	mg/Kg	J	Q	
ARSENIC	11.0		0.0803	MDL	0.401	PQL	mg/Kg	J	E	
CADMIUM	0.389		0.0441	MDL	0.100	PQL	mg/Kg	J	Q, E	
CHROMIUM	21.6		0.120	MDL	0.401	PQL	mg/Kg	J	Q, E, A	
COBALT	5.45		0.0201	MDL	0.100	PQL	mg/Kg	J	Q, A	
COPPER	12.6		0.0803	MDL	0.401	PQL	mg/Kg	J	E	
SILVER	0.0540	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z, Q	
VANADIUM	30.6		0.0221	MDL	0.100	PQL	mg/Kg	J	A	

Sample ID: SL-079-SA7-SB-2.0-3.0			Collected: 9/16/2011 8:26:00			Analysis Type: REA			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
LEAD	3.88		0.0105	MDL	0.205	PQL	mg/Kg	J	E, A	

Sample ID: SL-079-SA7-SB-2.0-3.0			Collected: 9/16/2011 8:26:00			Analysis Type: REA5			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.0756	J	0.0595	MDL	0.410	PQL	mg/Kg	J	Z, Q	

Sample ID: SL-079-SA7-SB-2.0-3.0			Collected: 9/16/2011 8:26:00			Analysis Type: REA6			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	0.499		0.0513	MDL	0.103	PQL	mg/Kg	J	Q, E	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-079-SA7-SB-2.0-3.0      Collected: 9/16/2011 8:26:00      Analysis Type: REA7      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	103		0.109	MDL	0.410	PQL	mg/Kg	J	A

Sample ID: SL-079-SA7-SB-2.0-3.0      Collected: 9/16/2011 8:26:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.140	J	0.0759	MDL	0.205	PQL	mg/Kg	UJ	Q, B
ARSENIC	6.08		0.0820	MDL	0.410	PQL	mg/Kg	J	E
CADMIUM	0.0926	J	0.0451	MDL	0.103	PQL	mg/Kg	J	Z, Q, E
CHROMIUM	19.8		0.123	MDL	0.410	PQL	mg/Kg	J	Q, E, A
COBALT	7.22		0.0205	MDL	0.103	PQL	mg/Kg	J	Q, A
COPPER	7.06		0.0820	MDL	0.410	PQL	mg/Kg	J	E
SILVER	0.0263	J	0.0146	MDL	0.103	PQL	mg/Kg	J	Z, Q
VANADIUM	41.5		0.0226	MDL	0.103	PQL	mg/Kg	J	A
ZINC	77.8		0.574	MDL	3.08	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-080-SA7-SB-4.0-5.0      Collected: 9/16/2011 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
LEAD	5.37		0.0107	MDL	0.209	PQL	mg/Kg	J	E, A

Sample ID: SL-080-SA7-SB-4.0-5.0      Collected: 9/16/2011 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
SELENIUM	0.0808	J	0.0607	MDL	0.419	PQL	mg/Kg	J	Z, Q

Sample ID: SL-080-SA7-SB-4.0-5.0      Collected: 9/16/2011 12:15:00      Analysis Type: REA6      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.733		0.0523	MDL	0.105	PQL	mg/Kg	J	Q, E

Sample ID: SL-080-SA7-SB-4.0-5.0      Collected: 9/16/2011 12:15:00      Analysis Type: REA7      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	117		0.111	MDL	0.419	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-080-SA7-SB-4.0-5.0		Collected: 9/16/2011 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	0.114	J	0.0774	MDL	0.209	PQL	mg/Kg	UJ	Q, B
ARSENIC	5.28		0.0837	MDL	0.419	PQL	mg/Kg	J	E
CADMIUM	0.0870	J	0.0460	MDL	0.105	PQL	mg/Kg	J	Z, Q, E
CHROMIUM	20.6		0.126	MDL	0.419	PQL	mg/Kg	J	Q, E, A
COBALT	7.32		0.0209	MDL	0.105	PQL	mg/Kg	J	Q, A
COPPER	8.27		0.0837	MDL	0.419	PQL	mg/Kg	J	E
SILVER	0.0331	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z, Q
VANADIUM	42.5		0.0230	MDL	0.105	PQL	mg/Kg	J	A
ZINC	65.4		0.586	MDL	3.14	PQL	mg/Kg	J	Q, E, A

Sample ID: SL-080-SA7-SB-9.0-10.0		Collected: 9/16/2011 12:18:00		Analysis Type: REA		Dilution: 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	4.98		0.0113	MDL	0.221	PQL	mg/Kg	J	E, A

Sample ID: SL-080-SA7-SB-9.0-10.0		Collected: 9/16/2011 12:18:00		Analysis Type: REA5		Dilution: 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.145	J	0.0642	MDL	0.443	PQL	mg/Kg	J	Z, Q

Sample ID: SL-080-SA7-SB-9.0-10.0		Collected: 9/16/2011 12:18:00		Analysis Type: REA6		Dilution: 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.03		0.0553	MDL	0.111	PQL	mg/Kg	J	Q, E

Sample ID: SL-080-SA7-SB-9.0-10.0		Collected: 9/16/2011 12:18:00		Analysis Type: REA7		Dilution: 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	157		0.117	MDL	0.443	PQL	mg/Kg	J	A

Sample ID: SL-080-SA7-SB-9.0-10.0		Collected: 9/16/2011 12:18:00		Analysis Type: RES		Dilution: 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.202	J	0.0819	MDL	0.221	PQL	mg/Kg	UJ	Q, B
ARSENIC	6.37		0.0885	MDL	0.443	PQL	mg/Kg	J	E

\* 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: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-080-SA7-SB-9.0-10.0			Collected: 9/16/2011 12:18:00			Analysis Type: RES			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
CADMIUM	0.163		0.0487	MDL	0.111	PQL	mg/Kg	J	Q, E	
CHROMIUM	25.2		0.133	MDL	0.443	PQL	mg/Kg	J	Q, E, A	
COBALT	8.55		0.0221	MDL	0.111	PQL	mg/Kg	J	Q, A	
COPPER	10.9		0.0885	MDL	0.443	PQL	mg/Kg	J	E	
SILVER	0.0418	J	0.0157	MDL	0.111	PQL	mg/Kg	J	Z, Q	
VANADIUM	50.3		0.0243	MDL	0.111	PQL	mg/Kg	J	A	
ZINC	77.9		0.620	MDL	3.32	PQL	mg/Kg	J	Q, E, A	

Sample ID: SL-086-SA7-SS-0.0-0.5			Collected: 9/16/2011 8:10:00			Analysis Type: REA			Dilution: 10	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
COPPER	378		0.398	MDL	1.99	PQL	mg/Kg	J	E	
VANADIUM	598		0.109	MDL	0.497	PQL	mg/Kg	J	A	
ZINC	328		2.78	MDL	14.9	PQL	mg/Kg	J	Q, E, A	

Sample ID: SL-086-SA7-SS-0.0-0.5			Collected: 9/16/2011 8:10:00			Analysis Type: REA2			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
LEAD	53.5		0.0101	MDL	0.199	PQL	mg/Kg	J	E, A	

Sample ID: SL-086-SA7-SS-0.0-0.5			Collected: 9/16/2011 8:10:00			Analysis Type: REA5			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.103	J	0.0577	MDL	0.398	PQL	mg/Kg	J	Z, Q	

Sample ID: SL-086-SA7-SS-0.0-0.5			Collected: 9/16/2011 8:10:00			Analysis Type: REA6			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	3.36		0.0497	MDL	0.0994	PQL	mg/Kg	J	Q, E	

Sample ID: SL-086-SA7-SS-0.0-0.5			Collected: 9/16/2011 8:10:00			Analysis Type: REA7			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	86.2		0.105	MDL	0.398	PQL	mg/Kg	J	A	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-086-SA7-SS-0.0-0.5      Collected: 9/16/2011 8:10:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.40		0.0736	MDL	0.199	PQL	mg/Kg	J	Q
ARSENIC	23.6		0.0795	MDL	0.398	PQL	mg/Kg	J	E
CADMIUM	1.19		0.0437	MDL	0.0994	PQL	mg/Kg	J	Q, E
CHROMIUM	80.0		0.119	MDL	0.398	PQL	mg/Kg	J	Q, E, A
COBALT	18.9		0.0199	MDL	0.0994	PQL	mg/Kg	J	Q, A
SILVER	0.122		0.0141	MDL	0.0994	PQL	mg/Kg	J	Q

Sample ID: SL-087-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
LEAD	22.1		0.0102	MDL	0.201	PQL	mg/Kg	J	E, A

Sample ID: SL-087-SA7-SS-0.0-0.5      Collected: 9/16/2011 8:45:00      Analysis Type: REA5      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.182	J	0.0583	MDL	0.402	PQL	mg/Kg	J	Z, Q

Sample ID: SL-087-SA7-SS-0.0-0.5      Collected: 9/16/2011 8:45:00      Analysis Type: REA6      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.971		0.0502	MDL	0.100	PQL	mg/Kg	J	Q, E

Sample ID: SL-087-SA7-SS-0.0-0.5      Collected: 9/16/2011 8:45:00      Analysis Type: REA7      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	110		0.266	MDL	1.00	PQL	mg/Kg	J	A

Sample ID: SL-087-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	2.06		0.0743	MDL	0.201	PQL	mg/Kg	J	Q
ARSENIC	8.37		0.0804	MDL	0.402	PQL	mg/Kg	J	E
CADMIUM	0.656		0.0442	MDL	0.100	PQL	mg/Kg	J	Q, E
CHROMIUM	28.0		0.121	MDL	0.402	PQL	mg/Kg	J	Q, E, A
COBALT	11.2		0.0201	MDL	0.100	PQL	mg/Kg	J	Q, A

\* 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: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-087-SA7-SS-0.0-0.5			Collected: 9/16/2011 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	
COPPER	17.4		0.0804	MDL	0.402	PQL	mg/Kg	J	E	
SILVER	0.112		0.0143	MDL	0.100	PQL	mg/Kg	J	Q	
VANADIUM	77.5		0.0221	MDL	0.100	PQL	mg/Kg	J	A	
ZINC	153		0.563	MDL	3.01	PQL	mg/Kg	J	Q, E, A	

Sample ID: SL-090-SA7-SS-0.0-0.5			Collected: 9/15/2011 3:25:00			Analysis Type: REA			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
LEAD	38.8		0.0102	MDL	0.201	PQL	mg/Kg	J	E, A	
ZINC	165		0.562	MDL	3.01	PQL	mg/Kg	J	Q, E, A	

Sample ID: SL-090-SA7-SS-0.0-0.5			Collected: 9/15/2011 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	
SELENIUM	0.0911	J	0.0582	MDL	0.401	PQL	mg/Kg	J	Z, Q	

Sample ID: SL-090-SA7-SS-0.0-0.5			Collected: 9/15/2011 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	
MOLYBDENUM	1.66		0.0502	MDL	0.100	PQL	mg/Kg	J	Q, E	

Sample ID: SL-090-SA7-SS-0.0-0.5			Collected: 9/15/2011 3:25:00			Analysis Type: REA7			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	103		0.106	MDL	0.401	PQL	mg/Kg	J	A	

Sample ID: SL-090-SA7-SS-0.0-0.5			Collected: 9/15/2011 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	0.904		0.0743	MDL	0.201	PQL	mg/Kg	J	Q	
ARSENIC	12.6		0.0803	MDL	0.401	PQL	mg/Kg	J	E	
CADMIUM	0.311		0.0442	MDL	0.100	PQL	mg/Kg	J	Q, E	
CHROMIUM	76.6		0.120	MDL	0.401	PQL	mg/Kg	J	Q, E, A	
COBALT	9.22		0.0201	MDL	0.100	PQL	mg/Kg	J	Q, A	
COPPER	23.9		0.0803	MDL	0.401	PQL	mg/Kg	J	E	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

<b>Sample ID: SL-090-SA7-SS-0.0-0.5</b>			<b>Collected: 9/15/2011 3:25:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SILVER	0.0478	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z, Q	
VANADIUM	53.9		0.0221	MDL	0.100	PQL	mg/Kg	J	A	

<b>Sample ID: SL-098-SA7-SS-0.0-0.5</b>			<b>Collected: 9/16/2011 3:25:00</b>			<b>Analysis Type: REA</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
LEAD	19.3		0.0101	MDL	0.198	PQL	mg/Kg	J	E, A	
ZINC	171		0.554	MDL	2.97	PQL	mg/Kg	J	Q, E, A	

<b>Sample ID: SL-098-SA7-SS-0.0-0.5</b>			<b>Collected: 9/16/2011 3:25:00</b>			<b>Analysis Type: REA5</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.0920	J	0.0573	MDL	0.395	PQL	mg/Kg	J	Z, Q	

<b>Sample ID: SL-098-SA7-SS-0.0-0.5</b>			<b>Collected: 9/16/2011 3:25:00</b>			<b>Analysis Type: REA6</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	0.542		0.0494	MDL	0.0988	PQL	mg/Kg	J	Q, E	

<b>Sample ID: SL-098-SA7-SS-0.0-0.5</b>			<b>Collected: 9/16/2011 3:25:00</b>			<b>Analysis Type: REA7</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	97.6		0.105	MDL	0.395	PQL	mg/Kg	J	A	

<b>Sample ID: SL-098-SA7-SS-0.0-0.5</b>			<b>Collected: 9/16/2011 3:25:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.190	J	0.0731	MDL	0.198	PQL	mg/Kg	UJ	Q, B	
ARSENIC	4.47		0.0791	MDL	0.395	PQL	mg/Kg	J	E	
CADMIUM	0.450		0.0435	MDL	0.0988	PQL	mg/Kg	J	Q, E	
CHROMIUM	15.2		0.119	MDL	0.395	PQL	mg/Kg	J	Q, E, A	
COBALT	5.39		0.0198	MDL	0.0988	PQL	mg/Kg	J	Q, A	
COPPER	11.3		0.0791	MDL	0.395	PQL	mg/Kg	J	E	
SILVER	0.749		0.0140	MDL	0.0988	PQL	mg/Kg	J	Q	
VANADIUM	30.5		0.0217	MDL	0.0988	PQL	mg/Kg	J	A	

\* 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: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-146-SA7-SB-4.0-5.0			<b>Collected:</b> 9/16/2011 2:43:00			<b>Analysis Type:</b> REA			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
LEAD	4.95		0.0110	MDL	0.217	PQL	mg/Kg	J	E, A	

<b>Sample ID:</b> SL-146-SA7-SB-4.0-5.0			<b>Collected:</b> 9/16/2011 2:43:00			<b>Analysis Type:</b> REA5			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.154	J	0.0628	MDL	0.433	PQL	mg/Kg	J	Z, Q	

<b>Sample ID:</b> SL-146-SA7-SB-4.0-5.0			<b>Collected:</b> 9/16/2011 2:43:00			<b>Analysis Type:</b> REA6			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	0.863		0.0542	MDL	0.108	PQL	mg/Kg	J	Q, E	

<b>Sample ID:</b> SL-146-SA7-SB-4.0-5.0			<b>Collected:</b> 9/16/2011 2:43:00			<b>Analysis Type:</b> REA7			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	125		0.115	MDL	0.433	PQL	mg/Kg	J	A	

<b>Sample ID:</b> SL-146-SA7-SB-4.0-5.0			<b>Collected:</b> 9/16/2011 2:43:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.171	J	0.0802	MDL	0.217	PQL	mg/Kg	UJ	Q, B	
ARSENIC	6.78		0.0867	MDL	0.433	PQL	mg/Kg	J	E	
CADMIUM	0.159		0.0477	MDL	0.108	PQL	mg/Kg	J	Q, E	
CHROMIUM	25.5		0.130	MDL	0.433	PQL	mg/Kg	J	Q, E, A	
COBALT	7.95		0.0217	MDL	0.108	PQL	mg/Kg	J	Q, A	
COPPER	10.6		0.0867	MDL	0.433	PQL	mg/Kg	J	E	
SILVER	0.0531	J	0.0154	MDL	0.108	PQL	mg/Kg	J	Z, Q	
VANADIUM	52.6		0.0238	MDL	0.108	PQL	mg/Kg	J	A	
ZINC	70.9		0.607	MDL	3.25	PQL	mg/Kg	J	Q, E, A	

<b>Sample ID:</b> SL-146-SA7-SB-9.0-10.0			<b>Collected:</b> 9/16/2011 2:46:00			<b>Analysis Type:</b> REA			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
LEAD	4.36		0.0108	MDL	0.212	PQL	mg/Kg	J	E, A	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-146-SA7-SB-9.0-10.0			Collected: 9/16/2011 2:46:00			Analysis Type: REA5			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.148	J	0.0615	MDL	0.424	PQL	mg/Kg	J	Z, Q	

Sample ID: SL-146-SA7-SB-9.0-10.0			Collected: 9/16/2011 2:46:00			Analysis Type: REA6			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	2.05		0.0530	MDL	0.106	PQL	mg/Kg	J	Q, E	

Sample ID: SL-146-SA7-SB-9.0-10.0			Collected: 9/16/2011 2:46:00			Analysis Type: REA7			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	160		0.112	MDL	0.424	PQL	mg/Kg	J	A	

Sample ID: SL-146-SA7-SB-9.0-10.0			Collected: 9/16/2011 2:46:00			Analysis Type: RES			Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.144	J	0.0784	MDL	0.212	PQL	mg/Kg	UJ	Q, B	
ARSENIC	4.30		0.0848	MDL	0.424	PQL	mg/Kg	J	E	
CADMIUM	0.226		0.0466	MDL	0.106	PQL	mg/Kg	J	Q, E	
CHROMIUM	19.3		0.127	MDL	0.424	PQL	mg/Kg	J	Q, E, A	
COBALT	6.64		0.0212	MDL	0.106	PQL	mg/Kg	J	Q, A	
COPPER	8.99		0.0848	MDL	0.424	PQL	mg/Kg	J	E	
SILVER	0.0273	J	0.0151	MDL	0.106	PQL	mg/Kg	J	Z, Q	
VANADIUM	35.0		0.0233	MDL	0.106	PQL	mg/Kg	J	A	
ZINC	77.3		0.594	MDL	3.18	PQL	mg/Kg	J	Q, E, A	

Sample ID: SL-157-SA7-SS-0.0-0.5			Collected: 9/16/2011 9:25:00			Analysis Type: REA			Dilution: 10	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ARSENIC	235		0.399	MDL	2.00	PQL	mg/Kg	J	E	
ZINC	145		2.80	MDL	15.0	PQL	mg/Kg	J	Q, E, A	

Sample ID: SL-157-SA7-SS-0.0-0.5			Collected: 9/16/2011 9:25:00			Analysis Type: REA2			Dilution: 100	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	862		3.69	MDL	9.98	PQL	mg/Kg	J	Q	

\* 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: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS								
Method:	6020	Matrix:	SO						

Sample ID: SL-157-SA7-SS-0.0-0.5      Collected: 9/16/2011 9:25:00      Analysis Type: REA3      Dilution: 2500

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	26900		12.7	MDL	250	PQL	mg/Kg	J	E, A

Sample ID: SL-157-SA7-SS-0.0-0.5      Collected: 9/16/2011 9:25:00      Analysis Type: REA4      Dilution: 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.396	J	0.299	MDL	0.998	PQL	mg/Kg	J	Z

Sample ID: SL-157-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
SELENIUM	0.119	J	0.0579	MDL	0.399	PQL	mg/Kg	J	Z, Q

Sample ID: SL-157-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
MOLYBDENUM	1.66		0.0499	MDL	0.0998	PQL	mg/Kg	J	Q, E

Sample ID: SL-157-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
BARIUM	101		0.106	MDL	0.399	PQL	mg/Kg	J	A

Sample ID: SL-157-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
CADMIUM	0.382		0.0439	MDL	0.0998	PQL	mg/Kg	J	Q, E
CHROMIUM	37.9		0.120	MDL	0.399	PQL	mg/Kg	J	Q, E, A
COBALT	10.1		0.0200	MDL	0.0998	PQL	mg/Kg	J	Q, A
COPPER	42.3		0.0799	MDL	0.399	PQL	mg/Kg	J	E
SILVER	4.78		0.0142	MDL	0.0998	PQL	mg/Kg	J	Q
VANADIUM	50.0		0.0220	MDL	0.0998	PQL	mg/Kg	J	A

Sample ID: SL-179-SA7-SS-0.0-0.5      Collected: 9/16/2011 3:10:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	17.2		0.0101	MDL	0.199	PQL	mg/Kg	J	E, A

\* 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: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

<b>Sample ID: SL-179-SA7-SS-0.0-0.5</b>			<b>Collected: 9/16/2011 3:10:00</b>			<b>Analysis Type: REA5</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.141	J	0.0576	MDL	0.397	PQL	mg/Kg	J	Z, Q	

<b>Sample ID: SL-179-SA7-SS-0.0-0.5</b>			<b>Collected: 9/16/2011 3:10:00</b>			<b>Analysis Type: REA6</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	0.583		0.0497	MDL	0.0993	PQL	mg/Kg	J	Q, E	

<b>Sample ID: SL-179-SA7-SS-0.0-0.5</b>			<b>Collected: 9/16/2011 3:10:00</b>			<b>Analysis Type: REA7</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	82.3		0.105	MDL	0.397	PQL	mg/Kg	J	A	

<b>Sample ID: SL-179-SA7-SS-0.0-0.5</b>			<b>Collected: 9/16/2011 3:10:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.177	J	0.0735	MDL	0.199	PQL	mg/Kg	UJ	Q, B	
ARSENIC	4.59		0.0795	MDL	0.397	PQL	mg/Kg	J	E	
CADMIUM	0.233		0.0437	MDL	0.0993	PQL	mg/Kg	J	Q, E	
CHROMIUM	14.1		0.119	MDL	0.397	PQL	mg/Kg	J	Q, E, A	
COBALT	5.17		0.0199	MDL	0.0993	PQL	mg/Kg	J	Q, A	
COPPER	6.20		0.0795	MDL	0.397	PQL	mg/Kg	J	E	
SILVER	0.0455	J	0.0141	MDL	0.0993	PQL	mg/Kg	J	Z, Q	
VANADIUM	33.3		0.0219	MDL	0.0993	PQL	mg/Kg	J	A	
ZINC	135		0.556	MDL	2.98	PQL	mg/Kg	J	Q, E, A	

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7199</b>	<b>Matrix: SO</b>

<b>Sample ID: DUP01-SA7-QC-091511</b>			<b>Collected: 9/15/2011 1:55:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
HEXAVALENT CHROMIUM	0.20	U	0.20	MDL	1.0	PQL	mg/Kg	UJ	FD	

\* 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: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	7199	Matrix: SO

Sample ID: SL-008-SA7-SS-0.0-0.5	Collected: 9/15/2011 1:55:00	Analysis Type: RES	Dilution: 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
HEXAVALENT CHROMIUM	0.36	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z, FD

Sample ID: SL-026-SA7-SS-0.0-0.5	Collected: 9/14/2011 3:35:00	Analysis Type: RES	Dilution: 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
HEXAVALENT CHROMIUM	0.48	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-034-SA7-SB-4.0-5.0	Collected: 9/16/2011 11:00:00	Analysis Type: RES	Dilution: 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
HEXAVALENT CHROMIUM	0.52	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-035-SA7-SB-4.0-5.0	Collected: 9/16/2011 9:40:00	Analysis Type: RES	Dilution: 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
HEXAVALENT CHROMIUM	0.37	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-045-SA7-SS-0.0-0.5	Collected: 9/15/2011 2:30:00	Analysis Type: RES	Dilution: 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
HEXAVALENT CHROMIUM	0.50	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-080-SA7-SB-4.0-5.0	Collected: 9/16/2011 12:15:00	Analysis Type: RES	Dilution: 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
HEXAVALENT CHROMIUM	0.51	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-080-SA7-SB-9.0-10.0	Collected: 9/16/2011 12:18:00	Analysis Type: RES	Dilution: 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
HEXAVALENT CHROMIUM	0.45	J	0.23	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-098-SA7-SS-0.0-0.5	Collected: 9/16/2011 3:25:00	Analysis Type: RES	Dilution: 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
HEXAVALENT CHROMIUM	0.73	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	7199	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-157-SA7-SS-0.0-0.5	<b>Collected:</b> 9/16/2011 9:25:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.60	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-179-SA7-SS-0.0-0.5	<b>Collected:</b> 9/16/2011 3:10:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.49	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

<b>Method Category:</b>	METALS	
<b>Method:</b>	7471A	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-007-SA7-SS-0.0-0.5	<b>Collected:</b> 9/16/2011 7:45:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0107	J	0.0070	MDL	0.0991	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-026-SA7-SS-0.0-0.5	<b>Collected:</b> 9/14/2011 3:35:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0284	J	0.0069	MDL	0.0986	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-034-SA7-SB-4.0-5.0	<b>Collected:</b> 9/16/2011 11:00:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0086	J	0.0072	MDL	0.103	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-045-SA7-SS-0.0-0.5	<b>Collected:</b> 9/15/2011 2:30:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0203	J	0.0071	MDL	0.101	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-086-SA7-SS-0.0-0.5	<b>Collected:</b> 9/16/2011 8:10:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0273	J	0.0070	MDL	0.0999	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	7471A	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-087-SA7-SS-0.0-0.5			<b>Collected:</b> 9/16/2011 8:45:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MERCURY	0.0275	J	0.0071	MDL	0.101	PQL	mg/Kg	U	B	

<b>Sample ID:</b> SL-090-SA7-SS-0.0-0.5			<b>Collected:</b> 9/15/2011 3:25:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MERCURY	0.0082	J	0.0070	MDL	0.100	PQL	mg/Kg	U	B	

<b>Sample ID:</b> SL-157-SA7-SS-0.0-0.5			<b>Collected:</b> 9/16/2011 9:25:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MERCURY	0.0178	J	0.0067	MDL	0.0946	PQL	mg/Kg	U	B	

<b>Sample ID:</b> SL-179-SA7-SS-0.0-0.5			<b>Collected:</b> 9/16/2011 3:10:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MERCURY	0.0567	J	0.0069	MDL	0.0986	PQL	mg/Kg	U	B	

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8015M	<b>Matrix:</b> SO

<b>Sample ID:</b> DUP01-SA7-QC-091511			<b>Collected:</b> 9/15/2011 1:55:00			<b>Analysis Type:</b> REA			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
EFH (C15-C20)	5.4		0.81	MDL	2.4	PQL	mg/Kg	J	FD	

<b>Sample ID:</b> SL-008-SA7-SS-0.0-0.5			<b>Collected:</b> 9/15/2011 1:55:00			<b>Analysis Type:</b> REA			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
EFH (C15-C20)	2.3	J	0.81	MDL	2.4	PQL	mg/Kg	J	Z, Q, FD	
EFH (C8-C11)	0.81	U	0.81	MDL	2.4	PQL	mg/Kg	R	Q	

<b>Sample ID:</b> SL-008-SA7-SS-0.0-0.5			<b>Collected:</b> 9/15/2011 1:55:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
DIETHYLENE GLYCOL	5.0	U	5.0	MDL	10	PQL	mg/Kg	UJ	Q	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8015M	Matrix: SO

Sample ID: SL-008-SA7-SS-0.0-0.5      Collected: 9/15/2011 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
ETHYLENE GLYCOL	5.0	U	5.0	MDL	10	PQL	mg/Kg	UJ	Q
Propylene glycol	5.0	U	5.0	MDL	10	PQL	mg/Kg	UJ	Q

Sample ID: SL-179-SA7-SS-0.0-0.5      Collected: 9/16/2011 3:10:00      Analysis Type: REA      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.70	J	0.41	MDL	1.2	PQL	mg/Kg	J	Z

Method Category:	SVOA	
Method:	8081A	Matrix: SO

Sample ID: DUP01-SA7-QC-091511      Collected: 9/15/2011 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
Chlordane	2.3	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z, S, FD
DELTA-BHC	0.048	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z, S
HEPTACHLOR EPOXIDE	0.086	J	0.034	MDL	0.17	PQL	ug/Kg	J	Z, S, FD

Sample ID: SL-007-SA7-SS-0.0-0.5      Collected: 9/16/2011 7:45:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALPHA-BHC	0.25	J	0.17	MDL	0.84	PQL	ug/Kg	J	Z
Chlordane	4.9	J	4.0	MDL	17	PQL	ug/Kg	J	Z
DELTA-BHC	0.32	J	0.18	MDL	0.84	PQL	ug/Kg	J	Z

Sample ID: SL-008-SA7-SS-0.0-0.5      Collected: 9/15/2011 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
Chlordane	0.81	U	0.81	MDL	3.4	PQL	ug/Kg	UJ	FD
DELTA-BHC	0.056	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z, S
DIELDRIN	0.089	U	0.089	MDL	0.34	PQL	ug/Kg	R	Q
ENDRIN ALDEHYDE	0.50	U	0.50	MDL	0.50	PQL	ug/Kg	R	Q
HEPTACHLOR EPOXIDE	0.056	U	0.056	MDL	0.17	PQL	ug/Kg	UJ	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8081A	<b>Matrix:</b> SO

Sample ID: SL-086-SA7-SS-0.0-0.5      Collected: 9/16/2011 8:10:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALPHA-BHC	0.035	J	0.034	MDL	0.17	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.081	J	0.037	MDL	0.17	PQL	ug/Kg	J	Z, S

Sample ID: SL-157-SA7-SS-0.0-0.5      Collected: 9/16/2011 9:25:00      Analysis Type: DL-BASE/NEUTRAL      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	2.6	J	0.66	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-157-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	0.87		0.066	MDL	0.34	PQL	ug/Kg	J	S
Chlordane	1.6	J	0.80	MDL	3.4	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.040	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z, S

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8082	<b>Matrix:</b> SO

Sample ID: DUP01-SA7-QC-091511      Collected: 9/15/2011 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
Aroclor 5460	8.6		1.0	MDL	3.3	PQL	ug/Kg	J	FD

Sample ID: SL-008-SA7-SS-0.0-0.5      Collected: 9/15/2011 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
Aroclor 5460	5.0		1.0	MDL	3.3	PQL	ug/Kg	J	FD

Sample ID: SL-034-SA7-SB-9.0-10.0      Collected: 9/16/2011 11:10:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.46	J	0.36	MDL	1.8	PQL	ug/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: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8082	Matrix: SO

Sample ID: SL-090-SA7-SS-0.0-0.5      Collected: 9/15/2011 3:25:00      Analysis Type: RES      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	9.9	J	5.1	MDL	17	PQL	ug/Kg	J	Z

Sample ID: SL-098-SA7-SS-0.0-0.5      Collected: 9/16/2011 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 1248	1.3	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z, S
AROCLOR 1254	4.1		0.33	MDL	1.7	PQL	ug/Kg	J	S
AROCLOR 1260	4.7		0.39	MDL	1.7	PQL	ug/Kg	J	S
Aroclor 5460	5.7		1.0	MDL	3.3	PQL	ug/Kg	J	S

Sample ID: SL-146-SA7-SB-9.0-10.0      Collected: 9/16/2011 2:46:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.97	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

Method Category:	SVOA	
Method:	8151A	Matrix: SO

Sample ID: DUP01-SA7-QC-091511      Collected: 9/15/2011 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
2,4-DB	2.4	U	2.4	MDL	2.4	PQL	ug/Kg	UJ	FD
DICAMBA	0.71	J	0.40	MDL	1.2	PQL	ug/Kg	J	Z, FD
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-007-SA7-SS-0.0-0.5      Collected: 9/16/2011 7:45:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-008-SA7-SS-0.0-0.5      Collected: 9/15/2011 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
2,4-DB	4.4		0.63	MDL	1.7	PQL	ug/Kg	J	FD

\* 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: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8151A	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-008-SA7-SS-0.0-0.5			<b>Collected:</b> 9/15/2011 1:55:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
DICAMBA	0.40	U	0.40	MDL	1.2	PQL	ug/Kg	UJ	FD	
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L	

<b>Sample ID:</b> SL-026-SA7-SS-0.0-0.5			<b>Collected:</b> 9/14/2011 3:35:00			<b>Analysis Type:</b> RES-BASE/NEUTRAL			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L	

<b>Sample ID:</b> SL-045-SA7-SS-0.0-0.5			<b>Collected:</b> 9/15/2011 2:30:00			<b>Analysis Type:</b> RES-BASE/NEUTRAL			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L	

<b>Sample ID:</b> SL-086-SA7-SS-0.0-0.5			<b>Collected:</b> 9/16/2011 8:10:00			<b>Analysis Type:</b> RES-BASE/NEUTRAL			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L	

<b>Sample ID:</b> SL-087-SA7-SS-0.0-0.5			<b>Collected:</b> 9/16/2011 8:45:00			<b>Analysis Type:</b> RES-BASE/NEUTRAL			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
DINOSEB	1.7	U	1.7	MDL	2.5	PQL	ug/Kg	R	L	

<b>Sample ID:</b> SL-090-SA7-SS-0.0-0.5			<b>Collected:</b> 9/15/2011 3:25:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
DICAMBA	0.58	J	0.41	MDL	1.2	PQL	ug/Kg	J	Z	
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L	

<b>Sample ID:</b> SL-098-SA7-SS-0.0-0.5			<b>Collected:</b> 9/16/2011 3:25:00			<b>Analysis Type:</b> RES-BASE/NEUTRAL			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8151A	Matrix:	SO

Sample ID: SL-157-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-179-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
DICAMBA	0.52	J	0.40	MDL	1.2	PQL	ug/Kg	J	Z
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Method Category:	SVOA		
Method:	8270C	Matrix:	SO

Sample ID: DUP01-SA7-QC-091511      Collected: 9/15/2011 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
CARBAZOLE	64	J	17	MDL	170	PQL	ug/Kg	J	Z, FD
Di-n-butylphthalate	17	J	17	MDL	170	PQL	ug/Kg	J	Z, FD
Di-n-octylphthalate	17	U	17	MDL	170	PQL	ug/Kg	UJ	FD

Sample ID: SL-007-SA7-SS-0.0-0.5      Collected: 9/16/2011 7:45:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CARBAZOLE	33	J	17	MDL	170	PQL	ug/Kg	J	Z
Di-n-butylphthalate	23	J	17	MDL	170	PQL	ug/Kg	J	Z
Di-n-octylphthalate	130	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-008-SA7-SS-0.0-0.5      Collected: 9/15/2011 1:55:00      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	330	U	330	MDL	990	PQL	ug/Kg	R	Q
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	R	Q
BENZIDINE	1200	U	1200	MDL	3300	PQL	ug/Kg	UJ	Q
BENZO(G,H,I)PERYLENE	120	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZOIC ACID	170	U	170	MDL	500	PQL	ug/Kg	R	Q
CARBAZOLE	26	J	17	MDL	170	PQL	ug/Kg	J	Z, FD
Di-n-butylphthalate	17	U	17	MDL	170	PQL	ug/Kg	UJ	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8270C	Matrix:	SO

Sample ID: SL-008-SA7-SS-0.0-0.5      Collected: 9/15/2011 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
Di-n-octylphthalate	120	J	17	MDL	170	PQL	ug/Kg	J	Z, FD
INDENO(1,2,3-CD)PYRENE	120	J	17	MDL	170	PQL	ug/Kg	J	Z
PENTACHLOROPHENOL	170	U	170	MDL	500	PQL	ug/Kg	R	Q

Sample ID: SL-026-SA7-SS-0.0-0.5      Collected: 9/14/2011 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	240	J	17	MDL	330	PQL	ug/Kg	J	Z
Di-n-octylphthalate	140	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-034-SA7-SB-4.0-5.0      Collected: 9/16/2011 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	160	J	18	MDL	360	PQL	ug/Kg	J	Z
Di-n-octylphthalate	130	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-034-SA7-SB-9.0-10.0      Collected: 9/16/2011 11:10:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	220	J	18	MDL	360	PQL	ug/Kg	J	Z

Sample ID: SL-035-SA7-SB-4.0-5.0      Collected: 9/16/2011 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	130	J	18	MDL	360	PQL	ug/Kg	J	Z
Di-n-octylphthalate	130	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-035-SA7-SB-9.0-10.0      Collected: 9/16/2011 9:44:00      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	140	J	18	MDL	360	PQL	ug/Kg	J	Z
Di-n-octylphthalate	140	J	18	MDL	180	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C	<b>Matrix:</b>	SO
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Sample ID: SL-045-SA7-SS-0.0-0.5      Collected: 9/15/2011 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-octylphthalate	130	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-079-SA7-SB-2.0-3.0      Collected: 9/16/2011 8:26:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	120	J	17	MDL	350	PQL	ug/Kg	J	Z

Sample ID: SL-080-SA7-SB-4.0-5.0      Collected: 9/16/2011 12:15:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	130	J	18	MDL	360	PQL	ug/Kg	J	Z
Di-n-octylphthalate	130	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-080-SA7-SB-9.0-10.0      Collected: 9/16/2011 12:18:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	200	J	18	MDL	370	PQL	ug/Kg	J	Z

Sample ID: SL-086-SA7-SS-0.0-0.5      Collected: 9/16/2011 8:10:00      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	140	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-087-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	270	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-090-SA7-SS-0.0-0.5      Collected: 9/15/2011 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
DIBENZOFURAN	140	J	17	MDL	170	PQL	ug/Kg	J	Z
Di-n-butylphthalate	19	J	17	MDL	170	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8270C	Matrix:	SO

Sample ID: SL-098-SA7-SS-0.0-0.5      Collected: 9/16/2011 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(A)ANTHRACENE	47	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	49	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	75	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	48	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	28	J	17	MDL	170	PQL	ug/Kg	J	Z
CHRYSENE	68	J	17	MDL	170	PQL	ug/Kg	J	Z
Di-n-octylphthalate	130	J	17	MDL	170	PQL	ug/Kg	J	Z
FLUORANTHENE	130	J	17	MDL	170	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	35	J	17	MDL	170	PQL	ug/Kg	J	Z
PHENANTHRENE	80	J	17	MDL	170	PQL	ug/Kg	J	Z
PYRENE	120	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-146-SA7-SB-4.0-5.0      Collected: 9/16/2011 2:43:00      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	130	J	18	MDL	370	PQL	ug/Kg	J	Z
Di-n-octylphthalate	140	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-146-SA7-SB-9.0-10.0      Collected: 9/16/2011 2:46:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	200	J	18	MDL	360	PQL	ug/Kg	J	Z
Di-n-octylphthalate	140	J	18	MDL	180	PQL	ug/Kg	J	Z

Sample ID: SL-157-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
ANTHRACENE	25	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	140	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	140	J	17	MDL	170	PQL	ug/Kg	J	Z
CARBAZOLE	47	J	17	MDL	170	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	52	J	17	MDL	170	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C	<b>Matrix:</b> SO

Sample ID: SL-179-SA7-SS-0.0-0.5      Collected: 9/16/2011 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(G,H,I)PERYLENE	19	J	17	MDL	170	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	210	J	17	MDL	340	PQL	ug/Kg	J	Z
Di-n-butylphthalate	21	J	17	MDL	170	PQL	ug/Kg	J	Z
Di-n-octylphthalate	130	J	17	MDL	170	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	22	J	17	MDL	170	PQL	ug/Kg	J	Z

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C SIM	<b>Matrix:</b> SO

Sample ID: DUP01-SA7-QC-091511      Collected: 9/15/2011 1:55:00      Analysis Type: DL-BASE/NEUTRAL      Dilution: 100

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	2900		66	MDL	170	PQL	ug/Kg	J	FD
BENZO(A)PYRENE	2800		66	MDL	170	PQL	ug/Kg	J	FD
BENZO(B)FLUORANTHENE	4300		66	MDL	170	PQL	ug/Kg	J	FD
BENZO(K)FLUORANTHENE	2300		66	MDL	170	PQL	ug/Kg	J	FD
CHRYSENE	4300		33	MDL	170	PQL	ug/Kg	J	FD
FLUORANTHENE	12000		66	MDL	170	PQL	ug/Kg	J	FD
PHENANTHRENE	9700		66	MDL	170	PQL	ug/Kg	J	FD
PYRENE	9900		66	MDL	170	PQL	ug/Kg	J	FD

Sample ID: DUP01-SA7-QC-091511      Collected: 9/15/2011 1:55:00      Analysis Type: RES      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	62		3.3	MDL	8.3	PQL	ug/Kg	J	FD
2-METHYLNAPHTHALENE	47		3.3	MDL	8.3	PQL	ug/Kg	J	FD
ACENAPHTHENE	650		3.3	MDL	8.3	PQL	ug/Kg	J	FD
ACENAPHTHYLENE	37		1.7	MDL	8.3	PQL	ug/Kg	J	FD
ANTHRACENE	680		1.7	MDL	8.3	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	1100		3.3	MDL	8.3	PQL	ug/Kg	J	FD
DIBENZO(A,H)ANTHRACENE	380		3.3	MDL	8.3	PQL	ug/Kg	J	FD
FLUORENE	390		3.3	MDL	8.3	PQL	ug/Kg	J	FD
INDENO(1,2,3-CD)PYRENE	1300		3.3	MDL	8.3	PQL	ug/Kg	J	FD
NAPHTHALENE	120		3.3	MDL	8.3	PQL	ug/Kg	J	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	\$270C SIM	Matrix: SO

Sample ID: SL-008-SA7-SS-0.0-0.5      Collected: 9/15/2011 1:55:00      Analysis Type: RES      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	3.3	U	3.3	MDL	8.3	PQL	ug/Kg	UJ	FD
2-METHYLNAPHTHALENE	3.3	U	3.3	MDL	8.3	PQL	ug/Kg	UJ	FD
ACENAPHTHENE	12		3.3	MDL	8.3	PQL	ug/Kg	J	FD
ACENAPHTHYLENE	1.7	U	1.7	MDL	8.3	PQL	ug/Kg	UJ	FD
ANTHRACENE	29		1.7	MDL	8.3	PQL	ug/Kg	J	FD
BENZO(A)ANTHRACENE	220		3.3	MDL	8.3	PQL	ug/Kg	J	FD
BENZO(A)PYRENE	240		3.3	MDL	8.3	PQL	ug/Kg	J	FD
BENZO(B)FLUORANTHENE	400		3.3	MDL	8.3	PQL	ug/Kg	J	FD
BENZO(K)FLUORANTHENE	170		3.3	MDL	8.3	PQL	ug/Kg	J	FD
CHRYSENE	280		1.7	MDL	8.3	PQL	ug/Kg	J	FD
DIBENZO(A,H)ANTHRACENE	32		3.3	MDL	8.3	PQL	ug/Kg	J	FD
FLUORANTHENE	690		3.3	MDL	8.3	PQL	ug/Kg	J	FD
FLUORENE	7.7	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z, FD
NAPHTHALENE	3.3	U	3.3	MDL	8.3	PQL	ug/Kg	UJ	FD
PHENANTHRENE	290		3.3	MDL	8.3	PQL	ug/Kg	J	FD
PYRENE	490		3.3	MDL	8.3	PQL	ug/Kg	J	FD

Sample ID: SL-026-SA7-SS-0.0-0.5      Collected: 9/14/2011 3:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	7.0	J	1.7	MDL	8.3	PQL	ug/Kg	J	Z
PHENANTHRENE	5.3	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z

Sample ID: SL-034-SA7-SB-9.0-10.0      Collected: 9/16/2011 11:10:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	1.3	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-045-SA7-SS-0.0-0.5      Collected: 9/15/2011 2:30:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	7.0	J	1.7	MDL	8.3	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C SIM	<b>Matrix:</b> SO

Sample ID: SL-086-SA7-SS-0.0-0.5      Collected: 9/16/2011 8:10:00      Analysis Type: RES      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	4.3	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	2.7	J	1.7	MDL	8.3	PQL	ug/Kg	J	Z
NAPHTHALENE	5.3	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z

Sample ID: SL-087-SA7-SS-0.0-0.5      Collected: 9/16/2011 8:45:00      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	3.5	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z
ANTHRACENE	4.5	J	1.7	MDL	8.4	PQL	ug/Kg	J	Z
Di-n-butylphthalate	53	J	30	MDL	91	PQL	ug/Kg	J	Z

Sample ID: SL-098-SA7-SS-0.0-0.5      Collected: 9/16/2011 3:25:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-butylphthalate	34	J	30	MDL	89	PQL	ug/Kg	J	Z

Sample ID: SL-146-SA7-SB-9.0-10.0      Collected: 9/16/2011 2:46:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	0.78	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-157-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
ACENAPHTHENE	7.1	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z
FLUORENE	5.5	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z

Sample ID: SL-179-SA7-SS-0.0-0.5      Collected: 9/16/2011 3:10:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	4.5	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z
ANTHRACENE	4.6	J	1.7	MDL	8.3	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	3.4	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	VOA	
Method:	6015B	Matrix: SO

Sample ID: DUP01-SA7-QC-091511      Collected: 9/15/2011 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
METHANOL	440	J	100	MDL	500	PQL	ug/Kg	J	Z, FD

Sample ID: SL-007-SA7-SS-0.0-0.5      Collected: 9/16/2011 7:45:00      Analysis Type: REA      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
O-TERPHENYL	3.4	J	1.5	MDL	3.5	PQL	mg/Kg	J	Z, S
p-Terphenyl	2.4	J	1.5	MDL	3.5	PQL	mg/Kg	J	Z, S

Sample ID: SL-008-SA7-SS-0.0-0.5      Collected: 9/15/2011 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
METHANOL	100	U	100	MDL	500	PQL	ug/Kg	UJ	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_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	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: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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ADR version 1.4.0.111

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# Data Qualifier Summary

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_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

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE245

# Method Blank Outlier Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P26308AB220000	9/27/2011 12:00:00 AM	ALUMINUM BORON CALCIUM IRON MAGNESIUM PHOSPHORUS STRONTIUM TIN TITANIUM	8.87 mg/Kg 0.994 mg/Kg 18.7 mg/Kg 2.86 mg/Kg 2.32 mg/Kg 1.51 mg/Kg 0.104 mg/Kg 1.89 mg/Kg 0.174 mg/Kg	DUP01-SA7-QC-091511 SL-007-SA7-SS-0.0-0.5 SL-008-SA7-SS-0.0-0.5 SL-026-SA7-SS-0.0-0.5 SL-034-SA7-SB-4.0-5.0 SL-034-SA7-SB-9.0-10.0 SL-035-SA7-SB-4.0-5.0 SL-035-SA7-SB-9.0-10.0 SL-045-SA7-SS-0.0-0.5 SL-079-SA7-SB-2.0-3.0 SL-080-SA7-SB-4.0-5.0 SL-080-SA7-SB-9.0-10.0 SL-086-SA7-SS-0.0-0.5 SL-087-SA7-SS-0.0-0.5 SL-090-SA7-SS-0.0-0.5 SL-098-SA7-SS-0.0-0.5 SL-146-SA7-SB-4.0-5.0 SL-146-SA7-SB-9.0-10.0 SL-157-SA7-SS-0.0-0.5 SL-179-SA7-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-SA7-QC-091511(RES)	BORON	0.814 mg/Kg	0.814U mg/Kg
DUP01-SA7-QC-091511(RES)	TIN	2.74 mg/Kg	2.74U mg/Kg
SL-007-SA7-SS-0.0-0.5(RES)	BORON	1.62 mg/Kg	1.62U mg/Kg
SL-007-SA7-SS-0.0-0.5(RES)	TIN	5.16 mg/Kg	5.16U mg/Kg
SL-008-SA7-SS-0.0-0.5(RES)	BORON	1.56 mg/Kg	1.56U mg/Kg
SL-008-SA7-SS-0.0-0.5(RES)	TIN	2.96 mg/Kg	2.96U mg/Kg
SL-026-SA7-SS-0.0-0.5(RES)	BORON	2.13 mg/Kg	2.13U mg/Kg
SL-026-SA7-SS-0.0-0.5(RES)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-034-SA7-SB-4.0-5.0(RES)	BORON	1.32 mg/Kg	1.32U mg/Kg
SL-034-SA7-SB-4.0-5.0(RES)	TIN	2.74 mg/Kg	2.74U mg/Kg
SL-034-SA7-SB-9.0-10.0(RES)	BORON	1.62 mg/Kg	1.62U mg/Kg
SL-034-SA7-SB-9.0-10.0(RES)	TIN	2.73 mg/Kg	2.73U mg/Kg
SL-035-SA7-SB-4.0-5.0(RES)	BORON	0.733 mg/Kg	0.733U mg/Kg
SL-035-SA7-SB-4.0-5.0(RES)	TIN	2.73 mg/Kg	2.73U mg/Kg
SL-035-SA7-SB-9.0-10.0(RES)	TIN	3.05 mg/Kg	3.05U mg/Kg
SL-045-SA7-SS-0.0-0.5(RES)	BORON	1.88 mg/Kg	1.88U mg/Kg
SL-045-SA7-SS-0.0-0.5(RES)	TIN	3.46 mg/Kg	3.46U mg/Kg
SL-079-SA7-SB-2.0-3.0(RES)	BORON	0.430 mg/Kg	0.430U mg/Kg
SL-079-SA7-SB-2.0-3.0(RES)	TIN	2.61 mg/Kg	2.61U mg/Kg
SL-080-SA7-SB-4.0-5.0(RES)	BORON	1.60 mg/Kg	1.60U mg/Kg
SL-080-SA7-SB-4.0-5.0(RES)	TIN	2.99 mg/Kg	2.99U mg/Kg
SL-080-SA7-SB-9.0-10.0(RES)	BORON	1.49 mg/Kg	1.49U mg/Kg
SL-080-SA7-SB-9.0-10.0(RES)	TIN	2.73 mg/Kg	2.73U mg/Kg
SL-087-SA7-SS-0.0-0.5(RES)	BORON	1.82 mg/Kg	1.82U mg/Kg

**Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling**

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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*The following samples and their listed target analytes were qualified due to contamination reported in this blank*

Sample ID	Analyte	Reported Result	Modified Final Result
SL-087-SA7-SS-0.0-0.5(RES)	TIN	3.32 mg/Kg	3.32U mg/Kg
SL-090-SA7-SS-0.0-0.5(RES)	BORON	0.949 mg/Kg	0.949U mg/Kg
SL-090-SA7-SS-0.0-0.5(RES)	TIN	2.98 mg/Kg	2.98U mg/Kg
SL-098-SA7-SS-0.0-0.5(RES)	BORON	1.01 mg/Kg	1.01U mg/Kg
SL-098-SA7-SS-0.0-0.5(RES)	TIN	3.21 mg/Kg	3.21U mg/Kg
SL-146-SA7-SB-4.0-5.0(RES)	BORON	1.04 mg/Kg	1.04U mg/Kg
SL-146-SA7-SB-4.0-5.0(RES)	TIN	2.84 mg/Kg	2.84U mg/Kg
SL-146-SA7-SB-9.0-10.0(RES)	BORON	1.33 mg/Kg	1.33U mg/Kg
SL-146-SA7-SB-9.0-10.0(RES)	TIN	2.84 mg/Kg	2.84U mg/Kg
SL-157-SA7-SS-0.0-0.5(RES)	BORON	0.451 mg/Kg	0.451U mg/Kg
SL-157-SA7-SS-0.0-0.5(RES)	TIN	4.64 mg/Kg	4.64U mg/Kg
SL-179-SA7-SS-0.0-0.5(RES)	BORON	0.841 mg/Kg	0.841U mg/Kg
SL-179-SA7-SS-0.0-0.5(RES)	TIN	2.90 mg/Kg	2.90U mg/Kg

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: DE245\_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-008-SA7-SS-0.0-0.5MSD (SL-008-SA7-SS-0.0-0.5)	Isopropanol	-	-	12.00-149.00	31 (20.00)	Isopropanol	No Qual, No Associated Samples
SL-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (SL-008-SA7-SS-0.0-0.5)	ETHANOL	28	22	48.00-130.00	-	ETHANOL	No Qual, No Associated Samples

**Method: 8015M**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (SL-008-SA7-SS-0.0-0.5)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	15 43 55	17 44 54	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: 8081A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (SL-008-SA7-SS-0.0-0.5)	4,4'-DDD METHOXYCHLOR	579 160	388 -	16.00-163.00 32.00-147.00	- -	4,4'-DDD METHOXYCHLOR	J(all detects)
SL-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (SL-008-SA7-SS-0.0-0.5)	DIELDRIN ENDRIN ALDEHYDE	0 0	0 0	19.00-154.00 10.00-148.00	- -	DIELDRIN ENDRIN ALDEHYDE	J(all detects) R(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-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (SL-008-SA7-SS-0.0-0.5)	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	166 470 612	171 430 705	49.00-123.00 49.00-123.00 49.00-123.00	- - -	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	J(all detects) EFH (C21-C30), EFH (C30-C40), No Qual, >4x
SL-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (SL-008-SA7-SS-0.0-0.5)	EFH (C8-C11)	0	0	49.00-123.00	-	EFH (C8-C11)	J(all detects) R(all non-detects)

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-008-SA7-SS-0.0-0.5MSD (SL-008-SA7-SS-0.0-0.5)	2,4,5-T	-	-	10.00-156.00	82 (35.00)	2,4,5-T	J(all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: DE245\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (SL-008-SA7-SS-0.0-0.5)	DINOSEB	7	7	10.00-46.00	-	DINOSEB	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-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (DUP01-SA7-QC-091511 SL-007-SA7-SS-0.0-0.5 SL-008-SA7-SS-0.0-0.5 SL-026-SA7-SS-0.0-0.5 SL-034-SA7-SB-4.0-5.0 SL-034-SA7-SB-9.0-10.0 SL-035-SA7-SB-4.0-5.0 SL-035-SA7-SB-9.0-10.0 SL-045-SA7-SS-0.0-0.5 SL-079-SA7-SB-2.0-3.0 SL-080-SA7-SB-4.0-5.0 SL-080-SA7-SB-9.0-10.0 SL-086-SA7-SS-0.0-0.5 SL-087-SA7-SS-0.0-0.5 SL-090-SA7-SS-0.0-0.5 SL-098-SA7-SS-0.0-0.5 SL-146-SA7-SB-4.0-5.0 SL-146-SA7-SB-9.0-10.0 SL-157-SA7-SS-0.0-0.5 SL-179-SA7-SS-0.0-0.5)	CADMIUM COBALT SILVER	135 127 136	129 - 130	75.00-125.00 75.00-125.00 75.00-125.00	- - -	CADMIUM COBALT SILVER	J(all detects)
SL-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (DUP01-SA7-QC-091511 SL-007-SA7-SS-0.0-0.5 SL-008-SA7-SS-0.0-0.5 SL-026-SA7-SS-0.0-0.5 SL-034-SA7-SB-4.0-5.0 SL-034-SA7-SB-9.0-10.0 SL-035-SA7-SB-4.0-5.0 SL-035-SA7-SB-9.0-10.0 SL-045-SA7-SS-0.0-0.5 SL-079-SA7-SB-2.0-3.0 SL-080-SA7-SB-4.0-5.0 SL-080-SA7-SB-9.0-10.0 SL-086-SA7-SS-0.0-0.5 SL-087-SA7-SS-0.0-0.5 SL-090-SA7-SS-0.0-0.5 SL-098-SA7-SS-0.0-0.5 SL-146-SA7-SB-4.0-5.0 SL-146-SA7-SB-9.0-10.0 SL-157-SA7-SS-0.0-0.5 SL-179-SA7-SS-0.0-0.5)	ARSENIC ZINC	-43 -202	-69 56	75.00-125.00 75.00-125.00	- -	ARSENIC ZINC	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: DE245\_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-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (DUP01-SA7-QC-091511 SL-007-SA7-SS-0.0-0.5 SL-008-SA7-SS-0.0-0.5 SL-026-SA7-SS-0.0-0.5 SL-034-SA7-SB-4.0-5.0 SL-034-SA7-SB-9.0-10.0 SL-035-SA7-SB-4.0-5.0 SL-035-SA7-SB-9.0-10.0 SL-045-SA7-SS-0.0-0.5 SL-079-SA7-SB-2.0-3.0 SL-080-SA7-SB-4.0-5.0 SL-080-SA7-SB-9.0-10.0 SL-086-SA7-SS-0.0-0.5 SL-087-SA7-SS-0.0-0.5 SL-090-SA7-SS-0.0-0.5 SL-098-SA7-SS-0.0-0.5 SL-146-SA7-SB-4.0-5.0 SL-146-SA7-SB-9.0-10.0 SL-157-SA7-SS-0.0-0.5 SL-179-SA7-SS-0.0-0.5)	ANTIMONY CHROMIUM VANADIUM	41 - 44	44 177 126	75.00-125.00 75.00-125.00 75.00-125.00	- 27 (20.00) -	ANTIMONY CHROMIUM VANADIUM	J(all detects) UJ(all non-detects)  V, No Qual, >4x
SL-008-SA7-SS-0.0-0.5MS (DUP01-SA7-QC-091511 SL-007-SA7-SS-0.0-0.5 SL-008-SA7-SS-0.0-0.5 SL-026-SA7-SS-0.0-0.5 SL-034-SA7-SB-4.0-5.0 SL-034-SA7-SB-9.0-10.0 SL-035-SA7-SB-4.0-5.0 SL-035-SA7-SB-9.0-10.0 SL-045-SA7-SS-0.0-0.5 SL-079-SA7-SB-2.0-3.0 SL-080-SA7-SB-4.0-5.0 SL-080-SA7-SB-9.0-10.0 SL-086-SA7-SS-0.0-0.5 SL-087-SA7-SS-0.0-0.5 SL-090-SA7-SS-0.0-0.5 SL-098-SA7-SS-0.0-0.5 SL-146-SA7-SB-4.0-5.0 SL-146-SA7-SB-9.0-10.0 SL-157-SA7-SS-0.0-0.5 SL-179-SA7-SS-0.0-0.5)	SELENIUM	130	-	75.00-125.00	-	SELENIUM	J(all detects)
SL-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (DUP01-SA7-QC-091511 SL-007-SA7-SS-0.0-0.5 SL-008-SA7-SS-0.0-0.5 SL-026-SA7-SS-0.0-0.5 SL-034-SA7-SB-4.0-5.0 SL-034-SA7-SB-9.0-10.0 SL-035-SA7-SB-4.0-5.0 SL-035-SA7-SB-9.0-10.0 SL-045-SA7-SS-0.0-0.5 SL-079-SA7-SB-2.0-3.0 SL-080-SA7-SB-4.0-5.0 SL-080-SA7-SB-9.0-10.0 SL-086-SA7-SS-0.0-0.5 SL-087-SA7-SS-0.0-0.5 SL-090-SA7-SS-0.0-0.5 SL-098-SA7-SS-0.0-0.5 SL-146-SA7-SB-4.0-5.0 SL-146-SA7-SB-9.0-10.0 SL-157-SA7-SS-0.0-0.5 SL-179-SA7-SS-0.0-0.5)	MOLYBDENUM	137	130	75.00-125.00	-	MOLYBDENUM	J(all detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: DE245\_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-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (DUP01-SA7-QC-091511 SL-007-SA7-SS-0.0-0.5 SL-008-SA7-SS-0.0-0.5 SL-026-SA7-SS-0.0-0.5 SL-034-SA7-SB-4.0-5.0 SL-034-SA7-SB-9.0-10.0 SL-035-SA7-SB-4.0-5.0 SL-035-SA7-SB-9.0-10.0 SL-045-SA7-SS-0.0-0.5 SL-079-SA7-SB-2.0-3.0 SL-080-SA7-SB-4.0-5.0 SL-080-SA7-SB-9.0-10.0 SL-086-SA7-SS-0.0-0.5 SL-087-SA7-SS-0.0-0.5 SL-090-SA7-SS-0.0-0.5 SL-098-SA7-SS-0.0-0.5 SL-146-SA7-SB-4.0-5.0 SL-146-SA7-SB-9.0-10.0 SL-157-SA7-SS-0.0-0.5 SL-179-SA7-SS-0.0-0.5)	BARIUM	-62	-30	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-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (DUP01-SA7-QC-091511 SL-007-SA7-SS-0.0-0.5 SL-008-SA7-SS-0.0-0.5 SL-026-SA7-SS-0.0-0.5 SL-034-SA7-SB-4.0-5.0 SL-034-SA7-SB-9.0-10.0 SL-035-SA7-SB-4.0-5.0 SL-035-SA7-SB-9.0-10.0 SL-045-SA7-SS-0.0-0.5 SL-079-SA7-SB-2.0-3.0 SL-080-SA7-SB-4.0-5.0 SL-080-SA7-SB-9.0-10.0 SL-086-SA7-SS-0.0-0.5 SL-087-SA7-SS-0.0-0.5 SL-090-SA7-SS-0.0-0.5 SL-098-SA7-SS-0.0-0.5 SL-146-SA7-SB-4.0-5.0 SL-146-SA7-SB-9.0-10.0 SL-157-SA7-SS-0.0-0.5 SL-179-SA7-SS-0.0-0.5)	ALUMINUM TITANIUM	564 142	148 154	75.00-125.00 75.00-125.00	- -	ALUMINUM TITANIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: DE245\_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-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (DUP01-SA7-QC-091511 SL-007-SA7-SS-0.0-0.5 SL-008-SA7-SS-0.0-0.5 SL-026-SA7-SS-0.0-0.5 SL-034-SA7-SB-4.0-5.0 SL-034-SA7-SB-9.0-10.0 SL-035-SA7-SB-4.0-5.0 SL-035-SA7-SB-9.0-10.0 SL-045-SA7-SS-0.0-0.5 SL-079-SA7-SB-2.0-3.0 SL-080-SA7-SB-4.0-5.0 SL-080-SA7-SB-9.0-10.0 SL-086-SA7-SS-0.0-0.5 SL-087-SA7-SS-0.0-0.5 SL-090-SA7-SS-0.0-0.5 SL-098-SA7-SS-0.0-0.5 SL-146-SA7-SB-4.0-5.0 SL-146-SA7-SB-9.0-10.0 SL-157-SA7-SS-0.0-0.5 SL-179-SA7-SS-0.0-0.5)	IRON MAGNESIUM	-310 26	-690 46	75.00-125.00 75.00-125.00	- -	IRON MAGNESIUM	No Qual, >4x
SL-008-SA7-SS-0.0-0.5MSD (DUP01-SA7-QC-091511 SL-007-SA7-SS-0.0-0.5 SL-008-SA7-SS-0.0-0.5 SL-026-SA7-SS-0.0-0.5 SL-034-SA7-SB-4.0-5.0 SL-034-SA7-SB-9.0-10.0 SL-035-SA7-SB-4.0-5.0 SL-035-SA7-SB-9.0-10.0 SL-045-SA7-SS-0.0-0.5 SL-079-SA7-SB-2.0-3.0 SL-080-SA7-SB-4.0-5.0 SL-080-SA7-SB-9.0-10.0 SL-086-SA7-SS-0.0-0.5 SL-087-SA7-SS-0.0-0.5 SL-090-SA7-SS-0.0-0.5 SL-098-SA7-SS-0.0-0.5 SL-146-SA7-SB-4.0-5.0 SL-146-SA7-SB-9.0-10.0 SL-157-SA7-SS-0.0-0.5 SL-179-SA7-SS-0.0-0.5)	CALCIUM	-	64	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-034-SA7-SB-4.0-5.0MS (SL-007-SA7-SS-0.0-0.5 SL-034-SA7-SB-4.0-5.0 SL-034-SA7-SB-9.0-10.0 SL-035-SA7-SB-4.0-5.0 SL-035-SA7-SB-9.0-10.0 SL-079-SA7-SB-2.0-3.0 SL-080-SA7-SB-4.0-5.0 SL-080-SA7-SB-9.0-10.0 SL-146-SA7-SB-4.0-5.0 SL-146-SA7-SB-9.0-10.0)	FLUORIDE	50	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: DE245\_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-008-SA7-SS-0.0-0.5MS (DUP01-SA7-QC-091511 SL-008-SA7-SS-0.0-0.5 SL-026-SA7-SS-0.0-0.5 SL-045-SA7-SS-0.0-0.5 SL-086-SA7-SS-0.0-0.5 SL-087-SA7-SS-0.0-0.5 SL-090-SA7-SS-0.0-0.5 SL-098-SA7-SS-0.0-0.5 SL-157-SA7-SS-0.0-0.5 SL-179-SA7-SS-0.0-0.5)	FLUORIDE	68	-	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-008-SA7-SS-0.0-0.5MSD (SL-008-SA7-SS-0.0-0.5)	3,3'-DICHLOROBENZIDINE 4-CHLOROANILINE ACENAPHTHYLENE ANILINE	- - - -	- - 115 -	28.00-109.00 23.00-95.00 81.00-110.00 18.00-116.00	35 (30.00) 55 (30.00) - 32 (30.00)	3,3'-DICHLOROBENZIDINE 4-CHLOROANILINE ACENAPHTHYLENE ANILINE	J(all detects)
SL-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (SL-008-SA7-SS-0.0-0.5)	2,4-DINITROPHENOL 4,6-DINITRO-2-METHYLPHENOL BENZOIC ACID PENTACHLOROPHENOL	0 0 0 0	0 0 0 0	20.00-143.00 11.00-126.00 10.00-173.00 28.00-127.00	- - - -	2,4-DINITROPHENOL 4,6-DINITRO-2-METHYLPHENOL BENZOIC ACID PENTACHLOROPHENOL	J(all detects) R(all non-detects)
SL-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (SL-008-SA7-SS-0.0-0.5)	BENZIDINE	27	-	35.00-141.00	50 (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-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (SL-008-SA7-SS-0.0-0.5)	BIS(2-ETHYLHEXYL)PHTHALAT	323	183	39.00-167.00	55 (30.00)	BIS(2-ETHYLHEXYL)PHTHALA	No Qual, Diluted Out
SL-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (SL-008-SA7-SS-0.0-0.5)	BENZO(A)ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE CHRYSENE Dimethylphthalate FLUORANTHENE INDENO(1,2,3-CD)PYRENE PYRENE	-214 -146 -206 -20 -74 -144 0 -388 -10 -261	-61 -10 3 - 24 34 0 -92 - -10	59.00-128.00 58.00-142.00 54.00-163.00 33.00-141.00 57.00-153.00 67.00-123.00 74.00-118.00 51.00-149.00 21.00-143.00 51.00-131.00	- - - - - - - - - -	BENZO(A)ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE CHRYSENE Dimethylphthalate FLUORANTHENE INDENO(1,2,3-CD)PYRENE PYRENE	No Qual, Diluted Out
SL-008-SA7-SS-0.0-0.5MS SL-008-SA7-SS-0.0-0.5MSD (SL-008-SA7-SS-0.0-0.5)	ANTHRACENE DIBENZO(A,H)ANTHRACENE	40 17	59 -	73.00-115.00 22.00-133.00	- -	ANTHRACENE DIBENZO(A,H)ANTHRACENE	No Qual, Diluted Out

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 300.0**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-008-SA7-SS-0.0-0.5DUP (DUP01 -SA7-QC-091511 SL -008-SA7-SS-0.0-0.5 SL -026-SA7-SS-0.0-0.5 SL -045-SA7-SS-0.0-0.5 SL -086-SA7-SS-0.0-0.5 SL -087-SA7-SS-0.0-0.5 SL -090-SA7-SS-0.0-0.5 SL -098-SA7-SS-0.0-0.5 SL -157-SA7-SS-0.0-0.5 SL -179-SA7-SS-0.0-0.5)	FLUORIDE	33	20.00	No Qual, OK by Difference

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-008-SA7-SS-0.0-0.5DUP (DUP01 -SA7-QC-091511 SL -007-SA7-SS-0.0-0.5 SL -008-SA7-SS-0.0-0.5 SL -026-SA7-SS-0.0-0.5 SL -034-SA7-SB-4.0-5.0 SL -034-SA7-SB-9.0-10.0 SL -035-SA7-SB-4.0-5.0 SL -035-SA7-SB-9.0-10.0 SL -045-SA7-SS-0.0-0.5 SL -079-SA7-SB-2.0-3.0 SL -080-SA7-SB-4.0-5.0 SL -080-SA7-SB-9.0-10.0 SL -086-SA7-SS-0.0-0.5 SL -087-SA7-SS-0.0-0.5 SL -090-SA7-SS-0.0-0.5 SL -098-SA7-SS-0.0-0.5 SL -146-SA7-SB-4.0-5.0 SL -146-SA7-SB-9.0-10.0 SL -157-SA7-SS-0.0-0.5 SL -179-SA7-SS-0.0-0.5)	BORON Zirconium	33 200	20.00 20.00	No Qual, OK by Difference

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-008-SA7-SS-0.0-0.5DUP	ANTIMONY	22	20.00	J(all detects) UJ(all non-detects)  Sb, Ag, No Qual, OK by Difference
(DUP01 -SA7-QC-091511	ARSENIC	33	20.00	
SL -007-SA7-SS-0.0-0.5	CADMIUM	2.6042 mg/kg	0.1978 mg/kg	
SL -008-SA7-SS-0.0-0.5	COPPER	21	20.00	
SL -026-SA7-SS-0.0-0.5	LEAD	68	20.00	
SL -034-SA7-SB-4.0-5.0	MOLYBDENUM	0.2047 mg/kg	0.1978 mg/kg	
SL -034-SA7-SB-9.0-10.0	SILVER	56	20.00	
SL -035-SA7-SB-4.0-5.0	ZINC	185	20.00	
SL -035-SA7-SB-9.0-10.0				
SL -045-SA7-SS-0.0-0.5				
SL -079-SA7-SB-2.0-3.0				
SL -080-SA7-SB-4.0-5.0				
SL -080-SA7-SB-9.0-10.0				
SL -086-SA7-SS-0.0-0.5				
SL -087-SA7-SS-0.0-0.5				
SL -090-SA7-SS-0.0-0.5				
SL -098-SA7-SS-0.0-0.5				
SL -146-SA7-SB-4.0-5.0				
SL -146-SA7-SB-9.0-10.0				
SL -157-SA7-SS-0.0-0.5				
SL -179-SA7-SS-0.0-0.5)				

**Method: 7199**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-008-SA7-SS-0.0-0.5DUP	HEXAVALENT CHROMIUM	43	20.00	No Qual, OK by Difference
(DUP01 -SA7-QC-091511				
SL -007-SA7-SS-0.0-0.5				
SL -008-SA7-SS-0.0-0.5				
SL -026-SA7-SS-0.0-0.5				
SL -034-SA7-SB-4.0-5.0				
SL -034-SA7-SB-9.0-10.0				
SL -035-SA7-SB-4.0-5.0				
SL -035-SA7-SB-9.0-10.0				
SL -045-SA7-SS-0.0-0.5				
SL -079-SA7-SB-2.0-3.0				
SL -080-SA7-SB-4.0-5.0				
SL -080-SA7-SB-9.0-10.0				
SL -086-SA7-SS-0.0-0.5				
SL -087-SA7-SS-0.0-0.5				
SL -090-SA7-SS-0.0-0.5				
SL -098-SA7-SS-0.0-0.5				
SL -146-SA7-SB-4.0-5.0				
SL -146-SA7-SB-9.0-10.0				
SL -157-SA7-SS-0.0-0.5				
SL -179-SA7-SS-0.0-0.5)				

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: DE245\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 8151A							
Matrix: SO							
QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12675AQ241549A (DUP01 -SA7-QC-091511 SL -007-SA7-SS-0.0-0.5 SL -008-SA7-SS-0.0-0.5 SL -026-SA7-SS-0.0-0.5 SL -045-SA7-SS-0.0-0.5 SL -086-SA7-SS-0.0-0.5 SL -087-SA7-SS-0.0-0.5 SL -090-SA7-SS-0.0-0.5 SL -098-SA7-SS-0.0-0.5 SL -157-SA7-SS-0.0-0.5 SL -179-SA7-SS-0.0-0.5)	DINOSEB	4	-	10.00-36.00	-	DINOSEB	J (all detects) R (all non-detects)

Method: 6020							
Matrix: SO							
QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P26326AQ221022A (DUP01 -SA7-QC-091511 SL -007-SA7-SS-0.0-0.5 SL -008-SA7-SS-0.0-0.5 SL -026-SA7-SS-0.0-0.5 SL -034-SA7-SB-4.0-5.0 SL -034-SA7-SB-9.0-10.0 SL -035-SA7-SB-4.0-5.0 SL -035-SA7-SB-9.0-10.0 SL -045-SA7-SS-0.0-0.5 SL -079-SA7-SB-2.0-3.0 SL -080-SA7-SB-4.0-5.0 SL -080-SA7-SB-9.0-10.0 SL -086-SA7-SS-0.0-0.5 SL -087-SA7-SS-0.0-0.5 SL -090-SA7-SS-0.0-0.5 SL -098-SA7-SS-0.0-0.5 SL -146-SA7-SB-4.0-5.0 SL -146-SA7-SB-9.0-10.0 SL -157-SA7-SS-0.0-0.5 SL -179-SA7-SS-0.0-0.5)	VANADIUM	122	-	80.00-120.00	-	VANADIUM	No Qual, SRM within QC limits

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: DE245\_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
P26308AQ220004	ALUMINUM	157	-	80.00-120.00	-	ALUMINUM	No Qual, SRM within QC limits
(DUP01 -SA7-QC-091511	IRON	142	-	80.00-120.00	-	IRON	
SL -007-SA7-SS-0.0-0.5	MAGNESIUM	129	-	80.00-120.00	-	MAGNESIUM	
SL -008-SA7-SS-0.0-0.5	POTASSIUM	124	-	80.00-120.00	-	POTASSIUM	
SL -026-SA7-SS-0.0-0.5							
SL -034-SA7-SB-4.0-5.0							
SL -034-SA7-SB-9.0-10.0							
SL -035-SA7-SB-4.0-5.0							
SL -035-SA7-SB-9.0-10.0							
SL -045-SA7-SS-0.0-0.5							
SL -079-SA7-SB-2.0-3.0							
SL -080-SA7-SB-4.0-5.0							
SL -080-SA7-SB-9.0-10.0							
SL -086-SA7-SS-0.0-0.5							
SL -087-SA7-SS-0.0-0.5							
SL -090-SA7-SS-0.0-0.5							
SL -098-SA7-SS-0.0-0.5							
SL -146-SA7-SB-4.0-5.0							
SL -146-SA7-SB-9.0-10.0							
SL -157-SA7-SS-0.0-0.5							
SL -179-SA7-SS-0.0-0.5)							

# Surrogate Outlier Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: DE245\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8015B  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-007-SA7-SS-0.0-0.5	n-Triacontane-d62	627	19.00-152.00	All Target Analytes	J(all detects)
SL-087-SA7-SS-0.0-0.5	n-Triacontane-d62	1004	19.00-152.00	All Target Analytes	J(all detects)
SL-090-SA7-SS-0.0-0.5	n-Triacontane-d62	170	19.00-152.00	All Target Analytes	J(all detects)
SL-157-SA7-SS-0.0-0.5	n-Triacontane-d62	172	19.00-152.00	All Target Analytes	J(all detects)

**Method:** 8015M  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-007-SA7-SS-0.0-0.5	O-TERPHENYL	201	47.00-145.00	All Target Analytes	No Qual, Diluted Out
SL-045-SA7-SS-0.0-0.5	O-TERPHENYL	152	47.00-145.00	All Target Analytes	No Qual, Diluted Out
SL-090-SA7-SS-0.0-0.5	O-TERPHENYL	309	47.00-145.00	All Target Analytes	No Qual, Diluted Out

**Method:** 8081A  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DUP01-SA7-QC-091511	DECACHLOROBIPHENYL	767	45.00-150.00	All Target Analytes	J (all detects)
SL-007-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	3283	45.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-007-SA7-SS-0.0-0.5	TETRACHLORO-M-XYLENE	43	50.00-130.00	All Target Analytes	No Qual, Diluted Out
SL-008-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	870	45.00-150.00	All Target Analytes	J(all detects)
SL-045-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	2875	45.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-086-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	856	45.00-150.00	All Target Analytes	J(all detects)
SL-087-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	580	45.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-090-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	3141	45.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-157-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	470	45.00-150.00	All Target Analytes	J(all detects)

# Surrogate Outlier Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: DE245\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 8082

Matrix: SO

<i>Sample ID</i>	<i>Surrogate</i>	<i>Sample % Recovery</i>	<i>% Recovery Limits</i>	<i>Affected Compounds</i>	<i>Flag</i>
SL-098-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	128	45.00-120.00	All Target Analytes	J(all detects)
SL-146-SA7-SB-4.0-5.0	DECACHLOROBIPHENYL	128	45.00-120.00	All Target Analytes	J(all detects)

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 160.3M**  
**Matrix: SO**

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-008-SA7-SS-0.0-0.5	DUP01-SA7-QC-091511			
MOISTURE	0.85	0.80	6		No Qualifiers Applied

**Method: 300.0**  
**Matrix: SO**

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-008-SA7-SS-0.0-0.5	DUP01-SA7-QC-091511			
FLUORIDE	1.4	1.0 U	200	50.00	No Qualifiers Applied

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

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-008-SA7-SS-0.0-0.5	DUP01-SA7-QC-091511			
ALUMINUM	12600	12000	5	50.00	No Qualifiers Applied
CALCIUM	2770	2680	3	50.00	
IRON	18400	18700	2	50.00	
LITHIUM	24.7	24.8	0	50.00	
MAGNESIUM	3860	3950	2	50.00	
MANGANESE	270	267	1	50.00	
PHOSPHORUS	371	377	2	50.00	
POTASSIUM	3290	3430	4	50.00	
SODIUM	71.5	70.3	2	50.00	
STRONTIUM	11.7	10.9	7	50.00	
TIN	2.96	2.74	8	50.00	
TITANIUM	1180	1150	3	50.00	
BORON	1.56	0.814	63	50.00	J(all detects)

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

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-008-SA7-SS-0.0-0.5	DUP01-SA7-QC-091511			
BARIUM	116	96.3	19	50.00	No Qualifiers Applied
BERYLLIUM	0.643	0.584	10	50.00	
CADMIUM	0.199	0.209	5	50.00	
CHROMIUM	18.7	16.5	12	50.00	
COBALT	7.20	5.46	27	50.00	
COPPER	10.6	7.06	40	50.00	
LEAD	17.4	27.3	44	50.00	
NICKEL	11.3	8.66	26	50.00	
SELENIUM	0.101	0.0766	27	50.00	
THALLIUM	0.384	0.300	25	50.00	
VANADIUM	39.7	31.4	23	50.00	
ZINC	165	159	4	50.00	
ANTIMONY	0.409	0.216	62	50.00	
ARSENIC	7.85	4.24	60	50.00	
MOLYBDENUM	0.689	0.405	52	50.00	
SILVER	0.0252	0.0463	59	50.00	

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Field Duplicate RPD Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 7199  
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-008-SA7-SS-0.0-0.5	DUP01-SA7-QC-091511			
HEXAVALENT CHROMIUM	0.36	1.0 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 8015B  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-008-SA7-SS-0.0-0.5	DUP01-SA7-QC-091511			
METHANOL	500 U	440	200	50.00	J(all detects) UJ(all non-detects)

Method: 8015M  
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-008-SA7-SS-0.0-0.5	DUP01-SA7-QC-091511			
EFH (C21-C30)	21	34	47	50.00	No Qualifiers Applied
EFH (C30-C40)	38	50	27	50.00	
EFH (C15-C20)	2.3	5.4	81	50.00	J(all detects)

Method: 8081A  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-008-SA7-SS-0.0-0.5	DUP01-SA7-QC-091511			
DELTA-BHC	0.056	0.048	15	50.00	No Qualifiers Applied
Chlordane	3.4 U	2.3	200	50.00	J(all detects)
HEPTACHLOR EPOXIDE	0.17 U	0.086	200	50.00	UJ(all non-detects)

Method: 8082  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-008-SA7-SS-0.0-0.5	DUP01-SA7-QC-091511			
AROCLOR 1254	3.0	2.0	40	50.00	No Qualifiers Applied
AROCLOR 1260	2.9	3.0	3	50.00	
Aroclor 5460	5.0	8.6	53	50.00	J(all detects)

Method: 8151A  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-008-SA7-SS-0.0-0.5	DUP01-SA7-QC-091511			
2,4-DB	4.4	2.4 U	200	50.00	J(all detects)
DICAMBA	1.2 U	0.71	200	50.00	UJ(all non-detects)

## Field Duplicate RPD Report

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8270C SIM

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-008-SA7-SS-0.0-0.5	DUP01-SA7-QC-091511			
1-METHYLNAPHTHALENE	8.3 U	62	200	50.00	J(all detects) UJ(all non-detects)
2-METHYLNAPHTHALENE	8.3 U	47	200	50.00	
ACENAPHTHENE	12	650	193	50.00	
ACENAPHTHYLENE	8.3 U	37	200	50.00	
ANTHRACENE	29	680	184	50.00	
BENZO(A)ANTHRACENE	220	2900	172	50.00	
BENZO(A)PYRENE	240	2800	168	50.00	
BENZO(B)FLUORANTHENE	400	4300	166	50.00	
BENZO(K)FLUORANTHENE	170	2300	172	50.00	
CHRYSENE	280	4300	176	50.00	
DIBENZO(A,H)ANTHRACENE	32	380	169	50.00	
FLUORANTHENE	690	12000	178	50.00	
FLUORENE	7.7	390	192	50.00	
NAPHTHALENE	8.3 U	120	200	50.00	
PHENANTHRENE	290	9700	188	50.00	
PYRENE	490	9900	181	50.00	

Method: 8270C

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-008-SA7-SS-0.0-0.5	DUP01-SA7-QC-091511			
BIS(2-ETHYLHEXYL)PHTHALATE	370	370	0	50.00	No Qualifiers Applied
CARBAZOLE	26	64	84	50.00	J(all detects) UJ(all non-detects)
Di-n-butylphthalate	170 U	17	200	50.00	
Di-n-octylphthalate	120	170 U	200	50.00	

Method: 9045M

Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-008-SA7-SS-0.0-0.5	DUP01-SA7-QC-091511			
PH	7.44	7.38	1	50.00	No Qualifiers Applied

# Reporting Limit Outliers

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA7-QC-091511	BORON	J	0.814	4.89	PQL	mg/Kg	J (all detects)
	SODIUM	J	70.3	97.9	PQL	mg/Kg	
	TIN	J	2.74	9.79	PQL	mg/Kg	
SL-007-SA7-SS-0.0-0.5	BORON	J	1.62	4.90	PQL	mg/Kg	J (all detects)
	SODIUM	J	80.0	98.1	PQL	mg/Kg	
	TIN	J	5.16	9.81	PQL	mg/Kg	
SL-008-SA7-SS-0.0-0.5	BORON	J	1.56	4.90	PQL	mg/Kg	J (all detects)
	SODIUM	J	71.5	97.9	PQL	mg/Kg	
	TIN	J	2.96	9.79	PQL	mg/Kg	
SL-026-SA7-SS-0.0-0.5	BORON	J	2.13	5.01	PQL	mg/Kg	J (all detects)
	SODIUM	J	75.4	100	PQL	mg/Kg	
	TIN	J	3.00	10.0	PQL	mg/Kg	
SL-034-SA7-SB-4.0-5.0	BORON	J	1.32	5.32	PQL	mg/Kg	J (all detects)
	TIN	J	2.74	10.6	PQL	mg/Kg	
	Zirconium	J	0.769	5.32	PQL	mg/Kg	
SL-034-SA7-SB-9.0-10.0	BORON	J	1.62	5.25	PQL	mg/Kg	J (all detects)
	SODIUM	J	104	105	PQL	mg/Kg	
	TIN	J	2.73	10.5	PQL	mg/Kg	
SL-035-SA7-SB-4.0-5.0	BORON	J	0.733	5.24	PQL	mg/Kg	J (all detects)
	TIN	J	2.73	10.5	PQL	mg/Kg	
SL-035-SA7-SB-9.0-10.0	SODIUM	J	102	107	PQL	mg/Kg	J (all detects)
	TIN	J	3.05	10.7	PQL	mg/Kg	
SL-045-SA7-SS-0.0-0.5	BORON	J	1.88	4.92	PQL	mg/Kg	J (all detects)
	SODIUM	J	71.7	98.4	PQL	mg/Kg	
	TIN	J	3.46	9.84	PQL	mg/Kg	
SL-079-SA7-SB-2.0-3.0	BORON	J	0.430	5.03	PQL	mg/Kg	J (all detects)
	SODIUM	J	75.8	101	PQL	mg/Kg	
	TIN	J	2.61	10.1	PQL	mg/Kg	
SL-080-SA7-SB-4.0-5.0	BORON	J	1.60	5.33	PQL	mg/Kg	J (all detects)
	TIN	J	2.99	10.7	PQL	mg/Kg	
SL-080-SA7-SB-9.0-10.0	BORON	J	1.49	5.48	PQL	mg/Kg	J (all detects)
	TIN	J	2.73	11.0	PQL	mg/Kg	
	Zirconium	J	1.20	5.48	PQL	mg/Kg	
SL-086-SA7-SS-0.0-0.5	TIN	J	9.65	10.1	PQL	mg/Kg	J (all detects)
SL-087-SA7-SS-0.0-0.5	BORON	J	1.82	5.07	PQL	mg/Kg	J (all detects)
	TIN	J	3.32	10.1	PQL	mg/Kg	
SL-090-SA7-SS-0.0-0.5	BORON	J	0.949	5.07	PQL	mg/Kg	J (all detects)
	SODIUM	J	84.1	101	PQL	mg/Kg	
	TIN	J	2.98	10.1	PQL	mg/Kg	
SL-098-SA7-SS-0.0-0.5	BORON	J	1.01	4.85	PQL	mg/Kg	J (all detects)
	TIN	J	3.21	9.69	PQL	mg/Kg	
SL-146-SA7-SB-4.0-5.0	BORON	J	1.04	5.42	PQL	mg/Kg	J (all detects)
	TIN	J	2.84	10.8	PQL	mg/Kg	
SL-146-SA7-SB-9.0-10.0	BORON	J	1.33	5.35	PQL	mg/Kg	J (all detects)
	SODIUM	J	80.0	107	PQL	mg/Kg	
	TIN	J	2.84	10.7	PQL	mg/Kg	
	Zirconium	J	0.548	5.35	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-157-SA7-SS-0.0-0.5	BORON SODIUM TIN	J	0.451	4.99	PQL	mg/Kg	J (all detects)
		J	86.4	99.8	PQL	mg/Kg	
		J	4.64	9.98	PQL	mg/Kg	
SL-179-SA7-SS-0.0-0.5	BORON SODIUM TIN	J	0.841	5.02	PQL	mg/Kg	J (all detects)
		J	73.3	100	PQL	mg/Kg	
		J	2.90	10.0	PQL	mg/Kg	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA7-QC-091511	SELENIUM SILVER	J	0.0766	0.399	PQL	mg/Kg	J (all detects)
		J	0.0463	0.0998	PQL	mg/Kg	
SL-007-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.0945	0.400	PQL	mg/Kg	J (all detects)
		J	0.0872	0.100	PQL	mg/Kg	
SL-008-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.101	0.396	PQL	mg/Kg	J (all detects)
		J	0.0252	0.0989	PQL	mg/Kg	
SL-026-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.172	0.397	PQL	mg/Kg	J (all detects)
		J	0.0368	0.0991	PQL	mg/Kg	
SL-034-SA7-SB-4.0-5.0	SELENIUM SILVER	J	0.198	0.425	PQL	mg/Kg	J (all detects)
		J	0.0627	0.106	PQL	mg/Kg	
SL-034-SA7-SB-9.0-10.0	ANTIMONY SELENIUM SILVER	J	0.203	0.216	PQL	mg/Kg	J (all detects)
		J	0.121	0.433	PQL	mg/Kg	
		J	0.0472	0.108	PQL	mg/Kg	
SL-035-SA7-SB-4.0-5.0	ANTIMONY SILVER	J	0.137	0.210	PQL	mg/Kg	J (all detects)
		J	0.0364	0.105	PQL	mg/Kg	
SL-035-SA7-SB-9.0-10.0	ANTIMONY CADMIUM SELENIUM SILVER	J	0.162	0.211	PQL	mg/Kg	J (all detects)
		J	0.0705	0.106	PQL	mg/Kg	
		J	0.0893	0.423	PQL	mg/Kg	
		J	0.0207	0.106	PQL	mg/Kg	
SL-045-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.0759	0.401	PQL	mg/Kg	J (all detects)
		J	0.0540	0.100	PQL	mg/Kg	
SL-079-SA7-SB-2.0-3.0	ANTIMONY CADMIUM SELENIUM SILVER	J	0.140	0.205	PQL	mg/Kg	J (all detects)
		J	0.0926	0.103	PQL	mg/Kg	
		J	0.0756	0.410	PQL	mg/Kg	
		J	0.0263	0.103	PQL	mg/Kg	
SL-080-SA7-SB-4.0-5.0	ANTIMONY CADMIUM SELENIUM SILVER	J	0.114	0.209	PQL	mg/Kg	J (all detects)
		J	0.0870	0.105	PQL	mg/Kg	
		J	0.0808	0.419	PQL	mg/Kg	
		J	0.0331	0.105	PQL	mg/Kg	
SL-080-SA7-SB-9.0-10.0	ANTIMONY SELENIUM SILVER	J	0.202	0.221	PQL	mg/Kg	J (all detects)
		J	0.145	0.443	PQL	mg/Kg	
		J	0.0418	0.111	PQL	mg/Kg	
SL-086-SA7-SS-0.0-0.5	SELENIUM	J	0.103	0.398	PQL	mg/Kg	J (all detects)
SL-087-SA7-SS-0.0-0.5	SELENIUM	J	0.182	0.402	PQL	mg/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-090-SA7-SS-0.0-0.5	SELENIUM	J	0.0911	0.401	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0478	0.100	PQL	mg/Kg	
SL-098-SA7-SS-0.0-0.5	ANTIMONY	J	0.190	0.198	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0920	0.395	PQL	mg/Kg	
SL-146-SA7-SB-4.0-5.0	ANTIMONY	J	0.171	0.217	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.154	0.433	PQL	mg/Kg	
	SILVER	J	0.0531	0.108	PQL	mg/Kg	
SL-146-SA7-SB-9.0-10.0	ANTIMONY	J	0.144	0.212	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.148	0.424	PQL	mg/Kg	
	SILVER	J	0.0273	0.106	PQL	mg/Kg	
SL-157-SA7-SS-0.0-0.5	SELENIUM	J	0.119	0.399	PQL	mg/Kg	J (all detects)
	THALLIUM	J	0.396	0.998	PQL	mg/Kg	
SL-179-SA7-SS-0.0-0.5	ANTIMONY	J	0.177	0.199	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.141	0.397	PQL	mg/Kg	
	SILVER	J	0.0455	0.0993	PQL	mg/Kg	

**Method:** 7199  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.36	1.0	PQL	mg/Kg	J (all detects)
SL-026-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.48	1.0	PQL	mg/Kg	J (all detects)
SL-034-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.52	1.1	PQL	mg/Kg	J (all detects)
SL-035-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.37	1.1	PQL	mg/Kg	J (all detects)
SL-045-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.50	1.0	PQL	mg/Kg	J (all detects)
SL-080-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.51	1.1	PQL	mg/Kg	J (all detects)
SL-080-SA7-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.45	1.1	PQL	mg/Kg	J (all detects)
SL-098-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.73	1.0	PQL	mg/Kg	J (all detects)
SL-157-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.60	1.0	PQL	mg/Kg	J (all detects)
SL-179-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.49	1.0	PQL	mg/Kg	J (all detects)

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-007-SA7-SS-0.0-0.5	MERCURY	J	0.0107	0.0991	PQL	mg/Kg	J (all detects)
SL-026-SA7-SS-0.0-0.5	MERCURY	J	0.0284	0.0986	PQL	mg/Kg	J (all detects)
SL-034-SA7-SB-4.0-5.0	MERCURY	J	0.0086	0.103	PQL	mg/Kg	J (all detects)
SL-045-SA7-SS-0.0-0.5	MERCURY	J	0.0203	0.101	PQL	mg/Kg	J (all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-086-SA7-SS-0.0-0.5	MERCURY	J	0.0273	0.0999	PQL	mg/Kg	J (all detects)
SL-087-SA7-SS-0.0-0.5	MERCURY	J	0.0275	0.101	PQL	mg/Kg	J (all detects)
SL-090-SA7-SS-0.0-0.5	MERCURY	J	0.0082	0.100	PQL	mg/Kg	J (all detects)
SL-157-SA7-SS-0.0-0.5	MERCURY	J	0.0178	0.0946	PQL	mg/Kg	J (all detects)
SL-179-SA7-SS-0.0-0.5	MERCURY	J	0.0567	0.0986	PQL	mg/Kg	J (all detects)

**Method:** 8015B  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA7-QC-091511	METHANOL	J	440	500	PQL	ug/Kg	J (all detects)
SL-007-SA7-SS-0.0-0.5	O-TERPHENYL p-Terphenyl	J J	3.4 2.4	3.5 3.5	PQL PQL	mg/Kg mg/Kg	J (all detects)

**Method:** 8015M  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA7-SS-0.0-0.5	EFH (C15-C20)	J	2.3	2.4	PQL	mg/Kg	J (all detects)
SL-179-SA7-SS-0.0-0.5	EFH (C15-C20)	J	0.70	1.2	PQL	mg/Kg	J (all detects)

**Method:** 8081A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA7-QC-091511	Chlordane	J	2.3	3.4	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.048	0.17	PQL	ug/Kg	
	HEPTACHLOR EPOXIDE	J	0.086	0.17	PQL	ug/Kg	
SL-007-SA7-SS-0.0-0.5	ALPHA-BHC	J	0.25	0.84	PQL	ug/Kg	J (all detects)
	Chlordane	J	4.9	17	PQL	ug/Kg	
	DELTA-BHC	J	0.32	0.84	PQL	ug/Kg	
SL-008-SA7-SS-0.0-0.5	DELTA-BHC	J	0.056	0.17	PQL	ug/Kg	J (all detects)
SL-086-SA7-SS-0.0-0.5	ALPHA-BHC	J	0.035	0.17	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.081	0.17	PQL	ug/Kg	
SL-157-SA7-SS-0.0-0.5	4,4'-DDT	J	2.6	3.4	PQL	ug/Kg	J (all detects)
	Chlordane	J	1.6	3.4	PQL	ug/Kg	
	DELTA-BHC	J	0.040	0.17	PQL	ug/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8082  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-034-SA7-SB-9.0-10.0	AROCLOR 1254	J	0.46	1.8	PQL	ug/Kg	J (all detects)
SL-090-SA7-SS-0.0-0.5	Aroclor 5460	J	9.9	17	PQL	ug/Kg	J (all detects)
SL-098-SA7-SS-0.0-0.5	AROCLOR 1248	J	1.3	1.7	PQL	ug/Kg	J (all detects)
SL-146-SA7-SB-9.0-10.0	AROCLOR 1260 Aroclor 5460	J J	0.97 1.9	1.9 3.6	PQL PQL	ug/Kg ug/Kg	J (all detects)

**Method:** 8151A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA7-QC-091511	DICAMBA	J	0.71	1.2	PQL	ug/Kg	J (all detects)
SL-090-SA7-SS-0.0-0.5	DICAMBA	J	0.58	1.2	PQL	ug/Kg	J (all detects)
SL-179-SA7-SS-0.0-0.5	DICAMBA	J	0.52	1.2	PQL	ug/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA7-QC-091511	CARBAZOLE	J	64	170	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	17	170	PQL	ug/Kg	
SL-007-SA7-SS-0.0-0.5	CARBAZOLE	J	33	170	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	23	170	PQL	ug/Kg	
	Di-n-octylphthalate	J	130	170	PQL	ug/Kg	
SL-008-SA7-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	120	170	PQL	ug/Kg	J (all detects)
	CARBAZOLE	J	26	170	PQL	ug/Kg	
	Di-n-octylphthalate	J	120	170	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	120	170	PQL	ug/Kg	
SL-026-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	240	330	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	140	170	PQL	ug/Kg	
SL-034-SA7-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	160	360	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	130	180	PQL	ug/Kg	
SL-034-SA7-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	220	360	PQL	ug/Kg	J (all detects)
SL-035-SA7-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	130	360	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	130	180	PQL	ug/Kg	
SL-035-SA7-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	140	360	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	140	180	PQL	ug/Kg	
SL-045-SA7-SS-0.0-0.5	Di-n-octylphthalate	J	130	170	PQL	ug/Kg	J (all detects)
SL-079-SA7-SB-2.0-3.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	120	350	PQL	ug/Kg	J (all detects)
SL-080-SA7-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	130	360	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	130	180	PQL	ug/Kg	
SL-080-SA7-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	200	370	PQL	ug/Kg	J (all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

## Reporting Limit Outliers

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 8270C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-086-SA7-SS-0.0-0.5	Di-n-octylphthalate	J	140	170	PQL	ug/Kg	J (all detects)
SL-087-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	270	340	PQL	ug/Kg	J (all detects)
SL-090-SA7-SS-0.0-0.5	DIBENZOFURAN	J	140	170	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	19	170	PQL	ug/Kg	
SL-098-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	47	170	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	49	170	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	75	170	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	48	170	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	28	170	PQL	ug/Kg	
	CHRYSENE	J	68	170	PQL	ug/Kg	
	Di-n-octylphthalate	J	130	170	PQL	ug/Kg	
	FLUORANTHENE	J	130	170	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	35	170	PQL	ug/Kg	
	PHENANTHRENE	J	80	170	PQL	ug/Kg	
	PYRENE	J	120	170	PQL	ug/Kg	
SL-146-SA7-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	130	370	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	140	180	PQL	ug/Kg	
SL-146-SA7-SB-9.0-10.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	200	360	PQL	ug/Kg	J (all detects)
	Di-n-octylphthalate	J	140	180	PQL	ug/Kg	
SL-157-SA7-SS-0.0-0.5	ANTHRACENE	J	25	170	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	140	170	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	140	170	PQL	ug/Kg	
	CARBAZOLE	J	47	170	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	52	170	PQL	ug/Kg	
SL-179-SA7-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	19	170	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	210	340	PQL	ug/Kg	
	Di-n-butylphthalate	J	21	170	PQL	ug/Kg	
	Di-n-octylphthalate	J	130	170	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	22	170	PQL	ug/Kg	

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA7-SS-0.0-0.5	FLUORENE	J	7.7	8.3	PQL	ug/Kg	J (all detects)
SL-026-SA7-SS-0.0-0.5	CHRYSENE	J	7.0	8.3	PQL	ug/Kg	J (all detects)
	PHENANTHRENE	J	5.3	8.3	PQL	ug/Kg	
SL-034-SA7-SB-9.0-10.0	CHRYSENE	J	1.3	1.8	PQL	ug/Kg	J (all detects)
SL-045-SA7-SS-0.0-0.5	ACENAPHTHYLENE	J	7.0	8.3	PQL	ug/Kg	J (all detects)
SL-086-SA7-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	4.3	8.3	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	2.7	8.3	PQL	ug/Kg	
	NAPHTHALENE	J	5.3	8.3	PQL	ug/Kg	
SL-087-SA7-SS-0.0-0.5	ACENAPHTHENE	J	3.5	8.4	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	4.5	8.4	PQL	ug/Kg	
	Di-n-butylphthalate	J	53	91	PQL	ug/Kg	
SL-098-SA7-SS-0.0-0.5	Di-n-butylphthalate	J	34	89	PQL	ug/Kg	J (all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE245

Laboratory: LL

EDD Filename: PrepDE245\_v1

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-146-SA7-SB-9.0-10.0	NAPHTHALENE	J	0.78	1.8	PQL	ug/Kg	J (all detects)
SL-157-SA7-SS-0.0-0.5	ACENAPHTHENE	J	7.1	8.3	PQL	ug/Kg	J (all detects)
	FLUORENE	J	5.5	8.3	PQL	ug/Kg	
SL-179-SA7-SS-0.0-0.5	ACENAPHTHENE	J	4.5	8.3	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	4.6	8.3	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	3.4	8.3	PQL	ug/Kg	

LDC #: 2685904

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12/26/11

SDG #: DE245

ADR

Page: 1 of 1

Laboratory: Lancaster Laboratories

Reviewer: [Signature]  
2nd Reviewer: [Signature]

**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	Al, As, Ba, Ca, Fe, Mg, Ti, V, Zn 74X
VII.	Duplicate Sample Analysis	SW	Sb, B, Ag, Zv 5X, Cd, Mn 5X, Luffkin 72X
VIII.	Laboratory Control Samples (LCS)	N	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Ba, Cr, Co, Pb, V, Zn
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	✓	
XV.	Field Blanks	✓	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinsate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

Validated Samples:

1	SL-034-SA7-SB-4.0-5.0	11	SL-157-SA7-SS-0.0-0.5	21	SL-008-SA7-SS-0.0-0.5MS	31	
2	SL-034-SA7-SB-9.0-10.0	12	SL-086-SA7-SS-0.0-0.5	22	SL-008-SA7-SS-0.0-0.5MSD	32	
3	SL-035-SA7-SB-4.0-5.0	13	SL-087-SA7-SS-0.0-0.5	23	SL-008-SA7-SS-0.0-0.5DUP	33	
4	SL-035-SA7-SB-9.0-10.0	14	SL-026-SA7-SS-0.0-0.5	24		34	
5	SL-079-SA7-SB-2.0-3.0	15	SL-008-SA7-SS-0.0-0.5	25		35	
6	SL-080-SA7-SB-4.0-5.0	16	SL-045-SA7-SS-0.0-0.5	26		36	
7	SL-080-SA7-SB-9.0-10.0	17	SL-090-SA7-SS-0.0-0.5	27		37	
8	SL-146-SA7-SB-4.0-5.0	18	DUP01-SA7-QC-091511	28		38	
9	SL-146-SA7-SB-9.0-10.0	19	SL-179-SA7-SS-0.0-0.5	29		39	
10	SL-007-SA7-SS-0.0-0.5	20	SL-098-SA7-SS-0.0-0.5	30		40	

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
**PB/ICB/CCB QUALIFIED SAMPLES**

**METHOD:** Trace metals (EPA SW 864 Method 6010B/6020/7000)

Soil preparation factor applied: ICP: 100X, ICP/MS: 200X, Hg: 167X

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: Zr\*1:1-11, 13-20, Zr\*2:12 Reason: B

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit
Zr*1			9.1	4.05
Zr*2			7.4	3.7

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 3-10, 12-20 Reason: B

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit
Sb			0.81	0.81

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit
Sb			0.81	0.81

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: All Reason: B

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit
Hg			0.068	0.057

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.



QUALITY ASSURANCE SUMMARY  
 FORM 5A (MS/MSD)  
 MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
 SDG No.: DE245  
 Matrix: SOIL  
 Level (Low/med): LOW

Background Lab Sample ID: 6409752BKG Matrix Spike Lab Sample ID: 6409753MS Matrix Spike Duplicate Lab Sample ID: 6409754MD  
 % Solids for Sample: 99.2  
 Batch Id(s): P26308A, P26326A, P26311B

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				Result	Q	%R	Q	%R	RPD
Aluminum	121	12550.9082		13687.7792		12845.4787		201.6129	199.6167	MG/KG	564	148	6	76X	75-125	20P
Antimony	75	0.4088		0.8943		0.9284		1.1977	1.1744	MG/KG	41 N	44 N	4	75-125	20MS	
Arsenic	137	7.8412		6.9826		6.4888		1.9962	1.9574	MG/KG	-43	-69	7	75-125	74X MS	
Barium	137	116.2041		110.0487		113.2947		9.9808	9.7870	MG/KG	-62	-30	3	76X	20MS	
Beryllium	9	0.6430		1.5480		1.4912		0.7985	0.7830	MG/KG	113	108	4	75-125	20MS	
Boron		1.5552	B	202.8579		199.7734		201.6129	199.6167	MG/KG	100	99	2	84-115	20P	
Cadmium	111	0.1986		1.5460		1.4657		0.9981	0.9787	MG/KG	135 N	129 N	5	75-125	20MS	
Calcium		2767.3720		3096.0010		3021.3201		403.2258	399.2335	MG/KG	81	64	2	74X	20P	
Chromium	52	18.6413		27.4872		35.9184		9.9808	9.7870	MG/KG	89	177 N	27*	75-125	20MS	
Cobalt	59	7.1988		70.6244		67.3739		49.9042	48.9352	MG/KG	127 N	123	5	75-125	20MS	
Copper	63	10.5728		18.8778		17.9201		9.9808	9.7870	MG/KG	83	75	5	75-125	20MS	
Iron		18424.8463		18112.0000		17736.5688		100.8065	99.8084	MG/KG	-310	-690	2	74X	20P	
Lead	208	17.3525		19.6942		21.0030		2.9943	2.9361	MG/KG	78	124	6		20MS	
Lithium		24.6467		126.1472		125.2096		100.8065	99.8084	MG/KG	101	101	1	82-114	20P	
Magnesium		3855.0296		3907.0685		3946.6075		201.6129	199.6167	MG/KG	26	46	1	74X	20P	
Manganese		269.5418		311.8579		309.5137		50.4032	49.9042	MG/KG	84	80	1		20P	
Mercury		0.0071	U	0.1837		0.1804		0.1670	0.1611	MG/KG	110	112	2	65-135	20CV	
Molybdenum	98	0.6890		14.3804		13.4161		9.9808	9.7870	MG/KG	137 N	130 N	7	75-125	20MS	
Nickel	60	11.3437		20.9398		20.9247		9.9808	9.7870	MG/KG	96	98	0	75-125	20MS	
Phosphorus		370.9677		455.9859		458.0386		100.8065	99.8084	MG/KG	84	87	0	75-125	20P	
Potassium		3287.3336		4385.3599		4422.3002		1008.0645	998.0837	MG/KG	109	114	1	75-125	20P	
Selenium	78	0.1006	B	2.7008		2.5446		1.9962	1.9574	MG/KG	130 N	125	6	75-125	20MS	
Silver	107	0.0252	B	13.6438		12.7564		9.9808	9.7870	MG/KG	136 N	130 N	7	75-125	20MS	
Sodium		71.4679	B	1038.3276		1031.8578		1008.0645	998.0837	MG/KG	96	96	1	75-125	20P	
Strontium		11.7307		110.4808		108.3969		100.8065	99.8084	MG/KG	98	97	2	75-115	20P	
Thallium	203	0.3837		0.8492		0.8021		0.3992	0.3915	MG/KG	117	107	6	75-125	20MS	
Tin		2.9596	B	372.9254		370.0394		403.2258	399.2335	MG/KG	92	92	1	80-110	20P	
Titanium		1176.2772		1319.6694		1330.0433		100.8065	99.8084	MG/KG	142	154	1	74X	20P	
Vanadium	51	39.6308		43.9955		51.9887		9.9808	9.7870	MG/KG	44	126	17	75-125	74X MS	
Zinc	66	164.5912		144.3429		170.0987		9.9808	9.7870	MG/KG	-203	56	16	74X	20MS	
Zirconium		0.4502	U	100.3921		99.3672		100.8065	99.8084	MG/KG	100	100	1	75-125	20P	

METHODS: ICP-MS Atomic Emission Spectrometer CV = Cold Vapor  
 MS = ICP-MS Atomic Fluorescence AF = Cold Vapor Atomic Fluorescence  
 CONCENTRATION QUALIFIERS:  
 U = Below MDL, B = Below LOQ  
 FLAGS:  
 N = Matrix Spike OOS, \* = Duplicate OOS

*AS = post spiked not performed*



QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: DE245

Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6409752BKG  
 % Solids for Duplicate: 99.2  
 Batch ID(s): P26308A, P26326A, P26311B  
 Concentration Units: MG/KG

Duplicate Lab Sample ID: 6409755DUP  
 % Solids for Sample: 99.2

Analyte	Mass	Control Limit	Samples (S) C	Duplicate (D) C	RPD	Q	M
Aluminum			12550.9082	11362.8805	10		P
Antimony	121	0.2	0.4088	0.3277	<del>22</del>		MS
Arsenic	75		7.8412	5.5977	33	*	MS
Barium	137		116.2041	109.9779	6		MS
Beryllium	9		0.6430	0.5716	12		MS
Boron			1.5552 B	1.1099 B	<del>24</del>		P
Cadmium	111	0.1	0.1986	2.8028	<del>174</del>	*	MS
Calcium			2767.3720	2655.8744	4		P
Chromium	52		18.6413	15.8563	16		MS
Cobalt	59		7.1988	7.7502	7		MS
Copper	63		10.5728	8.5705	21	*	MS
Iron			18424.8463	18211.4168	1		P
Lead	208		17.3525	35.1439	68	*	MS
Lithium			24.6467	24.1530	2		P
Magnesium			3855.0296	3594.5278	7		P
Manganese			269.5418	257.5546	5		P
Mercury			0.0071 U	0.0071 U			CV
Molybdenum	98	0.1	0.6890	0.4843	<del>35</del>	*	MS
Nickel	60		11.3437	10.2407	<del>10</del>		MS
Phosphorus			370.9677	359.1032	3		P
Potassium			3287.3336	3183.0872	3		P
Selenium	78		0.1006 B	0.1108 B	10		MS
Silver	107		0.0252 B	0.0449 B	<del>56</del>		MS
Sodium			71.4679 B	68.9309 B	4		P
Strontium			11.7307	10.6687	9		P
Thallium	203	0.1	0.3837	0.3155	20		MS
Tin			2.9596 B	2.9224 B	1		P
Titanium			1176.2772	1116.2150	5		P
Vanadium	51		39.6308	36.4880	8		MS
Zinc	66		164.5912	4370.7503	185	*	MS
Zirconium			0.4502 U	0.6355 B	<del>200</del>		P

052  
 b. / JH  
 by JH  
 052  
 052

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.

Cd by difference 2.6042 (± 0.1998)  
 Pb ↓ 0.2047 (± 0.1998)

DE245 4963

<b>METHODS:</b> P = ICP Atomic Emission Spectrometer MS = ICP Mass Spectrometry CV = Cold Vapor AF = Cold Vapor Atomic Fluorescence	<b>CONCENTRATION QUALIFIERS:</b> U= Below MDL B= Below LOQ <b>FLAGS:</b> * = Duplicate Out of Spec
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QUALITY ASSURANCE SUMMARY

FORM 9

SERIAL DILUTIONS

SDG No.: DE245

Matrix: SOIL

Level (low/med): LOW

Background Lab Sample ID: 6409752BKG

Serial Dilution Lab Sample ID: 6409752L

Batch ID(s): P26308A, P26326A

Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		128240.1600		120588.4500		6		P
Antimony	121	2.0680		1.9740	B	5		MS
Arsenic	75	39.6700		29.8850		25		MS
Barium	137	587.9000		447.2500		24	E	MS
Beryllium	9	3.2530		2.8040		14		MS
Boron		15.8900	B	22.1000	B	39		P
Cadmium	111	1.0050		1.1340	B	13		MS
Calcium		28275.9000		28350.3000		0		P
Chromium	52	94.3100		84.4000		11	E	MS
Cobalt	59	36.4200		28.0900		23	E	MS
Copper	63	53.4900		50.0000		7		MS
Iron		188257.7100		187635.6000		0		P
Lead	208	87.7900		104.3500		19	E	MS
Lithium		251.8300		245.0000		3		P
Magnesium		39389.1500		38277.5500		3		P
Manganese		2754.0700		2822.5500		2		P
Molybdenum	98	3.4860		2.8125		19		MS
Nickel	60	57.3900		55.1500		4		MS
Phosphorus		3790.4000		3699.3000		2		P
Potassium		33588.6600		32721.9000		3		P
Selenium	78	0.5091	B	1.4500	U	100		MS
Silver	107	0.1275	B	0.3550	U	100		MS
Sodium		730.2300	B	798.7000	B	9		P
Strontium		119.8600		121.7500		2		P
Thallium	203	1.9410		1.4385	B	26		MS
Tin		30.2400	B	23.4500	B	22		P
Titanium		12018.7300		12503.5500		4		P
Vanadium	51	200.5000		173.8000		13	E	MS
Zinc	66	832.7000		699.5000		16	E	MS
Zirconium		4.6000	U	33.2000	B	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:

DE245-4965

U= Below MDL  
B= Below LOQ

FLAGS:

E = Matrix Effects exist as proven by  
Serial Dilution or Spiked Dilution

# **SAMPLE DELIVERY GROUP**

**DE246**

# **Attachment I**

## **Sample ID Cross Reference and Data Review Level**

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Sep-2011	SL-083-SA7-SS-0.0-0.5	6409794	N	3050B	6010B	III
16-Sep-2011	SL-083-SA7-SS-0.0-0.5	6409794	N	3050B	6020	III
16-Sep-2011	SL-083-SA7-SS-0.0-0.5	6409794	N	3060A	7199	III
16-Sep-2011	SL-083-SA7-SS-0.0-0.5	6409794	N	3550B	8015B	III
16-Sep-2011	SL-083-SA7-SS-0.0-0.5	6409794	N	3550B	8015M	III
16-Sep-2011	SL-083-SA7-SS-0.0-0.5	6409794	N	3550B	8081A	III
16-Sep-2011	SL-083-SA7-SS-0.0-0.5	6409794	N	3550B	8082	III
16-Sep-2011	SL-083-SA7-SS-0.0-0.5	6409794	N	3550B	8151A	III
16-Sep-2011	SL-083-SA7-SS-0.0-0.5	6409794	N	3550B	8270C	III
16-Sep-2011	SL-083-SA7-SS-0.0-0.5	6409794	N	3550B	8270C SIM	III
16-Sep-2011	SL-083-SA7-SS-0.0-0.5	6409794	N	METHOD	300.0	III
16-Sep-2011	SL-083-SA7-SS-0.0-0.5	6409794	N	METHOD	314.0	III
16-Sep-2011	SL-083-SA7-SS-0.0-0.5	6409794	N	METHOD	7471A	III
16-Sep-2011	SL-083-SA7-SS-0.0-0.5	6409794	N	METHOD	8015B	III
16-Sep-2011	SL-083-SA7-SS-0.0-0.5	6409794	N	METHOD	8015M	III
16-Sep-2011	SL-083-SA7-SS-0.0-0.5	6409794	N	METHOD	9012B	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5	6409790	N	3050B	6010B	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5	6409790	N	3050B	6020	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5	6409790	N	3060A	7199	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5	6409790	N	3550B	8015B	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5	6409790	N	3550B	8015M	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5	6409790	N	3550B	8081A	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5	6409790	N	3550B	8082	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5	6409790	N	3550B	8151A	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5	6409790	N	3550B	8270C	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5	6409790	N	3550B	8270C SIM	III

III = EPA Level 3 Data Review  
IV = EPA Level 4 Data Validation

N = Normal Sample  
FD = Field Duplicate

TB = Trip Blank  
FB = Field Blank

MS = Matrix Spike  
MSD = Matrix Spike Duplicate

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Sep-2011	SL-009-SA7-SS-0.0-0.5	6409790	N	METHOD	300.0	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5	6409790	N	METHOD	314.0	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5	6409790	N	METHOD	7471A	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5	6409790	N	METHOD	8015B	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5	6409790	N	METHOD	8015M	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5	6409790	N	METHOD	9012B	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5DUP	P409790D220757A	DUP	3050B	6020	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5DUP	P409790D220757B	DUP	3050B	6020	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5DUP	P409790D220757C	DUP	3050B	6020	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5DUP	P409790D220757D	DUP	3050B	6020	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5DUP	P409790D221120	DUP	METHOD	7471A	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5DUP	P409790D221220	DUP	3050B	6010B	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5DUP	P409790D271832A	DUP	METHOD	300.0	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5DUP	P409790D271840A	DUP	METHOD	314.0	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MSD	P409790M220803A	MSD	3050B	6020	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MSD	P409790M220803B	MSD	3050B	6020	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MSD	P409790M220803C	MSD	3050B	6020	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MSD	P409790M220803D	MSD	3050B	6020	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MSD	P409790M221123	MSD	METHOD	7471A	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MSD	P409790M221228	MSD	3050B	6010B	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MSD	P409790M241326A	MSD	3550B	8082	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MSD	P409790M242243A	MSD	3550B	8081A	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MSD	P409790M261226	MSD	3550B	8270C SIM	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MSD	P409790M320337A	MSD	3550B	8015B	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MSD	P409790M321819A	MSD	3550B	8015M	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MS	P409790R220800A	MS	3050B	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MS	P409790R220800B	MS	3050B	6020	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MS	P409790R220800C	MS	3050B	6020	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MS	P409790R220800D	MS	3050B	6020	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MS	P409790R221121	MS	METHOD	7471A	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MS	P409790R221224	MS	3050B	6010B	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MS	P409790R241307A	MS	3550B	8082	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MS	P409790R242229A	MS	3550B	8081A	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MS	P409790R261152	MS	3550B	8270C SIM	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MS	P409790R271847A	MS	METHOD	300.0	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MS	P409790R271903A	MS	METHOD	314.0	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MS	P409790R320315A	MS	3550B	8015B	III
16-Sep-2011	SL-009-SA7-SS-0.0-0.5MS	P409790R321755A	MS	3550B	8015M	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5	6409792	N	3050B	6010B	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5	6409792	N	3050B	6020	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5	6409792	N	3060A	7199	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5	6409792	N	3550B	8015B	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5	6409792	N	3550B	8015M	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5	6409792	N	3550B	8081A	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5	6409792	N	3550B	8082	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5	6409792	N	3550B	8151A	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5	6409792	N	3550B	8270C	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5	6409792	N	3550B	8270C SIM	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5	6409792	N	METHOD	300.0	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5	6409792	N	METHOD	314.0	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5	6409792	N	METHOD	7471A	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5	6409792	N	METHOD	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Sep-2011	SL-052-SA7-SS-0.0-0.5	6409792	N	METHOD	8015M	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5	6409792	N	METHOD	9012B	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5DUP	P409792D271944A	DUP	METHOD	9012B	III
16-Sep-2011	SL-052-SA7-SS-0.0-0.5MS	P409792R271945A	MS	METHOD	9012B	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	3050B	6010B	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	3050B	6020	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	3060A	7199	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	3550B	8015B	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	3550B	8015M	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	3550B	8081A	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	3550B	8082	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	3550B	8151A	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	3550B	8270C	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	3550B	8270C SIM	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	METHOD	300.0	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	METHOD	314.0	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	METHOD	6850	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	METHOD	7471A	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	METHOD	8015B	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	METHOD	8015M	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5	6409791	N	METHOD	9012B	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5MSD	P409791M240412A	MSD	3550B	8151A	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5MSD	P409791M260037	MSD	3550B	8270C	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5MS	P409791R240344A	MS	3550B	8151A	III
16-Sep-2011	SL-017-SA7-SS-0.0-0.5MS	P409791R260012	MS	3550B	8270C	III
16-Sep-2011	SL-053-SA7-SS-0.0-0.5	6409793	N	3050B	6010B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Sep-2011	SL-053-SA7-SS-0.0-0.5	6409793	N	3050B	6020	III
16-Sep-2011	SL-053-SA7-SS-0.0-0.5	6409793	N	3060A	7199	III
16-Sep-2011	SL-053-SA7-SS-0.0-0.5	6409793	N	3550B	8015B	III
16-Sep-2011	SL-053-SA7-SS-0.0-0.5	6409793	N	3550B	8015M	III
16-Sep-2011	SL-053-SA7-SS-0.0-0.5	6409793	N	3550B	8081A	III
16-Sep-2011	SL-053-SA7-SS-0.0-0.5	6409793	N	3550B	8082	III
16-Sep-2011	SL-053-SA7-SS-0.0-0.5	6409793	N	3550B	8151A	III
16-Sep-2011	SL-053-SA7-SS-0.0-0.5	6409793	N	3550B	8270C	III
16-Sep-2011	SL-053-SA7-SS-0.0-0.5	6409793	N	3550B	8270C SIM	III
16-Sep-2011	SL-053-SA7-SS-0.0-0.5	6409793	N	METHOD	300.0	III
16-Sep-2011	SL-053-SA7-SS-0.0-0.5	6409793	N	METHOD	314.0	III
16-Sep-2011	SL-053-SA7-SS-0.0-0.5	6409793	N	METHOD	7471A	III
16-Sep-2011	SL-053-SA7-SS-0.0-0.5	6409793	N	METHOD	8015B	III
16-Sep-2011	SL-053-SA7-SS-0.0-0.5	6409793	N	METHOD	8015M	III
16-Sep-2011	SL-053-SA7-SS-0.0-0.5	6409793	N	METHOD	9012B	III
16-Sep-2011	SL-165-SA7-SS-0.0-0.5	6409795	N	3050B	6010B	III
16-Sep-2011	SL-165-SA7-SS-0.0-0.5	6409795	N	3050B	6020	III
16-Sep-2011	SL-165-SA7-SS-0.0-0.5	6409795	N	3060A	7199	III
16-Sep-2011	SL-165-SA7-SS-0.0-0.5	6409795	N	3550B	8015B	III
16-Sep-2011	SL-165-SA7-SS-0.0-0.5	6409795	N	3550B	8015M	III
16-Sep-2011	SL-165-SA7-SS-0.0-0.5	6409795	N	3550B	8081A	III
16-Sep-2011	SL-165-SA7-SS-0.0-0.5	6409795	N	3550B	8082	III
16-Sep-2011	SL-165-SA7-SS-0.0-0.5	6409795	N	3550B	8151A	III
16-Sep-2011	SL-165-SA7-SS-0.0-0.5	6409795	N	3550B	8270C	III
16-Sep-2011	SL-165-SA7-SS-0.0-0.5	6409795	N	3550B	8270C SIM	III
16-Sep-2011	SL-165-SA7-SS-0.0-0.5	6409795	N	METHOD	300.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Sep-2011	SL-165-SA7-SS-0.0-0.5	6409795	N	METHOD	314.0	III
16-Sep-2011	SL-165-SA7-SS-0.0-0.5	6409795	N	METHOD	7471A	III
16-Sep-2011	SL-165-SA7-SS-0.0-0.5	6409795	N	METHOD	8015B	III
16-Sep-2011	SL-165-SA7-SS-0.0-0.5	6409795	N	METHOD	8015M	III
16-Sep-2011	SL-165-SA7-SS-0.0-0.5	6409795	N	METHOD	9012B	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	3050B	6010B	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	3050B	6020	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	3060A	7199	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	3546	1625C	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	3550B	8015B	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	3550B	8015M	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	3550B	8081A	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	3550B	8082	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	3550B	8151A	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	3550B	8270C	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	3550B	8270C SIM	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	8330	8330A	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	METHOD	300.0	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	METHOD	314.0	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	METHOD	7471A	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	METHOD	8015B	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	METHOD	8015M	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	METHOD	8315A	III
16-Sep-2011	SL-054-SA7-SS-0.0-0.5	6409797	N	METHOD	9012B	III
16-Sep-2011	SL-100-SA7-SS-0.0-0.5	6409798	N	3050B	6010B	III
16-Sep-2011	SL-100-SA7-SS-0.0-0.5	6409798	N	3050B	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Sep-2011	SL-100-SA7-SS-0.0-0.5	6409798	N	3060A	7199	III
16-Sep-2011	SL-100-SA7-SS-0.0-0.5	6409798	N	3550B	8015B	III
16-Sep-2011	SL-100-SA7-SS-0.0-0.5	6409798	N	3550B	8015M	III
16-Sep-2011	SL-100-SA7-SS-0.0-0.5	6409798	N	3550B	8081A	III
16-Sep-2011	SL-100-SA7-SS-0.0-0.5	6409798	N	3550B	8082	III
16-Sep-2011	SL-100-SA7-SS-0.0-0.5	6409798	N	3550B	8151A	III
16-Sep-2011	SL-100-SA7-SS-0.0-0.5	6409798	N	3550B	8270C	III
16-Sep-2011	SL-100-SA7-SS-0.0-0.5	6409798	N	3550B	8270C SIM	III
16-Sep-2011	SL-100-SA7-SS-0.0-0.5	6409798	N	METHOD	300.0	III
16-Sep-2011	SL-100-SA7-SS-0.0-0.5	6409798	N	METHOD	314.0	III
16-Sep-2011	SL-100-SA7-SS-0.0-0.5	6409798	N	METHOD	7471A	III
16-Sep-2011	SL-100-SA7-SS-0.0-0.5	6409798	N	METHOD	8015B	III
16-Sep-2011	SL-100-SA7-SS-0.0-0.5	6409798	N	METHOD	8015M	III
16-Sep-2011	SL-100-SA7-SS-0.0-0.5	6409798	N	METHOD	9012B	III
16-Sep-2011	SL-022-SA7-SS-0.0-0.5	6409796	N	3050B	6010B	III
16-Sep-2011	SL-022-SA7-SS-0.0-0.5	6409796	N	3050B	6020	III
16-Sep-2011	SL-022-SA7-SS-0.0-0.5	6409796	N	3060A	7199	III
16-Sep-2011	SL-022-SA7-SS-0.0-0.5	6409796	N	3550B	8015B	III
16-Sep-2011	SL-022-SA7-SS-0.0-0.5	6409796	N	3550B	8015M	III
16-Sep-2011	SL-022-SA7-SS-0.0-0.5	6409796	N	3550B	8081A	III
16-Sep-2011	SL-022-SA7-SS-0.0-0.5	6409796	N	3550B	8082	III
16-Sep-2011	SL-022-SA7-SS-0.0-0.5	6409796	N	3550B	8151A	III
16-Sep-2011	SL-022-SA7-SS-0.0-0.5	6409796	N	3550B	8270C	III
16-Sep-2011	SL-022-SA7-SS-0.0-0.5	6409796	N	3550B	8270C SIM	III
16-Sep-2011	SL-022-SA7-SS-0.0-0.5	6409796	N	METHOD	300.0	III
16-Sep-2011	SL-022-SA7-SS-0.0-0.5	6409796	N	METHOD	314.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Sep-2011	SL-022-SA7-SS-0.0-0.5	6409796	N	METHOD	7471A	III
16-Sep-2011	SL-022-SA7-SS-0.0-0.5	6409796	N	METHOD	8015B	III
16-Sep-2011	SL-022-SA7-SS-0.0-0.5	6409796	N	METHOD	8015M	III
16-Sep-2011	SL-022-SA7-SS-0.0-0.5	6409796	N	METHOD	9012B	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5	6409800	N	3050B	6010B	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5	6409800	N	3050B	6020	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5	6409800	N	3060A	7199	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5	6409800	N	3550B	8015B	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5	6409800	N	3550B	8015M	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5	6409800	N	3550B	8081A	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5	6409800	N	3550B	8082	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5	6409800	N	3550B	8151A	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5	6409800	N	3550B	8270C	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5	6409800	N	3550B	8270C SIM	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5	6409800	N	METHOD	300.0	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5	6409800	N	METHOD	314.0	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5	6409800	N	METHOD	7471A	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5	6409800	N	METHOD	8015B	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5	6409800	N	METHOD	8015M	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5	6409800	N	METHOD	9012B	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5DUP	P409800D270817A	DUP	METHOD	9012B	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5DUP	P409800D271254A	DUP	3060A	7199	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5MS	P409800R270818A	MS	METHOD	9012B	III
16-Sep-2011	SL-184-SA7-SS-0.0-0.5MS	P409800R271207A	MS	3060A	7199	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	GENCHEM	
Method:	9012B	Matrix: SO

Sample ID: SL-184-SA7-SS-0.0-0.5      Collected: 9/16/2011 2:58:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CYANIDE	0.18	U	0.18	MDL	0.50	PQL	mg/Kg	R	Q

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: SL-009-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	2290		2.45	MDL	19.6	PQL	mg/Kg	J	E
MANGANESE	368		0.0352	MDL	0.489	PQL	mg/Kg	J	E
SODIUM	88.6	J	5.82	MDL	97.9	PQL	mg/Kg	J	Z
TIN	3.20	J	0.313	MDL	9.79	PQL	mg/Kg	U	B
Zirconium	1.13	J	0.450	MDL	4.89	PQL	mg/Kg	U	B

Sample ID: SL-017-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
BORON	1.72	J	0.359	MDL	4.99	PQL	mg/Kg	U	B
CALCIUM	2670		2.50	MDL	20.0	PQL	mg/Kg	J	E
MANGANESE	255		0.0359	MDL	0.499	PQL	mg/Kg	J	E
SODIUM	92.0	J	5.94	MDL	99.9	PQL	mg/Kg	J	Z
TIN	4.42	J	0.320	MDL	9.99	PQL	mg/Kg	U	B
Zirconium	0.618	J	0.459	MDL	4.99	PQL	mg/Kg	U	B

Sample ID: SL-022-SA7-SS-0.0-0.5      Collected: 9/16/2011 2:40:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	1910		2.52	MDL	20.2	PQL	mg/Kg	J	E
MANGANESE	190		0.0363	MDL	0.504	PQL	mg/Kg	J	E
SODIUM	74.3	J	6.00	MDL	101	PQL	mg/Kg	J	Z
TIN	3.17	J	0.323	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	1.08	J	0.464	MDL	5.04	PQL	mg/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: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: SL-052-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	2890		2.50	MDL	20.0	PQL	mg/Kg	J	E
MANGANESE	240		0.0360	MDL	0.499	PQL	mg/Kg	J	E
TIN	3.44	J	0.320	MDL	9.99	PQL	mg/Kg	U	B
Zirconium	0.833	J	0.459	MDL	4.99	PQL	mg/Kg	U	B

Sample ID: SL-053-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
CALCIUM	1980		2.47	MDL	19.8	PQL	mg/Kg	J	E
MANGANESE	242		0.0356	MDL	0.494	PQL	mg/Kg	J	E
SODIUM	70.3	J	5.88	MDL	98.9	PQL	mg/Kg	J	Z
TIN	3.19	J	0.316	MDL	9.89	PQL	mg/Kg	U	B
Zirconium	1.06	J	0.455	MDL	4.94	PQL	mg/Kg	U	B

Sample ID: SL-054-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	0.985	J	0.363	MDL	5.04	PQL	mg/Kg	U	B
CALCIUM	3120		2.52	MDL	20.2	PQL	mg/Kg	J	E
MANGANESE	289		0.0363	MDL	0.504	PQL	mg/Kg	J	E
TIN	3.28	J	0.323	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	1.12	J	0.464	MDL	5.04	PQL	mg/Kg	U	B

Sample ID: SL-083-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
CALCIUM	1700		2.50	MDL	20.0	PQL	mg/Kg	J	E
MANGANESE	235		0.0361	MDL	0.501	PQL	mg/Kg	J	E
SODIUM	69.2	J	5.96	MDL	100	PQL	mg/Kg	J	Z
TIN	2.96	J	0.320	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	0.726	J	0.461	MDL	5.01	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: SL-100-SA7-SS-0.0-0.5	Collected: 9/16/2011 2:15:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.424	J	0.363	MDL	5.04	PQL	mg/Kg	U	B
CALCIUM	2060		2.52	MDL	20.1	PQL	mg/Kg	J	E
MANGANESE	263		0.0363	MDL	0.504	PQL	mg/Kg	J	E
SODIUM	68.4	J	5.99	MDL	101	PQL	mg/Kg	J	Z
TIN	3.26	J	0.322	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	1.32	J	0.463	MDL	5.04	PQL	mg/Kg	U	B

Sample ID: SL-165-SA7-SS-0.0-0.5	Collected: 9/16/2011 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
CALCIUM	2420		2.47	MDL	19.8	PQL	mg/Kg	J	E
MANGANESE	282		0.0356	MDL	0.495	PQL	mg/Kg	J	E
SODIUM	70.2	J	5.89	MDL	99.0	PQL	mg/Kg	J	Z
TIN	2.91	J	0.317	MDL	9.90	PQL	mg/Kg	U	B
Zirconium	1.19	J	0.455	MDL	4.95	PQL	mg/Kg	U	B

Sample ID: SL-184-SA7-SS-0.0-0.5	Collected: 9/16/2011 2:58:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	1660		2.49	MDL	19.9	PQL	mg/Kg	J	E
MANGANESE	178		0.0359	MDL	0.498	PQL	mg/Kg	J	E
SODIUM	75.8	J	5.93	MDL	99.7	PQL	mg/Kg	J	Z
TIN	3.38	J	0.319	MDL	9.97	PQL	mg/Kg	U	B
Zirconium	2.69	J	0.459	MDL	4.98	PQL	mg/Kg	J	Z

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-009-SA7-SS-0.0-0.5	Collected: 9/16/2011 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	0.0836	J	0.0573	MDL	0.395	PQL	mg/Kg	J	Z, Q

\* 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: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-009-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
MOLYBDENUM	0.491		0.0494	MDL	0.0988	PQL	mg/Kg	J	Q

Sample ID: SL-009-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	0.428		0.0731	MDL	0.198	PQL	mg/Kg	J	Q
ARSENIC	4.08		0.0791	MDL	0.395	PQL	mg/Kg	J	Q
BERYLLIUM	0.398		0.0158	MDL	0.0988	PQL	mg/Kg	J	Q
CADMIUM	0.319		0.0435	MDL	0.0988	PQL	mg/Kg	J	Q
CHROMIUM	15.6		0.119	MDL	0.395	PQL	mg/Kg	J	Q, E, A
COBALT	4.97		0.0198	MDL	0.0988	PQL	mg/Kg	J	Q
COPPER	8.81		0.0791	MDL	0.395	PQL	mg/Kg	J	Q
LEAD	31.2		0.0101	MDL	0.198	PQL	mg/Kg	J	E
NICKEL	8.52		0.0988	MDL	0.395	PQL	mg/Kg	J	Q, E
SILVER	0.0600	J	0.0140	MDL	0.0988	PQL	mg/Kg	J	Z, Q
THALLIUM	0.240		0.0296	MDL	0.0988	PQL	mg/Kg	J	Q
VANADIUM	30.7		0.0217	MDL	0.0988	PQL	mg/Kg	J	Q, A

Sample ID: SL-017-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
SELENIUM	0.0928	J	0.0574	MDL	0.396	PQL	mg/Kg	J	Z, Q

Sample ID: SL-017-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
MOLYBDENUM	1.22		0.0494	MDL	0.0989	PQL	mg/Kg	J	Q

Sample ID: SL-017-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	1.22		0.0732	MDL	0.198	PQL	mg/Kg	J	Q
ARSENIC	3.42		0.0791	MDL	0.396	PQL	mg/Kg	J	Q
BERYLLIUM	0.534		0.0158	MDL	0.0989	PQL	mg/Kg	J	Q
CADMIUM	1.20		0.0435	MDL	0.0989	PQL	mg/Kg	J	Q

\* 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: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-017-SA7-SS-0.0-0.5	Collected: 9/16/2011 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
CHROMIUM	25.1		0.119	MDL	0.396	PQL	mg/Kg	J	Q, E, A
COBALT	4.76		0.0198	MDL	0.0989	PQL	mg/Kg	J	Q
COPPER	13.9		0.0791	MDL	0.396	PQL	mg/Kg	J	Q
LEAD	54.9		0.0101	MDL	0.198	PQL	mg/Kg	J	E
NICKEL	17.5		0.0989	MDL	0.396	PQL	mg/Kg	J	Q, E
SILVER	0.165		0.0140	MDL	0.0989	PQL	mg/Kg	J	Q
THALLIUM	0.239		0.0297	MDL	0.0989	PQL	mg/Kg	J	Q
VANADIUM	32.1		0.0218	MDL	0.0989	PQL	mg/Kg	J	Q, A

Sample ID: SL-022-SA7-SS-0.0-0.5	Collected: 9/16/2011 2:40:00	Analysis Type: REA	Dilution: 20						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	115		0.101	MDL	1.98	PQL	mg/Kg	J	E

Sample ID: SL-022-SA7-SS-0.0-0.5	Collected: 9/16/2011 2:40:00	Analysis Type: REA2	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0981	J	0.0573	MDL	0.395	PQL	mg/Kg	J	Z, Q

Sample ID: SL-022-SA7-SS-0.0-0.5	Collected: 9/16/2011 2:40:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.24		0.0494	MDL	0.0989	PQL	mg/Kg	J	Q

Sample ID: SL-022-SA7-SS-0.0-0.5	Collected: 9/16/2011 2:40:00	Analysis Type: RES	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.447		0.0732	MDL	0.198	PQL	mg/Kg	J	Q
ARSENIC	5.14		0.0791	MDL	0.395	PQL	mg/Kg	J	Q
BERYLLIUM	0.549		0.0158	MDL	0.0989	PQL	mg/Kg	J	Q
CADMIUM	1.71		0.0435	MDL	0.0989	PQL	mg/Kg	J	Q
CHROMIUM	32.3		0.119	MDL	0.395	PQL	mg/Kg	J	Q, E, A
COBALT	5.34		0.0198	MDL	0.0989	PQL	mg/Kg	J	Q
COPPER	15.4		0.0791	MDL	0.395	PQL	mg/Kg	J	Q
NICKEL	17.7		0.0989	MDL	0.395	PQL	mg/Kg	J	Q, E

\* 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: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-022-SA7-SS-0.0-0.5      Collected: 9/16/2011 2:40:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.225		0.0140	MDL	0.0989	PQL	mg/Kg	J	Q
THALLIUM	0.274		0.0297	MDL	0.0989	PQL	mg/Kg	J	Q
VANADIUM	34.6		0.0218	MDL	0.0989	PQL	mg/Kg	J	Q, A

Sample ID: SL-052-SA7-SS-0.0-0.5      Collected: 9/16/2011 10:50:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.119	J	0.0585	MDL	0.404	PQL	mg/Kg	J	Z, Q

Sample ID: SL-052-SA7-SS-0.0-0.5      Collected: 9/16/2011 10:50:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.01		0.0504	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-052-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	3.09		0.0746	MDL	0.202	PQL	mg/Kg	J	Q
ARSENIC	3.48		0.0807	MDL	0.404	PQL	mg/Kg	J	Q
BERYLLIUM	0.384		0.0161	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	1.15		0.0444	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	25.3		0.121	MDL	0.404	PQL	mg/Kg	J	Q, E, A
COBALT	4.81		0.0202	MDL	0.101	PQL	mg/Kg	J	Q
COPPER	13.5		0.0807	MDL	0.404	PQL	mg/Kg	J	Q
LEAD	55.6		0.0103	MDL	0.202	PQL	mg/Kg	J	E
NICKEL	16.2		0.101	MDL	0.404	PQL	mg/Kg	J	Q, E
SILVER	0.212		0.0143	MDL	0.101	PQL	mg/Kg	J	Q
THALLIUM	0.210		0.0303	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	27.6		0.0222	MDL	0.101	PQL	mg/Kg	J	Q, A

Sample ID: SL-053-SA7-SS-0.0-0.5      Collected: 9/16/2011 11:30:00      Analysis Type: REA      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	17.3		0.0504	MDL	0.989	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-053-SA7-SS-0.0-0.5      Collected: 9/16/2011 11:30:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0963	J	0.0574	MDL	0.396	PQL	mg/Kg	J	Z, Q

Sample ID: SL-053-SA7-SS-0.0-0.5      Collected: 9/16/2011 11:30:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.06		0.0494	MDL	0.0989	PQL	mg/Kg	J	Q

Sample ID: SL-053-SA7-SS-0.0-0.5      Collected: 9/16/2011 11:30:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.699		0.0732	MDL	0.198	PQL	mg/Kg	J	Q
ARSENIC	3.79		0.0791	MDL	0.396	PQL	mg/Kg	J	Q
BERYLLIUM	0.404		0.0158	MDL	0.0989	PQL	mg/Kg	J	Q
CADMIUM	1.58		0.0435	MDL	0.0989	PQL	mg/Kg	J	Q
CHROMIUM	29.7		0.119	MDL	0.396	PQL	mg/Kg	J	Q, E, A
COBALT	3.78		0.0198	MDL	0.0989	PQL	mg/Kg	J	Q
COPPER	11.9		0.0791	MDL	0.396	PQL	mg/Kg	J	Q
NICKEL	13.7		0.0989	MDL	0.396	PQL	mg/Kg	J	Q, E
SILVER	0.313		0.0140	MDL	0.0989	PQL	mg/Kg	J	Q
THALLIUM	0.195		0.0297	MDL	0.0989	PQL	mg/Kg	J	Q
VANADIUM	25.3		0.0218	MDL	0.0989	PQL	mg/Kg	J	Q, A

Sample ID: SL-054-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	0.150	J	0.0579	MDL	0.399	PQL	mg/Kg	J	Z, Q

Sample ID: SL-054-SA7-SS-0.0-0.5      Collected: 9/16/2011 2:00:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.353		0.0499	MDL	0.0998	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-054-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	0.242		0.0738	MDL	0.200	PQL	mg/Kg	J	Q
ARSENIC	5.41		0.0798	MDL	0.399	PQL	mg/Kg	J	Q
BERYLLIUM	0.609		0.0160	MDL	0.0998	PQL	mg/Kg	J	Q
CADMIUM	0.182		0.0439	MDL	0.0998	PQL	mg/Kg	J	Q
CHROMIUM	18.8		0.120	MDL	0.399	PQL	mg/Kg	J	Q, E, A
COBALT	6.73		0.0200	MDL	0.0998	PQL	mg/Kg	J	Q
COPPER	8.31		0.0798	MDL	0.399	PQL	mg/Kg	J	Q
LEAD	9.61		0.0102	MDL	0.200	PQL	mg/Kg	J	E
NICKEL	11.9		0.0998	MDL	0.399	PQL	mg/Kg	J	Q, E
THALLIUM	0.335		0.0299	MDL	0.0998	PQL	mg/Kg	J	Q
VANADIUM	38.1		0.0220	MDL	0.0998	PQL	mg/Kg	J	Q, A

Sample ID: SL-083-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	0.109	J	0.0587	MDL	0.405	PQL	mg/Kg	J	Z, Q

Sample ID: SL-083-SA7-SS-0.0-0.5      Collected: 9/16/2011 8:45:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.378		0.0506	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-083-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	0.174	J	0.0748	MDL	0.202	PQL	mg/Kg	J	Z, Q
ARSENIC	4.51		0.0809	MDL	0.405	PQL	mg/Kg	J	Q
BERYLLIUM	0.506		0.0162	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.142		0.0445	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	16.2		0.121	MDL	0.405	PQL	mg/Kg	J	Q, E, A
COBALT	5.40		0.0202	MDL	0.101	PQL	mg/Kg	J	Q
COPPER	7.55		0.0809	MDL	0.405	PQL	mg/Kg	J	Q
LEAD	10.6		0.0103	MDL	0.202	PQL	mg/Kg	J	E
NICKEL	9.77		0.101	MDL	0.405	PQL	mg/Kg	J	Q, E
SILVER	0.0269	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q

\* 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: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS									
Method:	6020			Matrix: SO						

Sample ID: SL-083-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
THALLIUM	0.328		0.0303	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	30.9		0.0222	MDL	0.101	PQL	mg/Kg	J	Q, A

Sample ID: SL-100-SA7-SS-0.0-0.5      Collected: 9/16/2011 2:15:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0848	J	0.0573	MDL	0.395	PQL	mg/Kg	J	Z, Q

Sample ID: SL-100-SA7-SS-0.0-0.5      Collected: 9/16/2011 2:15:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.435		0.0494	MDL	0.0988	PQL	mg/Kg	J	Q

Sample ID: SL-100-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	0.175	J	0.0731	MDL	0.198	PQL	mg/Kg	J	Z, Q
ARSENIC	4.44		0.0790	MDL	0.395	PQL	mg/Kg	J	Q
BERYLLIUM	0.514		0.0158	MDL	0.0988	PQL	mg/Kg	J	Q
CADMIUM	0.345		0.0435	MDL	0.0988	PQL	mg/Kg	J	Q
CHROMIUM	13.3		0.119	MDL	0.395	PQL	mg/Kg	J	Q, E, A
COBALT	4.83		0.0198	MDL	0.0988	PQL	mg/Kg	J	Q
COPPER	7.31		0.0790	MDL	0.395	PQL	mg/Kg	J	Q
LEAD	15.9		0.0101	MDL	0.198	PQL	mg/Kg	J	E
NICKEL	9.90		0.0988	MDL	0.395	PQL	mg/Kg	J	Q, E
SILVER	0.0246	J	0.0140	MDL	0.0988	PQL	mg/Kg	J	Z, Q
THALLIUM	0.304		0.0296	MDL	0.0988	PQL	mg/Kg	J	Q
VANADIUM	30.8		0.0217	MDL	0.0988	PQL	mg/Kg	J	Q, A

Sample ID: SL-165-SA7-SS-0.0-0.5      Collected: 9/16/2011 12:10:00      Analysis Type: REA      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	7.95		0.0505	MDL	0.990	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-165-SA7-SS-0.0-0.5	<b>Collected:</b> 9/16/2011 12:10:00	<b>Analysis Type:</b> REA2	<b>Dilution:</b> 2
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.178	J	0.0574	MDL	0.396	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-165-SA7-SS-0.0-0.5	<b>Collected:</b> 9/16/2011 12:10:00	<b>Analysis Type:</b> REA3	<b>Dilution:</b> 2
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.00		0.0495	MDL	0.0990	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-165-SA7-SS-0.0-0.5	<b>Collected:</b> 9/16/2011 12:10:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 2
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.688		0.0732	MDL	0.198	PQL	mg/Kg	J	Q
ARSENIC	6.81		0.0792	MDL	0.396	PQL	mg/Kg	J	Q
BERYLLIUM	0.596		0.0158	MDL	0.0990	PQL	mg/Kg	J	Q
CADMIUM	0.950		0.0435	MDL	0.0990	PQL	mg/Kg	J	Q
CHROMIUM	59.2		0.119	MDL	0.396	PQL	mg/Kg	J	Q, E, A
COBALT	10.3		0.0198	MDL	0.0990	PQL	mg/Kg	J	Q
COPPER	18.8		0.0792	MDL	0.396	PQL	mg/Kg	J	Q
NICKEL	23.0		0.0990	MDL	0.396	PQL	mg/Kg	J	Q, E
SILVER	0.0806	J	0.0141	MDL	0.0990	PQL	mg/Kg	J	Z, Q
THALLIUM	0.369		0.0297	MDL	0.0990	PQL	mg/Kg	J	Q
VANADIUM	44.6		0.0218	MDL	0.0990	PQL	mg/Kg	J	Q, A

<b>Sample ID:</b> SL-184-SA7-SS-0.0-0.5	<b>Collected:</b> 9/16/2011 2:58:00	<b>Analysis Type:</b> REA2	<b>Dilution:</b> 2
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0958	J	0.0578	MDL	0.399	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-184-SA7-SS-0.0-0.5	<b>Collected:</b> 9/16/2011 2:58:00	<b>Analysis Type:</b> REA3	<b>Dilution:</b> 2
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.604		0.0498	MDL	0.0997	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

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## Data Qualifier Summary

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-184-SA7-SS-0.0-0.5

Collected: 9/16/2011 2:58:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.305		0.0738	MDL	0.199	PQL	mg/Kg	J	Q
ARSENIC	4.43		0.0798	MDL	0.399	PQL	mg/Kg	J	Q
BERYLLIUM	0.527		0.0160	MDL	0.0997	PQL	mg/Kg	J	Q
CADMIUM	0.537		0.0439	MDL	0.0997	PQL	mg/Kg	J	Q
CHROMIUM	16.6		0.120	MDL	0.399	PQL	mg/Kg	J	Q, E, A
COBALT	5.07		0.0199	MDL	0.0997	PQL	mg/Kg	J	Q
COPPER	8.34		0.0798	MDL	0.399	PQL	mg/Kg	J	Q
LEAD	21.9		0.0102	MDL	0.199	PQL	mg/Kg	J	E
NICKEL	10.0		0.0997	MDL	0.399	PQL	mg/Kg	J	Q, E
SILVER	0.0467	J	0.0142	MDL	0.0997	PQL	mg/Kg	J	Z, Q
THALLIUM	0.331		0.0299	MDL	0.0997	PQL	mg/Kg	J	Q
VANADIUM	29.6		0.0219	MDL	0.0997	PQL	mg/Kg	J	Q, A

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7199</b>	<b>Matrix: SO</b>

Sample ID: SL-009-SA7-SS-0.0-0.5

Collected: 9/16/2011 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	0.39	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA7-SS-0.0-0.5

Collected: 9/16/2011 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	0.95	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-053-SA7-SS-0.0-0.5

Collected: 9/16/2011 11:30:00

Analysis Type: RES

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.51	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-083-SA7-SS-0.0-0.5

Collected: 9/16/2011 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	0.38	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: PrepDE246\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS									
Method:	7199	Matrix:	SO							

Sample ID: SL-184-SA7-SS-0.0-0.5      Collected: 9/16/2011 2:58:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.60	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Method Category:	METALS									
Method:	7471A	Matrix:	SO							

Sample ID: SL-009-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	0.0097	J	0.0066	MDL	0.0942	PQL	mg/Kg	U	B

Sample ID: SL-017-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	0.0709	J	0.0070	MDL	0.0991	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA7-SS-0.0-0.5      Collected: 9/16/2011 2:40:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0672	J	0.0070	MDL	0.0995	PQL	mg/Kg	J	Z

Sample ID: SL-052-SA7-SS-0.0-0.5      Collected: 9/16/2011 10:50:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0676	J	0.0070	MDL	0.0989	PQL	mg/Kg	J	Z

Sample ID: SL-054-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	0.0156	J	0.0069	MDL	0.0984	PQL	mg/Kg	U	B

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8015M	Matrix:	SO

Sample ID: SL-009-SA7-SS-0.0-0.5	Collected: 9/16/2011 10:10:00	Analysis Type: REA	Dilution: 20						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	9.6	J	8.1	MDL	24	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA7-SS-0.0-0.5	Collected: 9/16/2011 2:40:00	Analysis Type: REA	Dilution: 5						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	6.9	J	4.3	MDL	13	PQL	mg/Kg	J	Z

Sample ID: SL-052-SA7-SS-0.0-0.5	Collected: 9/16/2011 10:50:00	Analysis Type: REA	Dilution: 50						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	47	J	20	MDL	61	PQL	mg/Kg	J	Z

Sample ID: SL-053-SA7-SS-0.0-0.5	Collected: 9/16/2011 11:30:00	Analysis Type: REA	Dilution: 10						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	5.4	J	4.0	MDL	12	PQL	mg/Kg	J	Z

Sample ID: SL-054-SA7-SS-0.0-0.5	Collected: 9/16/2011 2:00:00	Analysis Type: REA	Dilution: 20						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	8.3	J	8.0	MDL	24	PQL	mg/Kg	J	Z

Sample ID: SL-165-SA7-SS-0.0-0.5	Collected: 9/16/2011 12:10:00	Analysis Type: REA	Dilution: 10						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	6.7	J	4.0	MDL	12	PQL	mg/Kg	J	Z

Sample ID: SL-184-SA7-SS-0.0-0.5	Collected: 9/16/2011 2:58:00	Analysis Type: REA	Dilution: 10						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	6.4	J	4.0	MDL	12	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8081A	<b>Matrix:</b>	SO
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**Sample ID:** SL-009-SA7-SS-0.0-0.5      **Collected:** 9/16/2011 10:10:00      **Analysis Type:** RES-BASE/NEUTRAL      **Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	11	J	4.0	MDL	17	PQL	ug/Kg	J	Z

**Sample ID:** SL-022-SA7-SS-0.0-0.5      **Collected:** 9/16/2011 2:40:00      **Analysis Type:** RES-BASE/NEUTRAL      **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BETA-BHC	0.10	J	0.061	MDL	0.17	PQL	ug/Kg	J	Z, S
Chlordane	6.0		0.81	MDL	3.4	PQL	ug/Kg	J	S

**Sample ID:** SL-053-SA7-SS-0.0-0.5      **Collected:** 9/16/2011 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
BETA-BHC	1.3		0.061	MDL	0.17	PQL	ug/Kg	J	S
Chlordane	2.5	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.044	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z, S

**Sample ID:** SL-054-SA7-SS-0.0-0.5      **Collected:** 9/16/2011 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
Chlordane	4.9	J	4.0	MDL	17	PQL	ug/Kg	J	Z

**Sample ID:** SL-165-SA7-SS-0.0-0.5      **Collected:** 9/16/2011 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
ENDOSULFAN SULFATE	0.36		0.067	MDL	0.34	PQL	ug/Kg	J	S

**Sample ID:** SL-184-SA7-SS-0.0-0.5      **Collected:** 9/16/2011 2:58:00      **Analysis Type:** RES-BASE/NEUTRAL      **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	5.9		0.81	MDL	3.4	PQL	ug/Kg	J	S

\* 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: DE246

Laboratory: LL

EDD Filename: PrepDE246\_v2

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8082	Matrix: SO

Sample ID: SL-100-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
AROCLOR 1254	0.88	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-165-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
AROCLOR 1254	0.77	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	0.89	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	2.7	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Method Category:	SVOA	
Method:	8151A	Matrix: SO

Sample ID: SL-009-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-017-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
2,4,5-TP (Silvex)	0.076	U	0.076	MDL	0.17	PQL	ug/Kg	R	Q
2,4-DB	15	U	15	MDL	15	PQL	ug/Kg	R	Q
DALAPON	4.4	U	4.4	MDL	9.1	PQL	ug/Kg	R	Q
DICAMBA	0.40	U	0.40	MDL	1.2	PQL	ug/Kg	R	Q
DICHLOROPROP	0.81	U	0.81	MDL	1.7	PQL	ug/Kg	R	Q
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	Q, L

Sample ID: SL-022-SA7-SS-0.0-0.5      Collected: 9/16/2011 2:40:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8151A	Matrix:	SO

Sample ID: SL-052-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-053-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-054-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-083-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
DICAMBA	0.43	J	0.41	MDL	1.2	PQL	ug/Kg	J	Z
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L
MCP	120	J	76	MDL	250	PQL	ug/Kg	J	Z

Sample ID: SL-100-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-165-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-184-SA7-SS-0.0-0.5      Collected: 9/16/2011 2:58:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

\* 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: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	6270C
		<b>Matrix:</b>	SO

Sample ID: SL-009-SA7-SS-0.0-0.5      Collected: 9/16/2011 10:10:00      Analysis Type: RES-ACID      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	840	U	840	MDL	2500	PQL	ug/Kg	UJ	L
BENZO(G,H,I)PERYLENE	600	J	84	MDL	840	PQL	ug/Kg	J	Z
CARBAZOLE	220	J	84	MDL	840	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	170	J	84	MDL	840	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	560	J	84	MDL	840	PQL	ug/Kg	J	Z

Sample ID: SL-017-SA7-SS-0.0-0.5      Collected: 9/16/2011 11:15:00      Analysis Type: RES-ACID      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	840	U	840	MDL	2500	PQL	ug/Kg	UJ	L
DIBENZOFURAN	340	J	84	MDL	840	PQL	ug/Kg	J	Z

Sample ID: SL-022-SA7-SS-0.0-0.5      Collected: 9/16/2011 2:40:00      Analysis Type: RES-ACID      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	840	U	840	MDL	2500	PQL	ug/Kg	UJ	L
BENZO(G,H,I)PERYLENE	190	J	84	MDL	840	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	360	J	84	MDL	1700	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	160	J	84	MDL	840	PQL	ug/Kg	J	Z

Sample ID: SL-052-SA7-SS-0.0-0.5      Collected: 9/16/2011 10:50:00      Analysis Type: RES-ACID      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	840	U	840	MDL	2500	PQL	ug/Kg	UJ	L
DIBENZOFURAN	110	J	84	MDL	840	PQL	ug/Kg	J	Z

Sample ID: SL-053-SA7-SS-0.0-0.5      Collected: 9/16/2011 11:30:00      Analysis Type: RES-ACID      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	840	U	840	MDL	2500	PQL	ug/Kg	UJ	L
BENZO(A)ANTHRACENE	400	J	84	MDL	840	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	500	J	84	MDL	840	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	770	J	84	MDL	840	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	390	J	84	MDL	840	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	280	J	84	MDL	840	PQL	ug/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: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	6270C	Matrix:	SO

Sample ID: SL-053-SA7-SS-0.0-0.5      Collected: 9/16/2011 11:30:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CARBAZOLE	130	J	84	MDL	840	PQL	ug/Kg	J	Z
CHRYSENE	550	J	84	MDL	840	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	120	J	84	MDL	840	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	380	J	84	MDL	840	PQL	ug/Kg	J	Z
PHENANTHRENE	500	J	84	MDL	840	PQL	ug/Kg	J	Z

Sample ID: SL-054-SA7-SS-0.0-0.5      Collected: 9/16/2011 2:00:00      Analysis Type: RES-ACID      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	830	U	830	MDL	2500	PQL	ug/Kg	UJ	L
BENZO(B)FLUORANTHENE	220	J	83	MDL	830	PQL	ug/Kg	J	Z
CHRYSENE	270	J	83	MDL	830	PQL	ug/Kg	J	Z
PHENANTHRENE	530	J	83	MDL	830	PQL	ug/Kg	J	Z
PYRENE	610	J	83	MDL	830	PQL	ug/Kg	J	Z

Sample ID: SL-083-SA7-SS-0.0-0.5      Collected: 9/16/2011 8:45:00      Analysis Type: RES-ACID      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	840	U	840	MDL	2500	PQL	ug/Kg	UJ	L
BENZO(G,H,I)PERYLENE	110	J	84	MDL	840	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	200	J	84	MDL	1700	PQL	ug/Kg	J	Z
PHENANTHRENE	230	J	84	MDL	840	PQL	ug/Kg	J	Z

Sample ID: SL-100-SA7-SS-0.0-0.5      Collected: 9/16/2011 2:15:00      Analysis Type: RES-ACID      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	830	U	830	MDL	2500	PQL	ug/Kg	UJ	L

Sample ID: SL-165-SA7-SS-0.0-0.5      Collected: 9/16/2011 12:10:00      Analysis Type: RES-ACID      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	840	U	840	MDL	2500	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8270C	Matrix: SO

Sample ID: SL-184-SA7-SS-0.0-0.5      Collected: 9/16/2011 2:58:00      Analysis Type: RES-ACID      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	830	U	830	MDL	2500	PQL	ug/Kg	UJ	L

Method Category:	SVOA	
Method:	8270C SIM	Matrix: SO

Sample ID: SL-009-SA7-SS-0.0-0.5      Collected: 9/16/2011 10:10:00      Analysis Type: RES      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	8.4	J	6.7	MDL	17	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	7.6	J	3.4	MDL	17	PQL	ug/Kg	J	Z
NAPHTHALENE	9.6	J	6.7	MDL	17	PQL	ug/Kg	J	Z

Sample ID: SL-022-SA7-SS-0.0-0.5      Collected: 9/16/2011 2:40:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	15	J	6.7	MDL	17	PQL	ug/Kg	J	Z
Di-n-butylphthalate	79	J	61	MDL	180	PQL	ug/Kg	J	Z
FLUORENE	11	J	6.7	MDL	17	PQL	ug/Kg	J	Z

Sample ID: SL-053-SA7-SS-0.0-0.5      Collected: 9/16/2011 11:30:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	13	J	6.7	MDL	17	PQL	ug/Kg	J	Z
FLUORENE	11	J	6.7	MDL	17	PQL	ug/Kg	J	Z

Sample ID: SL-054-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
ANTHRACENE	7.5	J	3.4	MDL	17	PQL	ug/Kg	J	Z

Sample ID: SL-083-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
ACENAPHTHENE	16	J	6.8	MDL	17	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	16	J	6.8	MDL	17	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C SIM	<b>Matrix:</b>	SO
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Sample ID: SL-083-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
FLUORENE	11	J	6.8	MDL	17	PQL	ug/Kg	J	Z

Sample ID: SL-100-SA7-SS-0.0-0.5      Collected: 9/16/2011 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
ANTHRACENE	0.60	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	6.0	MDL	18	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.88	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-165-SA7-SS-0.0-0.5      Collected: 9/16/2011 12:10:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	12	J	6.7	MDL	17	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	11	J	6.7	MDL	17	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	11	J	6.7	MDL	17	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	8.9	J	6.7	MDL	17	PQL	ug/Kg	J	Z

Sample ID: SL-184-SA7-SS-0.0-0.5      Collected: 9/16/2011 2:58:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NAPHTHALENE	6.9	J	6.7	MDL	17	PQL	ug/Kg	J	Z

<b>Method Category:</b>	SVOA	<b>Method:</b>	8315A	<b>Matrix:</b>	SO
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Sample ID: SL-054-SA7-SS-0.0-0.5      Collected: 9/16/2011 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	690	J	600	MDL	1500	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	VOA	
<b>Method:</b>	8015B	<b>Matrix:</b> SO

Sample ID: SL-052-SA7-SS-0.0-0.5

Collected: 9/16/2011 10:50:00

Analysis Type: REA

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
O-TERPHENYL	2.8	J	1.5	MDL	3.5	PQL	mg/Kg	J	Z, S

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

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	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: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

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

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE246

# Method Blank Outlier Report

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P26308BB221159	9/28/2011 11:59:00 AM	BORON CALCIUM MAGNESIUM PHOSPHORUS STRONTIUM TIN Zirconium	0.367 mg/Kg 9.09 mg/Kg 0.972 mg/Kg 1.50 mg/Kg 0.0460 mg/Kg 1.68 mg/Kg 0.507 mg/Kg	SL-009-SA7-SS-0.0-0.5 SL-017-SA7-SS-0.0-0.5 SL-022-SA7-SS-0.0-0.5 SL-052-SA7-SS-0.0-0.5 SL-053-SA7-SS-0.0-0.5 SL-054-SA7-SS-0.0-0.5 SL-083-SA7-SS-0.0-0.5 SL-100-SA7-SS-0.0-0.5 SL-165-SA7-SS-0.0-0.5 SL-184-SA7-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-009-SA7-SS-0.0-0.5(RES)	TIN	3.20 mg/Kg	3.20U mg/Kg
SL-009-SA7-SS-0.0-0.5(RES)	Zirconium	1.13 mg/Kg	1.13U mg/Kg
SL-017-SA7-SS-0.0-0.5(RES)	BORON	1.72 mg/Kg	1.72U mg/Kg
SL-017-SA7-SS-0.0-0.5(RES)	TIN	4.42 mg/Kg	4.42U mg/Kg
SL-017-SA7-SS-0.0-0.5(RES)	Zirconium	0.618 mg/Kg	0.618U mg/Kg
SL-022-SA7-SS-0.0-0.5(RES)	TIN	3.17 mg/Kg	3.17U mg/Kg
SL-022-SA7-SS-0.0-0.5(RES)	Zirconium	1.08 mg/Kg	1.08U mg/Kg
SL-052-SA7-SS-0.0-0.5(RES)	TIN	3.44 mg/Kg	3.44U mg/Kg
SL-052-SA7-SS-0.0-0.5(RES)	Zirconium	0.833 mg/Kg	0.833U mg/Kg
SL-053-SA7-SS-0.0-0.5(RES)	TIN	3.19 mg/Kg	3.19U mg/Kg
SL-053-SA7-SS-0.0-0.5(RES)	Zirconium	1.06 mg/Kg	1.06U mg/Kg
SL-054-SA7-SS-0.0-0.5(RES)	BORON	0.985 mg/Kg	0.985U mg/Kg
SL-054-SA7-SS-0.0-0.5(RES)	TIN	3.28 mg/Kg	3.28U mg/Kg
SL-054-SA7-SS-0.0-0.5(RES)	Zirconium	1.12 mg/Kg	1.12U mg/Kg
SL-083-SA7-SS-0.0-0.5(RES)	TIN	2.96 mg/Kg	2.96U mg/Kg
SL-083-SA7-SS-0.0-0.5(RES)	Zirconium	0.726 mg/Kg	0.726U mg/Kg
SL-100-SA7-SS-0.0-0.5(RES)	BORON	0.424 mg/Kg	0.424U mg/Kg
SL-100-SA7-SS-0.0-0.5(RES)	TIN	3.26 mg/Kg	3.26U mg/Kg
SL-100-SA7-SS-0.0-0.5(RES)	Zirconium	1.32 mg/Kg	1.32U mg/Kg
SL-165-SA7-SS-0.0-0.5(RES)	TIN	2.91 mg/Kg	2.91U mg/Kg
SL-165-SA7-SS-0.0-0.5(RES)	Zirconium	1.19 mg/Kg	1.19U mg/Kg
SL-184-SA7-SS-0.0-0.5(RES)	TIN	3.38 mg/Kg	3.38U mg/Kg

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8092**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5)	AROCLOR 1260	-21	-	39.00-149.00	61 (50.00)	AROCLOR 1260, AROCLOR 1242, AROCLOR 1248, AROCLOR 1254	No Qual, Diluted Out

**Method: 8015B**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5)	m-Terphenyl p-Terphenyl	0 -	0 0	75.00-125.00 75.00-125.00	- 200 (20.00)	m-Terphenyl p-Terphenyl	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-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5)	EFH (C15-C20)	478	130	49.00-123.00	33 (20.00)	EFH (C15-C20)	No Qual, Diluted Out
SL-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5)	EFH (C12-C14) EFH (C21-C30) EFH (C30-C40) EFH (C8-C11)	0 3111 5684 0	0 -283 -1687 0	49.00-123.00 49.00-123.00 49.00-123.00 49.00-123.00	- 36 (20.00) 34 (20.00) -	EFH (C12-C14) EFH (C21-C30) EFH (C30-C40) EFH (C8-C11)	No Qual, Diluted Out

**Method: 8081A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5)	4,4'-DDD 4,4'-DDE ENDOSULFAN II ENDRIN ALDEHYDE HEPTACHLOR EPOXIDE	321 194 169 217 348	313 185 171 170 -	16.00-163.00 18.00-161.00 28.00-154.00 10.00-148.00 13.00-157.00	- - - - 109 (50.00)	4,4'-DDD 4,4'-DDE ENDOSULFAN II ENDRIN ALDEHYDE HEPTACHLOR EPOXIDE	No Qual, Diluted Out
SL-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5)	4,4'-DDT ALDRIN BETA-BHC DIELDRIN ENDOSULFAN I ENDOSULFAN SULFATE ENDRIN ENDRIN KETONE HEPTACHLOR METHOXYCHLOR	231 0 0 0 0 0 0 0 0 0	-107 0 0 0 0 0 0 0 0 0	10.00-176.00 16.00-126.00 14.00-147.00 19.00-154.00 16.00-137.00 21.00-160.00 11.00-149.00 22.00-165.00 13.00-126.00 32.00-147.00	- - - - - - - - - -	4,4'-DDT ALDRIN BETA-BHC DIELDRIN ENDOSULFAN I ENDOSULFAN SULFATE ENDRIN ENDRIN KETONE HEPTACHLOR METHOXYCHLOR	No Qual, Diluted Out

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-017-SA7-SS-0.0-0.5MSD (SL-017-SA7-SS-0.0-0.5)	MCPA	-	-	10.00-213.00	84 (50.00)	MCPA	J(all detects)
SL-017-SA7-SS-0.0-0.5MS SL-017-SA7-SS-0.0-0.5MSD (SL-017-SA7-SS-0.0-0.5)	2,4,5-TP (Silvex) 2,4-DB DALAPON DICAMBA DICHLOROPROP DINOSEB	0 0 - 0 0 0	0 0 0 0 0 0	24.00-141.00 10.00-201.00 10.00-125.00 10.00-190.00 33.00-178.00 10.00-46.00	- - 200 (50.00) - - -	2,4,5-TP (Silvex) 2,4-DB DALAPON DICAMBA DICHLOROPROP DINOSEB	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-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5) SL-017-SA7-SS-0.0-0.5 SL-022-SA7-SS-0.0-0.5 SL-052-SA7-SS-0.0-0.5 SL-053-SA7-SS-0.0-0.5 SL-054-SA7-SS-0.0-0.5 SL-083-SA7-SS-0.0-0.5 SL-100-SA7-SS-0.0-0.5 SL-165-SA7-SS-0.0-0.5 SL-184-SA7-SS-0.0-0.5)	ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT COPPER SILVER THALLIUM VANADIUM	160 156 161 145 150 168 152 159 181	- 131 140 127 128 138 134 136 137	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - - - - -	ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT COPPER SILVER THALLIUM VANADIUM	J(all detects)
SL-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5) SL-017-SA7-SS-0.0-0.5 SL-022-SA7-SS-0.0-0.5 SL-052-SA7-SS-0.0-0.5 SL-053-SA7-SS-0.0-0.5 SL-054-SA7-SS-0.0-0.5 SL-083-SA7-SS-0.0-0.5 SL-100-SA7-SS-0.0-0.5 SL-165-SA7-SS-0.0-0.5 SL-184-SA7-SS-0.0-0.5)	LEAD	31	4	75.00-125.00	-	LEAD	No Qual, >4x
SL-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5) SL-017-SA7-SS-0.0-0.5 SL-022-SA7-SS-0.0-0.5 SL-052-SA7-SS-0.0-0.5 SL-053-SA7-SS-0.0-0.5 SL-054-SA7-SS-0.0-0.5 SL-083-SA7-SS-0.0-0.5 SL-100-SA7-SS-0.0-0.5 SL-165-SA7-SS-0.0-0.5 SL-184-SA7-SS-0.0-0.5)	ANTIMONY NICKEL ZINC	66 166 54	54 413 233	75.00-125.00 75.00-125.00 75.00-125.00	- 65 (20.00) -	ANTIMONY NICKEL ZINC	J(all detects) UJ(all non-detects)  Zn, No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5 SL-017-SA7-SS-0.0-0.5 SL-022-SA7-SS-0.0-0.5 SL-052-SA7-SS-0.0-0.5 SL-053-SA7-SS-0.0-0.5 SL-054-SA7-SS-0.0-0.5 SL-083-SA7-SS-0.0-0.5 SL-100-SA7-SS-0.0-0.5 SL-165-SA7-SS-0.0-0.5 SL-184-SA7-SS-0.0-0.5)	SELENIUM	150	129	75.00-125.00	-	SELENIUM	J(all detects)
SL-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5 SL-017-SA7-SS-0.0-0.5 SL-022-SA7-SS-0.0-0.5 SL-052-SA7-SS-0.0-0.5 SL-053-SA7-SS-0.0-0.5 SL-054-SA7-SS-0.0-0.5 SL-083-SA7-SS-0.0-0.5 SL-100-SA7-SS-0.0-0.5 SL-165-SA7-SS-0.0-0.5 SL-184-SA7-SS-0.0-0.5)	MOLYBDENUM	160	143	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5 SL-017-SA7-SS-0.0-0.5 SL-022-SA7-SS-0.0-0.5 SL-052-SA7-SS-0.0-0.5 SL-053-SA7-SS-0.0-0.5 SL-054-SA7-SS-0.0-0.5 SL-083-SA7-SS-0.0-0.5 SL-100-SA7-SS-0.0-0.5 SL-165-SA7-SS-0.0-0.5 SL-184-SA7-SS-0.0-0.5)	BARIUM	294	198	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-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5 SL-017-SA7-SS-0.0-0.5 SL-022-SA7-SS-0.0-0.5 SL-052-SA7-SS-0.0-0.5 SL-053-SA7-SS-0.0-0.5 SL-054-SA7-SS-0.0-0.5 SL-083-SA7-SS-0.0-0.5 SL-100-SA7-SS-0.0-0.5 SL-165-SA7-SS-0.0-0.5 SL-184-SA7-SS-0.0-0.5)	ALUMINUM CALCIUM TITANIUM	1395 187 215	752 143 150	75.00-125.00 75.00-125.00 75.00-125.00	- - -	ALUMINUM CALCIUM TITANIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Number: 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-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5 SL-017-SA7-SS-0.0-0.5 SL-022-SA7-SS-0.0-0.5 SL-052-SA7-SS-0.0-0.5 SL-053-SA7-SS-0.0-0.5 SL-054-SA7-SS-0.0-0.5 SL-083-SA7-SS-0.0-0.5 SL-100-SA7-SS-0.0-0.5 SL-165-SA7-SS-0.0-0.5 SL-184-SA7-SS-0.0-0.5)	IRON MANGANESE	702 -142	-740 -187	75.00-125.00 75.00-125.00	- -	IRON MANGANESE	No Qual, >4x
SL-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5 SL-017-SA7-SS-0.0-0.5 SL-022-SA7-SS-0.0-0.5 SL-052-SA7-SS-0.0-0.5 SL-053-SA7-SS-0.0-0.5 SL-054-SA7-SS-0.0-0.5 SL-083-SA7-SS-0.0-0.5 SL-100-SA7-SS-0.0-0.5 SL-165-SA7-SS-0.0-0.5 SL-184-SA7-SS-0.0-0.5)	MAGNESIUM PHOSPHORUS	167 52	51 69	75.00-125.00 75.00-125.00	- -	MAGNESIUM PHOSPHORUS	No Qual, >4x

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5)	2-METHYLNAPHTHALENE BIS(2-ETHYLHEXYL)PHTHALAT	107 372	- 256	64.00-103.00 39.00-167.00	- 37 (30.00)	2-METHYLNAPHTHALENE BIS(2-ETHYLHEXYL)PHTHALA	No Qual, Diluted Out
SL-009-SA7-SS-0.0-0.5MS SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5)	ACENAPHTHENE ANTHRACENE BENZO(A)ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE Butylbenzylphthalate CHRYSENE DIBENZO(A,H)ANTHRACENE Diethylphthalate Dimethylphthalate Di-n-butylphthalate Di-n-octylphthalate FLUORANTHENE FLUORENE INDENO(1,2,3-CD)PYRENE PHENANTHRENE PYRENE	- -34 - -100 245 -203 19 0 -172 -37 0 0 0 0 514 28 -175 -270 329	-66 -354 -1589 -1573 -2901 -760 -1024 0 -2198 -215 0 0 0 0 -4592 -36 -909 -2777 -3805	63.00-105.00 73.00-115.00 59.00-128.00 58.00-142.00 54.00-163.00 33.00-141.00 57.00-153.00 57.00-173.00 67.00-123.00 22.00-133.00 70.00-136.00 74.00-118.00 65.00-148.00 40.00-192.00 51.00-149.00 66.00-122.00 21.00-143.00 62.00-122.00 51.00-131.00	66 (30.00) 93 (30.00) 78 (30.00) 74 (30.00) 83 (30.00) 71 (30.00) 55 (30.00) - 72 (30.00) 67 (30.00) - - - - 85 (30.00) 36 (30.00) 87 (30.00) 83 (30.00) 80 (30.00)	ACENAPHTHENE ANTHRACENE BENZO(A)ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE Butylbenzylphthalate CHRYSENE DIBENZO(A,H)ANTHRACENE Diethylphthalate Dimethylphthalate Di-n-butylphthalate Di-n-octylphthalate FLUORANTHENE FLUORENE INDENO(1,2,3-CD)PYRENE PHENANTHRENE PYRENE	No Qual, Diluted Out
SL-009-SA7-SS-0.0-0.5MSD (SL-009-SA7-SS-0.0-0.5)	1-METHYLNAPHTHALENE ACENAPHTHYLENE	- -	61 66	72.00-123.00 67.00-114.00	- -	1-METHYLNAPHTHALENE ACENAPHTHYLENE	No Qual, Diluted Out

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-017-SA7-SS-0.0-0.5MS SL-017-SA7-SS-0.0-0.5MSD (SL-017-SA7-SS-0.0-0.5)	2-CHLORONAPHTHALENE BENZO(G,H,I)PERYLENE BIS(2-ETHYLHEXYL)PHTHALAT DIBENZO(A,H)ANTHRACENE DIBENZOFURAN INDENO(1,2,3-CD)PYRENE	- - 192 - - -	- 398 125 208 216 423	50.00-141.00 59.00-127.00 63.00-122.00 65.00-125.00 71.00-112.00 61.00-126.00	40 (30.00) 58 (30.00) 40 (30.00) 52 (30.00) 87 (30.00) 64 (30.00)	2-CHLORONAPHTHALENE BENZO(G,H,I)PERYLENE BIS(2-ETHYLHEXYL)PHTHALA DIBENZO(A,H)ANTHRACENE DIBENZOFURAN INDENO(1,2,3-CD)PYRENE	No Qual, Diluted Out
SL-017-SA7-SS-0.0-0.5MS SL-017-SA7-SS-0.0-0.5MSD (SL-017-SA7-SS-0.0-0.5)	2,4-DINITROPHENOL 3,3'-DICHLOROBENZIDINE 4,6-DINITRO-2-METHYLPHENOL ANILINE BENZIDINE BENZO(A)ANTHRACENE CHRYSENE FLUORANTHENE HEXACHLOROCYCLOPENTADI PHENANTHRENE PYRENE	0 0 0 0 0 -18 -6 -228 - -123 -125	0 0 0 0 0 913 945 2697 0 2414 2082	20.00-143.00 28.00-109.00 11.00-126.00 18.00-116.00 35.00-141.00 65.00-122.00 62.00-128.00 73.00-112.00 10.00-153.00 65.00-125.00 74.00-126.00	- - - - - 108 (30.00) 99 (30.00) 119 (30.00) 200 (30.00) 134 (30.00) 113 (30.00)	2,4-DINITROPHENOL 3,3'-DICHLOROBENZIDINE 4,6-DINITRO-2-METHYLPHEN ANILINE BENZIDINE BENZO(A)ANTHRACENE CHRYSENE FLUORANTHENE HEXACHLOROCYCLOPENTAD PHENANTHRENE PYRENE	No Qual, Diluted Out
SL-017-SA7-SS-0.0-0.5MS SL-017-SA7-SS-0.0-0.5MSD (SL-017-SA7-SS-0.0-0.5)	4-CHLOROPHENYL-PHENYLET BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(K)FLUORANTHENE CARBAZOLE	76 49 43 32 54	- 595 992 344 393	80.00-109.00 58.00-142.00 59.00-125.00 56.00-132.00 64.00-120.00	- 79 (30.00) 89 (30.00) 73 (30.00) 99 (30.00)	4-CHLOROPHENYL-PHENYLE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(K)FLUORANTHENE CARBAZOLE	No Qual, Diluted Out

**Method: 9012B**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-184-SA7-SS-0.0-0.5MS (SL-184-SA7-SS-0.0-0.5)	CYANIDE	0	-	75.00-125.00	-	CYANIDE	J(all detects) R(all non-detects)

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method: 300.0**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-009-SA7-SS-0.0-0.5DUP (SL-009-SA7-SS-0.0-0.5 SL-017-SA7-SS-0.0-0.5 SL-022-SA7-SS-0.0-0.5 SL-052-SA7-SS-0.0-0.5 SL-053-SA7-SS-0.0-0.5 SL-054-SA7-SS-0.0-0.5 SL-083-SA7-SS-0.0-0.5 SL-100-SA7-SS-0.0-0.5 SL-165-SA7-SS-0.0-0.5 SL-184-SA7-SS-0.0-0.5)	Nitrate-NO3	42	20.00	No Qual, OK by Difference

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-009-SA7-SS-0.0-0.5DUP (SL-009-SA7-SS-0.0-0.5 SL-017-SA7-SS-0.0-0.5 SL-022-SA7-SS-0.0-0.5 SL-052-SA7-SS-0.0-0.5 SL-053-SA7-SS-0.0-0.5 SL-054-SA7-SS-0.0-0.5 SL-083-SA7-SS-0.0-0.5 SL-100-SA7-SS-0.0-0.5 SL-165-SA7-SS-0.0-0.5 SL-184-SA7-SS-0.0-0.5)	CALCIUM MANGANESE Zirconium	29 40 59	20.00 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-009-SA7-SS-0.0-0.5DUP (SL-009-SA7-SS-0.0-0.5 SL-017-SA7-SS-0.0-0.5 SL-022-SA7-SS-0.0-0.5 SL-052-SA7-SS-0.0-0.5 SL-053-SA7-SS-0.0-0.5 SL-054-SA7-SS-0.0-0.5 SL-083-SA7-SS-0.0-0.5 SL-100-SA7-SS-0.0-0.5 SL-165-SA7-SS-0.0-0.5 SL-184-SA7-SS-0.0-0.5)	ANTIMONY CHROMIUM LEAD SILVER	73 33 57 29	20.00 20.00 20.00 20.00	J(all detects) UJ(all non-detects)  Sb, Ag, No Qual, OK by Difference

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method: 7199  
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-184-SA7-SS-0.0-0.5DUP (SL-009-SA7-SS-0.0-0.5 SL -017-SA7-SS-0.0-0.5 SL -022-SA7-SS-0.0-0.5 SL -052-SA7-SS-0.0-0.5 SL -053-SA7-SS-0.0-0.5 SL -054-SA7-SS-0.0-0.5 SL -083-SA7-SS-0.0-0.5 SL -100-SA7-SS-0.0-0.5 SL -165-SA7-SS-0.0-0.5 SL -184-SA7-SS-0.0-0.5)	HEXAVALENT CHROMIUM	126	20.00	No Qual, OK by Difference

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12676AQ240250A (SL-009-SA7-SS-0.0-0.5 SL -017-SA7-SS-0.0-0.5)	DINOSEB	6	-	10.00-36.00	-	DINOSEB	J (all detects) R (all non-detects)
P12678AQ241243A (SL-022-SA7-SS-0.0-0.5 SL -052-SA7-SS-0.0-0.5 SL -053-SA7-SS-0.0-0.5 SL -054-SA7-SS-0.0-0.5 SL -083-SA7-SS-0.0-0.5 SL -100-SA7-SS-0.0-0.5 SL -165-SA7-SS-0.0-0.5 SL -184-SA7-SS-0.0-0.5)	DINOSEB	8	-	10.00-36.00	-	DINOSEB	J(all detects) R(all non-detects)

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

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P26326BQ220748A (SL-009-SA7-SS-0.0-0.5 SL -017-SA7-SS-0.0-0.5 SL -022-SA7-SS-0.0-0.5 SL -052-SA7-SS-0.0-0.5 SL -053-SA7-SS-0.0-0.5 SL -054-SA7-SS-0.0-0.5 SL -083-SA7-SS-0.0-0.5 SL -100-SA7-SS-0.0-0.5 SL -165-SA7-SS-0.0-0.5 SL -184-SA7-SS-0.0-0.5)	VANADIUM	121	-	80.00-120.00	-	VANADIUM	No Qual, SRM within QC Limits

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

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P26308BQ221203 (SL-009-SA7-SS-0.0-0.5 SL -017-SA7-SS-0.0-0.5 SL -022-SA7-SS-0.0-0.5 SL -052-SA7-SS-0.0-0.5 SL -053-SA7-SS-0.0-0.5 SL -054-SA7-SS-0.0-0.5 SL -083-SA7-SS-0.0-0.5 SL -100-SA7-SS-0.0-0.5 SL -165-SA7-SS-0.0-0.5 SL -184-SA7-SS-0.0-0.5)	ALUMINUM IRON MAGNESIUM POTASSIUM	153 141 129 122	- - - -	80.00-120.00 80.00-120.00 80.00-120.00 80.00-120.00	- - - -	ALUMINUM IRON MAGNESIUM POTASSIUM	No Qual, SRM within QC Limits

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P6LELCSQ260831 (SL-009-SA7-SS-0.0-0.5 SL-017-SA7-SS-0.0-0.5 SL-022-SA7-SS-0.0-0.5 SL-052-SA7-SS-0.0-0.5 SL-053-SA7-SS-0.0-0.5 SL-054-SA7-SS-0.0-0.5 SL-083-SA7-SS-0.0-0.5 SL-100-SA7-SS-0.0-0.5 SL-165-SA7-SS-0.0-0.5 SL-184-SA7-SS-0.0-0.5)	Diethylphthalate	127	-	68.00-125.00	-	Diethylphthalate	J(all detects)

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

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P6LFLCSQ262322 (SL-009-SA7-SS-0.0-0.5 SL-017-SA7-SS-0.0-0.5 SL-022-SA7-SS-0.0-0.5 SL-052-SA7-SS-0.0-0.5 SL-053-SA7-SS-0.0-0.5 SL-054-SA7-SS-0.0-0.5 SL-083-SA7-SS-0.0-0.5 SL-100-SA7-SS-0.0-0.5 SL-165-SA7-SS-0.0-0.5 SL-184-SA7-SS-0.0-0.5)	4,6-DINITRO-2-METHYLPHENOL	45	-	46.00-120.00	-	4,6-DINITRO-2-METHYLPHEN	J(all detects) UJ(all non-detects)

# Surrogate Outlier Report

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8015B  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-017-SA7-SS-0.0-0.5	n-Triacontane-d62	196	19.00-152.00	All Target Analytes	J(all detects)
SL-052-SA7-SS-0.0-0.5	n-Triacontane-d62 ACETONE	257 152	19.00-152.00 42.00-138.00	All Target Analytes	J(all detects)
SL-184-SA7-SS-0.0-0.5	n-Triacontane-d62	160	19.00-152.00	All Target Analytes	J(all detects)

**Method:** 8015M  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-083-SA7-SS-0.0-0.5	O-TERPHENYL	161	47.00-145.00	All Target Analytes	No Qual, Diluted Out
SL-100-SA7-SS-0.0-0.5	CHLOROBENZENE	30	37.00-125.00	All Target Analytes	No Qual, Diluted Out

**Method:** 8081A  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-009-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	821	45.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-022-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	553	45.00-150.00	All Target Analytes	J(all detects)
SL-052-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	6645	45.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-053-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	583	45.00-150.00	All Target Analytes	J(all detects)
SL-054-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	182	45.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-083-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	504	45.00-150.00	All Target Analytes	J(all detects)
SL-165-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	195	45.00-150.00	All Target Analytes	J(all detects)
SL-184-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	211	45.00-150.00	All Target Analytes	J(all detects)

**Method:** 8082  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-009-SA7-SS-0.0-0.5	TETRACHLORO-M-XYLENE	49	53.00-139.00	All Target Analytes	No Qual, Diluted Out
SL-022-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	123	45.00-120.00	All Target Analytes	No Qual, Diluted Out

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# Surrogate Outlier Report

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method: 8270C SIM  
Matrix: SO

<i>Sample ID</i>	<i>Surrogate</i>	<i>Sample % Recovery</i>	<i>% Recovery Limits</i>	<i>Affected Compounds</i>	<i>Flag</i>
SL-017-SA7-SS-0.0 -0.5	Terphenyl-d14	234	45.00-135.00	No Affected Compounds	No Qual, Diluted Out
SL-022-SA7-SS-0.0 -0.5	Nitrobenzene-d5	171	40.00-130.00	No Affected Compounds	No Qual, Diluted Out
SL-052-SA7-SS-0.0 -0.5	Terphenyl-d14	192	45.00-135.00	No Affected Compounds	No Qual, Diluted Out

## Reporting Limit Outliers

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-009-SA7-SS-0.0-0.5	SODIUM	J	88.6	97.9	PQL	mg/Kg	J (all detects)
	TIN	J	3.20	9.79	PQL	mg/Kg	
	Zirconium	J	1.13	4.89	PQL	mg/Kg	
SL-017-SA7-SS-0.0-0.5	BORON	J	1.72	4.99	PQL	mg/Kg	J (all detects)
	SODIUM	J	92.0	99.9	PQL	mg/Kg	
	TIN	J	4.42	9.99	PQL	mg/Kg	
SL-022-SA7-SS-0.0-0.5	Zirconium	J	0.618	4.99	PQL	mg/Kg	J (all detects)
	SODIUM	J	74.3	101	PQL	mg/Kg	
	TIN	J	3.17	10.1	PQL	mg/Kg	
SL-052-SA7-SS-0.0-0.5	Zirconium	J	1.08	5.04	PQL	mg/Kg	J (all detects)
	TIN	J	3.44	9.99	PQL	mg/Kg	
	Zirconium	J	0.833	4.99	PQL	mg/Kg	
SL-053-SA7-SS-0.0-0.5	SODIUM	J	70.3	98.9	PQL	mg/Kg	J (all detects)
	TIN	J	3.19	9.89	PQL	mg/Kg	
	Zirconium	J	1.06	4.94	PQL	mg/Kg	
SL-054-SA7-SS-0.0-0.5	BORON	J	0.985	5.04	PQL	mg/Kg	J (all detects)
	TIN	J	3.28	10.1	PQL	mg/Kg	
	Zirconium	J	1.12	5.04	PQL	mg/Kg	
SL-083-SA7-SS-0.0-0.5	SODIUM	J	69.2	100	PQL	mg/Kg	J (all detects)
	TIN	J	2.96	10.0	PQL	mg/Kg	
	Zirconium	J	0.726	5.01	PQL	mg/Kg	
SL-100-SA7-SS-0.0-0.5	BORON	J	0.424	5.04	PQL	mg/Kg	J (all detects)
	SODIUM	J	68.4	101	PQL	mg/Kg	
	TIN	J	3.26	10.1	PQL	mg/Kg	
SL-165-SA7-SS-0.0-0.5	Zirconium	J	1.32	5.04	PQL	mg/Kg	J (all detects)
	SODIUM	J	70.2	99.0	PQL	mg/Kg	
	TIN	J	2.91	9.90	PQL	mg/Kg	
SL-184-SA7-SS-0.0-0.5	Zirconium	J	1.19	4.95	PQL	mg/Kg	J (all detects)
	SODIUM	J	75.8	99.7	PQL	mg/Kg	
	TIN	J	3.38	9.97	PQL	mg/Kg	
	Zirconium	J	2.69	4.98	PQL	mg/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-009-SA7-SS-0.0-0.5	SELENIUM	J	0.0836	0.395	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0600	0.0988	PQL	mg/Kg	
SL-017-SA7-SS-0.0-0.5	SELENIUM	J	0.0928	0.396	PQL	mg/Kg	J (all detects)
SL-022-SA7-SS-0.0-0.5	SELENIUM	J	0.0981	0.395	PQL	mg/Kg	J (all detects)
SL-052-SA7-SS-0.0-0.5	SELENIUM	J	0.119	0.404	PQL	mg/Kg	J (all detects)
SL-053-SA7-SS-0.0-0.5	SELENIUM	J	0.0963	0.396	PQL	mg/Kg	J (all detects)
SL-054-SA7-SS-0.0-0.5	SELENIUM	J	0.150	0.399	PQL	mg/Kg	J (all detects)

## Reporting Limit Outliers

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-083-SA7-SS-0.0-0.5	ANTIMONY	J	0.174	0.202	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.109	0.405	PQL	mg/Kg	
	SILVER	J	0.0269	0.101	PQL	mg/Kg	
SL-100-SA7-SS-0.0-0.5	ANTIMONY	J	0.175	0.198	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0848	0.395	PQL	mg/Kg	
	SILVER	J	0.0246	0.0988	PQL	mg/Kg	
SL-165-SA7-SS-0.0-0.5	SELENIUM	J	0.178	0.396	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0806	0.0990	PQL	mg/Kg	
SL-184-SA7-SS-0.0-0.5	SELENIUM	J	0.0958	0.399	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0467	0.0997	PQL	mg/Kg	

**Method:** 7199  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-009-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.39	1.0	PQL	mg/Kg	J (all detects)
SL-017-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.95	1.0	PQL	mg/Kg	J (all detects)
SL-053-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.51	1.0	PQL	mg/Kg	J (all detects)
SL-083-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.38	1.0	PQL	mg/Kg	J (all detects)
SL-184-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.60	1.0	PQL	mg/Kg	J (all detects)

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-009-SA7-SS-0.0-0.5	MERCURY	J	0.0097	0.0942	PQL	mg/Kg	J (all detects)
SL-017-SA7-SS-0.0-0.5	MERCURY	J	0.0709	0.0991	PQL	mg/Kg	J (all detects)
SL-022-SA7-SS-0.0-0.5	MERCURY	J	0.0672	0.0995	PQL	mg/Kg	J (all detects)
SL-052-SA7-SS-0.0-0.5	MERCURY	J	0.0676	0.0989	PQL	mg/Kg	J (all detects)
SL-054-SA7-SS-0.0-0.5	MERCURY	J	0.0156	0.0984	PQL	mg/Kg	J (all detects)

**Method:** 8015B  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-052-SA7-SS-0.0-0.5	O-TERPHENYL	J	2.8	3.5	PQL	mg/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8015M  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-009-SA7-SS-0.0-0.5	EFH (C15-C20)	J	9.6	24	PQL	mg/Kg	J (all detects)
SL-022-SA7-SS-0.0-0.5	EFH (C8-C11)	J	6.9	13	PQL	mg/Kg	J (all detects)
SL-052-SA7-SS-0.0-0.5	EFH (C15-C20)	J	47	61	PQL	mg/Kg	J (all detects)
SL-053-SA7-SS-0.0-0.5	EFH (C15-C20)	J	5.4	12	PQL	mg/Kg	J (all detects)
SL-054-SA7-SS-0.0-0.5	EFH (C15-C20)	J	8.3	24	PQL	mg/Kg	J (all detects)
SL-165-SA7-SS-0.0-0.5	EFH (C15-C20)	J	6.7	12	PQL	mg/Kg	J (all detects)
SL-184-SA7-SS-0.0-0.5	EFH (C8-C11)	J	6.4	12	PQL	mg/Kg	J (all detects)

**Method:** 8081A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-009-SA7-SS-0.0-0.5	Chlordane	J	11	17	PQL	ug/Kg	J (all detects)
SL-022-SA7-SS-0.0-0.5	BETA-BHC	J	0.10	0.17	PQL	ug/Kg	J (all detects)
SL-053-SA7-SS-0.0-0.5	Chlordane	J	2.5	3.4	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.044	0.17	PQL	ug/Kg	J (all detects)
SL-054-SA7-SS-0.0-0.5	Chlordane	J	4.9	17	PQL	ug/Kg	J (all detects)

**Method:** 8082  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-100-SA7-SS-0.0-0.5	AROCLOR 1254	J	0.88	1.7	PQL	ug/Kg	J (all detects)
SL-165-SA7-SS-0.0-0.5	AROCLOR 1254	J	0.77	1.7	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.89	1.7	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	2.7	3.3	PQL	ug/Kg	J (all detects)

**Method:** 8151A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-083-SA7-SS-0.0-0.5	DICAMBA	J	0.43	1.2	PQL	ug/Kg	J (all detects)
	MCPP	J	120	250	PQL	ug/Kg	J (all detects)

## Reporting Limit Outliers

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-009-SA7-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	600	840	PQL	ug/Kg	J (all detects)
	CARBAZOLE	J	220	840	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	170	840	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	560	840	PQL	ug/Kg	
SL-017-SA7-SS-0.0-0.5	DIBENZOFURAN	J	340	840	PQL	ug/Kg	J (all detects)
SL-022-SA7-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	190	840	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	360	1700	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	160	840	PQL	ug/Kg	
SL-052-SA7-SS-0.0-0.5	DIBENZOFURAN	J	110	840	PQL	ug/Kg	J (all detects)
SL-053-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	400	840	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	500	840	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	770	840	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	390	840	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	280	840	PQL	ug/Kg	
	CARBAZOLE	J	130	840	PQL	ug/Kg	
	CHRYSENE	J	550	840	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	120	840	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	380	840	PQL	ug/Kg	
PHENANTHRENE	J	500	840	PQL	ug/Kg		
SL-054-SA7-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	220	830	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	270	830	PQL	ug/Kg	
	PHENANTHRENE	J	530	830	PQL	ug/Kg	
	PYRENE	J	610	830	PQL	ug/Kg	
SL-083-SA7-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	110	840	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	200	1700	PQL	ug/Kg	
	PHENANTHRENE	J	230	840	PQL	ug/Kg	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-009-SA7-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	8.4	17	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	7.6	17	PQL	ug/Kg	
	NAPHTHALENE	J	9.6	17	PQL	ug/Kg	
SL-022-SA7-SS-0.0-0.5	ACENAPHTHENE	J	15	17	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	79	180	PQL	ug/Kg	
	FLUORENE	J	11	17	PQL	ug/Kg	
SL-053-SA7-SS-0.0-0.5	ACENAPHTHENE	J	13	17	PQL	ug/Kg	J (all detects)
	FLUORENE	J	11	17	PQL	ug/Kg	
SL-054-SA7-SS-0.0-0.5	ANTHRACENE	J	7.5	17	PQL	ug/Kg	J (all detects)
SL-083-SA7-SS-0.0-0.5	ACENAPHTHENE	J	16	17	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	16	17	PQL	ug/Kg	
	FLUORENE	J	11	17	PQL	ug/Kg	
SL-100-SA7-SS-0.0-0.5	ANTHRACENE	J	0.60	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	18	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.88	1.7	PQL	ug/Kg	

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

1/13/2012 7:42:19 AM

ADR version 1.4.0.111

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE246

Laboratory: LL

EDD Filename: DE246\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-165-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	12	17	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	11	17	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	11	17	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	8.9	17	PQL	ug/Kg	
SL-184-SA7-SS-0.0-0.5	NAPHTHALENE	J	6.9	17	PQL	ug/Kg	J (all detects)

**Method:** 8315A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-054-SA7-SS-0.0-0.5	FORMALDEHYDE	J	690	1500	PQL	ug/Kg	J (all detects)

LDC #: 26859P4

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12/30/11

SDG #: DE246

ADR

Page: 1 of 1

Laboratory: Lancaster Laboratories

Reviewer: [Signature]

2nd Reviewer: [Signature]

**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	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Fe, Pb, Mg, Mn, P, Ti, Zn, 74X
VII.	Duplicate Sample Analysis	SW	Sb, Ag, Zr, 25X
VIII.	Laboratory Control Samples (LCS)	N	As, REM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Cr, V J/WJ
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-009-SA7-SS-0.0-0.5	11	* MS	21		31	
2	SL-017-SA7-SS-0.0-0.5	12	MS	22		32	
3	SL-052-SA7-SS-0.0-0.5	13	MS	23		33	
4	SL-053-SA7-SS-0.0-0.5	14		24		34	
5	SL-083-SA7-SS-0.0-0.5	15		25		35	
6	SL-165-SA7-SS-0.0-0.5	16		26		36	
7	SL-022-SA7-SS-0.0-0.5	17		27		37	
8	SL-054-SA7-SS-0.0-0.5	18		28		38	
9	SL-100-SA7-SS-0.0-0.5	19		29		39	
10	SL-184-SA7-SS-0.0-0.5	20		30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**

**PB/ICB/CCB QUALIFIED SAMPLES**

**METHOD:** Trace metals (EPA SW 864 Method 6010B/6020/7000)  
 Sample Concentration units, unless otherwise noted: mg/Kg

Soil preparation factor applied: ICP: 100X  
 Associated Samples: Zr: 1-9, Hg: All

Reason: B

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	1	2	3	4	5	6	7	8	9
Zr			7.4	3.7	1.1	0.62	0.83	1.1	0.73	1.2	1.1	1.1	1.3
Hg			0.068	0.0568	0.0097							0.016	

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.



QUALITY ASSURANCE SUMMARY  
 FORM 5A (MS/MSD)  
 MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
 SDG No.: DE246  
 Matrix: SOIL  
 Level (low/med): LOW

Background Lab Sample ID: 6409790BKG Matrix Spike Lab Sample ID: 6409790MS Matrix Spike Duplicate Lab Sample ID: 6409790MSD  
 % Solids for Sample: 99.2  
 Batch ID(s): P26308B, P26326B, P26311C

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				\$R	Q	\$R	Q	\$R	RPD
Aluminum		9739.3400		12523.4370		11211.8531		199.6167	195.7407	MG/KG	1395	752	11	74X		20P
Antimony	121	0.4275		1.2183		1.0644		1.1977	1.1860	MG/KG	66N	54N	13	75-125		20MS
Arsenic	75	4.0817		7.2820		6.1255		1.9962	1.9766	MG/KG	160N	103	17	75-125		20MS
Barium	137	79.9138		109.2502		99.4821		9.9808	9.8830	MG/KG	294	198	9	74X		20MS
Beryllium	9	0.3981		1.6424		1.4311		0.7985	0.7906	MG/KG	156N	131N	14	75-125		20MS
Boron		0.3523	U	206.9407		199.8796		199.6167	195.7407	MG/KG	104	102	3	84-115		20P
Cadmium	111	0.3190		1.9289		1.7001		0.9981	0.9883	MG/KG	161N	140N	13	75-125		20MS
Calcium		2288.5531		3035.0148		2846.9768		399.2335	391.4814	MG/KG	187	143	6	74X		20P
Chromium	52	15.6270		30.0623		28.2258		9.9808	9.8830	MG/KG	145N	127N	6	75-125		20MS
Cobalt	59	4.9672		79.6870		68.2914		49.9042	49.4149	MG/KG	150N	128N	15	75-125		20MS
Copper	63	8.8097		25.5509		22.4739		9.9808	9.8830	MG/KG	168N	138N	13	75-125		20MS
Iron		17256.0357		17956.4766		16531.3743		99.8084	97.8703	MG/KG	702	-740	8	74X		20P
Lead	208	31.1709		32.0984		31.2895		2.9943	2.9649	MG/KG	31	4	3	74X		20MS
Lithium		19.0094		119.8698		117.3397		99.8084	97.8703	MG/KG	101	100	2	82-114		20P
Magnesium		3382.4196		3715.3535		3481.2813		199.6167	195.7407	MG/KG	167	51	7	74X		20P
Manganese		368.3801		297.6575		276.8938		49.9042	48.9352	MG/KG	-142	-187	7	✓		20P
Mercury		0.0097	B	0.1972		0.1884		0.1671	0.1638	MG/KG	112	109	5	65-135		20CV
Molybdenum	98	0.4914		16.4404		14.5991		9.9808	9.8830	MG/KG	160N	143N	12	75-125		20MS
Nickel	60	8.5191		25.1118		49.3754		9.9808	9.8830	MG/KG	166N	41.3N	65*	75-125		20MS
Phosphorus		441.3111		492.9705		508.8680		99.8084	97.8703	MG/KG	52	69	3	74X		20P
Potassium		3247.9594		4365.1140		4129.6821		998.0837	978.7034	MG/KG	112	90	6	75-125		20P
Selenium	78	0.0836	B	3.0821		2.6249		1.9962	1.9766	MG/KG	150N	129N	16	75-125		20MS
Silver	107	0.0600	B	15.1868		13.2946		9.9808	9.8830	MG/KG	152N	134N	13	75-125		20MS
Sodium		88.5697	B	1094.5465		1081.9654		998.0837	978.7034	MG/KG	101	102	1	75-125		20P
Strontium		14.6962		121.2851		120.5870		99.8084	97.8703	MG/KG	107	108	1	75-115		20P
Thallium	203	0.2400		0.8739		0.7794		0.3992	0.3953	MG/KG	159N	136N	11	75-125		20MS
Tin		3.1955	B	372.1934		366.5724		399.2335	391.4814	MG/KG	92	93	2	80-110		20P
Titanium		1073.6631		1287.8543		1220.3424		99.8084	97.8703	MG/KG	215	150	5	74X		20P
Vanadium	51	30.7361		48.8263		44.2362		9.9808	9.8830	MG/KG	181N	137N	10	75-125		20MS
Zinc	66	150.3400		155.7011		173.3476		9.9808	9.8830	MG/KG	54	233	11	74X		20MS
Zirconium		1.1275	B	99.2983		97.7842		99.8084	97.8703	MG/KG	98	99	2	75-125		20P

METHODS: P = ICP Atomic Emission Spectrometer CV = Cold Vapor AF = Cold Vapor Atomic Fluorescence  
 MS = ICP Mass Spectrometry  
 CONCENTRATION QUALIFIERS:  
 U = Below MDL, B = Below IOQ  
 FLAGS:  
 N = Matrix Spike OOS, \* = Duplicate OOS



QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: DE246

Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6409790BKG  
 % Solids for Duplicate: 99.2  
 Batch ID(s): P26308B, P26326B, P26311C  
 Concentration Units: MG/KG

Duplicate Lab Sample ID: 6409790DUP  
 % Solids for Sample: 99.2

Analyte	Mass	Control Limit	Samples (S) C	Duplicate (D) C	RPD	Q	M
Aluminum			9739.3400	9888.2945	2		P
Antimony	121	0.2	0.4275	0.2000	73	*	MS
Arsenic	75		4.0817	3.3436	20		MS
Barium	137		79.9138	81.3438	2		MS
Beryllium	9	0.1	0.3981	0.4106	3		MS
Boron			0.3523	0.3593	U		P
Cadmium	111	0.1	0.3190	0.3138	2		MS
Calcium			2288.5531	3052.9174	29	*	P
Chromium	52		15.6270	21.7383	33	*	MS
Cobalt	59		4.9672	4.8028	3		MS
Copper	63		8.8097	9.9289	12		MS
Iron			17256.0357	17624.2894	2		P
Lead	208		31.1709	56.0723	57	*	MS
Lithium			19.0094	18.7859	1		P
Magnesium			3382.4196	3394.5265	0		P
Manganese			368.3801	245.6324	40	*	P
Mercury			0.0097	0.0085	B	13	CV
Molybdenum	98	0.1	0.4914	0.5192	6		MS
Nickel	60		8.5191	8.8350	4		MS
Phosphorus			441.3111	417.1171	6		P
Potassium			3247.9594	3082.7122	5		P
Selenium	78		0.0836	0.1017	B	20	MS
Silver	107		0.0600	0.0446	B	29	MS
Sodium			88.5697	92.0782	B	4	P
Strontium			14.6962	15.9653	8		P
Thallium	203	0.1	0.2400	0.2479	3		MS
Tin			3.1955	2.9154	B	9	P
Titanium			1073.6631	1097.5866	2		P
Vanadium	51		30.7361	28.6250	7		MS
Zinc	66		150.3400	154.9026	3		MS
Zirconium			1.1275	2.0790	B	59	P

CSX

CSX

CSX

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.

DE246 3594

<p>METHODS:</p> <ul style="list-style-type: none"> <li>P = ICP Atomic Emission Spectrometer</li> <li>-MS = ICP Mass Spectrometry</li> <li>CV = Cold Vapor</li> <li>AF = Cold Vapor Atomic Fluorescence</li> </ul>	<p>CONCENTRATION QUALIFIERS:</p> <ul style="list-style-type: none"> <li>U= Below MDL</li> <li>B= Below LOQ</li> </ul> <p>FLAGS:</p> <ul style="list-style-type: none"> <li>* = Duplicate Out of Spec</li> </ul>
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# **SAMPLE DELIVERY GROUP**

**DE247**

# **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-Sep-2011	TB-091911	6412132	TB	5030B	8015M	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	3050B	6010B	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	3050B	6020	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	3060A	7199	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	3546	1625C	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	3550B	8015B	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	3550B	8015M	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	3550B	8081A	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	3550B	8082	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	3550B	8151A	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	3550B	8270C	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	3550B	8270C SIM	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	METHOD	300.0	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	METHOD	314.0	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	METHOD	7471A	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	METHOD	8015B	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	METHOD	8015M	III
19-Sep-2011	SL-110-SA7-SS-0.0-0.5	6412118	N	METHOD	8315A	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	3050B	6010B	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	3050B	6020	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	3060A	7199	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	3546	1625C	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	3550B	8015B	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	3550B	8015M	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	3550B	8082	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	3550B	8270C	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	3550B	8270C SIM	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	5035	8015M	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	8330	8330A	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	METHOD	300.0	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	METHOD	314.0	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	METHOD	7471A	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	METHOD	8015B	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	METHOD	8015M	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	METHOD	8315A	III
19-Sep-2011	SL-032-SA7-SB-4.0-5.0	6412126	N	METHOD	9012B	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	3050B	6010B	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	3050B	6020	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	3060A	7199	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	3546	1625C	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	3550B	8015B	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	3550B	8015M	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	3550B	8082	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	3550B	8270C	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	3550B	8270C SIM	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	5035	8015M	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	8330	8330A	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	METHOD	300.0	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	METHOD	314.0	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	METHOD	7471A	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	METHOD	8015B	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	METHOD	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	METHOD	8315A	III
19-Sep-2011	SL-032-SA7-SB-9.0-10.0	6412127	N	METHOD	9012B	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5	6412111	N	3050B	6010B	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5	6412111	N	3050B	6020	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5	6412111	N	3060A	7199	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5	6412111	N	3550B	8081A	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5	6412111	N	3550B	8082	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5	6412111	N	3550B	8151A	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5	6412111	N	3550B	8270C	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5	6412111	N	3550B	8270C SIM	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5	6412111	N	METHOD	300.0	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5	6412111	N	METHOD	314.0	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5	6412111	N	METHOD	7471A	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MS	6412112	MS	3050B	6010B	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MS	6412112	MS	3050B	6020	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MS	6412112	MS	3060A	7199	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MS	6412112	MS	3550B	8081A	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MS	6412112	MS	3550B	8082	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MS	6412112	MS	3550B	8151A	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MS	6412112	MS	3550B	8270C	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MS	6412112	MS	3550B	8270C SIM	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MS	6412112	MS	METHOD	300.0	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MS	6412112	MS	METHOD	314.0	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MS	6412112	MS	METHOD	7471A	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MSD	6412113	MSD	3050B	6010B	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MSD	6412113	MSD	3050B	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MSD	6412113	MSD	3550B	8081A	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MSD	6412113	MSD	3550B	8082	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MSD	6412113	MSD	3550B	8151A	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MSD	6412113	MSD	3550B	8270C	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MSD	6412113	MSD	3550B	8270C SIM	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5MSD	6412113	MSD	METHOD	7471A	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5DUP	6412114	DUP	3050B	6010B	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5DUP	6412114	DUP	3050B	6020	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5DUP	6412114	DUP	3060A	7199	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5DUP	6412114	DUP	METHOD	300.0	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5DUP	6412114	DUP	METHOD	314.0	III
19-Sep-2011	SL-042-SA7-SS-0.0-0.5DUP	6412114	DUP	METHOD	7471A	III
19-Sep-2011	DUP02-SA7-QC-091911	6412123	FD	3050B	6010B	III
19-Sep-2011	DUP02-SA7-QC-091911	6412123	FD	3050B	6020	III
19-Sep-2011	DUP02-SA7-QC-091911	6412123	FD	3060A	7199	III
19-Sep-2011	DUP02-SA7-QC-091911	6412123	FD	3550B	8081A	III
19-Sep-2011	DUP02-SA7-QC-091911	6412123	FD	3550B	8082	III
19-Sep-2011	DUP02-SA7-QC-091911	6412123	FD	3550B	8151A	III
19-Sep-2011	DUP02-SA7-QC-091911	6412123	FD	3550B	8270C	III
19-Sep-2011	DUP02-SA7-QC-091911	6412123	FD	3550B	8270C SIM	III
19-Sep-2011	DUP02-SA7-QC-091911	6412123	FD	METHOD	300.0	III
19-Sep-2011	DUP02-SA7-QC-091911	6412123	FD	METHOD	314.0	III
19-Sep-2011	DUP02-SA7-QC-091911	6412123	FD	METHOD	7471A	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	3050B	6010B	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	3050B	6020	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	3060A	7199	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	3546	1625C	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	3550B	8015B	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	3550B	8015M	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	3550B	8081A	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	3550B	8082	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	3550B	8151A	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	3550B	8270C	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	3550B	8270C SIM	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	8330	8330A	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	METHOD	300.0	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	METHOD	314.0	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	METHOD	7471A	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	METHOD	8015B	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	METHOD	8015M	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	METHOD	8315A	III
19-Sep-2011	SL-133-SA7-SS-0.0-0.5	6412122	N	METHOD	9012B	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	3050B	6010B	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	3050B	6020	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	3060A	7199	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	3546	1625C	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	3550B	8015B	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	3550B	8015M	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	3550B	8081A	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	3550B	8082	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	3550B	8151A	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	3550B	8270C	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	3550B	8270C SIM	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	8330	8330A	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	METHOD	300.0	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	METHOD	314.0	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	METHOD	7471A	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	METHOD	8015B	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	METHOD	8015M	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	METHOD	8315A	III
19-Sep-2011	SL-048-SA7-SS-0.0-0.5	6412117	N	METHOD	9012B	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	3050B	6010B	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	3050B	6020	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	3060A	7199	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	3546	1625C	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	3550B	8015B	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	3550B	8015M	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	3550B	8081A	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	3550B	8082	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	3550B	8151A	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	3550B	8270C	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	3550B	8270C SIM	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	8330	8330A	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	METHOD	300.0	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	METHOD	314.0	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	METHOD	7471A	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	METHOD	8015B	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	METHOD	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	METHOD	8315A	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5	6412108	N	METHOD	9012B	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5DUP	P412108D270852A	DUP	METHOD	9012B	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5MSD	P412108M241735A	MSD	METHOD	8315A	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5MSD	P412108M320019A	MSD	3550B	8015B	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5MSD	P412108M321243A	MSD	METHOD	8015M	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5MS	P412108R241726A	MS	METHOD	8315A	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5MS	P412108R270853A	MS	METHOD	9012B	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5MS	P412108R321231A	MS	METHOD	8015M	III
19-Sep-2011	SL-002-SA7-SS-0.0-0.5MS	P412108R322357A	MS	3550B	8015B	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	3050B	6010B	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	3050B	6020	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	3060A	7199	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	3546	1625C	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	3550B	8015B	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	3550B	8015M	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	3550B	8081A	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	3550B	8082	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	3550B	8151A	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	3550B	8270C	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	3550B	8270C SIM	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	8330	8330A	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	METHOD	300.0	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	METHOD	314.0	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	METHOD	7471A	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	METHOD	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	METHOD	8015M	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	METHOD	8315A	III
19-Sep-2011	SL-122-SA7-SS-0.0-0.5	6412120	N	METHOD	9012B	III
19-Sep-2011	SL-003-SA7-SS-0.0-0.5	6412109	N	3050B	6010B	III
19-Sep-2011	SL-003-SA7-SS-0.0-0.5	6412109	N	3050B	6020	III
19-Sep-2011	SL-003-SA7-SS-0.0-0.5	6412109	N	3060A	7199	III
19-Sep-2011	SL-003-SA7-SS-0.0-0.5	6412109	N	3550B	8015B	III
19-Sep-2011	SL-003-SA7-SS-0.0-0.5	6412109	N	3550B	8015M	III
19-Sep-2011	SL-003-SA7-SS-0.0-0.5	6412109	N	3550B	8081A	III
19-Sep-2011	SL-003-SA7-SS-0.0-0.5	6412109	N	3550B	8082	III
19-Sep-2011	SL-003-SA7-SS-0.0-0.5	6412109	N	3550B	8151A	III
19-Sep-2011	SL-003-SA7-SS-0.0-0.5	6412109	N	3550B	8270C	III
19-Sep-2011	SL-003-SA7-SS-0.0-0.5	6412109	N	3550B	8270C SIM	III
19-Sep-2011	SL-003-SA7-SS-0.0-0.5	6412109	N	METHOD	300.0	III
19-Sep-2011	SL-003-SA7-SS-0.0-0.5	6412109	N	METHOD	314.0	III
19-Sep-2011	SL-003-SA7-SS-0.0-0.5	6412109	N	METHOD	7471A	III
19-Sep-2011	SL-003-SA7-SS-0.0-0.5	6412109	N	METHOD	8015B	III
19-Sep-2011	SL-003-SA7-SS-0.0-0.5	6412109	N	METHOD	8015M	III
19-Sep-2011	SL-003-SA7-SS-0.0-0.5	6412109	N	METHOD	9012B	III
19-Sep-2011	SL-144-SA7-SB-4.0-5.0	6412128	N	3050B	6010B	III
19-Sep-2011	SL-144-SA7-SB-4.0-5.0	6412128	N	3050B	6020	III
19-Sep-2011	SL-144-SA7-SB-4.0-5.0	6412128	N	3060A	7199	III
19-Sep-2011	SL-144-SA7-SB-4.0-5.0	6412128	N	3550B	8082	III
19-Sep-2011	SL-144-SA7-SB-4.0-5.0	6412128	N	3550B	8270C	III
19-Sep-2011	SL-144-SA7-SB-4.0-5.0	6412128	N	3550B	8270C SIM	III
19-Sep-2011	SL-144-SA7-SB-4.0-5.0	6412128	N	METHOD	300.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Sep-2011	SL-144-SA7-SB-4.0-5.0	6412128	N	METHOD	314.0	III
19-Sep-2011	SL-144-SA7-SB-4.0-5.0	6412128	N	METHOD	7471A	III
19-Sep-2011	SL-144-SA7-SB-9.0-10.0	6412129	N	3050B	6010B	III
19-Sep-2011	SL-144-SA7-SB-9.0-10.0	6412129	N	3050B	6020	III
19-Sep-2011	SL-144-SA7-SB-9.0-10.0	6412129	N	3060A	7199	III
19-Sep-2011	SL-144-SA7-SB-9.0-10.0	6412129	N	3550B	8082	III
19-Sep-2011	SL-144-SA7-SB-9.0-10.0	6412129	N	3550B	8270C	III
19-Sep-2011	SL-144-SA7-SB-9.0-10.0	6412129	N	3550B	8270C SIM	III
19-Sep-2011	SL-144-SA7-SB-9.0-10.0	6412129	N	METHOD	300.0	III
19-Sep-2011	SL-144-SA7-SB-9.0-10.0	6412129	N	METHOD	314.0	III
19-Sep-2011	SL-144-SA7-SB-9.0-10.0	6412129	N	METHOD	7471A	III
19-Sep-2011	SL-130-SA7-SS-0.0-0.5	6412121	N	3050B	6010B	III
19-Sep-2011	SL-130-SA7-SS-0.0-0.5	6412121	N	3050B	6020	III
19-Sep-2011	SL-130-SA7-SS-0.0-0.5	6412121	N	3060A	7199	III
19-Sep-2011	SL-130-SA7-SS-0.0-0.5	6412121	N	3550B	8015B	III
19-Sep-2011	SL-130-SA7-SS-0.0-0.5	6412121	N	3550B	8015M	III
19-Sep-2011	SL-130-SA7-SS-0.0-0.5	6412121	N	3550B	8081A	III
19-Sep-2011	SL-130-SA7-SS-0.0-0.5	6412121	N	3550B	8082	III
19-Sep-2011	SL-130-SA7-SS-0.0-0.5	6412121	N	3550B	8151A	III
19-Sep-2011	SL-130-SA7-SS-0.0-0.5	6412121	N	3550B	8270C	III
19-Sep-2011	SL-130-SA7-SS-0.0-0.5	6412121	N	3550B	8270C SIM	III
19-Sep-2011	SL-130-SA7-SS-0.0-0.5	6412121	N	METHOD	300.0	III
19-Sep-2011	SL-130-SA7-SS-0.0-0.5	6412121	N	METHOD	314.0	III
19-Sep-2011	SL-130-SA7-SS-0.0-0.5	6412121	N	METHOD	7471A	III
19-Sep-2011	SL-130-SA7-SS-0.0-0.5	6412121	N	METHOD	8015B	III
19-Sep-2011	SL-130-SA7-SS-0.0-0.5	6412121	N	METHOD	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Sep-2011	SL-130-SA7-SS-0.0-0.5	6412121	N	METHOD	9012B	III
19-Sep-2011	SL-145-SA7-SB-4.0-5.0	6412130	N	3050B	6010B	III
19-Sep-2011	SL-145-SA7-SB-4.0-5.0	6412130	N	3050B	6020	III
19-Sep-2011	SL-145-SA7-SB-4.0-5.0	6412130	N	3060A	7199	III
19-Sep-2011	SL-145-SA7-SB-4.0-5.0	6412130	N	3550B	8082	III
19-Sep-2011	SL-145-SA7-SB-4.0-5.0	6412130	N	3550B	8270C	III
19-Sep-2011	SL-145-SA7-SB-4.0-5.0	6412130	N	3550B	8270C SIM	III
19-Sep-2011	SL-145-SA7-SB-4.0-5.0	6412130	N	METHOD	300.0	III
19-Sep-2011	SL-145-SA7-SB-4.0-5.0	6412130	N	METHOD	314.0	III
19-Sep-2011	SL-145-SA7-SB-4.0-5.0	6412130	N	METHOD	7471A	III
19-Sep-2011	SL-145-SA7-SB-9.0-10.0	6412131	N	3050B	6010B	III
19-Sep-2011	SL-145-SA7-SB-9.0-10.0	6412131	N	3050B	6020	III
19-Sep-2011	SL-145-SA7-SB-9.0-10.0	6412131	N	3060A	7199	III
19-Sep-2011	SL-145-SA7-SB-9.0-10.0	6412131	N	3550B	8082	III
19-Sep-2011	SL-145-SA7-SB-9.0-10.0	6412131	N	3550B	8270C	III
19-Sep-2011	SL-145-SA7-SB-9.0-10.0	6412131	N	3550B	8270C SIM	III
19-Sep-2011	SL-145-SA7-SB-9.0-10.0	6412131	N	METHOD	300.0	III
19-Sep-2011	SL-145-SA7-SB-9.0-10.0	6412131	N	METHOD	314.0	III
19-Sep-2011	SL-145-SA7-SB-9.0-10.0	6412131	N	METHOD	7471A	III
19-Sep-2011	SL-025-SA7-SB-4.0-5.0	6412124	N	3050B	6010B	III
19-Sep-2011	SL-025-SA7-SB-4.0-5.0	6412124	N	3050B	6020	III
19-Sep-2011	SL-025-SA7-SB-4.0-5.0	6412124	N	3060A	7199	III
19-Sep-2011	SL-025-SA7-SB-4.0-5.0	6412124	N	3550B	8082	III
19-Sep-2011	SL-025-SA7-SB-4.0-5.0	6412124	N	3550B	8270C	III
19-Sep-2011	SL-025-SA7-SB-4.0-5.0	6412124	N	3550B	8270C SIM	III
19-Sep-2011	SL-025-SA7-SB-4.0-5.0	6412124	N	METHOD	300.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Sep-2011	SL-025-SA7-SB-4.0-5.0	6412124	N	METHOD	314.0	III
19-Sep-2011	SL-025-SA7-SB-4.0-5.0	6412124	N	METHOD	7471A	III
19-Sep-2011	SL-025-SA7-SB-4.0-5.0DUP	P412124D272050B	DUP	METHOD	314.0	III
19-Sep-2011	SL-025-SA7-SB-4.0-5.0DUP	P412124D272320B	DUP	METHOD	300.0	III
19-Sep-2011	SL-025-SA7-SB-4.0-5.0MS	P412124R272136B	MS	METHOD	314.0	III
19-Sep-2011	SL-025-SA7-SB-4.0-5.0MS	P412124R272333B	MS	METHOD	300.0	III
19-Sep-2011	SL-025-SA7-SB-9.0-10.0	6412125	N	3050B	6010B	III
19-Sep-2011	SL-025-SA7-SB-9.0-10.0	6412125	N	3050B	6020	III
19-Sep-2011	SL-025-SA7-SB-9.0-10.0	6412125	N	3060A	7199	III
19-Sep-2011	SL-025-SA7-SB-9.0-10.0	6412125	N	3550B	8082	III
19-Sep-2011	SL-025-SA7-SB-9.0-10.0	6412125	N	3550B	8270C	III
19-Sep-2011	SL-025-SA7-SB-9.0-10.0	6412125	N	3550B	8270C SIM	III
19-Sep-2011	SL-025-SA7-SB-9.0-10.0	6412125	N	METHOD	300.0	III
19-Sep-2011	SL-025-SA7-SB-9.0-10.0	6412125	N	METHOD	314.0	III
19-Sep-2011	SL-025-SA7-SB-9.0-10.0	6412125	N	METHOD	7471A	III
19-Sep-2011	SL-111-SA7-SS-0.0-0.5	6412119	N	3050B	6010B	III
19-Sep-2011	SL-111-SA7-SS-0.0-0.5	6412119	N	3050B	6020	III
19-Sep-2011	SL-111-SA7-SS-0.0-0.5	6412119	N	3060A	7199	III
19-Sep-2011	SL-111-SA7-SS-0.0-0.5	6412119	N	3550B	8081A	III
19-Sep-2011	SL-111-SA7-SS-0.0-0.5	6412119	N	3550B	8082	III
19-Sep-2011	SL-111-SA7-SS-0.0-0.5	6412119	N	3550B	8151A	III
19-Sep-2011	SL-111-SA7-SS-0.0-0.5	6412119	N	3550B	8270C	III
19-Sep-2011	SL-111-SA7-SS-0.0-0.5	6412119	N	3550B	8270C SIM	III
19-Sep-2011	SL-111-SA7-SS-0.0-0.5	6412119	N	METHOD	300.0	III
19-Sep-2011	SL-111-SA7-SS-0.0-0.5	6412119	N	METHOD	314.0	III
19-Sep-2011	SL-111-SA7-SS-0.0-0.5	6412119	N	METHOD	7471A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	3050B	6010B	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	3050B	6020	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	3060A	7199	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	3546	1625C	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	3550B	8015B	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	3550B	8015M	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	3550B	8081A	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	3550B	8082	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	3550B	8151A	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	3550B	8270C	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	3550B	8270C SIM	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	8330	8330A	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	METHOD	300.0	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	METHOD	314.0	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	METHOD	7471A	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	METHOD	8015B	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	METHOD	8015M	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	METHOD	8315A	III
19-Sep-2011	SL-004-SA7-SS-0.0-0.5	6412110	N	METHOD	9012B	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	GENCHEM	
Method:	300.0	Matrix: SO

Sample ID: DUP02-SA7-QC-091911      Collected: 9/19/2011 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	0.82	U	0.82	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-002-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	2.0		0.82	MDL	1.0	PQL	mg/Kg	J	Q
Nitrate-NO3	1.3	J	0.82	MDL	1.5	PQL	mg/Kg	J	Z

Sample ID: SL-003-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	0.82	U	0.82	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-004-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	0.80	U	0.80	MDL	1.0	PQL	mg/Kg	UJ	Q
Nitrate-NO3	1.3	J	0.80	MDL	1.5	PQL	mg/Kg	J	Z

Sample ID: SL-025-SA7-SB-4.0-5.0      Collected: 9/19/2011 2:48:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.6		0.85	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-025-SA7-SB-9.0-10.0      Collected: 9/19/2011 2:51:00      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		0.83	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-032-SA7-SB-4.0-5.0      Collected: 9/19/2011 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
FLUORIDE	6.6		0.85	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.3	J	0.85	MDL	1.6	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

1/16/2012 11:35:37 AM

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# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	GENCHEM	
<b>Method:</b>	300.0	<b>Matrix:</b> SO

Sample ID: SL-032-SA7-SB-9.0-10.0      Collected: 9/19/2011 8:53:00      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		0.85	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-042-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	0.80	U	0.80	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-048-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	1.5		0.80	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-110-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	1.8		0.82	MDL	1.0	PQL	mg/Kg	J	Q
Nitrate-NO3	0.97	J	0.82	MDL	1.5	PQL	mg/Kg	J	Z

Sample ID: SL-111-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
FLUORIDE	1.5		0.84	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-122-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-130-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q

\* 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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	GENCHEM	
Method:	300.0	Matrix: SO

Sample ID: SL-133-SA7-SS-0.0-0.5      Collected: 9/19/2011 9:35:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.3		0.85	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-144-SA7-SB-4.0-5.0      Collected: 9/19/2011 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	2.3		0.83	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-144-SA7-SB-9.0-10.0      Collected: 9/19/2011 11:28:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.8		0.84	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-145-SA7-SB-4.0-5.0      Collected: 9/19/2011 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	2.6		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-145-SA7-SB-9.0-10.0      Collected: 9/19/2011 12:43:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.84	MDL	1.0	PQL	mg/Kg	J	Q

Method Category:	GENCHEM	
Method:	9012B	Matrix: SO

Sample ID: SL-122-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
CYANIDE	0.19	J	0.18	MDL	0.49	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

<b>Sample ID: DUP02-SA7-QC-091911</b>			<b>Collected: 9/19/2011 9:05:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SODIUM	70.0	J	5.94	MDL	99.9	PQL	mg/Kg	J	Z	
TIN	2.80	J	0.320	MDL	9.99	PQL	mg/Kg	U	B	
Zirconium	1.98	J	0.460	MDL	5.00	PQL	mg/Kg	U	B	

<b>Sample ID: SL-002-SA7-SS-0.0-0.5</b>			<b>Collected: 9/19/2011 10:20:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SODIUM	63.4	J	6.02	MDL	101	PQL	mg/Kg	J	Z	
TIN	2.79	J	0.324	MDL	10.1	PQL	mg/Kg	U	B	
Zirconium	2.31	J	0.465	MDL	5.06	PQL	mg/Kg	U	B, B	

<b>Sample ID: SL-003-SA7-SS-0.0-0.5</b>			<b>Collected: 9/19/2011 11:20:00</b>			<b>Analysis Type: REA</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BORON	0.734	J	0.355	MDL	4.93	PQL	mg/Kg	U	B	

<b>Sample ID: SL-003-SA7-SS-0.0-0.5</b>			<b>Collected: 9/19/2011 11:20:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SODIUM	69.8	J	5.87	MDL	98.7	PQL	mg/Kg	J	Z	
TIN	2.96	J	0.316	MDL	9.87	PQL	mg/Kg	U	B	
Zirconium	1.99	J	0.454	MDL	4.93	PQL	mg/Kg	U	B, B	

<b>Sample ID: SL-004-SA7-SS-0.0-0.5</b>			<b>Collected: 9/19/2011 3:25:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SODIUM	74.8	J	6.00	MDL	101	PQL	mg/Kg	J	Z	
TIN	2.69	J	0.323	MDL	10.1	PQL	mg/Kg	U	B	
Zirconium	1.97	J	0.464	MDL	5.04	PQL	mg/Kg	U	B, B	

<b>Sample ID: SL-025-SA7-SB-4.0-5.0</b>			<b>Collected: 9/19/2011 2:48:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SODIUM	78.1	J	6.18	MDL	104	PQL	mg/Kg	J	Z	
TIN	2.73	J	0.332	MDL	10.4	PQL	mg/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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

<b>Sample ID:</b> SL-025-SA7-SB-4.0-5.0	<b>Collected:</b> 9/19/2011 2:48:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	2.08	J	0.477	MDL	5.19	PQL	mg/Kg	U	B, B

<b>Sample ID:</b> SL-025-SA7-SB-9.0-10.0	<b>Collected:</b> 9/19/2011 2:51:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	84.1	J	6.29	MDL	106	PQL	mg/Kg	J	Z
TIN	3.08	J	0.338	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	2.28	J	0.486	MDL	5.29	PQL	mg/Kg	U	B, B

<b>Sample ID:</b> SL-032-SA7-SB-4.0-5.0	<b>Collected:</b> 9/19/2011 8:47:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	69.0	J	6.18	MDL	104	PQL	mg/Kg	J	Z
TIN	2.81	J	0.333	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	2.47	J	0.478	MDL	5.20	PQL	mg/Kg	U	B, B

<b>Sample ID:</b> SL-032-SA7-SB-9.0-10.0	<b>Collected:</b> 9/19/2011 8:53:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	72.2	J	6.21	MDL	104	PQL	mg/Kg	J	Z
TIN	2.75	J	0.334	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	2.19	J	0.480	MDL	5.21	PQL	mg/Kg	U	B, B

<b>Sample ID:</b> SL-042-SA7-SS-0.0-0.5	<b>Collected:</b> 9/19/2011 9:05:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	70.1	J	5.94	MDL	99.8	PQL	mg/Kg	J	Z
TIN	2.83	J	0.319	MDL	9.98	PQL	mg/Kg	U	B
Zirconium	2.28	J	0.459	MDL	4.99	PQL	mg/Kg	U	B, B

<b>Sample ID:</b> SL-048-SA7-SS-0.0-0.5	<b>Collected:</b> 9/19/2011 9:55:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	90.0	J	5.87	MDL	98.7	PQL	mg/Kg	J	Z
TIN	2.65	J	0.316	MDL	9.87	PQL	mg/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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

<b>Sample ID: SL-048-SA7-SS-0.0-0.5</b>		<b>Collected: 9/19/2011 9:55:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	2.13	J	0.454	MDL	4.94	PQL	mg/Kg	U	B, B

<b>Sample ID: SL-110-SA7-SS-0.0-0.5</b>		<b>Collected: 9/19/2011 8:40:00</b>		<b>Analysis Type: REA</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.531	J	0.359	MDL	4.99	PQL	mg/Kg	U	B

<b>Sample ID: SL-110-SA7-SS-0.0-0.5</b>		<b>Collected: 9/19/2011 8:40:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	83.4	J	5.94	MDL	99.8	PQL	mg/Kg	J	Z
TIN	2.64	J	0.319	MDL	9.98	PQL	mg/Kg	U	B
Zirconium	2.79	J	0.459	MDL	4.99	PQL	mg/Kg	U	B, B

<b>Sample ID: SL-111-SA7-SS-0.0-0.5</b>		<b>Collected: 9/19/2011 2:55:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	79.4	J	6.07	MDL	102	PQL	mg/Kg	J	Z
TIN	2.96	J	0.326	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	1.94	J	0.469	MDL	5.10	PQL	mg/Kg	U	B, B

<b>Sample ID: SL-122-SA7-SS-0.0-0.5</b>		<b>Collected: 9/19/2011 11:00:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.24	J	0.318	MDL	9.93	PQL	mg/Kg	U	B
Zirconium	2.33	J	0.457	MDL	4.97	PQL	mg/Kg	U	B, B

<b>Sample ID: SL-130-SA7-SS-0.0-0.5</b>		<b>Collected: 9/19/2011 11:40:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	62.9	J	5.88	MDL	98.8	PQL	mg/Kg	J	Z
TIN	2.85	J	0.316	MDL	9.88	PQL	mg/Kg	U	B
Zirconium	1.89	J	0.455	MDL	4.94	PQL	mg/Kg	U	B, 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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: SL-133-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
SODIUM	99.4	J	6.24	MDL	105	PQL	mg/Kg	J	Z
TIN	2.66	J	0.335	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	2.20	J	0.482	MDL	5.24	PQL	mg/Kg	U	B, B

Sample ID: SL-144-SA7-SB-4.0-5.0      Collected: 9/19/2011 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	77.9	J	6.17	MDL	104	PQL	mg/Kg	J	Z
TIN	2.65	J	0.332	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	2.78	J	0.477	MDL	5.18	PQL	mg/Kg	U	B, B

Sample ID: SL-144-SA7-SB-9.0-10.0      Collected: 9/19/2011 11:28:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	81.1	J	6.30	MDL	106	PQL	mg/Kg	J	Z
TIN	2.69	J	0.339	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	2.83	J	0.487	MDL	5.30	PQL	mg/Kg	U	B, B

Sample ID: SL-145-SA7-SB-4.0-5.0      Collected: 9/19/2011 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
SODIUM	76.2	J	6.10	MDL	103	PQL	mg/Kg	J	Z
TIN	2.63	J	0.328	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	2.86	J	0.472	MDL	5.13	PQL	mg/Kg	U	B, B

Sample ID: SL-145-SA7-SB-9.0-10.0      Collected: 9/19/2011 12:43:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	95.3	J	6.13	MDL	103	PQL	mg/Kg	J	Z
TIN	2.54	J	0.330	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	2.76	J	0.474	MDL	5.15	PQL	mg/Kg	U	B, B

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

<b>Sample ID:</b> DUP02-SA7-QC-091911		<b>Collected:</b> 9/19/2011 9:05:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 5			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	252		1.40	MDL	7.49	PQL	mg/Kg	J	E

<b>Sample ID:</b> DUP02-SA7-QC-091911		<b>Collected:</b> 9/19/2011 9:05:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.141	J	0.0579	MDL	0.400	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> DUP02-SA7-QC-091911		<b>Collected:</b> 9/19/2011 9:05:00		<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.471		0.0500	MDL	0.0999	PQL	mg/Kg	J	Q

<b>Sample ID:</b> DUP02-SA7-QC-091911		<b>Collected:</b> 9/19/2011 9:05:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.109	J	0.0739	MDL	0.200	PQL	mg/Kg	J	Z, Q
ARSENIC	4.36		0.0799	MDL	0.400	PQL	mg/Kg	J	Q
BERYLLIUM	0.519		0.0160	MDL	0.0999	PQL	mg/Kg	J	Q
CADMIUM	0.276		0.0440	MDL	0.0999	PQL	mg/Kg	J	Q
CHROMIUM	16.9		0.120	MDL	0.400	PQL	mg/Kg	J	Q, E
COBALT	6.00		0.0200	MDL	0.0999	PQL	mg/Kg	J	Q
COPPER	9.07		0.0799	MDL	0.400	PQL	mg/Kg	J	Q
LEAD	7.34		0.0102	MDL	0.200	PQL	mg/Kg	J	Q
NICKEL	11.3		0.0999	MDL	0.400	PQL	mg/Kg	J	Q, E
SILVER	0.0304	J	0.0142	MDL	0.0999	PQL	mg/Kg	J	Z, Q
THALLIUM	0.285		0.0300	MDL	0.0999	PQL	mg/Kg	J	Q
VANADIUM	33.2		0.0220	MDL	0.0999	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-002-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 10:20:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.155	J	0.0575	MDL	0.397	PQL	mg/Kg	J	Z, Q

\* 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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

<b>Sample ID:</b> SL-002-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 10:20:00		<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.427		0.0496	MDL	0.0991	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-002-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 10:20:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.256		0.0734	MDL	0.198	PQL	mg/Kg	J	Q
ARSENIC	4.91		0.0793	MDL	0.397	PQL	mg/Kg	J	Q
BERYLLIUM	0.562		0.0159	MDL	0.0991	PQL	mg/Kg	J	Q
CADMIUM	0.183		0.0436	MDL	0.0991	PQL	mg/Kg	J	Q
CHROMIUM	19.2		0.119	MDL	0.397	PQL	mg/Kg	J	Q, E
COBALT	6.73		0.0198	MDL	0.0991	PQL	mg/Kg	J	Q
COPPER	10.0		0.0793	MDL	0.397	PQL	mg/Kg	J	Q
LEAD	11.6		0.0101	MDL	0.198	PQL	mg/Kg	J	Q
NICKEL	13.4		0.0991	MDL	0.397	PQL	mg/Kg	J	Q, E
SILVER	0.0451	J	0.0141	MDL	0.0991	PQL	mg/Kg	J	Z, Q
THALLIUM	0.294		0.0297	MDL	0.0991	PQL	mg/Kg	J	Q
VANADIUM	39.4		0.0218	MDL	0.0991	PQL	mg/Kg	J	Q
ZINC	134		0.555	MDL	2.97	PQL	mg/Kg	J	E

<b>Sample ID:</b> SL-003-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 11:20:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 5			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	180		1.41	MDL	7.55	PQL	mg/Kg	J	E

<b>Sample ID:</b> SL-003-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 11:20:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.107	J	0.0584	MDL	0.402	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-003-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 11:20:00		<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.522		0.0503	MDL	0.101	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-003-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	0.286		0.0745	MDL	0.201	PQL	mg/Kg	J	Q
ARSENIC	3.50		0.0805	MDL	0.402	PQL	mg/Kg	J	Q
BERYLLIUM	0.405		0.0161	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	1.19		0.0443	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	38.6		0.121	MDL	0.402	PQL	mg/Kg	J	Q, E
COBALT	5.61		0.0201	MDL	0.101	PQL	mg/Kg	J	Q
COPPER	13.1		0.0805	MDL	0.402	PQL	mg/Kg	J	Q
LEAD	42.5		0.0103	MDL	0.201	PQL	mg/Kg	J	Q
NICKEL	11.0		0.101	MDL	0.402	PQL	mg/Kg	J	Q, E
SILVER	0.102		0.0143	MDL	0.101	PQL	mg/Kg	J	Q
THALLIUM	0.230		0.0302	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	30.0		0.0221	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-004-SA7-SS-0.0-0.5      Collected: 9/19/2011 3:25:00      Analysis Type: REA      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	218		1.38	MDL	7.41	PQL	mg/Kg	J	E

Sample ID: SL-004-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	0.102	J	0.0573	MDL	0.395	PQL	mg/Kg	J	Z, Q

Sample ID: SL-004-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
MOLYBDENUM	0.572		0.0494	MDL	0.0988	PQL	mg/Kg	J	Q

Sample ID: SL-004-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	0.265		0.0731	MDL	0.198	PQL	mg/Kg	J	Q
ARSENIC	8.45		0.0791	MDL	0.395	PQL	mg/Kg	J	Q
BERYLLIUM	0.586		0.0158	MDL	0.0988	PQL	mg/Kg	J	Q
CADMIUM	0.696		0.0435	MDL	0.0988	PQL	mg/Kg	J	Q

\* 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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Method:</b>	6020	<b>Matrix:</b>	SO
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Sample ID: SL-004-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
CHROMIUM	26.9		0.119	MDL	0.395	PQL	mg/Kg	J	Q, E
COBALT	7.41		0.0198	MDL	0.0988	PQL	mg/Kg	J	Q
COPPER	14.0		0.0791	MDL	0.395	PQL	mg/Kg	J	Q
LEAD	35.7		0.0101	MDL	0.198	PQL	mg/Kg	J	Q
NICKEL	16.6		0.0988	MDL	0.395	PQL	mg/Kg	J	Q, E
SILVER	0.109		0.0140	MDL	0.0988	PQL	mg/Kg	J	Q
THALLIUM	0.314		0.0296	MDL	0.0988	PQL	mg/Kg	J	Q
VANADIUM	41.3		0.0217	MDL	0.0988	PQL	mg/Kg	J	Q

Sample ID: SL-025-SA7-SB-4.0-5.0      Collected: 9/19/2011 2:48:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.121	J	0.0585	MDL	0.403	PQL	mg/Kg	J	Z, Q

Sample ID: SL-025-SA7-SB-4.0-5.0      Collected: 9/19/2011 2:48:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.573		0.0504	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-025-SA7-SB-4.0-5.0      Collected: 9/19/2011 2:48:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0961	J	0.0746	MDL	0.202	PQL	mg/Kg	J	Z, Q
ARSENIC	5.70		0.0806	MDL	0.403	PQL	mg/Kg	J	Q
BERYLLIUM	0.720		0.0161	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.0859	J	0.0443	MDL	0.101	PQL	mg/Kg	J	Z, Q
CHROMIUM	22.0		0.121	MDL	0.403	PQL	mg/Kg	J	Q, E
COBALT	6.89		0.0202	MDL	0.101	PQL	mg/Kg	J	Q
COPPER	9.03		0.0806	MDL	0.403	PQL	mg/Kg	J	Q
LEAD	5.57		0.0103	MDL	0.202	PQL	mg/Kg	J	Q
NICKEL	13.9		0.101	MDL	0.403	PQL	mg/Kg	J	Q, E
SILVER	0.0323	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.319		0.0302	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	40.8		0.0222	MDL	0.101	PQL	mg/Kg	J	Q
ZINC	62.0		0.564	MDL	3.02	PQL	mg/Kg	J	E

\* 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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-025-SA7-SB-9.0-10.0	Collected: 9/19/2011 2:51:00	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	0.0613	MDL	0.423	PQL	mg/Kg	J	Z, Q

Sample ID: SL-025-SA7-SB-9.0-10.0	Collected: 9/19/2011 2:51:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.822		0.0529	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-025-SA7-SB-9.0-10.0	Collected: 9/19/2011 2:51:00	Analysis Type: RES	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.181	J	0.0782	MDL	0.211	PQL	mg/Kg	J	Z, Q
ARSENIC	6.75		0.0846	MDL	0.423	PQL	mg/Kg	J	Q
BERYLLIUM	0.836		0.0169	MDL	0.106	PQL	mg/Kg	J	Q
CADMIUM	0.0737	J	0.0465	MDL	0.106	PQL	mg/Kg	J	Z, Q
CHROMIUM	25.7		0.127	MDL	0.423	PQL	mg/Kg	J	Q, E
COBALT	8.82		0.0211	MDL	0.106	PQL	mg/Kg	J	Q
COPPER	11.4		0.0846	MDL	0.423	PQL	mg/Kg	J	Q
LEAD	6.89		0.0108	MDL	0.211	PQL	mg/Kg	J	Q
NICKEL	15.5		0.106	MDL	0.423	PQL	mg/Kg	J	Q, E
SILVER	0.0372	J	0.0150	MDL	0.106	PQL	mg/Kg	J	Z, Q
THALLIUM	0.373		0.0317	MDL	0.106	PQL	mg/Kg	J	Q
VANADIUM	52.6		0.0233	MDL	0.106	PQL	mg/Kg	J	Q
ZINC	74.1		0.592	MDL	3.17	PQL	mg/Kg	J	E

Sample ID: SL-032-SA7-SB-4.0-5.0	Collected: 9/19/2011 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
SELENIUM	0.0708	J	0.0609	MDL	0.420	PQL	mg/Kg	J	Z, Q

Sample ID: SL-032-SA7-SB-4.0-5.0	Collected: 9/19/2011 8:47:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.779		0.0525	MDL	0.105	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-032-SA7-SB-4.0-5.0      Collected: 9/19/2011 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	0.107	J	0.0777	MDL	0.210	PQL	mg/Kg	J	Z, Q
ARSENIC	5.04		0.0840	MDL	0.420	PQL	mg/Kg	J	Q
BERYLLIUM	0.806		0.0168	MDL	0.105	PQL	mg/Kg	J	Q
CADMIUM	0.124		0.0462	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	22.4		0.126	MDL	0.420	PQL	mg/Kg	J	Q, E
COBALT	7.85		0.0210	MDL	0.105	PQL	mg/Kg	J	Q
COPPER	9.61		0.0840	MDL	0.420	PQL	mg/Kg	J	Q
LEAD	5.66		0.0107	MDL	0.210	PQL	mg/Kg	J	Q
NICKEL	16.3		0.105	MDL	0.420	PQL	mg/Kg	J	Q, E
SILVER	0.0490	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z, Q
THALLIUM	0.318		0.0315	MDL	0.105	PQL	mg/Kg	J	Q
VANADIUM	44.7		0.0231	MDL	0.105	PQL	mg/Kg	J	Q
ZINC	62.5		0.588	MDL	3.15	PQL	mg/Kg	J	E

Sample ID: SL-032-SA7-SB-9.0-10.0      Collected: 9/19/2011 8:53:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0880	J	0.0611	MDL	0.421	PQL	mg/Kg	J	Z, Q

Sample ID: SL-032-SA7-SB-9.0-10.0      Collected: 9/19/2011 8:53:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.421		0.0527	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-032-SA7-SB-9.0-10.0      Collected: 9/19/2011 8:53:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.105	J	0.0779	MDL	0.211	PQL	mg/Kg	J	Z, Q
ARSENIC	5.90		0.0843	MDL	0.421	PQL	mg/Kg	J	Q
BERYLLIUM	0.667		0.0169	MDL	0.105	PQL	mg/Kg	J	Q
CADMIUM	0.111		0.0463	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	20.3		0.126	MDL	0.421	PQL	mg/Kg	J	Q, E
COBALT	7.55		0.0211	MDL	0.105	PQL	mg/Kg	J	Q
COPPER	9.24		0.0843	MDL	0.421	PQL	mg/Kg	J	Q
LEAD	5.22		0.0107	MDL	0.211	PQL	mg/Kg	J	Q

\* 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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-032-SA7-SB-9.0-10.0	Collected: 9/19/2011 8:53:00	Analysis Type: RES	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	14.6		0.105	MDL	0.421	PQL	mg/Kg	J	Q, E
SILVER	0.0255	J	0.0150	MDL	0.105	PQL	mg/Kg	J	Z, Q
THALLIUM	0.317		0.0316	MDL	0.105	PQL	mg/Kg	J	Q
VANADIUM	39.3		0.0232	MDL	0.105	PQL	mg/Kg	J	Q
ZINC	83.8		0.590	MDL	3.16	PQL	mg/Kg	J	E

Sample ID: SL-042-SA7-SS-0.0-0.5	Collected: 9/19/2011 9:05:00	Analysis Type: REA	Dilution: 5						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	238		1.40	MDL	7.49	PQL	mg/Kg	J	E

Sample ID: SL-042-SA7-SS-0.0-0.5	Collected: 9/19/2011 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	0.126	J	0.0579	MDL	0.399	PQL	mg/Kg	J	Z, Q

Sample ID: SL-042-SA7-SS-0.0-0.5	Collected: 9/19/2011 9:05:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.446		0.0499	MDL	0.0998	PQL	mg/Kg	J	Q

Sample ID: SL-042-SA7-SS-0.0-0.5	Collected: 9/19/2011 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	0.133	J	0.0739	MDL	0.200	PQL	mg/Kg	J	Z, Q
ARSENIC	4.34		0.0799	MDL	0.399	PQL	mg/Kg	J	Q
BERYLLIUM	0.586		0.0160	MDL	0.0998	PQL	mg/Kg	J	Q
CADMIUM	0.239		0.0439	MDL	0.0998	PQL	mg/Kg	J	Q
CHROMIUM	16.9		0.120	MDL	0.399	PQL	mg/Kg	J	Q, E
COBALT	6.11		0.0200	MDL	0.0998	PQL	mg/Kg	J	Q
COPPER	9.21		0.0799	MDL	0.399	PQL	mg/Kg	J	Q
LEAD	7.45		0.0102	MDL	0.200	PQL	mg/Kg	J	Q
NICKEL	11.5		0.0998	MDL	0.399	PQL	mg/Kg	J	Q, E
SILVER	0.0311	J	0.0142	MDL	0.0998	PQL	mg/Kg	J	Z, Q
THALLIUM	0.287		0.0300	MDL	0.0998	PQL	mg/Kg	J	Q

\* 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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

<b>Sample ID:</b> SL-042-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 9:05:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	33.8		0.0220	MDL	0.0998	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-048-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 9:55:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.114	J	0.0578	MDL	0.399	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-048-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 9:55:00		<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.500		0.0498	MDL	0.0997	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-048-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 9:55:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.168	J	0.0738	MDL	0.199	PQL	mg/Kg	J	Z, Q
ARSENIC	5.08		0.0798	MDL	0.399	PQL	mg/Kg	J	Q
BERYLLIUM	0.584		0.0160	MDL	0.0997	PQL	mg/Kg	J	Q
CADMIUM	0.314		0.0439	MDL	0.0997	PQL	mg/Kg	J	Q
CHROMIUM	19.5		0.120	MDL	0.399	PQL	mg/Kg	J	Q, E
COBALT	6.89		0.0199	MDL	0.0997	PQL	mg/Kg	J	Q
COPPER	10.7		0.0798	MDL	0.399	PQL	mg/Kg	J	Q
LEAD	12.4		0.0102	MDL	0.199	PQL	mg/Kg	J	Q
NICKEL	13.5		0.0997	MDL	0.399	PQL	mg/Kg	J	Q, E
SILVER	0.0353	J	0.0142	MDL	0.0997	PQL	mg/Kg	J	Z, Q
THALLIUM	0.290		0.0299	MDL	0.0997	PQL	mg/Kg	J	Q
VANADIUM	37.9		0.0219	MDL	0.0997	PQL	mg/Kg	J	Q
ZINC	120		0.558	MDL	2.99	PQL	mg/Kg	J	E

<b>Sample ID:</b> SL-110-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 8:40:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.166	J	0.0591	MDL	0.407	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-110-SA7-SS-0.0-0.5      Collected: 9/19/2011 8:40:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.509		0.0509	MDL	0.102	PQL	mg/Kg	J	Q

Sample ID: SL-110-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	0.183	J	0.0754	MDL	0.204	PQL	mg/Kg	J	Z, Q
ARSENIC	5.01		0.0815	MDL	0.407	PQL	mg/Kg	J	Q
BERYLLIUM	0.603		0.0163	MDL	0.102	PQL	mg/Kg	J	Q
CADMIUM	0.296		0.0448	MDL	0.102	PQL	mg/Kg	J	Q
CHROMIUM	20.2		0.122	MDL	0.407	PQL	mg/Kg	J	Q, E
COBALT	8.00		0.0204	MDL	0.102	PQL	mg/Kg	J	Q
COPPER	12.8		0.0815	MDL	0.407	PQL	mg/Kg	J	Q
LEAD	13.5		0.0104	MDL	0.204	PQL	mg/Kg	J	Q
NICKEL	16.0		0.102	MDL	0.407	PQL	mg/Kg	J	Q, E
SILVER	0.0483	J	0.0145	MDL	0.102	PQL	mg/Kg	J	Z, Q
THALLIUM	0.293		0.0305	MDL	0.102	PQL	mg/Kg	J	Q
VANADIUM	38.6		0.0224	MDL	0.102	PQL	mg/Kg	J	Q
ZINC	147		0.570	MDL	3.05	PQL	mg/Kg	J	E

Sample ID: SL-111-SA7-SS-0.0-0.5      Collected: 9/19/2011 2:55:00      Analysis Type: REA      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	159		1.43	MDL	7.65	PQL	mg/Kg	J	E

Sample ID: SL-111-SA7-SS-0.0-0.5      Collected: 9/19/2011 2:55:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.227	J	0.0591	MDL	0.408	PQL	mg/Kg	J	Z, Q

Sample ID: SL-111-SA7-SS-0.0-0.5      Collected: 9/19/2011 2:55:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.783		0.0510	MDL	0.102	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-111-SA7-SS-0.0-0.5			Collected: 9/19/2011 2:55:00			Analysis Type: RES		Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.173	J	0.0755	MDL	0.204	PQL	mg/Kg	J	Z, Q
ARSENIC	5.57		0.0816	MDL	0.408	PQL	mg/Kg	J	Q
BERYLLIUM	0.620		0.0163	MDL	0.102	PQL	mg/Kg	J	Q
CADMIUM	0.578		0.0449	MDL	0.102	PQL	mg/Kg	J	Q
CHROMIUM	20.0		0.122	MDL	0.408	PQL	mg/Kg	J	Q, E
COBALT	7.01		0.0204	MDL	0.102	PQL	mg/Kg	J	Q
COPPER	13.4		0.0816	MDL	0.408	PQL	mg/Kg	J	Q
LEAD	13.1		0.0104	MDL	0.204	PQL	mg/Kg	J	Q
NICKEL	13.9		0.102	MDL	0.408	PQL	mg/Kg	J	Q, E
SILVER	0.0619	J	0.0145	MDL	0.102	PQL	mg/Kg	J	Z, Q
THALLIUM	0.336		0.0306	MDL	0.102	PQL	mg/Kg	J	Q
VANADIUM	42.6		0.0224	MDL	0.102	PQL	mg/Kg	J	Q

Sample ID: SL-122-SA7-SS-0.0-0.5			Collected: 9/19/2011 11:00:00			Analysis Type: REA		Dilution: 10	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	324		2.75	MDL	14.8	PQL	mg/Kg	J	E

Sample ID: SL-122-SA7-SS-0.0-0.5			Collected: 9/19/2011 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	0.546		0.0571	MDL	0.393	PQL	mg/Kg	J	Q

Sample ID: SL-122-SA7-SS-0.0-0.5			Collected: 9/19/2011 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
MOLYBDENUM	1.57		0.0492	MDL	0.0984	PQL	mg/Kg	J	Q

Sample ID: SL-122-SA7-SS-0.0-0.5			Collected: 9/19/2011 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	0.339		0.0728	MDL	0.197	PQL	mg/Kg	J	Q
ARSENIC	8.43		0.0787	MDL	0.393	PQL	mg/Kg	J	Q
BERYLLIUM	1.00		0.0157	MDL	0.0984	PQL	mg/Kg	J	Q
CADMIUM	1.23		0.0433	MDL	0.0984	PQL	mg/Kg	J	Q

\* 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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS  
**Method:** 6020 **Matrix:** SO

**Sample ID:** SL-122-SA7-SS-0.0-0.5 **Collected:** 9/19/2011 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
CHROMIUM	33.8		0.118	MDL	0.393	PQL	mg/Kg	J	Q, E
COBALT	13.0		0.0197	MDL	0.0984	PQL	mg/Kg	J	Q
COPPER	26.5		0.0787	MDL	0.393	PQL	mg/Kg	J	Q
LEAD	27.3		0.0100	MDL	0.197	PQL	mg/Kg	J	Q
NICKEL	26.9		0.0984	MDL	0.393	PQL	mg/Kg	J	Q, E
SILVER	0.133		0.0140	MDL	0.0984	PQL	mg/Kg	J	Q
THALLIUM	0.570		0.0295	MDL	0.0984	PQL	mg/Kg	J	Q
VANADIUM	64.7		0.0216	MDL	0.0984	PQL	mg/Kg	J	Q

**Sample ID:** SL-130-SA7-SS-0.0-0.5 **Collected:** 9/19/2011 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	0.0857	J	0.0579	MDL	0.399	PQL	mg/Kg	J	Z, Q

**Sample ID:** SL-130-SA7-SS-0.0-0.5 **Collected:** 9/19/2011 11:40:00 **Analysis Type:** REA3 **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.562		0.0499	MDL	0.0998	PQL	mg/Kg	J	Q

**Sample ID:** SL-130-SA7-SS-0.0-0.5 **Collected:** 9/19/2011 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	0.207		0.0739	MDL	0.200	PQL	mg/Kg	J	Q
ARSENIC	4.84		0.0799	MDL	0.399	PQL	mg/Kg	J	Q
BERYLLIUM	0.553		0.0160	MDL	0.0998	PQL	mg/Kg	J	Q
CADMIUM	0.567		0.0439	MDL	0.0998	PQL	mg/Kg	J	Q
CHROMIUM	21.8		0.120	MDL	0.399	PQL	mg/Kg	J	Q, E
COBALT	6.18		0.0200	MDL	0.0998	PQL	mg/Kg	J	Q
COPPER	13.6		0.0799	MDL	0.399	PQL	mg/Kg	J	Q
LEAD	23.8		0.0102	MDL	0.200	PQL	mg/Kg	J	Q
NICKEL	13.2		0.0998	MDL	0.399	PQL	mg/Kg	J	Q, E
SILVER	0.0825	J	0.0142	MDL	0.0998	PQL	mg/Kg	J	Z, Q
THALLIUM	0.265		0.0299	MDL	0.0998	PQL	mg/Kg	J	Q
VANADIUM	37.2		0.0220	MDL	0.0998	PQL	mg/Kg	J	Q
ZINC	159		0.559	MDL	2.99	PQL	mg/Kg	J	E

\* 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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-133-SA7-SS-0.0-0.5		Collected: 9/19/2011 9:35:00		Analysis Type: REA		Dilution: 5			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	194		1.44	MDL	7.71	PQL	mg/Kg	J	E

Sample ID: SL-133-SA7-SS-0.0-0.5		Collected: 9/19/2011 9:35:00		Analysis Type: REA2		Dilution: 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.257	J	0.0596	MDL	0.411	PQL	mg/Kg	J	Z, Q

Sample ID: SL-133-SA7-SS-0.0-0.5		Collected: 9/19/2011 9:35:00		Analysis Type: REA3		Dilution: 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.543		0.0514	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-133-SA7-SS-0.0-0.5		Collected: 9/19/2011 9:35:00		Analysis Type: RES		Dilution: 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.130	J	0.0760	MDL	0.206	PQL	mg/Kg	J	Z, Q
ARSENIC	3.72		0.0822	MDL	0.411	PQL	mg/Kg	J	Q
BERYLLIUM	0.471		0.0164	MDL	0.103	PQL	mg/Kg	J	Q
CADMIUM	0.377		0.0452	MDL	0.103	PQL	mg/Kg	J	Q
CHROMIUM	17.3		0.123	MDL	0.411	PQL	mg/Kg	J	Q, E
COBALT	5.75		0.0206	MDL	0.103	PQL	mg/Kg	J	Q
COPPER	10.4		0.0822	MDL	0.411	PQL	mg/Kg	J	Q
LEAD	11.3		0.0105	MDL	0.206	PQL	mg/Kg	J	Q
NICKEL	12.0		0.103	MDL	0.411	PQL	mg/Kg	J	Q, E
SILVER	0.0379	J	0.0146	MDL	0.103	PQL	mg/Kg	J	Z, Q
THALLIUM	0.259		0.0308	MDL	0.103	PQL	mg/Kg	J	Q
VANADIUM	31.5		0.0226	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-144-SA7-SB-4.0-5.0		Collected: 9/19/2011 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	0.164	J	0.0607	MDL	0.419	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-144-SA7-SB-4.0-5.0      Collected: 9/19/2011 11:25:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.813		0.0524	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-144-SA7-SB-4.0-5.0      Collected: 9/19/2011 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	0.143	J	0.0775	MDL	0.209	PQL	mg/Kg	J	Z, Q
ARSENIC	6.40		0.0838	MDL	0.419	PQL	mg/Kg	J	Q
BERYLLIUM	0.812		0.0168	MDL	0.105	PQL	mg/Kg	J	Q
CADMIUM	0.187		0.0461	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	24.0		0.126	MDL	0.419	PQL	mg/Kg	J	Q, E
COBALT	8.18		0.0209	MDL	0.105	PQL	mg/Kg	J	Q
COPPER	12.4		0.0838	MDL	0.419	PQL	mg/Kg	J	Q
LEAD	6.44		0.0107	MDL	0.209	PQL	mg/Kg	J	Q
NICKEL	16.8		0.105	MDL	0.419	PQL	mg/Kg	J	Q, E
SILVER	0.0459	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z, Q
THALLIUM	0.356		0.0314	MDL	0.105	PQL	mg/Kg	J	Q
VANADIUM	49.5		0.0230	MDL	0.105	PQL	mg/Kg	J	Q
ZINC	72.4		0.586	MDL	3.14	PQL	mg/Kg	J	E

Sample ID: SL-144-SA7-SB-9.0-10.0      Collected: 9/19/2011 11:28:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.207	J	0.0602	MDL	0.415	PQL	mg/Kg	J	Z, Q

Sample ID: SL-144-SA7-SB-9.0-10.0      Collected: 9/19/2011 11:28:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.06		0.0519	MDL	0.104	PQL	mg/Kg	J	Q

Sample ID: SL-144-SA7-SB-9.0-10.0      Collected: 9/19/2011 11:28:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.193	J	0.0769	MDL	0.208	PQL	mg/Kg	J	Z, Q
ARSENIC	7.11		0.0831	MDL	0.415	PQL	mg/Kg	J	Q
BERYLLIUM	0.841		0.0166	MDL	0.104	PQL	mg/Kg	J	Q

\* 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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	Matrix:	SO
Method:	6020		

Sample ID: SL-144-SA7-SB-9.0-10.0	Collected: 9/19/2011 11:28:00	Analysis Type: RES	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.351		0.0457	MDL	0.104	PQL	mg/Kg	J	Q
CHROMIUM	26.4		0.125	MDL	0.415	PQL	mg/Kg	J	Q, E
COBALT	9.57		0.0208	MDL	0.104	PQL	mg/Kg	J	Q
COPPER	16.7		0.0831	MDL	0.415	PQL	mg/Kg	J	Q
LEAD	7.48		0.0106	MDL	0.208	PQL	mg/Kg	J	Q
NICKEL	20.4		0.104	MDL	0.415	PQL	mg/Kg	J	Q, E
SILVER	0.0494	J	0.0147	MDL	0.104	PQL	mg/Kg	J	Z, Q
THALLIUM	0.427		0.0312	MDL	0.104	PQL	mg/Kg	J	Q
VANADIUM	51.4		0.0228	MDL	0.104	PQL	mg/Kg	J	Q
ZINC	91.8		0.582	MDL	3.12	PQL	mg/Kg	J	E

Sample ID: SL-145-SA7-SB-4.0-5.0	Collected: 9/19/2011 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	0.137	J	0.0601	MDL	0.414	PQL	mg/Kg	J	Z, Q

Sample ID: SL-145-SA7-SB-4.0-5.0	Collected: 9/19/2011 12:40:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.02		0.0518	MDL	0.104	PQL	mg/Kg	J	Q

Sample ID: SL-145-SA7-SB-4.0-5.0	Collected: 9/19/2011 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	0.136	J	0.0766	MDL	0.207	PQL	mg/Kg	J	Z, Q
ARSENIC	7.14		0.0829	MDL	0.414	PQL	mg/Kg	J	Q
BERYLLIUM	0.830		0.0166	MDL	0.104	PQL	mg/Kg	J	Q
CADMIUM	0.203		0.0456	MDL	0.104	PQL	mg/Kg	J	Q
CHROMIUM	25.8		0.124	MDL	0.414	PQL	mg/Kg	J	Q, E
COBALT	9.52		0.0207	MDL	0.104	PQL	mg/Kg	J	Q
COPPER	12.9		0.0829	MDL	0.414	PQL	mg/Kg	J	Q
LEAD	7.11		0.0106	MDL	0.207	PQL	mg/Kg	J	Q
NICKEL	18.6		0.104	MDL	0.414	PQL	mg/Kg	J	Q, E
SILVER	0.0598	J	0.0147	MDL	0.104	PQL	mg/Kg	J	Z, Q
THALLIUM	0.387		0.0311	MDL	0.104	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-145-SA7-SB-4.0-5.0      Collected: 9/19/2011 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
VANADIUM	53.6		0.0228	MDL	0.104	PQL	mg/Kg	J	Q
ZINC	79.2		0.580	MDL	3.11	PQL	mg/Kg	J	E

Sample ID: SL-145-SA7-SB-9.0-10.0      Collected: 9/19/2011 12:43:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.182	J	0.0610	MDL	0.420	PQL	mg/Kg	J	Z, Q

Sample ID: SL-145-SA7-SB-9.0-10.0      Collected: 9/19/2011 12:43:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.933		0.0526	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-145-SA7-SB-9.0-10.0      Collected: 9/19/2011 12:43:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.117	J	0.0778	MDL	0.210	PQL	mg/Kg	J	Z, Q
ARSENIC	5.93		0.0841	MDL	0.420	PQL	mg/Kg	J	Q
BERYLLIUM	0.738		0.0168	MDL	0.105	PQL	mg/Kg	J	Q
CADMIUM	0.307		0.0462	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	22.9		0.126	MDL	0.420	PQL	mg/Kg	J	Q, E
COBALT	7.73		0.0210	MDL	0.105	PQL	mg/Kg	J	Q
COPPER	13.2		0.0841	MDL	0.420	PQL	mg/Kg	J	Q
LEAD	7.58		0.0107	MDL	0.210	PQL	mg/Kg	J	Q
NICKEL	16.8		0.105	MDL	0.420	PQL	mg/Kg	J	Q, E
SILVER	0.0406	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z, Q
THALLIUM	0.390		0.0315	MDL	0.105	PQL	mg/Kg	J	Q
VANADIUM	42.4		0.0231	MDL	0.105	PQL	mg/Kg	J	Q
ZINC	76.2		0.589	MDL	3.15	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS								
Method:	7199	Matrix:	SO						

Sample ID: DUP02-SA7-QC-091911      Collected: 9/19/2011 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	0.19	U	0.19	MDL	0.97	PQL	mg/Kg	UJ	FD

Sample ID: SL-002-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	0.20	J	0.19	MDL	0.96	PQL	mg/Kg	J	Z

Sample ID: SL-003-SA7-SS-0.0-0.5      Collected: 9/19/2011 11:20:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.60	J	0.20	MDL	0.99	PQL	mg/Kg	J	Z

Sample ID: SL-004-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
HEXAVALENT CHROMIUM	0.57	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-025-SA7-SB-4.0-5.0      Collected: 9/19/2011 2:48:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.26	J	0.20	MDL	0.98	PQL	mg/Kg	J	Z

Sample ID: SL-025-SA7-SB-9.0-10.0      Collected: 9/19/2011 2:51:00      Analysis 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	0.21	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-032-SA7-SB-4.0-5.0      Collected: 9/19/2011 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	0.22	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-042-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	0.76	J	0.20	MDL	0.98	PQL	mg/Kg	J	Z, FD

\* 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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7199</b>	<b>Matrix: SO</b>

<b>Sample ID:</b> SL-048-SA7-SS-0.0-0.5	<b>Collected:</b> 9/19/2011 9:55:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.28	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-110-SA7-SS-0.0-0.5	<b>Collected:</b> 9/19/2011 8:40:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.24	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-122-SA7-SS-0.0-0.5	<b>Collected:</b> 9/19/2011 11:00:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.27	J	0.20	MDL	0.98	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-130-SA7-SS-0.0-0.5	<b>Collected:</b> 9/19/2011 11:40:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.45	J	0.20	MDL	0.99	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-144-SA7-SB-4.0-5.0	<b>Collected:</b> 9/19/2011 11:25:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.26	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-144-SA7-SB-9.0-10.0	<b>Collected:</b> 9/19/2011 11:28:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.30	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-145-SA7-SB-4.0-5.0	<b>Collected:</b> 9/19/2011 12:40:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 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	1.0	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-145-SA7-SB-9.0-10.0	<b>Collected:</b> 9/19/2011 12:43:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.39	J	0.20	MDL	1.0	PQL	mg/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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	7199	Matrix: SO

Method Category:	METALS	
Method:	7471A	Matrix: SO

Sample ID: DUP02-SA7-QC-091911	Collected: 9/19/2011 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	0.0071	U	0.0071	MDL	0.100	PQL	mg/Kg	UJ	FD

Sample ID: SL-002-SA7-SS-0.0-0.5	Collected: 9/19/2011 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	0.0162	J	0.0069	MDL	0.0975	PQL	mg/Kg	U	B, B

Sample ID: SL-003-SA7-SS-0.0-0.5	Collected: 9/19/2011 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	0.0167	J	0.0069	MDL	0.0981	PQL	mg/Kg	U	B, B

Sample ID: SL-004-SA7-SS-0.0-0.5	Collected: 9/19/2011 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	0.0401	J	0.0069	MDL	0.0975	PQL	mg/Kg	U	B, B

Sample ID: SL-042-SA7-SS-0.0-0.5	Collected: 9/19/2011 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	0.0073	J	0.0070	MDL	0.0993	PQL	mg/Kg	UJ	B, B, FD

Sample ID: SL-048-SA7-SS-0.0-0.5	Collected: 9/19/2011 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	0.0095	J	0.0069	MDL	0.0980	PQL	mg/Kg	U	B, B

Sample ID: SL-110-SA7-SS-0.0-0.5	Collected: 9/19/2011 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	0.0103	J	0.0069	MDL	0.0978	PQL	mg/Kg	U	B, B

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7471A</b>	<b>Matrix: SO</b>

<b>Sample ID: SL-111-SA7-SS-0.0-0.5</b>		<b>Collected: 9/19/2011 2:55:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0197	J	0.0071	MDL	0.101	PQL	mg/Kg	U	B, B

<b>Sample ID: SL-122-SA7-SS-0.0-0.5</b>		<b>Collected: 9/19/2011 11:00:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0308	J	0.0071	MDL	0.101	PQL	mg/Kg	U	B, B

<b>Sample ID: SL-130-SA7-SS-0.0-0.5</b>		<b>Collected: 9/19/2011 11:40:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0176	J	0.0070	MDL	0.0997	PQL	mg/Kg	U	B, B

<b>Method Category:</b>	<b>SVOA</b>	
<b>Method:</b>	<b>8015M</b>	<b>Matrix: SO</b>

<b>Sample ID: SL-002-SA7-SS-0.0-0.5</b>		<b>Collected: 9/19/2011 10:20:00</b>		<b>Analysis Type: REA</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.98	J	0.40	MDL	1.2	PQL	mg/Kg	J	Z

<b>Sample ID: SL-002-SA7-SS-0.0-0.5</b>		<b>Collected: 9/19/2011 10:20:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.1	U	5.1	MDL	10	PQL	mg/Kg	R	Q
ETHYLENE GLYCOL	5.1	U	5.1	MDL	10	PQL	mg/Kg	UJ	Q
Propylene glycol	5.1	U	5.1	MDL	10	PQL	mg/Kg	UJ	Q

<b>Sample ID: SL-003-SA7-SS-0.0-0.5</b>		<b>Collected: 9/19/2011 11:20:00</b>		<b>Analysis Type: REA</b>		<b>Dilution: 25</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	16	J	10	MDL	30	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8015M	Matrix: SO

Sample ID: SL-032-SA7-SB-4.0-5.0      Collected: 9/19/2011 8:47:00      Analysis Type: REA      Dilution: 23.06

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	PQL	mg/Kg	J	Z

Method Category:	SVOA	
Method:	8081A	Matrix: SO

Sample ID: DUP02-SA7-QC-091911      Collected: 9/19/2011 9:05:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.21	U	0.21	MDL	0.34	PQL	ug/Kg	UJ	FD
4,4'-DDT	0.70	U	0.70	MDL	0.70	PQL	ug/Kg	UJ	FD
ALPHA-BHC	0.051	J	0.034	MDL	0.17	PQL	ug/Kg	J	Z, FD
Chlordane	2.1	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.18		0.034	MDL	0.17	PQL	ug/Kg	J	FD

Sample ID: SL-002-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
Chlordane	2.7	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-003-SA7-SS-0.0-0.5      Collected: 9/19/2011 11:20:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	0.46		0.067	MDL	0.35	PQL	ug/Kg	J	S
Chlordane	1.4	J	0.81	MDL	3.5	PQL	ug/Kg	J	Z, S

Sample ID: SL-004-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
ALPHA-BHC	0.060	J	0.034	MDL	0.17	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.082	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z, S

Sample ID: SL-042-SA7-SS-0.0-0.5      Collected: 9/19/2011 9:05:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.28	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z, FD

\* 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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8081A	<b>Matrix:</b>	SO
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Sample ID: SL-042-SA7-SS-0.0-0.5      Collected: 9/19/2011 9:05:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	1.1		0.067	MDL	0.34	PQL	ug/Kg	J	Q, FD
ALPHA-BHC	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	FD
Chlordane	1.4	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.041	J	0.034	MDL	0.17	PQL	ug/Kg	J	Z, FD

Sample ID: SL-048-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
gamma-BHC (Lindane)	0.23		0.034	MDL	0.17	PQL	ug/Kg	J	S

Sample ID: SL-111-SA7-SS-0.0-0.5      Collected: 9/19/2011 2:55:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALPHA-BHC	0.13	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z
Chlordane	1.1	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z
TOXAPHENE	5.6	J	2.3	MDL	6.8	PQL	ug/Kg	J	Z

Sample ID: SL-122-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
4,4'-DDE	0.14	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z, S
4,4'-DDT	0.69		0.067	MDL	0.34	PQL	ug/Kg	J	S
ENDOSULFAN I	0.094	J	0.045	MDL	0.17	PQL	ug/Kg	J	Z, S
ENDRIN	0.17	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z, S
MIREX	0.32	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z, S

Sample ID: SL-130-SA7-SS-0.0-0.5      Collected: 9/19/2011 11:40:00      Analysis Type: DL-BASE/NEUTRAL      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	1.1	J	0.67	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-130-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
DELTA-BHC	0.051	J	0.036	MDL	0.17	PQL	ug/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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8081A	<b>Matrix:</b> SO

Sample ID: SL-133-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
Chlordane	4.6		0.84	MDL	3.6	PQL	ug/Kg	J	S
DELTA-BHC	0.043	J	0.038	MDL	0.17	PQL	ug/Kg	J	Z, S

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8082	<b>Matrix:</b> SO

Sample ID: DUP02-SA7-QC-091911      Collected: 9/19/2011 9:05:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.7		0.39	MDL	1.7	PQL	ug/Kg	J	FD
Aroclor 5432	1.0	U	1.0	MDL	3.3	PQL	ug/Kg	UJ	E
Aroclor 5442	1.0	U	1.0	MDL	3.3	PQL	ug/Kg	UJ	E
Aroclor 5460	1.0	U	1.0	MDL	3.3	PQL	ug/Kg	UJ	E

Sample ID: SL-002-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
Aroclor 5432	1.0	U	1.0	MDL	3.3	PQL	ug/Kg	UJ	E
Aroclor 5442	1.0	U	1.0	MDL	3.3	PQL	ug/Kg	UJ	E
Aroclor 5460	1.0	U	1.0	MDL	3.3	PQL	ug/Kg	UJ	E

Sample ID: SL-003-SA7-SS-0.0-0.5      Collected: 9/19/2011 11:20:00      Analysis Type: RES      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	5.1	U	5.1	MDL	17	PQL	ug/Kg	UJ	E
Aroclor 5442	5.1	U	5.1	MDL	17	PQL	ug/Kg	UJ	E
Aroclor 5460	55		5.1	MDL	17	PQL	ug/Kg	J	E

Sample ID: SL-004-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
Aroclor 5432	1.0	U	1.0	MDL	3.3	PQL	ug/Kg	UJ	E
Aroclor 5442	1.0	U	1.0	MDL	3.3	PQL	ug/Kg	UJ	E
Aroclor 5460	27		1.0	MDL	3.3	PQL	ug/Kg	J	E

\* 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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8082	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-025-SA7-SB-4.0-5.0		<b>Collected:</b> 9/19/2011 2:48:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.0	U	1.0	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5442	1.0	U	1.0	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5460	1.0	U	1.0	MDL	3.5	PQL	ug/Kg	UJ	E

<b>Sample ID:</b> SL-025-SA7-SB-9.0-10.0		<b>Collected:</b> 9/19/2011 2:51:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E

<b>Sample ID:</b> SL-032-SA7-SB-4.0-5.0		<b>Collected:</b> 9/19/2011 8:47:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E

<b>Sample ID:</b> SL-032-SA7-SB-9.0-10.0		<b>Collected:</b> 9/19/2011 8:53:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E

<b>Sample ID:</b> SL-042-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 9:05:00		<b>Analysis Type:</b> RES-BASE/NEUTRAL		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.90	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z, FD

<b>Sample ID:</b> SL-048-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 9:55:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.0	U	1.0	MDL	3.3	PQL	ug/Kg	UJ	E
Aroclor 5442	1.0	U	1.0	MDL	3.3	PQL	ug/Kg	UJ	E

\* 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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8062	Matrix: SO

Sample ID: SL-048-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	3.5		1.0	MDL	3.3	PQL	ug/Kg	J	E

Sample ID: SL-110-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
Aroclor 5432	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	E
Aroclor 5442	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	E
Aroclor 5460	7.2		1.0	MDL	3.4	PQL	ug/Kg	J	E

Sample ID: SL-111-SA7-SS-0.0-0.5      Collected: 9/19/2011 2:55:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1248	1.7	J	0.34	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5432	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	E
Aroclor 5442	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	E
Aroclor 5460	5.8		1.0	MDL	3.4	PQL	ug/Kg	J	E

Sample ID: SL-130-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
AROCLOR 1254	9.4		0.33	MDL	1.7	PQL	ug/Kg	J	S
AROCLOR 1260	6.7		0.39	MDL	1.7	PQL	ug/Kg	J	S
Aroclor 5460	27		1.0	MDL	3.3	PQL	ug/Kg	J	S

Sample ID: SL-133-SA7-SS-0.0-0.5      Collected: 9/19/2011 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 5432	1.0	U	1.0	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5442	1.0	U	1.0	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5460	3.3	J	1.0	MDL	3.5	PQL	ug/Kg	J	Z, E

Sample ID: SL-144-SA7-SB-4.0-5.0      Collected: 9/19/2011 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
Aroclor 5432	1.0	U	1.0	MDL	3.5	PQL	ug/Kg	UJ	E

\* 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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8082	Matrix: SO

Sample ID: SL-144-SA7-SB-4.0-5.0      Collected: 9/19/2011 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
Aroclor 5442	1.0	U	1.0	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5460	1.0	U	1.0	MDL	3.5	PQL	ug/Kg	UJ	E

Sample ID: SL-144-SA7-SB-9.0-10.0      Collected: 9/19/2011 11:28:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5432	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5442	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5460	1.1	U	1.1	MDL	3.5	PQL	ug/Kg	UJ	E

Sample ID: SL-145-SA7-SB-4.0-5.0      Collected: 9/19/2011 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
Aroclor 5432	1.0	U	1.0	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5442	1.0	U	1.0	MDL	3.5	PQL	ug/Kg	UJ	E
Aroclor 5460	1.0	U	1.0	MDL	3.5	PQL	ug/Kg	UJ	E

Sample ID: SL-145-SA7-SB-9.0-10.0      Collected: 9/19/2011 12:43:00      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	0.55	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z

Method Category:	SVOA	
Method:	8151A	Matrix: SO

Sample ID: DUP02-SA7-QC-091911      Collected: 9/19/2011 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-DB	5.3		0.63	MDL	1.7	PQL	ug/Kg	J	FD
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-002-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

\* 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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8151A	Matrix:	SO

Sample ID: SL-003-SA7-SS-0.0-0.5      Collected: 9/19/2011 11:20:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-004-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-042-SA7-SS-0.0-0.5      Collected: 9/19/2011 9:05:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.77		0.083	MDL	0.17	PQL	ug/Kg	J	Q, Q
2,4-DB	3.1		0.62	MDL	1.7	PQL	ug/Kg	J	Q, Q, FD
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-048-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
2,4-DB	1.6	J	0.62	MDL	1.7	PQL	ug/Kg	J	Z
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-110-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-111-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
2,4-DB	1.0	J	0.64	MDL	1.7	PQL	ug/Kg	J	Z
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L

Sample ID: SL-122-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8151A	Matrix: SO

Sample ID: SL-130-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-133-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
DICHLOROPROP	1.4	J	0.84	MDL	1.8	PQL	ug/Kg	J	Z
DINOSEB	0.84	U	0.84	MDL	2.5	PQL	ug/Kg	R	L

Method Category:	SVOA	
Method:	8270C	Matrix: SO

Sample ID: DUP02-SA7-QC-091911      Collected: 9/19/2011 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	17	U	17	MDL	340	PQL	ug/Kg	UJ	FD

Sample ID: SL-002-SA7-SS-0.0-0.5      Collected: 9/19/2011 10:20:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	97	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-003-SA7-SS-0.0-0.5      Collected: 9/19/2011 11:20:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORANTHENE	85	J	85	MDL	850	PQL	ug/Kg	J	Z
PYRENE	95	J	85	MDL	850	PQL	ug/Kg	J	Z

Sample ID: SL-004-SA7-SS-0.0-0.5      Collected: 9/19/2011 3:25:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CARBAZOLE	780	J	84	MDL	840	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	330	J	84	MDL	840	PQL	ug/Kg	J	Z
DIBENZOFURAN	200	J	84	MDL	840	PQL	ug/Kg	J	Z
FLUORENE	330	J	84	MDL	840	PQL	ug/Kg	J	Z
NAPHTHALENE	110	J	84	MDL	840	PQL	ug/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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8270C	Matrix: SO

Sample ID: SL-042-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	340	U	340	MDL	1000	PQL	ug/Kg	R	Q
BENZIDINE	1200	U	1200	MDL	3400	PQL	ug/Kg	UJ	Q
BIS(2-ETHYLHEXYL)PHTHALATE	120	J	17	MDL	340	PQL	ug/Kg	J	Z, FD

Sample ID: SL-048-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
BENZO(G,H,I)PERYLENE	19	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-130-SA7-SS-0.0-0.5      Collected: 9/19/2011 11:40:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	120	J	84	MDL	1700	PQL	ug/Kg	J	Z

Sample ID: SL-133-SA7-SS-0.0-0.5      Collected: 9/19/2011 9:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	140	J	87	MDL	870	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	330	J	87	MDL	870	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	300	J	87	MDL	870	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	530	J	87	MDL	870	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	230	J	87	MDL	870	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	220	J	87	MDL	870	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	470	J	87	MDL	1700	PQL	ug/Kg	J	Z
Butylbenzylphthalate	120	J	87	MDL	870	PQL	ug/Kg	J	Z
CARBAZOLE	150	J	87	MDL	870	PQL	ug/Kg	J	Z
CHRYSENE	790	J	87	MDL	870	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	220	J	87	MDL	870	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8270C SIM	Matrix: SO

Sample ID: DUP02-SA7-QC-091911      Collected: 9/19/2011 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
BENZO(B)FLUORANTHENE	9.6		3.4	MDL	8.4	PQL	ug/Kg	J	FD
CHRYSENE	4.7	J	1.7	MDL	8.4	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	8.5		3.4	MDL	8.4	PQL	ug/Kg	J	FD
PHENANTHRENE	4.4	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z, FD
PYRENE	6.1	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z

Sample ID: SL-002-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
CHRYSENE	2.1	J	1.7	MDL	8.4	PQL	ug/Kg	J	Z

Sample ID: SL-003-SA7-SS-0.0-0.5      Collected: 9/19/2011 11:20:00      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	2.2	J	1.7	MDL	8.5	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	6.5	J	3.4	MDL	8.5	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	6.1	J	3.4	MDL	8.5	PQL	ug/Kg	J	Z
Di-n-butylphthalate	59	J	30	MDL	91	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	4.9	J	3.4	MDL	8.5	PQL	ug/Kg	J	Z

Sample ID: SL-004-SA7-SS-0.0-0.5      Collected: 9/19/2011 3:25:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-octylphthalate	79	J	30	MDL	91	PQL	ug/Kg	J	Z

Sample ID: SL-025-SA7-SB-4.0-5.0      Collected: 9/19/2011 2:48:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.1	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.0	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.6	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.84	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHthalate	6.7	J	6.3	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	1.4	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.4	J	0.70	MDL	1.7	PQL	ug/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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8270C SIM	Matrix: SO

Sample ID: SL-042-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
BENZO(B)FLUORANTHENE	5.2	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z, FD
CHRYSENE	2.7	J	1.7	MDL	8.4	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	4.5	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	3.4	U	3.4	MDL	8.4	PQL	ug/Kg	UJ	FD
PYRENE	3.7	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z

Sample ID: SL-048-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
ACENAPHTHENE	5.7	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	42	J	30	MDL	91	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	5.8	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z
FLUORENE	5.7	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z

Sample ID: SL-110-SA7-SS-0.0-0.5      Collected: 9/19/2011 8:40:00      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	2.2	J	1.7	MDL	8.5	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	5.3	J	3.4	MDL	8.5	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	59	J	31	MDL	92	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	4.7	J	3.4	MDL	8.5	PQL	ug/Kg	J	Z

Sample ID: SL-111-SA7-SS-0.0-0.5      Collected: 9/19/2011 2:55:00      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	4.9	J	3.4	MDL	8.6	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	6.8	J	3.4	MDL	8.6	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	5.6	J	3.4	MDL	8.6	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	56	J	31	MDL	93	PQL	ug/Kg	J	Z
PHENANTHRENE	6.6	J	3.4	MDL	8.6	PQL	ug/Kg	J	Z

Sample ID: SL-122-SA7-SS-0.0-0.5      Collected: 9/19/2011 11:00:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	5.8	J	1.7	MDL	8.4	PQL	ug/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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	6270C SIM	Matrix: SO

Sample ID: SL-122-SA7-SS-0.0-0.5      Collected: 9/19/2011 11:00:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	84	J	30	MDL	91	PQL	ug/Kg	J	Z

Sample ID: SL-130-SA7-SS-0.0-0.5      Collected: 9/19/2011 11:40:00      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(A)ANTHRACENE	3.6	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	6.0	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	4.8	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	3.5	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z
Di-n-butylphthalate	62	J	30	MDL	91	PQL	ug/Kg	J	Z
PHENANTHRENE	6.4	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z

Sample ID: SL-144-SA7-SB-9.0-10.0      Collected: 9/19/2011 11:28:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.92	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-145-SA7-SB-9.0-10.0      Collected: 9/19/2011 12:43:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.5	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	0.43	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	1.0	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Method Category:	SVOA	
Method:	8315A	Matrix: SO

Sample ID: SL-002-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	770	J	610	MDL	1500	PQL	ug/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: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8315A	<b>Matrix:</b> SO

Sample ID: SL-133-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
FORMALDEHYDE	870	J	630	MDL	1600	PQL	ug/Kg	J	Z

<b>Method Category:</b>	VOA	
<b>Method:</b>	8015B	<b>Matrix:</b> SO

Sample ID: SL-002-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
METHANOL	360	J	100	MDL	510	PQL	ug/Kg	J	Z

Sample ID: SL-133-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
METHANOL	340	J	100	MDL	520	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_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	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: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_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

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE247

# Method Blank Outlier Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 6010B Matrix: SO				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P26408BB220723	10/3/2011 7:23:00 AM	BORON MANGANESE STRONTIUM	0.454 mg/Kg 0.0480 mg/Kg 0.0490 mg/Kg	DUP02-SA7-QC-091911 SL-002-SA7-SS-0.0-0.5 SL-003-SA7-SS-0.0-0.5 SL-004-SA7-SS-0.0-0.5 SL-025-SA7-SB-4.0-5.0 SL-025-SA7-SB-9.0-10.0 SL-032-SA7-SB-4.0-5.0 SL-032-SA7-SB-9.0-10.0 SL-042-SA7-SS-0.0-0.5 SL-048-SA7-SS-0.0-0.5 SL-110-SA7-SS-0.0-0.5 SL-111-SA7-SS-0.0-0.5 SL-122-SA7-SS-0.0-0.5 SL-130-SA7-SS-0.0-0.5 SL-133-SA7-SS-0.0-0.5 SL-144-SA7-SB-4.0-5.0 SL-144-SA7-SB-9.0-10.0 SL-145-SA7-SB-4.0-5.0 SL-145-SA7-SB-9.0-10.0
P26408BB221317	9/29/2011 1:17:00 PM	CALCIUM IRON MAGNESIUM PHOSPHORUS TIN Zirconium	8.52 mg/Kg 3.28 mg/Kg 0.501 mg/Kg 1.30 mg/Kg 1.73 mg/Kg 0.614 mg/Kg	DUP02-SA7-QC-091911 SL-002-SA7-SS-0.0-0.5 SL-003-SA7-SS-0.0-0.5 SL-004-SA7-SS-0.0-0.5 SL-025-SA7-SB-4.0-5.0 SL-025-SA7-SB-9.0-10.0 SL-032-SA7-SB-4.0-5.0 SL-032-SA7-SB-9.0-10.0 SL-042-SA7-SS-0.0-0.5 SL-048-SA7-SS-0.0-0.5 SL-110-SA7-SS-0.0-0.5 SL-111-SA7-SS-0.0-0.5 SL-122-SA7-SS-0.0-0.5 SL-130-SA7-SS-0.0-0.5 SL-133-SA7-SS-0.0-0.5 SL-144-SA7-SB-4.0-5.0 SL-144-SA7-SB-9.0-10.0 SL-145-SA7-SB-4.0-5.0 SL-145-SA7-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
DUP02-SA7-QC-091911(RES)	TIN	2.80 mg/Kg	2.80U mg/Kg
DUP02-SA7-QC-091911(RES)	Zirconium	1.98 mg/Kg	1.98U mg/Kg
SL-002-SA7-SS-0.0-0.5(RES)	TIN	2.79 mg/Kg	2.79U mg/Kg
SL-002-SA7-SS-0.0-0.5(RES)	Zirconium	2.31 mg/Kg	2.31U mg/Kg
SL-003-SA7-SS-0.0-0.5(REA)	BORON	0.734 mg/Kg	0.734U mg/Kg
SL-003-SA7-SS-0.0-0.5(RES)	TIN	2.96 mg/Kg	2.96U mg/Kg
SL-003-SA7-SS-0.0-0.5(RES)	Zirconium	1.99 mg/Kg	1.99U mg/Kg
SL-004-SA7-SS-0.0-0.5(RES)	TIN	2.69 mg/Kg	2.69U mg/Kg
SL-004-SA7-SS-0.0-0.5(RES)	Zirconium	1.97 mg/Kg	1.97U mg/Kg
SL-025-SA7-SB-4.0-5.0(RES)	TIN	2.73 mg/Kg	2.73U mg/Kg
SL-025-SA7-SB-4.0-5.0(RES)	Zirconium	2.08 mg/Kg	2.08U mg/Kg
SL-025-SA7-SB-9.0-10.0(RES)	TIN	3.08 mg/Kg	3.08U mg/Kg

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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*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-SA7-SB-9.0-10.0(RES)	Zirconium	2.28 mg/Kg	2.28U mg/Kg
SL-032-SA7-SB-4.0-5.0(RES)	TIN	2.81 mg/Kg	2.81U mg/Kg
SL-032-SA7-SB-4.0-5.0(RES)	Zirconium	2.47 mg/Kg	2.47U mg/Kg
SL-032-SA7-SB-9.0-10.0(RES)	TIN	2.75 mg/Kg	2.75U mg/Kg
SL-032-SA7-SB-9.0-10.0(RES)	Zirconium	2.19 mg/Kg	2.19U mg/Kg
SL-042-SA7-SS-0.0-0.5(RES)	TIN	2.83 mg/Kg	2.83U mg/Kg
SL-042-SA7-SS-0.0-0.5(RES)	Zirconium	2.28 mg/Kg	2.28U mg/Kg
SL-048-SA7-SS-0.0-0.5(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-048-SA7-SS-0.0-0.5(RES)	Zirconium	2.13 mg/Kg	2.13U mg/Kg
SL-110-SA7-SS-0.0-0.5(REA)	BORON	0.531 mg/Kg	0.531U mg/Kg
SL-110-SA7-SS-0.0-0.5(RES)	TIN	2.64 mg/Kg	2.64U mg/Kg
SL-110-SA7-SS-0.0-0.5(RES)	Zirconium	2.79 mg/Kg	2.79U mg/Kg
SL-111-SA7-SS-0.0-0.5(RES)	TIN	2.96 mg/Kg	2.96U mg/Kg
SL-111-SA7-SS-0.0-0.5(RES)	Zirconium	1.94 mg/Kg	1.94U mg/Kg
SL-122-SA7-SS-0.0-0.5(RES)	TIN	3.24 mg/Kg	3.24U mg/Kg
SL-122-SA7-SS-0.0-0.5(RES)	Zirconium	2.33 mg/Kg	2.33U mg/Kg
SL-130-SA7-SS-0.0-0.5(RES)	TIN	2.85 mg/Kg	2.85U mg/Kg
SL-130-SA7-SS-0.0-0.5(RES)	Zirconium	1.89 mg/Kg	1.89U mg/Kg
SL-133-SA7-SS-0.0-0.5(RES)	TIN	2.66 mg/Kg	2.66U mg/Kg
SL-133-SA7-SS-0.0-0.5(RES)	Zirconium	2.20 mg/Kg	2.20U mg/Kg
SL-144-SA7-SB-4.0-5.0(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
SL-144-SA7-SB-4.0-5.0(RES)	Zirconium	2.78 mg/Kg	2.78U mg/Kg
SL-144-SA7-SB-9.0-10.0(RES)	TIN	2.69 mg/Kg	2.69U mg/Kg
SL-144-SA7-SB-9.0-10.0(RES)	Zirconium	2.83 mg/Kg	2.83U mg/Kg
SL-145-SA7-SB-4.0-5.0(RES)	TIN	2.63 mg/Kg	2.63U mg/Kg
SL-145-SA7-SB-4.0-5.0(RES)	Zirconium	2.86 mg/Kg	2.86U mg/Kg
SL-145-SA7-SB-9.0-10.0(RES)	TIN	2.54 mg/Kg	2.54U mg/Kg
SL-145-SA7-SB-9.0-10.0(RES)	Zirconium	2.76 mg/Kg	2.76U mg/Kg

# Method Blank Outlier Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 7471A</b>				
<b>Matrix: SO</b>				
Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P26411AB220856	9/22/2011 8:56:00 AM	MERCURY	0.0290 mg/Kg	DUP02-SA7-QC-091911 SL-002-SA7-SS-0.0-0.5 SL-003-SA7-SS-0.0-0.5 SL-004-SA7-SS-0.0-0.5 SL-025-SA7-SB-4.0-5.0 SL-025-SA7-SB-9.0-10.0 SL-032-SA7-SB-4.0-5.0 SL-032-SA7-SB-9.0-10.0 SL-042-SA7-SS-0.0-0.5 SL-048-SA7-SS-0.0-0.5 SL-110-SA7-SS-0.0-0.5 SL-111-SA7-SS-0.0-0.5 SL-122-SA7-SS-0.0-0.5 SL-130-SA7-SS-0.0-0.5 SL-133-SA7-SS-0.0-0.5 SL-144-SA7-SB-4.0-5.0 SL-144-SA7-SB-9.0-10.0 SL-145-SA7-SB-4.0-5.0 SL-145-SA7-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-002-SA7-SS-0.0-0.5(RES)	MERCURY	0.0162 mg/Kg	0.0162U mg/Kg
SL-003-SA7-SS-0.0-0.5(RES)	MERCURY	0.0167 mg/Kg	0.0167U mg/Kg
SL-004-SA7-SS-0.0-0.5(RES)	MERCURY	0.0401 mg/Kg	0.0401U mg/Kg
SL-042-SA7-SS-0.0-0.5(RES)	MERCURY	0.0073 mg/Kg	0.0073U mg/Kg
SL-048-SA7-SS-0.0-0.5(RES)	MERCURY	0.0095 mg/Kg	0.0095U mg/Kg
SL-110-SA7-SS-0.0-0.5(RES)	MERCURY	0.0103 mg/Kg	0.0103U mg/Kg
SL-111-SA7-SS-0.0-0.5(RES)	MERCURY	0.0197 mg/Kg	0.0197U mg/Kg
SL-122-SA7-SS-0.0-0.5(RES)	MERCURY	0.0308 mg/Kg	0.0308U mg/Kg
SL-130-SA7-SS-0.0-0.5(RES)	MERCURY	0.0176 mg/Kg	0.0176U mg/Kg

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_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-SA7-SS-0.0-0.5MS SL-002-SA7-SS-0.0-0.5MSD (SL-002-SA7-SS-0.0-0.5)	DIETHYLENE GLYCOL	0	0	59.00-109.00	-	DIETHYLENE GLYCOL	J (all detects) R (all non-detects)
SL-002-SA7-SS-0.0-0.5MS SL-002-SA7-SS-0.0-0.5MSD (SL-002-SA7-SS-0.0-0.5)	ETHYLENE GLYCOL Propylene glycol	23 35	21 32	63.00-107.00 63.00-107.00	- -	ETHYLENE GLYCOL Propylene 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-042-SA7-SS-0.0-0.5MSD (SL-042-SA7-SS-0.0-0.5)	ENDRIN ALDEHYDE	-	-	10.00-148.00	38 (35.00)	ENDRIN ALDEHYDE	J(all detects)
SL-042-SA7-SS-0.0-0.5MS (SL-042-SA7-SS-0.0-0.5)	4,4'-DDT	6	-	10.00-176.00	-	4,4'-DDT	J(all detects) UJ(all non-detects)

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-042-SA7-SS-0.0-0.5MSD (SL-042-SA7-SS-0.0-0.5)	2,4,5-TP (Silvex) 2,4-D MCPA MCPP	- - - -	- - - -	24.00-141.00 17.00-180.00 10.00-213.00 10.00-184.00	50 (35.00) 44 (35.00) 64 (50.00) 66 (50.00)	2,4,5-TP (Silvex) 2,4-D MCPA MCPP	J(all detects)
SL-042-SA7-SS-0.0-0.5MS SL-042-SA7-SS-0.0-0.5MSD (SL-042-SA7-SS-0.0-0.5)	2,4,5-T 2,4-DB	-46 0	-17 -	10.00-156.00 10.00-201.00	49 (35.00) 200 (50.00)	2,4,5-T 2,4-DB	J(all detects) R(all non-detects)
SL-042-SA7-SS-0.0-0.5MS SL-042-SA7-SS-0.0-0.5MSD (SL-042-SA7-SS-0.0-0.5)	DINOSEB	7	8	10.00-46.00	-	DINOSEB	J(all detects) UJ(all non-detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_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-042-SA7-SS-0.0-0.5MS SL-042-SA7-SS-0.0-0.5MSD (DUP02-SA7-QC-091911 SL-002-SA7-SS-0.0-0.5 SL-003-SA7-SS-0.0-0.5 SL-004-SA7-SS-0.0-0.5 SL-025-SA7-SB-4.0-5.0 SL-025-SA7-SB-9.0-10.0 SL-032-SA7-SB-4.0-5.0 SL-032-SA7-SB-9.0-10.0 SL-042-SA7-SS-0.0-0.5 SL-048-SA7-SS-0.0-0.5 SL-110-SA7-SS-0.0-0.5 SL-111-SA7-SS-0.0-0.5 SL-122-SA7-SS-0.0-0.5 SL-130-SA7-SS-0.0-0.5 SL-133-SA7-SS-0.0-0.5 SL-144-SA7-SB-4.0-5.0 SL-144-SA7-SB-9.0-10.0 SL-145-SA7-SB-4.0-5.0 SL-145-SA7-SB-9.0-10.0)	ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT COPPER LEAD NICKEL SILVER THALLIUM VANADIUM	159 146 155 160 146 157 173 166 144 159 192	155 127 142 - 135 139 147 148 136 127 144	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - - - - - - -	ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT COPPER LEAD NICKEL SILVER THALLIUM VANADIUM	J(all detects)
SL-042-SA7-SS-0.0-0.5MS SL-042-SA7-SS-0.0-0.5MSD (DUP02-SA7-QC-091911 SL-002-SA7-SS-0.0-0.5 SL-003-SA7-SS-0.0-0.5 SL-004-SA7-SS-0.0-0.5 SL-025-SA7-SB-4.0-5.0 SL-025-SA7-SB-9.0-10.0 SL-032-SA7-SB-4.0-5.0 SL-032-SA7-SB-9.0-10.0 SL-042-SA7-SS-0.0-0.5 SL-048-SA7-SS-0.0-0.5 SL-110-SA7-SS-0.0-0.5 SL-111-SA7-SS-0.0-0.5 SL-122-SA7-SS-0.0-0.5 SL-130-SA7-SS-0.0-0.5 SL-133-SA7-SS-0.0-0.5 SL-144-SA7-SB-4.0-5.0 SL-144-SA7-SB-9.0-10.0 SL-145-SA7-SB-4.0-5.0 SL-145-SA7-SB-9.0-10.0)	ZINC	0	65	75.00-125.00	-	ZINC	No Qual, >4x
SL-042-SA7-SS-0.0-0.5MS SL-042-SA7-SS-0.0-0.5MSD (DUP02-SA7-QC-091911 SL-002-SA7-SS-0.0-0.5 SL-003-SA7-SS-0.0-0.5 SL-004-SA7-SS-0.0-0.5 SL-025-SA7-SB-4.0-5.0 SL-025-SA7-SB-9.0-10.0 SL-032-SA7-SB-4.0-5.0 SL-032-SA7-SB-9.0-10.0 SL-042-SA7-SS-0.0-0.5 SL-048-SA7-SS-0.0-0.5 SL-110-SA7-SS-0.0-0.5 SL-111-SA7-SS-0.0-0.5 SL-122-SA7-SS-0.0-0.5 SL-130-SA7-SS-0.0-0.5 SL-133-SA7-SS-0.0-0.5 SL-144-SA7-SB-4.0-5.0 SL-144-SA7-SB-9.0-10.0 SL-145-SA7-SB-4.0-5.0 SL-145-SA7-SB-9.0-10.0)	ANTIMONY	55	63	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_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-042-SA7-SS-0.0-0.5MS SL-042-SA7-SS-0.0-0.5MSD (DUP02-SA7-QC-091911 SL-002-SA7-SS-0.0-0.5 SL-003-SA7-SS-0.0-0.5 SL-004-SA7-SS-0.0-0.5 SL-025-SA7-SB-4.0-5.0 SL-025-SA7-SB-9.0-10.0 SL-032-SA7-SB-4.0-5.0 SL-032-SA7-SB-9.0-10.0 SL-042-SA7-SS-0.0-0.5 SL-048-SA7-SS-0.0-0.5 SL-110-SA7-SS-0.0-0.5 SL-111-SA7-SS-0.0-0.5 SL-122-SA7-SS-0.0-0.5 SL-130-SA7-SS-0.0-0.5 SL-133-SA7-SS-0.0-0.5 SL-144-SA7-SB-4.0-5.0 SL-144-SA7-SB-9.0-10.0 SL-145-SA7-SB-4.0-5.0 SL-145-SA7-SB-9.0-10.0)	SELENIUM	132	133	75.00-125.00	-	SELENIUM	J(all detects)
SL-042-SA7-SS-0.0-0.5MS SL-042-SA7-SS-0.0-0.5MSD (DUP02-SA7-QC-091911 SL-002-SA7-SS-0.0-0.5 SL-003-SA7-SS-0.0-0.5 SL-004-SA7-SS-0.0-0.5 SL-025-SA7-SB-4.0-5.0 SL-025-SA7-SB-9.0-10.0 SL-032-SA7-SB-4.0-5.0 SL-032-SA7-SB-9.0-10.0 SL-042-SA7-SS-0.0-0.5 SL-048-SA7-SS-0.0-0.5 SL-110-SA7-SS-0.0-0.5 SL-111-SA7-SS-0.0-0.5 SL-122-SA7-SS-0.0-0.5 SL-130-SA7-SS-0.0-0.5 SL-133-SA7-SS-0.0-0.5 SL-144-SA7-SB-4.0-5.0 SL-144-SA7-SB-9.0-10.0 SL-145-SA7-SB-4.0-5.0 SL-145-SA7-SB-9.0-10.0)	MOLYBDENUM	151	139	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-042-SA7-SS-0.0-0.5MS SL-042-SA7-SS-0.0-0.5MSD (DUP02-SA7-QC-091911 SL-002-SA7-SS-0.0-0.5 SL-003-SA7-SS-0.0-0.5 SL-004-SA7-SS-0.0-0.5 SL-025-SA7-SB-4.0-5.0 SL-025-SA7-SB-9.0-10.0 SL-032-SA7-SB-4.0-5.0 SL-032-SA7-SB-9.0-10.0 SL-042-SA7-SS-0.0-0.5 SL-048-SA7-SS-0.0-0.5 SL-110-SA7-SS-0.0-0.5 SL-111-SA7-SS-0.0-0.5 SL-122-SA7-SS-0.0-0.5 SL-130-SA7-SS-0.0-0.5 SL-133-SA7-SS-0.0-0.5 SL-144-SA7-SB-4.0-5.0 SL-144-SA7-SB-9.0-10.0 SL-145-SA7-SB-4.0-5.0 SL-145-SA7-SB-9.0-10.0)	BARIUM	332	181	75.00-125.00	-	BARIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_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-042-SA7-SS-0.0-0.5MS SL-042-SA7-SS-0.0-0.5MSD (DUP02-SA7-QC-091911 SL-002-SA7-SS-0.0-0.5 SL-003-SA7-SS-0.0-0.5 SL-004-SA7-SS-0.0-0.5 SL-025-SA7-SB-4.0-5.0 SL-025-SA7-SB-9.0-10.0 SL-032-SA7-SB-4.0-5.0 SL-032-SA7-SB-9.0-10.0 SL-042-SA7-SS-0.0-0.5 SL-048-SA7-SS-0.0-0.5 SL-110-SA7-SS-0.0-0.5 SL-111-SA7-SS-0.0-0.5 SL-122-SA7-SS-0.0-0.5 SL-130-SA7-SS-0.0-0.5 SL-133-SA7-SS-0.0-0.5 SL-144-SA7-SB-4.0-5.0 SL-144-SA7-SB-9.0-10.0 SL-145-SA7-SB-4.0-5.0 SL-145-SA7-SB-9.0-10.0)	ALUMINUM CALCIUM IRON TITANIUM	1115 138 453 211	989 141 455 215	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINUM CALCIUM IRON TITANIUM	No Qual, >4x
SL-042-SA7-SS-0.0-0.5MS SL-042-SA7-SS-0.0-0.5MSD (DUP02-SA7-QC-091911 SL-002-SA7-SS-0.0-0.5 SL-003-SA7-SS-0.0-0.5 SL-004-SA7-SS-0.0-0.5 SL-025-SA7-SB-4.0-5.0 SL-025-SA7-SB-9.0-10.0 SL-032-SA7-SB-4.0-5.0 SL-032-SA7-SB-9.0-10.0 SL-042-SA7-SS-0.0-0.5 SL-048-SA7-SS-0.0-0.5 SL-110-SA7-SS-0.0-0.5 SL-111-SA7-SS-0.0-0.5 SL-122-SA7-SS-0.0-0.5 SL-130-SA7-SS-0.0-0.5 SL-133-SA7-SS-0.0-0.5 SL-144-SA7-SB-4.0-5.0 SL-144-SA7-SB-9.0-10.0 SL-145-SA7-SB-4.0-5.0 SL-145-SA7-SB-9.0-10.0)	MANGANESE	134	72	75.00-125.00	-	MANGANESE	No Qual, >4x

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-042-SA7-SS-0.0-0.5MS SL-042-SA7-SS-0.0-0.5MSD (SL-042-SA7-SS-0.0-0.5)	ACENAPHTHENE BENZO(A)ANTHRACENE BIS(2-ETHYLHEXYL)PHTHALAT CHRYSENE FLUORANTHENE NAPHTHALENE PHENANTHRENE PYRENE	- - 168 - - - - -	110 132 245 133 172 105 138 152	63.00-105.00 59.00-128.00 39.00-167.00 67.00-123.00 51.00-149.00 61.00-102.00 62.00-122.00 51.00-131.00	- - 37 (30.00) - - - - -	ACENAPHTHENE BENZO(A)ANTHRACENE BIS(2-ETHYLHEXYL)PHTHALA CHRYSENE FLUORANTHENE NAPHTHALENE PHENANTHRENE PYRENE	No Qual, Diluted Out

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_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-042-SA7-SS-0.0-0.5MS SL-042-SA7-SS-0.0-0.5MSD (SL-042-SA7-SS-0.0-0.5)	2-METHYLPHENOL ACENAPHTHYLENE	114 116	116 111	75.00-111.00 81.00-110.00	- -	2-METHYLPHENOL ACENAPHTHYLENE	J(all detects)
SL-042-SA7-SS-0.0-0.5MSD (SL-042-SA7-SS-0.0-0.5)	2,4-DINITROPHENOL	-	0	20.00-143.00	200 (30.00)	2,4-DINITROPHENOL	J(all detects) R(all non-detects)
SL-042-SA7-SS-0.0-0.5MS SL-042-SA7-SS-0.0-0.5MSD (SL-042-SA7-SS-0.0-0.5)	BENZIDINE	25	27	35.00-141.00	-	BENZIDINE	J(all detects) UJ(all non-detects)

Method: 300.0

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-042-SA7-SS-0.0-0.5MS (SL-002-SA7-SS-0.0-0.5 SL-003-SA7-SS-0.0-0.5 SL-004-SA7-SS-0.0-0.5 SL-042-SA7-SS-0.0-0.5 SL-048-SA7-SS-0.0-0.5 SL-110-SA7-SS-0.0-0.5 SL-111-SA7-SS-0.0-0.5 SL-122-SA7-SS-0.0-0.5 SL-130-SA7-SS-0.0-0.5 SL-133-SA7-SS-0.0-0.5)	FLUORIDE	77	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-025-SA7-SB-4.0-5.0MS (DUP02-SA7-QC-091911 SL-025-SA7-SB-4.0-5.0 SL-025-SA7-SB-9.0-10.0 SL-032-SA7-SB-4.0-5.0 SL-032-SA7-SB-9.0-10.0 SL-144-SA7-SB-4.0-5.0 SL-144-SA7-SB-9.0-10.0 SL-145-SA7-SB-4.0-5.0 SL-145-SA7-SB-9.0-10.0)	FLUORIDE	43	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-042-SA7-SS-0.0-0.5DUP (DUP02-SA7-QC-091911 SL-002-SA7-SS-0.0-0.5 SL-003-SA7-SS-0.0-0.5 SL-004-SA7-SS-0.0-0.5 SL-025-SA7-SB-4.0-5.0 SL-025-SA7-SB-9.0-10.0 SL-032-SA7-SB-4.0-5.0 SL-032-SA7-SB-9.0-10.0 SL-042-SA7-SS-0.0-0.5 SL-048-SA7-SS-0.0-0.5 SL-110-SA7-SS-0.0-0.5 SL-111-SA7-SS-0.0-0.5 SL-122-SA7-SS-0.0-0.5 SL-130-SA7-SS-0.0-0.5 SL-133-SA7-SS-0.0-0.5 SL-144-SA7-SB-4.0-5.0 SL-144-SA7-SB-9.0-10.0 SL-145-SA7-SB-4.0-5.0 SL-145-SA7-SB-9.0-10.0)	Zirconium	40	20.00	No Qual, OK by Difference

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-042-SA7-SS-0.0-0.5DUP (DUP02-SA7-QC-091911 SL-002-SA7-SS-0.0-0.5 SL-003-SA7-SS-0.0-0.5 SL-004-SA7-SS-0.0-0.5 SL-025-SA7-SB-4.0-5.0 SL-025-SA7-SB-9.0-10.0 SL-032-SA7-SB-4.0-5.0 SL-032-SA7-SB-9.0-10.0 SL-042-SA7-SS-0.0-0.5 SL-048-SA7-SS-0.0-0.5 SL-110-SA7-SS-0.0-0.5 SL-111-SA7-SS-0.0-0.5 SL-122-SA7-SS-0.0-0.5 SL-130-SA7-SS-0.0-0.5 SL-133-SA7-SS-0.0-0.5 SL-144-SA7-SB-4.0-5.0 SL-144-SA7-SB-9.0-10.0 SL-145-SA7-SB-4.0-5.0 SL-145-SA7-SB-9.0-10.0)	CADMIUM CHROMIUM MOLYBDENUM NICKEL ZINC	52 26 31 31 46	20.00 20.00 20.00 20.00 20.00	J(all detects) UJ(all non-detects)  Cd, Mo, No Qual, OK by Difference

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 7199**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-042-SA7-SS-0.0-0.5DUP (DUP02 -SA7-QC-091911 SL -002-SA7-SS-0.0-0.5 SL -003-SA7-SS-0.0-0.5 SL -004-SA7-SS-0.0-0.5 SL -025-SA7-SB-4.0-5.0 SL -025-SA7-SB-9.0-10.0 SL -032-SA7-SB-4.0-5.0 SL -032-SA7-SB-9.0-10.0 SL -042-SA7-SS-0.0-0.5 SL -048-SA7-SS-0.0-0.5 SL -110-SA7-SS-0.0-0.5 SL -111-SA7-SS-0.0-0.5 SL -122-SA7-SS-0.0-0.5 SL -130-SA7-SS-0.0-0.5 SL -133-SA7-SS-0.0-0.5 SL -144-SA7-SB-4.0-5.0 SL -144-SA7-SB-9.0-10.0 SL -145-SA7-SB-4.0-5.0 SL -145-SA7-SB-9.0-10.0)	HEXAVALENT CHROMIUM	96	20.00	No Qual, OK by Difference

**Method: 300.0**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-025-SA7-SB-4.0-5.0DUP (DUP02 -SA7-QC-091911 SL -025-SA7-SB-4.0-5.0 SL -025-SA7-SB-9.0-10.0 SL -032-SA7-SB-4.0-5.0 SL -032-SA7-SB-9.0-10.0 SL -144-SA7-SB-4.0-5.0 SL -144-SA7-SB-9.0-10.0 SL -145-SA7-SB-4.0-5.0 SL -145-SA7-SB-9.0-10.0)	Nitrate-NO3	22	20.00	No Qual, OK by Difference

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_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
P12673AQ241102A P12673AY241120A (DUP02 -SA7-QC-091911 SL -002-SA7-SS-0.0-0.5 SL -003-SA7-SS-0.0-0.5 SL -004-SA7-SS-0.0-0.5 SL -025-SA7-SB-4.0-5.0 SL -025-SA7-SB-9.0-10.0 SL -032-SA7-SB-4.0-5.0 SL -032-SA7-SB-9.0-10.0 SL -048-SA7-SS-0.0-0.5 SL -110-SA7-SS-0.0-0.5 SL -111-SA7-SS-0.0-0.5 SL -133-SA7-SS-0.0-0.5 SL -144-SA7-SB-4.0-5.0 SL -144-SA7-SB-9.0-10.0 SL -145-SA7-SB-4.0-5.0)	Aroclor 5442	118	-	36.00-106.00	40 (30.00)	Aroclor 5442 Aroclor 5432 Aroclor 5460	J (all detects) UJ (all non-detects)

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12678AQ241243A (DUP02 -SA7-QC-091911 SL -002-SA7-SS-0.0-0.5 SL -003-SA7-SS-0.0-0.5 SL -004-SA7-SS-0.0-0.5 SL -042-SA7-SS-0.0-0.5 SL -048-SA7-SS-0.0-0.5 SL -110-SA7-SS-0.0-0.5 SL -111-SA7-SS-0.0-0.5 SL -122-SA7-SS-0.0-0.5 SL -130-SA7-SS-0.0-0.5 SL -133-SA7-SS-0.0-0.5)	DINOSEB	8	-	10.00-36.00	-	DINOSEB	J(all detects) R(all non-detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_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
P26426AQ221112A (DUP02 -SA7-QC-091911 SL -002-SA7-SS-0.0-0.5 SL -003-SA7-SS-0.0-0.5 SL -004-SA7-SS-0.0-0.5 SL -025-SA7-SB-4.0-5.0 SL -025-SA7-SB-9.0-10.0 SL -032-SA7-SB-4.0-5.0 SL -032-SA7-SB-9.0-10.0 SL -042-SA7-SS-0.0-0.5 SL -048-SA7-SS-0.0-0.5 SL -110-SA7-SS-0.0-0.5 SL -111-SA7-SS-0.0-0.5 SL -122-SA7-SS-0.0-0.5 SL -130-SA7-SS-0.0-0.5 SL -133-SA7-SS-0.0-0.5 SL -144-SA7-SB-4.0-5.0 SL -144-SA7-SB-9.0-10.0 SL -145-SA7-SB-4.0-5.0 SL -145-SA7-SB-9.0-10.0)	VANADIUM	122	-	80.00-120.00	-	VANADIUM	No Qual, SRM within QC Limits

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

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P26408BQ221321 (DUP02 -SA7-QC-091911 SL -002-SA7-SS-0.0-0.5 SL -003-SA7-SS-0.0-0.5 SL -004-SA7-SS-0.0-0.5 SL -025-SA7-SB-4.0-5.0 SL -025-SA7-SB-9.0-10.0 SL -032-SA7-SB-4.0-5.0 SL -032-SA7-SB-9.0-10.0 SL -042-SA7-SS-0.0-0.5 SL -048-SA7-SS-0.0-0.5 SL -110-SA7-SS-0.0-0.5 SL -111-SA7-SS-0.0-0.5 SL -122-SA7-SS-0.0-0.5 SL -130-SA7-SS-0.0-0.5 SL -133-SA7-SS-0.0-0.5 SL -144-SA7-SB-4.0-5.0 SL -144-SA7-SB-9.0-10.0 SL -145-SA7-SB-4.0-5.0 SL -145-SA7-SB-9.0-10.0)	ALUMINUM IRON MAGNESIUM POTASSIUM	154 138 128 123	- - - -	80.00-120.00 80.00-120.00 80.00-120.00 80.00-120.00	- - - -	ALUMINUM IRON MAGNESIUM POTASSIUM	No Qual, SRM within QC Limits

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_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
P7LHLCSQ261242	1,2-DICHLOROBENZENE	101	-	74.00-99.00	-	1,2-DICHLOROBENZENE	J(all detects)
(DUP02 -SA7-QC-091911	1,3-DICHLOROBENZENE	101	-	70.00-98.00	-	1,3-DICHLOROBENZENE	
SL -002-SA7-SS-0.0-0.5	2,4,5-TRICHLOROPHENOL	110	-	76.00-107.00	-	2,4,5-TRICHLOROPHENOL	
SL -003-SA7-SS-0.0-0.5	2,4,6-TRICHLOROPHENOL	114	-	78.00-111.00	-	2,4,6-TRICHLOROPHENOL	
SL -004-SA7-SS-0.0-0.5	2-NITROPHENOL	112	-	76.00-111.00	-	2-NITROPHENOL	
SL -025-SA7-SB-4.0-5.0	BIS(2-CHLOROETHYL) ETHER	105	-	70.00-104.00	-	BIS(2-CHLOROETHYL) ETHER	
SL -025-SA7-SB-9.0-10.0							
SL -032-SA7-SB-4.0-5.0							
SL -032-SA7-SB-9.0-10.0							
SL -042-SA7-SS-0.0-0.5							
SL -048-SA7-SS-0.0-0.5							
SL -110-SA7-SS-0.0-0.5							
SL -111-SA7-SS-0.0-0.5							
SL -122-SA7-SS-0.0-0.5							
SL -130-SA7-SS-0.0-0.5							
SL -133-SA7-SS-0.0-0.5							
SL -144-SA7-SB-4.0-5.0							
SL -144-SA7-SB-9.0-10.0							
SL -145-SA7-SB-4.0-5.0							
SL -145-SA7-SB-9.0-10.0)							

# Surrogate Outlier Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8081A**  
**Matrix: SO**

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-003-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	132	20.00-120.00	All Target Analytes	J (all detects)
SL-004-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	773	20.00-120.00	All Target Analytes	J(all detects)
SL-048-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	144	20.00-120.00	All Target Analytes	J(all detects)
SL-122-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	391	20.00-120.00	All Target Analytes	J(all detects)
SL-133-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	183	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-003-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	345	45.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-032-SA7-SB-4.0-5.0	DECACHLOROBIPHENYL	124	45.00-120.00	All Target Analytes	J(all detects)
SL-130-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	123	45.00-120.00	All Target Analytes	J(all detects)
SL-144-SA7-SB-9.0-10.0	DECACHLOROBIPHENYL	123	45.00-120.00	All Target Analytes	J(all detects)

**Method: 8330A**  
**Matrix: SO**

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-122-SA7-SS-0.0-0.5	2-NITRO-M-XYLENE	160	80.00-146.00	All Target Analytes	J(all detects)

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM SSFL 110509

**Method: 160.3M**  
**Matrix: SO**

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-042-SA7-SS-0.0-0.5	DUP02-SA7-QC-091911			
MOISTURE	0.83	0.90	8		No Qualifiers Applied

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

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-042-SA7-SS-0.0-0.5	DUP02-SA7-QC-091911			
ALUMINUM	12800	13600	6	50.00	No Qualifiers Applied
CALCIUM	2880	3150	9	50.00	
IRON	18100	18600	3	50.00	
LITHIUM	24.4	24.9	2	50.00	
MAGNESIUM	4200	4330	3	50.00	
MANGANESE	274	272	1	50.00	
PHOSPHORUS	415	435	5	50.00	
POTASSIUM	3250	3390	4	50.00	
SODIUM	70.1	70.0	0	50.00	
STRONTIUM	15.9	16.5	4	50.00	
TIN	2.83	2.80	1	50.00	
TITANIUM	1090	1120	3	50.00	
Zirconium	2.28	1.98	14	50.00	

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

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-042-SA7-SS-0.0-0.5	DUP02-SA7-QC-091911			
ANTIMONY	0.133	0.109	20	50.00	No Qualifiers Applied
ARSENIC	4.34	4.36	0	50.00	
BARIUM	96.8	91.3	6	50.00	
BERYLLIUM	0.586	0.519	12	50.00	
CADMIUM	0.239	0.276	14	50.00	
CHROMIUM	16.9	16.9	0	50.00	
COBALT	6.11	6.00	2	50.00	
COPPER	9.21	9.07	2	50.00	
LEAD	7.45	7.34	1	50.00	
MOLYBDENUM	0.446	0.471	5	50.00	
NICKEL	11.5	11.3	2	50.00	
SELENIUM	0.126	0.141	11	50.00	
SILVER	0.0311	0.0304	2	50.00	
THALLIUM	0.287	0.285	1	50.00	
VANADIUM	33.8	33.2	2	50.00	
ZINC	238	252	6	50.00	

**Method: 7199**  
**Matrix: SO**

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-042-SA7-SS-0.0-0.5	DUP02-SA7-QC-091911			
HEXAVALENT CHROMIUM	0.76	0.97 U	200	50.00	J(all detects) UJ(all non-detects)

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method: 7471A**  
**Matrix: SO**

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-042-SA7-SS-0.0-0.5	DUP02-SA7-QC-091911			
MERCURY	0.0073	0.100 U	200	50.00	J(all detects) UJ(all non-detects)

**Method: 8061A**  
**Matrix: SO**

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-042-SA7-SS-0.0-0.5	DUP02-SA7-QC-091911			
Chlordane	1.4	2.1	40	50.00	No Qualifiers Applied
4,4'-DDE	0.28	0.34 U	200	50.00	J(all detects) UJ(all non-detects)
4,4'-DDT	1.1	0.70 U	200	50.00	
ALPHA-BHC	0.17 U	0.051	200	50.00	
gamma-BHC (Lindane)	0.041	0.18	126	50.00	

**Method: 8062**  
**Matrix: SO**

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-042-SA7-SS-0.0-0.5	DUP02-SA7-QC-091911			
AROCLOR 1254	3.0	4.4	38	50.00	No Qualifiers Applied
AROCLOR 1260	0.90	1.7	62	50.00	J(all detects)

**Method: 8151A**  
**Matrix: SO**

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-042-SA7-SS-0.0-0.5	DUP02-SA7-QC-091911			
2,4,5-T	0.77	0.87	12	50.00	No Qualifiers Applied
2,4-DB	3.1	5.3	52	50.00	J(all detects)

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

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-042-SA7-SS-0.0-0.5	DUP02-SA7-QC-091911			
PYRENE	3.7	6.1	49	50.00	No Qualifiers Applied
BENZO(B)FLUORANTHENE	5.2	9.6	59	50.00	J(all detects) UJ(all non-detects)
CHRYSENE	2.7	4.7	54	50.00	
FLUORANTHENE	4.5	8.5	62	50.00	
PHENANTHRENE	8.4 U	4.4	200	50.00	

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: PrepDE247\_v1

eQAPP Name: CDM SSFL 110509

Method: 8270C

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-042-SA7-SS-0.0-0.5	DUP02-SA7-QC-091911			
BIS(2-ETHYLHEXYL)PHTHALATE	120	340 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 9045M

Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-042-SA7-SS-0.0-0.5	DUP02-SA7-QC-091911			
PH	7.13	7.14	0	50.00	No Qualifiers Applied

# Reporting Limit Outliers

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 300.0**  
**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-002-SA7-SS-0.0-0.5	Nitrate-NO3	J	1.3	1.5	PQL	mg/Kg	J (all detects)
SL-004-SA7-SS-0.0-0.5	Nitrate-NO3	J	1.3	1.5	PQL	mg/Kg	J (all detects)
SL-032-SA7-SB-4.0-5.0	Nitrate-NO3	J	1.3	1.6	PQL	mg/Kg	J (all detects)
SL-032-SA7-SB-9.0-10.0	Nitrate-NO3	J	1.5	1.6	PQL	mg/Kg	J (all detects)
SL-110-SA7-SS-0.0-0.5	Nitrate-NO3	J	0.97	1.5	PQL	mg/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP02-SA7-QC-091911	SODIUM	J	70.0	99.9	PQL	mg/Kg	J (all detects)
	TIN	J	2.80	9.99	PQL	mg/Kg	
	Zirconium	J	1.98	5.00	PQL	mg/Kg	
SL-002-SA7-SS-0.0-0.5	SODIUM	J	63.4	101	PQL	mg/Kg	J (all detects)
	TIN	J	2.79	10.1	PQL	mg/Kg	
	Zirconium	J	2.31	5.06	PQL	mg/Kg	
SL-003-SA7-SS-0.0-0.5	BORON	J	0.734	4.93	PQL	mg/Kg	J (all detects)
	SODIUM	J	69.8	98.7	PQL	mg/Kg	
	TIN	J	2.96	9.87	PQL	mg/Kg	
	Zirconium	J	1.99	4.93	PQL	mg/Kg	
SL-004-SA7-SS-0.0-0.5	SODIUM	J	74.8	101	PQL	mg/Kg	J (all detects)
	TIN	J	2.69	10.1	PQL	mg/Kg	
	Zirconium	J	1.97	5.04	PQL	mg/Kg	
SL-025-SA7-SB-4.0-5.0	SODIUM	J	78.1	104	PQL	mg/Kg	J (all detects)
	TIN	J	2.73	10.4	PQL	mg/Kg	
	Zirconium	J	2.08	5.19	PQL	mg/Kg	
SL-025-SA7-SB-9.0-10.0	SODIUM	J	84.1	106	PQL	mg/Kg	J (all detects)
	TIN	J	3.08	10.6	PQL	mg/Kg	
	Zirconium	J	2.28	5.29	PQL	mg/Kg	
SL-032-SA7-SB-4.0-5.0	SODIUM	J	69.0	104	PQL	mg/Kg	J (all detects)
	TIN	J	2.81	10.4	PQL	mg/Kg	
	Zirconium	J	2.47	5.20	PQL	mg/Kg	
SL-032-SA7-SB-9.0-10.0	SODIUM	J	72.2	104	PQL	mg/Kg	J (all detects)
	TIN	J	2.75	10.4	PQL	mg/Kg	
	Zirconium	J	2.19	5.21	PQL	mg/Kg	
SL-042-SA7-SS-0.0-0.5	SODIUM	J	70.1	99.8	PQL	mg/Kg	J (all detects)
	TIN	J	2.83	9.98	PQL	mg/Kg	
	Zirconium	J	2.28	4.99	PQL	mg/Kg	
SL-048-SA7-SS-0.0-0.5	SODIUM	J	90.0	98.7	PQL	mg/Kg	J (all detects)
	TIN	J	2.65	9.87	PQL	mg/Kg	
	Zirconium	J	2.13	4.94	PQL	mg/Kg	
SL-110-SA7-SS-0.0-0.5	BORON	J	0.531	4.99	PQL	mg/Kg	J (all detects)
	SODIUM	J	83.4	99.8	PQL	mg/Kg	
	TIN	J	2.64	9.98	PQL	mg/Kg	
	Zirconium	J	2.79	4.99	PQL	mg/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-111-SA7-SS-0.0-0.5	SODIUM	J	79.4	102	PQL	mg/Kg	J (all detects)
	TIN	J	2.96	10.2	PQL	mg/Kg	
	Zirconium	J	1.94	5.10	PQL	mg/Kg	
SL-122-SA7-SS-0.0-0.5	TIN	J	3.24	9.93	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.33	4.97	PQL	mg/Kg	
SL-130-SA7-SS-0.0-0.5	SODIUM	J	62.9	98.8	PQL	mg/Kg	J (all detects)
	TIN	J	2.85	9.88	PQL	mg/Kg	
	Zirconium	J	1.89	4.94	PQL	mg/Kg	
SL-133-SA7-SS-0.0-0.5	SODIUM	J	99.4	105	PQL	mg/Kg	J (all detects)
	TIN	J	2.66	10.5	PQL	mg/Kg	
	Zirconium	J	2.20	5.24	PQL	mg/Kg	
SL-144-SA7-SB-4.0-5.0	SODIUM	J	77.9	104	PQL	mg/Kg	J (all detects)
	TIN	J	2.65	10.4	PQL	mg/Kg	
	Zirconium	J	2.78	5.18	PQL	mg/Kg	
SL-144-SA7-SB-9.0-10.0	SODIUM	J	81.1	106	PQL	mg/Kg	J (all detects)
	TIN	J	2.69	10.6	PQL	mg/Kg	
	Zirconium	J	2.83	5.30	PQL	mg/Kg	
SL-145-SA7-SB-4.0-5.0	SODIUM	J	76.2	103	PQL	mg/Kg	J (all detects)
	TIN	J	2.63	10.3	PQL	mg/Kg	
	Zirconium	J	2.86	5.13	PQL	mg/Kg	
SL-145-SA7-SB-9.0-10.0	SODIUM	J	95.3	103	PQL	mg/Kg	J (all detects)
	TIN	J	2.54	10.3	PQL	mg/Kg	
	Zirconium	J	2.76	5.15	PQL	mg/Kg	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP02-SA7-QC-091911	ANTIMONY	J	0.109	0.200	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.141	0.400	PQL	mg/Kg	
	SILVER	J	0.0304	0.0999	PQL	mg/Kg	
SL-002-SA7-SS-0.0-0.5	SELENIUM	J	0.155	0.397	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0451	0.0991	PQL	mg/Kg	
SL-003-SA7-SS-0.0-0.5	SELENIUM	J	0.107	0.402	PQL	mg/Kg	J (all detects)
SL-004-SA7-SS-0.0-0.5	SELENIUM	J	0.102	0.395	PQL	mg/Kg	J (all detects)
SL-025-SA7-SB-4.0-5.0	ANTIMONY	J	0.0961	0.202	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0859	0.101	PQL	mg/Kg	
	SELENIUM	J	0.121	0.403	PQL	mg/Kg	
	SILVER	J	0.0323	0.101	PQL	mg/Kg	
SL-025-SA7-SB-9.0-10.0	ANTIMONY	J	0.181	0.211	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0737	0.106	PQL	mg/Kg	
	SELENIUM	J	0.101	0.423	PQL	mg/Kg	
	SILVER	J	0.0372	0.106	PQL	mg/Kg	
SL-032-SA7-SB-4.0-5.0	ANTIMONY	J	0.107	0.210	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0708	0.420	PQL	mg/Kg	
	SILVER	J	0.0490	0.105	PQL	mg/Kg	

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-032-SA7-SB-9.0-10.0	ANTIMONY	J	0.105	0.211	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0880	0.421	PQL	mg/Kg	
	SILVER	J	0.0255	0.105	PQL	mg/Kg	
SL-042-SA7-SS-0.0-0.5	ANTIMONY	J	0.133	0.200	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.126	0.399	PQL	mg/Kg	
	SILVER	J	0.0311	0.0998	PQL	mg/Kg	
SL-048-SA7-SS-0.0-0.5	ANTIMONY	J	0.168	0.199	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.114	0.399	PQL	mg/Kg	
	SILVER	J	0.0353	0.0997	PQL	mg/Kg	
SL-110-SA7-SS-0.0-0.5	ANTIMONY	J	0.183	0.204	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.166	0.407	PQL	mg/Kg	
	SILVER	J	0.0483	0.102	PQL	mg/Kg	
SL-111-SA7-SS-0.0-0.5	ANTIMONY	J	0.173	0.204	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.227	0.408	PQL	mg/Kg	
	SILVER	J	0.0619	0.102	PQL	mg/Kg	
SL-130-SA7-SS-0.0-0.5	SELENIUM	J	0.0857	0.399	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0825	0.0998	PQL	mg/Kg	
SL-133-SA7-SS-0.0-0.5	ANTIMONY	J	0.130	0.206	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.257	0.411	PQL	mg/Kg	
	SILVER	J	0.0379	0.103	PQL	mg/Kg	
SL-144-SA7-SB-4.0-5.0	ANTIMONY	J	0.143	0.209	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.164	0.419	PQL	mg/Kg	
	SILVER	J	0.0459	0.105	PQL	mg/Kg	
SL-144-SA7-SB-9.0-10.0	ANTIMONY	J	0.193	0.208	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.207	0.415	PQL	mg/Kg	
	SILVER	J	0.0494	0.104	PQL	mg/Kg	
SL-145-SA7-SB-4.0-5.0	ANTIMONY	J	0.136	0.207	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.137	0.414	PQL	mg/Kg	
	SILVER	J	0.0598	0.104	PQL	mg/Kg	
SL-145-SA7-SB-9.0-10.0	ANTIMONY	J	0.117	0.210	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.182	0.420	PQL	mg/Kg	
	SILVER	J	0.0406	0.105	PQL	mg/Kg	

**Method: 7199**  
**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-002-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.20	0.96	PQL	mg/Kg	J (all detects)
SL-003-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.60	0.99	PQL	mg/Kg	J (all detects)
SL-004-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.57	1.0	PQL	mg/Kg	J (all detects)
SL-025-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.26	0.98	PQL	mg/Kg	J (all detects)
SL-025-SA7-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.60	1.0	PQL	mg/Kg	J (all detects)
SL-032-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.22	1.1	PQL	mg/Kg	J (all detects)
SL-042-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.76	0.98	PQL	mg/Kg	J (all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 7199

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-048-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.28	1.0	PQL	mg/Kg	J (all detects)
SL-110-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.24	1.0	PQL	mg/Kg	J (all detects)
SL-122-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.27	0.98	PQL	mg/Kg	J (all detects)
SL-130-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.45	0.99	PQL	mg/Kg	J (all detects)
SL-144-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.26	1.0	PQL	mg/Kg	J (all detects)
SL-144-SA7-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.30	1.0	PQL	mg/Kg	J (all detects)
SL-145-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.30	1.0	PQL	mg/Kg	J (all detects)
SL-145-SA7-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.39	1.0	PQL	mg/Kg	J (all detects)

Method: 7471A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-002-SA7-SS-0.0-0.5	MERCURY	J	0.0162	0.0975	PQL	mg/Kg	J (all detects)
SL-003-SA7-SS-0.0-0.5	MERCURY	J	0.0167	0.0981	PQL	mg/Kg	J (all detects)
SL-004-SA7-SS-0.0-0.5	MERCURY	J	0.0401	0.0975	PQL	mg/Kg	J (all detects)
SL-042-SA7-SS-0.0-0.5	MERCURY	J	0.0073	0.0993	PQL	mg/Kg	J (all detects)
SL-048-SA7-SS-0.0-0.5	MERCURY	J	0.0095	0.0980	PQL	mg/Kg	J (all detects)
SL-110-SA7-SS-0.0-0.5	MERCURY	J	0.0103	0.0978	PQL	mg/Kg	J (all detects)
SL-111-SA7-SS-0.0-0.5	MERCURY	J	0.0197	0.101	PQL	mg/Kg	J (all detects)
SL-122-SA7-SS-0.0-0.5	MERCURY	J	0.0308	0.101	PQL	mg/Kg	J (all detects)
SL-130-SA7-SS-0.0-0.5	MERCURY	J	0.0176	0.0997	PQL	mg/Kg	J (all detects)

Method: 8015B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-002-SA7-SS-0.0-0.5	METHANOL	J	360	510	PQL	ug/Kg	J (all detects)
SL-133-SA7-SS-0.0-0.5	METHANOL	J	340	520	PQL	ug/Kg	J (all detects)

Method: 8015M

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-002-SA7-SS-0.0-0.5	EFH (C15-C20)	J	0.98	1.2	PQL	mg/Kg	J (all detects)

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8015M  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-003-SA7-SS-0.0-0.5	EFH (C15-C20)	J	16	30	PQL	mg/Kg	J (all detects)
SL-032-SA7-SB-4.0-5.0	GASOLINE RANGE ORGANICS (C5-C12)	J	0.2	1	PQL	mg/Kg	J (all detects)

**Method:** 8081A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP02-SA7-QC-091911	ALPHA-BHC	J	0.051	0.17	PQL	ug/Kg	J (all detects)
	Chlordane	J	2.1	3.4	PQL	ug/Kg	
SL-002-SA7-SS-0.0-0.5	Chlordane	J	2.7	3.4	PQL	ug/Kg	J (all detects)
SL-003-SA7-SS-0.0-0.5	Chlordane	J	1.4	3.5	PQL	ug/Kg	J (all detects)
SL-004-SA7-SS-0.0-0.5	ALPHA-BHC	J	0.060	0.17	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.082	0.17	PQL	ug/Kg	
SL-042-SA7-SS-0.0-0.5	4,4'-DDE	J	0.28	0.34	PQL	ug/Kg	J (all detects)
	Chlordane	J	1.4	3.4	PQL	ug/Kg	
	gamma-BHC (Lindane)	J	0.041	0.17	PQL	ug/Kg	
SL-111-SA7-SS-0.0-0.5	ALPHA-BHC	J	0.13	0.17	PQL	ug/Kg	J (all detects)
	Chlordane	J	1.1	3.5	PQL	ug/Kg	
	TOXAPHENE	J	5.6	6.8	PQL	ug/Kg	
SL-122-SA7-SS-0.0-0.5	4,4'-DDE	J	0.14	0.34	PQL	ug/Kg	J (all detects)
	ENDOSULFAN I	J	0.094	0.17	PQL	ug/Kg	
	ENDRIN	J	0.17	0.34	PQL	ug/Kg	
	MIREX	J	0.32	0.34	PQL	ug/Kg	
SL-130-SA7-SS-0.0-0.5	4,4'-DDT	J	1.1	3.4	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.051	0.17	PQL	ug/Kg	
SL-133-SA7-SS-0.0-0.5	DELTA-BHC	J	0.043	0.17	PQL	ug/Kg	J (all detects)

**Method:** 8082  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-042-SA7-SS-0.0-0.5	AROCLOR 1260	J	0.90	1.7	PQL	ug/Kg	J (all detects)
SL-111-SA7-SS-0.0-0.5	AROCLOR 1248	J	1.7	1.8	PQL	ug/Kg	J (all detects)
SL-133-SA7-SS-0.0-0.5	Aroclor 5460	J	3.3	3.5	PQL	ug/Kg	J (all detects)
SL-145-SA7-SB-9.0-10.0	AROCLOR 1254	J	0.55	1.8	PQL	ug/Kg	J (all detects)

## Reporting Limit Outliers

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8151A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-048-SA7-SS-0.0-0.5	2,4-DB	J	1.6	1.7	PQL	ug/Kg	J (all detects)
SL-111-SA7-SS-0.0-0.5	2,4-DB	J	1.0	1.7	PQL	ug/Kg	J (all detects)
SL-133-SA7-SS-0.0-0.5	DICHLOROPROP	J	1.4	1.8	PQL	ug/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-002-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	97	340	PQL	ug/Kg	J (all detects)
SL-003-SA7-SS-0.0-0.5	FLUORANTHENE	J	85	850	PQL	ug/Kg	J (all detects)
	PYRENE	J	95	850	PQL	ug/Kg	
SL-004-SA7-SS-0.0-0.5	CARBAZOLE	J	780	840	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	330	840	PQL	ug/Kg	
	DIBENZOFURAN	J	200	840	PQL	ug/Kg	
	FLUORENE	J	330	840	PQL	ug/Kg	
	NAPHTHALENE	J	110	840	PQL	ug/Kg	
SL-042-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	120	340	PQL	ug/Kg	J (all detects)
SL-048-SA7-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	19	170	PQL	ug/Kg	J (all detects)
SL-130-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	120	1700	PQL	ug/Kg	J (all detects)
SL-133-SA7-SS-0.0-0.5	ANTHRACENE	J	140	870	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	330	870	PQL	ug/Kg	
	BENZO(A)PYRENE	J	300	870	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	530	870	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	230	870	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	220	870	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	470	1700	PQL	ug/Kg	
	Butylbenzylphthalate	J	120	870	PQL	ug/Kg	
	CARBAZOLE	J	150	870	PQL	ug/Kg	
	CHRYSENE	J	790	870	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	220	870	PQL	ug/Kg	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP02-SA7-QC-091911	CHRYSENE	J	4.7	8.4	PQL	ug/Kg	J (all detects)
	PHENANTHRENE	J	4.4	8.4	PQL	ug/Kg	
	PYRENE	J	6.1	8.4	PQL	ug/Kg	
SL-002-SA7-SS-0.0-0.5	CHRYSENE	J	2.1	8.4	PQL	ug/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-003-SA7-SS-0.0-0.5	ANTHRACENE	J	2.2	8.5	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	6.5	8.5	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	6.1	8.5	PQL	ug/Kg	
	Di-n-butylphthalate	J	59	91	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	4.9	8.5	PQL	ug/Kg	
SL-004-SA7-SS-0.0-0.5	Di-n-octylphthalate	J	79	91	PQL	ug/Kg	J (all detects)
SL-025-SA7-SB-4.0-5.0	BENZO(A)ANTHRACENE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.0	1.7	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.6	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.84	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	6.7	19	PQL	ug/Kg	
	CHRYSENE	J	1.4	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	1.7	PQL	ug/Kg	
SL-042-SA7-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	5.2	8.4	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	2.7	8.4	PQL	ug/Kg	
	FLUORANTHENE	J	4.5	8.4	PQL	ug/Kg	
	PYRENE	J	3.7	8.4	PQL	ug/Kg	
SL-048-SA7-SS-0.0-0.5	ACENAPHTHENE	J	5.7	8.4	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	42	91	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	5.8	8.4	PQL	ug/Kg	
	FLUORENE	J	5.7	8.4	PQL	ug/Kg	
SL-110-SA7-SS-0.0-0.5	ANTHRACENE	J	2.2	8.5	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	5.3	8.5	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	59	92	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	4.7	8.5	PQL	ug/Kg	
SL-111-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	4.9	8.6	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	6.8	8.6	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	5.6	8.6	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	56	93	PQL	ug/Kg	
	PHENANTHRENE	J	6.6	8.6	PQL	ug/Kg	
SL-122-SA7-SS-0.0-0.5	ANTHRACENE	J	5.8	8.4	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	84	91	PQL	ug/Kg	
SL-130-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	3.6	8.4	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	6.0	8.4	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	4.8	8.4	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	3.5	8.4	PQL	ug/Kg	
	Di-n-butylphthalate	J	62	91	PQL	ug/Kg	
	PHENANTHRENE	J	6.4	8.4	PQL	ug/Kg	
SL-144-SA7-SB-9.0-10.0	BENZO(B)FLUORANTHENE	J	0.92	1.8	PQL	ug/Kg	J (all detects)
SL-145-SA7-SB-9.0-10.0	BENZO(B)FLUORANTHENE	J	1.5	1.8	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.43	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.0	1.8	PQL	ug/Kg	

**Method:** 8315A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-002-SA7-SS-0.0-0.5	FORMALDEHYDE	J	770	1500	PQL	ug/Kg	J (all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

# Reporting Limit Outliers

Lab Reporting Batch ID: DE247

Laboratory: LL

EDD Filename: DE247\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8315A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-133-SA7-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-122-SA7-SS-0.0-0.5	CYANIDE	J	0.19	0.49	PQL	mg/Kg	J (all detects)

LDC #: 26859Q4  
 SDG #: DE247  
 Laboratory: Lancaster Laboratories

**VALIDATION COMPLETENESS WORKSHEET**  
 ADR

Date: 12/30/11  
 Page: 1 of 1  
 Reviewer: W  
 2nd Reviewer: E

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

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

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	N	
III.	Calibration	N	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Fe, Mn, Ti, Zn 74x
VII.	Duplicate Sample Analysis	SW	Cd, Mo. 2x < 5x
VIII.	Laboratory Control Samples (LCS)	NA	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		
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-002-SA7-SS-0.0-0.5	11	DUP02-SA7-QC-091911	21	SL-042-SA7-SS-0.0-0.5MSD	31	
2	SL-003-SA7-SS-0.0-0.5	12	SL-025-SA7-SB-4.0-5.0	22	SL-042-SA7-SS-0.0-0.5DUP	32	
3	SL-004-SA7-SS-0.0-0.5	13	SL-025-SA7-SB-9.0-10.0	23	MB	33	
4	SL-042-SA7-SS-0.0-0.5	14	SL-032-SA7-SB-4.0-5.0	24		34	
5	SL-048-SA7-SS-0.0-0.5	15	SL-032-SA7-SB-9.0-10.0	25		35	
6	SL-110-SA7-SS-0.0-0.5	16	SL-144-SA7-SB-4.0-5.0	26		36	
7	SL-111-SA7-SS-0.0-0.5	17	SL-144-SA7-SB-9.0-10.0	27		37	
8	SL-122-SA7-SS-0.0-0.5	18	SL-145-SA7-SB-4.0-5.0	28		38	
9	SL-130-SA7-SS-0.0-0.5	19	SL-145-SA7-SB-9.0-10.0	29		39	
10	SL-133-SA7-SS-0.0-0.5	20	SL-042-SA7-SS-0.0-0.5MS	30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
**PB/ICB/CCB QUALIFIED SAMPLES**

**METHOD:** Trace metals (EPA SW 864 Method 6010B/6020/7000)  
 Sample Concentration units, unless otherwise noted: mg/Kg

Soil preparation factor applied: ICP: 100X, ICP/MS: 200X  
 Associated Samples: Zr:1-9, Hg: All Reason: B

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	1	2	3	4	5	6	7	8	9	10
Zr			7.0	3.5	2.3	2.0	2.0	2.3	2.1	2.8	1.9	2.3	1.9	2.2
Hg			0.096	0.0802	0.016	0.017	0.040	0.0073	0.0095	0.010	0.020	0.031	0.018	

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	11	12	13	14	15	16	17	18	19
Zr			7.0	3.5	2.0	2.1	2.3	2.5	2.2	2.8	2.8	2.9	2.8
Hg			0.096	0.0802									

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.



QUALITY ASSURANCE SUMMARY  
 FORM 5A (MS/MSD)  
 MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
 SDG No.: DE247  
 Matrix: SOIL

Level (low/med): LOW

Background Lab Sample ID: 6412111BKG Matrix Spike Lab Sample ID: 6412112MS Matrix Spike Duplicate Lab Sample ID: 6412113MSD  
 & Solids for Sample: 99.2  
 Batch Id(s): P26408B, P26426A, P26411A

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C			%R	Q	%R	Q	%R	RPD
Aluminum	121	12795.0076		14999.0354		14749.7747		197.6597	197.6597	1115	989	2	7	20P	
Antimony	75	0.1327	B	0.7804		0.8935		1.1744	1.2097	55N	63N	14	75-125	20MS	
Arsenic	137	4.3397		7.4440		7.4738		1.9574	2.0161	159N	155N	0	75-125	20MS	
Barium	9	96.8141		129.2671		115.1008		9.7870	10.0806	332	181	12	7	20MS	
Beryllium		0.5863		1.7272		1.6123		0.7830	0.8065	146N	127N	7	75-125	20MS	
Boron	111	0.3593	U	200.3844		195.7355		197.6597	197.6597	101	99	2	84-115	20P	
Cadmium		0.2391		1.7556		1.6734		0.9787	1.0081	155N	142N	5	75-125	20MS	
Calcium		2874.7395		3421.1881		3431.5771		395.3194	395.3194	138	141	0	7	20P	
Chromium	52	16.8656		32.5712		29.4758		9.7870	10.0806	160N	125	10	75-125	20MS	
Cobalt	59	6.1103		77.6503		73.9919		48.9352	50.4032	146N	135N	5	75-125	20MS	
Copper	63	9.2083		24.5263		23.2460		9.7870	10.0806	157N	139N	5	75-125	20MS	
Iron		18121.6824		18568.9170		18570.8847		98.8299	98.8299	453	455	0	7	20P	
Lead	208	7.4437		12.5372		11.8810		2.9361	3.0242	173N	147N	5	75-125	20MS	
Lithium		24.4101		125.2915		125.2570		98.8299	98.8299	102	102	0	82-114	20P	
Magnesium		4199.9142		4403.2505		4439.4825		197.6597	197.6597	103	121	1	7	20P	
Manganese		274.1426		340.2346		309.5648		49.4149	49.4149	134	72	9	7	20P	
Mercury		0.0073	B	0.1724		0.1717		0.1642	0.1651	101	100	0	65-135	20CV	
Molybdenum	98	0.4459		15.2345		14.4839		9.7870	10.0806	151N	139N	5	75-125	20MS	
Nickel	60	11.5099		27.7169		26.4516		9.7870	10.0806	166N	148N	5	75-125	20MS	
Phosphorus		414.8036		505.0591		496.4817		98.8299	98.8299	91	83	2	7	20P	
Potassium		3249.3433		4361.1460		4326.4360		988.2985	988.2985	112	109	1	75-125	20P	
Selenium	78	0.1257	B	2.7149		2.8145		1.9574	2.0161	132N	133N	4	75-125	20MS	
Silver	107	0.0311	B	14.1658		13.7056		9.7870	10.0806	144N	136N	3	75-125	20MS	
Sodium		70.1034	B	1051.5981		1044.6681		988.2985	988.2985	99	99	1	75-125	20P	
Strontium		15.8905		116.5599		113.1641		98.8299	98.8299	102	98	3	75-115	20P	
Thallium	203	0.2865		0.9076		0.7986		0.3915	0.4032	159N	127N	13	75-125	20MS	
Tin		2.8336	B	357.0950		355.8764		395.3194	395.3194	90	89	0	80-110	20P	
Titanium		1092.7200		1301.0041		1304.9958		98.8299	98.8299	211	215	0	7	20P	
Vanadium	51	33.8350		52.6151		48.3871		9.7870	10.0806	192N	144N	8	75-125	20MS	
Zinc	66	237.7934		237.8249		244.3548		9.7870	10.0806	0	65	3	7	20MS	
Zirconium		2.2786	B	101.9173		101.8936		98.8299	98.8299	101	101	0	75-125	20P	

METHODS: P = ICP Atomic Emission Spectrometer CV = Cold Vapor AF = Cold Vapor Atomic Fluorescence  
 MS = ICP Mass Spectrometry  
 CONCENTRATION QUALIFIERS:  
 U = Below MDL, B = Below LOQ  
 FLAGS:  
 N = Matrix Spike OOS, \* = Duplicate OOS.



QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: DE247

Matrix: SOIL

Level (low/med): LOW

Background Lab Sample ID: 6412111BKG  
 % Solids for Duplicate: 99.1  
 Batch ID(s): P26408B, P26426A, P26411A  
 Concentration Units: MG/KG

Duplicate Lab Sample ID: 6412114DUP  
 % Solids for Sample: 99.2

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			12795.0076		12731.5847		0		P
Antimony	121		0.1327	B	0.1203	B	10		MS
Arsenic	75		4.3397		4.8966		12		MS
Barium	137		96.8141		110.9270		14		MS
Beryllium	9		0.5863		0.6583		12		MS
Boron			0.3593	U	0.3629	U			P
Cadmium	111	0.1	0.2391		0.4088		52	*	MS
Calcium			2874.7395		2836.8730		1		P
Chromium	52		16.8656		21.8181		26	*	MS
Cobalt	59		6.1103		7.1443		16		MS
Copper	63		9.2083		10.5817		14		MS
Iron			18121.6824		18275.1502		1		P
Lead	208		7.4437		8.8031		17		MS
Lithium			24.4101		23.8044		3		P
Magnesium			4199.9142		4069.8407		3		P
Manganese			274.1426		274.0706		0		P
Mercury			0.0073	B	0.0080	B	9		CV
Molybdenum	98	0.1	0.4459		0.6110		31	*	MS
Nickel	60		11.5099		15.7937		31	*	MS
Phosphorus			414.8036		398.4970		4		P
Potassium			3249.3433		3110.3236		4		P
Selenium	78		0.1257	B	0.1286	B	2		MS
Silver	107		0.0311	B	0.0377	B	19		MS
Sodium			70.1034	B	68.9133	B	2		P
Strontium			15.8905		15.1905		5		P
Thallium	203	0.1	0.2865		0.3234		12		MS
Tin			2.8336	B	2.8730	B	1		P
Titanium			1092.7200		1075.0413		2		P
Vanadium	51		33.8350		40.2028		17		MS
Zinc	66		237.7934		379.0223		46	*	MS
Zirconium			2.2786	B	3.4194	B	40		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.

BE247 4783

<p>METHODS:</p> <p>P = ICP Atomic Emission Spectrometer</p> <p>MS = ICP Mass Spectrometry</p> <p>CV = Cold Vapor</p> <p>AF = Cold Vapor Atomic Fluorescence</p>	<p>CONCENTRATION QUALIFIERS:</p> <p>U= Below MDL</p> <p>B= Below LOQ</p> <p>FLAGS:</p> <p>* = Duplicate Out of Spec</p>
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# **SAMPLE DELIVERY GROUP**

**DE248**

# **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-Sep-2011	SL-137-SA7-SS-0.0-0.5	6414145	N	3050B	6010B	IV
19-Sep-2011	SL-137-SA7-SS-0.0-0.5	6414145	N	3050B	6020	IV
19-Sep-2011	SL-137-SA7-SS-0.0-0.5	6414145	N	3060A	7199	IV
19-Sep-2011	SL-137-SA7-SS-0.0-0.5	6414145	N	3550B	8015B	IV
19-Sep-2011	SL-137-SA7-SS-0.0-0.5	6414145	N	3550B	8015M	IV
19-Sep-2011	SL-137-SA7-SS-0.0-0.5	6414145	N	3550B	8081A	IV
19-Sep-2011	SL-137-SA7-SS-0.0-0.5	6414145	N	3550B	8082	IV
19-Sep-2011	SL-137-SA7-SS-0.0-0.5	6414145	N	3550B	8151A	IV
19-Sep-2011	SL-137-SA7-SS-0.0-0.5	6414145	N	3550B	8270C	IV
19-Sep-2011	SL-137-SA7-SS-0.0-0.5	6414145	N	3550B	8270C SIM	IV
19-Sep-2011	SL-137-SA7-SS-0.0-0.5	6414145	N	METHOD	300.0	IV
19-Sep-2011	SL-137-SA7-SS-0.0-0.5	6414145	N	METHOD	314.0	IV
19-Sep-2011	SL-137-SA7-SS-0.0-0.5	6414145	N	METHOD	7471A	IV
19-Sep-2011	SL-137-SA7-SS-0.0-0.5	6414145	N	METHOD	8015B	IV
19-Sep-2011	SL-137-SA7-SS-0.0-0.5	6414145	N	METHOD	8015M	IV
19-Sep-2011	SL-137-SA7-SS-0.0-0.5	6414145	N	METHOD	9012B	IV
19-Sep-2011	SL-131-SA7-SS-0.0-0.5	6414144	N	3050B	6010B	IV
19-Sep-2011	SL-131-SA7-SS-0.0-0.5	6414144	N	3050B	6020	IV
19-Sep-2011	SL-131-SA7-SS-0.0-0.5	6414144	N	3060A	7199	IV
19-Sep-2011	SL-131-SA7-SS-0.0-0.5	6414144	N	3550B	8015B	IV
19-Sep-2011	SL-131-SA7-SS-0.0-0.5	6414144	N	3550B	8015M	IV
19-Sep-2011	SL-131-SA7-SS-0.0-0.5	6414144	N	3550B	8081A	IV
19-Sep-2011	SL-131-SA7-SS-0.0-0.5	6414144	N	3550B	8082	IV
19-Sep-2011	SL-131-SA7-SS-0.0-0.5	6414144	N	3550B	8151A	IV
19-Sep-2011	SL-131-SA7-SS-0.0-0.5	6414144	N	3550B	8270C	IV
19-Sep-2011	SL-131-SA7-SS-0.0-0.5	6414144	N	3550B	8270C SIM	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
19-Sep-2011	SL-131-SA7-SS-0.0-0.5	6414144	N	METHOD	300.0	IV
19-Sep-2011	SL-131-SA7-SS-0.0-0.5	6414144	N	METHOD	314.0	IV
19-Sep-2011	SL-131-SA7-SS-0.0-0.5	6414144	N	METHOD	7471A	IV
19-Sep-2011	SL-131-SA7-SS-0.0-0.5	6414144	N	METHOD	8015B	IV
19-Sep-2011	SL-131-SA7-SS-0.0-0.5	6414144	N	METHOD	8015M	IV
19-Sep-2011	SL-131-SA7-SS-0.0-0.5	6414144	N	METHOD	9012B	IV
19-Sep-2011	SL-138-SA7-SS-0.0-0.5	6414146	N	3050B	6010B	IV
19-Sep-2011	SL-138-SA7-SS-0.0-0.5	6414146	N	3050B	6020	IV
19-Sep-2011	SL-138-SA7-SS-0.0-0.5	6414146	N	3060A	7199	IV
19-Sep-2011	SL-138-SA7-SS-0.0-0.5	6414146	N	3550B	8015B	IV
19-Sep-2011	SL-138-SA7-SS-0.0-0.5	6414146	N	3550B	8015M	IV
19-Sep-2011	SL-138-SA7-SS-0.0-0.5	6414146	N	3550B	8081A	IV
19-Sep-2011	SL-138-SA7-SS-0.0-0.5	6414146	N	3550B	8082	IV
19-Sep-2011	SL-138-SA7-SS-0.0-0.5	6414146	N	3550B	8151A	IV
19-Sep-2011	SL-138-SA7-SS-0.0-0.5	6414146	N	3550B	8270C	IV
19-Sep-2011	SL-138-SA7-SS-0.0-0.5	6414146	N	3550B	8270C SIM	IV
19-Sep-2011	SL-138-SA7-SS-0.0-0.5	6414146	N	METHOD	300.0	IV
19-Sep-2011	SL-138-SA7-SS-0.0-0.5	6414146	N	METHOD	314.0	IV
19-Sep-2011	SL-138-SA7-SS-0.0-0.5	6414146	N	METHOD	7471A	IV
19-Sep-2011	SL-138-SA7-SS-0.0-0.5	6414146	N	METHOD	8015B	IV
19-Sep-2011	SL-138-SA7-SS-0.0-0.5	6414146	N	METHOD	8015M	IV
19-Sep-2011	SL-138-SA7-SS-0.0-0.5	6414146	N	METHOD	9012B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	3050B	6010B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	3050B	6020	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	3060A	7199	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	3546	1625C	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	3550B	8015B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	3550B	8015M	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	3550B	8081A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	3550B	8082	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	3550B	8151A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	3550B	8270C	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	3550B	8270C SIM	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	8330	8330A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	METHOD	300.0	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	METHOD	314.0	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	METHOD	7471A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	METHOD	8015B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	METHOD	8015M	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	METHOD	8315A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5	6414153	N	METHOD	9012B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	3050B	6010B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	3050B	6020	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	3060A	7199	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	3546	1625C	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	3550B	8015B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	3550B	8015M	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	3550B	8081A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	3550B	8082	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	3550B	8151A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	3550B	8270C	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	3550B	8270C SIM	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	8330	8330A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	METHOD	300.0	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	METHOD	314.0	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	METHOD	7471A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	METHOD	8015B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	METHOD	8015M	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	METHOD	8315A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MS	6414154	MS	METHOD	9012B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MSD	6414155	MSD	3050B	6010B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MSD	6414155	MSD	3050B	6020	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MSD	6414155	MSD	3546	1625C	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MSD	6414155	MSD	3550B	8015B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MSD	6414155	MSD	3550B	8015M	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MSD	6414155	MSD	3550B	8081A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MSD	6414155	MSD	3550B	8082	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MSD	6414155	MSD	3550B	8151A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MSD	6414155	MSD	3550B	8270C	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MSD	6414155	MSD	3550B	8270C SIM	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MSD	6414155	MSD	8330	8330A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MSD	6414155	MSD	METHOD	7471A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MSD	6414155	MSD	METHOD	8015B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MSD	6414155	MSD	METHOD	8015M	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5MSD	6414155	MSD	METHOD	8315A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5DUP	6414156	DUP	3050B	6010B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5DUP	6414156	DUP	3050B	6020	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5DUP	6414156	DUP	3060A	7199	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-050-SA7-SS-0.0-0.5DUP	6414156	DUP	METHOD	300.0	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5DUP	6414156	DUP	METHOD	314.0	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5DUP	6414156	DUP	METHOD	7471A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5DUP	6414156	DUP	METHOD	9012B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5RLMS	6414157	N	3550B	8015B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5RLMS	6414157	N	3550B	8015M	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5RLMS	6414157	N	3550B	8081A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5RLMS	6414157	N	3550B	8082	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5RLMS	6414157	N	3550B	8151A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5RLMS	6414157	N	8330	8330A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5RLMS	6414157	N	METHOD	8015B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5RLMS	6414157	N	METHOD	8315A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5RLLC	6414158	N	3550B	8015B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5RLLC	6414158	N	3550B	8015M	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5RLLC	6414158	N	3550B	8081A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5RLLC	6414158	N	3550B	8082	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5RLLC	6414158	N	3550B	8151A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5RLLC	6414158	N	8330	8330A	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5RLLC	6414158	N	METHOD	8015B	IV
20-Sep-2011	SL-050-SA7-SS-0.0-0.5RLLC	6414158	N	METHOD	8315A	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	3050B	6010B	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	3050B	6020	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	3060A	7199	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	3546	1625C	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	3550B	8015B	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	3550B	8015M	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	3550B	8081A	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	3550B	8082	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	3550B	8151A	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	3550B	8270C	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	3550B	8270C SIM	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	8330	8330A	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	METHOD	300.0	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	METHOD	314.0	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	METHOD	7471A	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	METHOD	8015B	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	METHOD	8015M	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	METHOD	8315A	IV
20-Sep-2011	DUP03-SA7-QC-092011	6414166	FD	METHOD	9012B	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	3050B	6010B	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	3050B	6020	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	3060A	7199	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	3546	1625C	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	3550B	8015B	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	3550B	8015M	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	3550B	8081A	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	3550B	8082	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	3550B	8151A	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	3550B	8270C	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	3550B	8270C SIM	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	8330	8330A	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	METHOD	300.0	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	METHOD	314.0	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	METHOD	7471A	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	METHOD	8015B	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	METHOD	8015M	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	METHOD	8315A	IV
20-Sep-2011	SL-135-SA7-SS-0.0-0.5	6414164	N	METHOD	9012B	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	3050B	6010B	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	3050B	6020	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	3060A	7199	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	3546	1625C	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	3550B	8015B	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	3550B	8015M	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	3550B	8081A	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	3550B	8082	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	3550B	8151A	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	3550B	8270C	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	3550B	8270C SIM	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	8330	8330A	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	METHOD	300.0	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	METHOD	314.0	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	METHOD	7471A	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	METHOD	8015B	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	METHOD	8015M	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	METHOD	8315A	IV
20-Sep-2011	SL-047-SA7-SS-0.0-0.5	6414151	N	METHOD	9012B	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	3050B	6010B	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	3050B	6020	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	3060A	7199	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	3546	1625C	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	3550B	8015B	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	3550B	8015M	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	3550B	8081A	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	3550B	8082	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	3550B	8151A	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	3550B	8270C	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	3550B	8270C SIM	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	8330	8330A	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	METHOD	300.0	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	METHOD	314.0	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	METHOD	7471A	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	METHOD	8015B	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	METHOD	8015M	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	METHOD	8315A	IV
20-Sep-2011	SL-134-SA7-SS-0.0-0.5	6414163	N	METHOD	9012B	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	3050B	6010B	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	3050B	6020	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	3060A	7199	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	3546	1625C	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	3550B	8015B	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	3550B	8015M	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	3550B	8081A	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	3550B	8082	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	3550B	8151A	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	3550B	8270C	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	3550B	8270C SIM	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	8330	8330A	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	METHOD	300.0	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	METHOD	314.0	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	METHOD	7471A	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	METHOD	8015B	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	METHOD	8015M	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	METHOD	8315A	IV
20-Sep-2011	SL-136-SA7-SS-0.0-0.5	6414167	N	METHOD	9012B	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	3050B	6010B	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	3050B	6020	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	3060A	7199	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	3546	1625C	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	3550B	8015B	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	3550B	8015M	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	3550B	8081A	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	3550B	8082	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	3550B	8151A	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	3550B	8270C	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	3550B	8270C SIM	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	8330	8330A	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	METHOD	300.0	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	METHOD	314.0	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	METHOD	7471A	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	METHOD	8015B	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	METHOD	8015M	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	METHOD	8315A	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5	6414159	N	METHOD	9012B	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5DUP	P414159D270153B	DUP	METHOD	300.0	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5DUP	P414159D271933B	DUP	METHOD	314.0	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5MS	P414159R270641B	MS	METHOD	300.0	IV
20-Sep-2011	SL-051-SA7-SS-0.0-0.5MS	P414159R272019B	MS	METHOD	314.0	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	3050B	6010B	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	3050B	6020	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	3060A	7199	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	3546	1625C	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	3550B	8015B	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	3550B	8015M	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	3550B	8081A	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	3550B	8082	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	3550B	8151A	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	3550B	8270C	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	3550B	8270C SIM	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	8330	8330A	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	METHOD	300.0	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	METHOD	314.0	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	METHOD	7471A	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	METHOD	8015B	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	METHOD	8015M	IV
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	METHOD	8315A	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-046-SA7-SS-0.0-0.5	6414150	N	METHOD	9012B	IV
20-Sep-2011	SL-006-SA7-SS-0.0-0.5	6414148	N	3050B	6010B	IV
20-Sep-2011	SL-006-SA7-SS-0.0-0.5	6414148	N	3050B	6020	IV
20-Sep-2011	SL-006-SA7-SS-0.0-0.5	6414148	N	3060A	7199	IV
20-Sep-2011	SL-006-SA7-SS-0.0-0.5	6414148	N	3550B	8015B	IV
20-Sep-2011	SL-006-SA7-SS-0.0-0.5	6414148	N	3550B	8015M	IV
20-Sep-2011	SL-006-SA7-SS-0.0-0.5	6414148	N	3550B	8081A	IV
20-Sep-2011	SL-006-SA7-SS-0.0-0.5	6414148	N	3550B	8082	IV
20-Sep-2011	SL-006-SA7-SS-0.0-0.5	6414148	N	3550B	8151A	IV
20-Sep-2011	SL-006-SA7-SS-0.0-0.5	6414148	N	3550B	8270C	IV
20-Sep-2011	SL-006-SA7-SS-0.0-0.5	6414148	N	3550B	8270C SIM	IV
20-Sep-2011	SL-006-SA7-SS-0.0-0.5	6414148	N	METHOD	300.0	IV
20-Sep-2011	SL-006-SA7-SS-0.0-0.5	6414148	N	METHOD	314.0	IV
20-Sep-2011	SL-006-SA7-SS-0.0-0.5	6414148	N	METHOD	7471A	IV
20-Sep-2011	SL-006-SA7-SS-0.0-0.5	6414148	N	METHOD	8015B	IV
20-Sep-2011	SL-006-SA7-SS-0.0-0.5	6414148	N	METHOD	8015M	IV
20-Sep-2011	SL-006-SA7-SS-0.0-0.5	6414148	N	METHOD	9012B	IV
20-Sep-2011	SL-005-SA7-SS-0.0-0.5	6414147	N	3050B	6010B	IV
20-Sep-2011	SL-005-SA7-SS-0.0-0.5	6414147	N	3050B	6020	IV
20-Sep-2011	SL-005-SA7-SS-0.0-0.5	6414147	N	3060A	7199	IV
20-Sep-2011	SL-005-SA7-SS-0.0-0.5	6414147	N	3550B	8015B	IV
20-Sep-2011	SL-005-SA7-SS-0.0-0.5	6414147	N	3550B	8015M	IV
20-Sep-2011	SL-005-SA7-SS-0.0-0.5	6414147	N	3550B	8081A	IV
20-Sep-2011	SL-005-SA7-SS-0.0-0.5	6414147	N	3550B	8082	IV
20-Sep-2011	SL-005-SA7-SS-0.0-0.5	6414147	N	3550B	8151A	IV
20-Sep-2011	SL-005-SA7-SS-0.0-0.5	6414147	N	3550B	8270C	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-005-SA7-SS-0.0-0.5	6414147	N	3550B	8270C SIM	IV
20-Sep-2011	SL-005-SA7-SS-0.0-0.5	6414147	N	METHOD	300.0	IV
20-Sep-2011	SL-005-SA7-SS-0.0-0.5	6414147	N	METHOD	314.0	IV
20-Sep-2011	SL-005-SA7-SS-0.0-0.5	6414147	N	METHOD	7471A	IV
20-Sep-2011	SL-005-SA7-SS-0.0-0.5	6414147	N	METHOD	8015B	IV
20-Sep-2011	SL-005-SA7-SS-0.0-0.5	6414147	N	METHOD	8015M	IV
20-Sep-2011	SL-005-SA7-SS-0.0-0.5	6414147	N	METHOD	9012B	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5	6414162	N	3050B	6010B	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5	6414162	N	3050B	6020	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5	6414162	N	3060A	7199	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5	6414162	N	3550B	8015B	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5	6414162	N	3550B	8015M	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5	6414162	N	3550B	8081A	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5	6414162	N	3550B	8082	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5	6414162	N	3550B	8151A	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5	6414162	N	3550B	8270C	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5	6414162	N	3550B	8270C SIM	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5	6414162	N	METHOD	300.0	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5	6414162	N	METHOD	314.0	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5	6414162	N	METHOD	7471A	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5	6414162	N	METHOD	8015B	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5	6414162	N	METHOD	8015M	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5	6414162	N	METHOD	9012B	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5DUP	P414162D272013A	DUP	METHOD	9012B	IV
20-Sep-2011	SL-129-SA7-SS-0.0-0.5MS	P414162R272014A	MS	METHOD	9012B	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	3050B	6010B	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	3050B	6020	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	3060A	7199	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	3546	1625C	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	3550B	8015B	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	3550B	8015M	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	3550B	8081A	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	3550B	8082	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	3550B	8151A	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	3550B	8270C	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	3550B	8270C SIM	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	8330	8330A	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	METHOD	300.0	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	METHOD	314.0	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	METHOD	7471A	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	METHOD	8015B	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	METHOD	8015M	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	METHOD	8315A	IV
20-Sep-2011	SL-049-SA7-SS-0.0-0.5	6414152	N	METHOD	9012B	IV
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	3050B	6010B	IV
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	3050B	6020	IV
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	3060A	7199	IV
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	3546	1625C	IV
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	3550B	8015B	IV
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	3550B	8015M	IV
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	3550B	8081A	IV
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	3550B	8082	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	3550B	8151A	IV
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	3550B	8270C	IV
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	3550B	8270C SIM	IV
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	METHOD	300.0	IV
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	METHOD	314.0	IV
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	METHOD	7471A	IV
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	METHOD	8015B	IV
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	METHOD	8015M	IV
20-Sep-2011	SL-043-SA7-SS-0.0-0.5	6414149	N	METHOD	8315A	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	3050B	6010B	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	3050B	6020	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	3060A	7199	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	3546	1625C	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	3550B	8015B	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	3550B	8015M	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	3550B	8081A	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	3550B	8082	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	3550B	8151A	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	3550B	8270C	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	3550B	8270C SIM	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	METHOD	300.0	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	METHOD	314.0	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	METHOD	6850	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	METHOD	7471A	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	METHOD	8015B	IV
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	METHOD	8015M	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-085-SA7-SS-0.0-0.5	6414160	N	METHOD	8315A	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	3050B	6010B	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	3050B	6020	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	3060A	7199	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	3546	1625C	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	3550B	8015B	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	3550B	8015M	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	3550B	8081A	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	3550B	8082	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	3550B	8151A	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	3550B	8270C	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	3550B	8270C SIM	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	METHOD	300.0	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	METHOD	314.0	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	METHOD	6850	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	METHOD	7471A	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	METHOD	8015B	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	METHOD	8015M	IV
20-Sep-2011	SL-173-SA7-SS-0.0-0.5	6414165	N	METHOD	8315A	IV
20-Sep-2011	SL-125-SA7-SS-0.0-0.5	6414161	N	3050B	6010B	IV
20-Sep-2011	SL-125-SA7-SS-0.0-0.5	6414161	N	3050B	6020	IV
20-Sep-2011	SL-125-SA7-SS-0.0-0.5	6414161	N	3060A	7199	IV
20-Sep-2011	SL-125-SA7-SS-0.0-0.5	6414161	N	3550B	8082	IV
20-Sep-2011	SL-125-SA7-SS-0.0-0.5	6414161	N	3550B	8270C	IV
20-Sep-2011	SL-125-SA7-SS-0.0-0.5	6414161	N	3550B	8270C SIM	IV
20-Sep-2011	SL-125-SA7-SS-0.0-0.5	6414161	N	METHOD	300.0	IV

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-125-SA7-SS-0.0-0.5	6414161	N	METHOD	314.0	IV
20-Sep-2011	SL-125-SA7-SS-0.0-0.5	6414161	N	METHOD	7471A	IV

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	EIN-CHEM	
<b>Method:</b>	300.0	<b>Matrix:</b> SO

<b>Sample ID:</b> DUP03-SA7-QC-092011		<b>Collected:</b> 9/20/2011 7:35:00		<b>Analysis Type:</b> REA			<b>Dilution:</b> 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.4	J	0.83	MDL	1.6	PQL	mg/Kg	J	Z

<b>Sample ID:</b> DUP03-SA7-QC-092011		<b>Collected:</b> 9/20/2011 7:35:00		<b>Analysis Type:</b> RES			<b>Dilution:</b> 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.8		0.83	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-046-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 10:15:00		<b>Analysis Type:</b> RES			<b>Dilution:</b> 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.1	J	0.82	MDL	1.5	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-047-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 9:00:00		<b>Analysis Type:</b> RES			<b>Dilution:</b> 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.2	J	0.81	MDL	1.5	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-049-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 11:55:00		<b>Analysis Type:</b> RES			<b>Dilution:</b> 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.4	J	0.83	MDL	1.6	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-050-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 7:30:00		<b>Analysis Type:</b> RES			<b>Dilution:</b> 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	1.3	J	0.83	MDL	1.6	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-051-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 9:45:00		<b>Analysis Type:</b> RES			<b>Dilution:</b> 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

<b>Sample ID:</b> SL-085-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 2:25:00		<b>Analysis Type:</b> RES			<b>Dilution:</b> 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	GENCHEM	
<b>Method:</b>	300.0	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-125-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 3:20:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 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	

<b>Sample ID:</b> SL-129-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 11:35:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 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	

<b>Sample ID:</b> SL-134-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 9:25:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	0.80	U	0.80	MDL	0.99	PQL	mg/Kg	UJ	Q	

<b>Sample ID:</b> SL-135-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 8:10:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	3.1		0.82	MDL	1.0	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-136-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 9:35:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	3.5		0.82	MDL	1.0	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-173-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 2:45:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 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	

<b>Method Category:</b>	METALS	
<b>Method:</b>	6010B	<b>Matrix:</b> SO

<b>Sample ID:</b> DUP03-SA7-QC-092011			<b>Collected:</b> 9/20/2011 7:35:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BORON	0.997	J	0.351	MDL	4.88	PQL	mg/Kg	J	Z	
CALCIUM	9990		2.44	MDL	19.5	PQL	mg/Kg	J	E	

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6010B	<b>Matrix:</b> SO

Sample ID: DUP03-SA7-QC-092011      Collected: 9/20/2011 7:35:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	97.4	J	5.81	MDL	97.6	PQL	mg/Kg	J	Z
TIN	2.81	J	0.312	MDL	9.76	PQL	mg/Kg	U	B
Zirconium	3.97	J	0.449	MDL	4.88	PQL	mg/Kg	J	Z

Sample ID: SL-005-SA7-SS-0.0-0.5      Collected: 9/20/2011 11:05:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3260		2.45	MDL	19.6	PQL	mg/Kg	J	E
SODIUM	74.6	J	5.83	MDL	98.0	PQL	mg/Kg	J	Z
TIN	2.90	J	0.314	MDL	9.80	PQL	mg/Kg	U	B
Zirconium	2.48	J	0.451	MDL	4.90	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
CALCIUM	3150		2.49	MDL	19.9	PQL	mg/Kg	J	E
SODIUM	65.3	J	5.93	MDL	99.6	PQL	mg/Kg	J	Z
TIN	2.97	J	0.319	MDL	9.96	PQL	mg/Kg	U	B
Zirconium	2.54	J	0.458	MDL	4.98	PQL	mg/Kg	J	Z

Sample ID: SL-043-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
CALCIUM	2760		2.40	MDL	19.2	PQL	mg/Kg	J	E
SODIUM	61.8	J	5.72	MDL	96.2	PQL	mg/Kg	J	Z
TIN	2.80	J	0.308	MDL	9.62	PQL	mg/Kg	U	B
Zirconium	2.50	J	0.442	MDL	4.81	PQL	mg/Kg	J	Z

Sample ID: SL-046-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
CALCIUM	2680		2.47	MDL	19.8	PQL	mg/Kg	J	E
SODIUM	68.6	J	5.89	MDL	99.0	PQL	mg/Kg	J	Z
TIN	2.85	J	0.317	MDL	9.90	PQL	mg/Kg	U	B
Zirconium	2.60	J	0.455	MDL	4.95	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6010E	Matrix: SO

Sample ID: SL-047-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
CALCIUM	2620		2.53	MDL	20.2	PQL	mg/Kg	J	E
SODIUM	64.4	J	6.02	MDL	101	PQL	mg/Kg	J	Z
TIN	2.76	J	0.324	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	2.45	J	0.466	MDL	5.06	PQL	mg/Kg	J	Z

Sample ID: SL-049-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	3010		2.49	MDL	19.9	PQL	mg/Kg	J	E
SODIUM	68.0	J	5.93	MDL	99.6	PQL	mg/Kg	J	Z
TIN	2.76	J	0.319	MDL	9.96	PQL	mg/Kg	U	B
Zirconium	2.43	J	0.458	MDL	4.98	PQL	mg/Kg	J	Z

Sample ID: SL-050-SA7-SS-0.0-0.5      Collected: 9/20/2011 7:30:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	1.40	J	0.363	MDL	5.05	PQL	mg/Kg	J	Z
CALCIUM	8680		2.52	MDL	20.2	PQL	mg/Kg	J	E
TIN	2.53	J	0.323	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	3.40	J	0.464	MDL	5.05	PQL	mg/Kg	J	Z

Sample ID: SL-051-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
CALCIUM	4200		2.47	MDL	19.8	PQL	mg/Kg	J	E
SODIUM	76.2	J	5.88	MDL	98.9	PQL	mg/Kg	J	Z
TIN	3.03	J	0.316	MDL	9.89	PQL	mg/Kg	U	B
Zirconium	2.38	J	0.455	MDL	4.94	PQL	mg/Kg	J	Z

Sample ID: SL-085-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
CALCIUM	3870		2.50	MDL	20.0	PQL	mg/Kg	J	E
SODIUM	67.3	J	5.96	MDL	100	PQL	mg/Kg	J	Z
TIN	2.85	J	0.320	MDL	10.0	PQL	mg/Kg	U	B

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Matrix:</b>	SO
<b>Method:</b>	6010B		

<b>Sample ID:</b> SL-085-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 2:25:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	2.85	J	0.461	MDL	5.01	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-125-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 3:20:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	2950		2.50	MDL	20.0	PQL	mg/Kg	J	E
SODIUM	69.8	J	5.95	MDL	99.9	PQL	mg/Kg	J	Z
TIN	1.04	J	0.320	MDL	9.99	PQL	mg/Kg	U	B
Zirconium	2.31	J	0.460	MDL	5.00	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-129-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 11:35:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3140		2.47	MDL	19.7	PQL	mg/Kg	J	E
SODIUM	70.7	J	5.88	MDL	98.7	PQL	mg/Kg	J	Z
TIN	1.08	J	0.316	MDL	9.87	PQL	mg/Kg	U	B
Zirconium	2.48	J	0.454	MDL	4.94	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-131-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 2:10:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	2620		2.42	MDL	19.4	PQL	mg/Kg	J	E
SODIUM	62.3	J	5.76	MDL	96.9	PQL	mg/Kg	J	Z
TIN	2.69	J	0.310	MDL	9.69	PQL	mg/Kg	U	B
Zirconium	2.71	J	0.446	MDL	4.84	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-134-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 9:25:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3330		2.50	MDL	20.0	PQL	mg/Kg	J	E
SODIUM	64.4	J	5.95	MDL	100	PQL	mg/Kg	J	Z
TIN	2.89	J	0.320	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	2.35	J	0.460	MDL	5.00	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Matrix:</b>	SO
<b>Method:</b>	6010B		

Sample ID: SL-135-SA7-SS-0.0-0.5      Collected: 9/20/2011 8:10:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	10900		2.53	MDL	20.2	PQL	mg/Kg	J	E
SODIUM	74.6	J	6.01	MDL	101	PQL	mg/Kg	J	Z
TIN	2.91	J	0.323	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	4.60	J	0.465	MDL	5.05	PQL	mg/Kg	J	Z

Sample ID: SL-136-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
CALCIUM	6640		2.46	MDL	19.7	PQL	mg/Kg	J	E
SODIUM	76.2	J	5.86	MDL	98.6	PQL	mg/Kg	J	Z
TIN	2.94	J	0.315	MDL	9.86	PQL	mg/Kg	U	B
Zirconium	3.29	J	0.453	MDL	4.93	PQL	mg/Kg	J	Z

Sample ID: SL-137-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
CALCIUM	2900		2.42	MDL	19.3	PQL	mg/Kg	J	E
SODIUM	79.9	J	5.76	MDL	96.7	PQL	mg/Kg	J	Z
TIN	3.19	J	0.310	MDL	9.67	PQL	mg/Kg	U	B
Zirconium	2.58	J	0.445	MDL	4.84	PQL	mg/Kg	J	Z

Sample ID: SL-138-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
BORON	2.05	J	0.429	MDL	5.96	PQL	mg/Kg	J	Z
CALCIUM	3500		2.98	MDL	23.8	PQL	mg/Kg	J	E
TIN	3.48	J	0.381	MDL	11.9	PQL	mg/Kg	U	B
Zirconium	1.93	J	0.548	MDL	5.96	PQL	mg/Kg	J	Z

Sample ID: SL-173-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
CALCIUM	3440		2.50	MDL	20.0	PQL	mg/Kg	J	E
SODIUM	68.5	J	5.95	MDL	100	PQL	mg/Kg	J	Z
TIN	2.98	J	0.320	MDL	10.0	PQL	mg/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: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	Matrix:	SO
Method:	6010B		

Sample ID: SL-173-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
Zirconium	2.00	J	0.460	MDL	5.00	PQL	mg/Kg	J	Z

Method Category:	METALS	Matrix:	SO
Method:	6020		

Sample ID: DUP03-SA7-QC-092011      Collected: 9/20/2011 7:35:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.148	J	0.0572	MDL	0.394	PQL	mg/Kg	J	Z, Q

Sample ID: DUP03-SA7-QC-092011      Collected: 9/20/2011 7:35:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.499		0.0493	MDL	0.0986	PQL	mg/Kg	J	Q

Sample ID: DUP03-SA7-QC-092011      Collected: 9/20/2011 7:35:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	129		0.104	MDL	0.394	PQL	mg/Kg	J	E

Sample ID: DUP03-SA7-QC-092011      Collected: 9/20/2011 7:35:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.313		0.0729	MDL	0.197	PQL	mg/Kg	J	Q, E
ARSENIC	6.73		0.0789	MDL	0.394	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.654		0.0158	MDL	0.0986	PQL	mg/Kg	J	Q
CADMIUM	0.474		0.0434	MDL	0.0986	PQL	mg/Kg	J	E
CHROMIUM	25.9		0.118	MDL	0.394	PQL	mg/Kg	J	Q
COBALT	8.49		0.0197	MDL	0.0986	PQL	mg/Kg	J	Q
COPPER	14.8		0.0789	MDL	0.394	PQL	mg/Kg	J	Q
LEAD	19.8		0.0101	MDL	0.197	PQL	mg/Kg	J	E
NICKEL	20.0		0.0986	MDL	0.394	PQL	mg/Kg	J	Q
SILVER	0.0672	J	0.0140	MDL	0.0986	PQL	mg/Kg	J	Z, Q
THALLIUM	0.357		0.0296	MDL	0.0986	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-005-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	0.142	J	0.0574	MDL	0.396	PQL	mg/Kg	J	Z, Q

Sample ID: SL-005-SA7-SS-0.0-0.5      Collected: 9/20/2011 11:05:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.390		0.0495	MDL	0.0990	PQL	mg/Kg	J	Q

Sample ID: SL-005-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
BARIIUM	107		0.105	MDL	0.396	PQL	mg/Kg	J	E

Sample ID: SL-005-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	0.140	J	0.0733	MDL	0.198	PQL	mg/Kg	J	Z, Q, E
ARSENIC	6.57		0.0792	MDL	0.396	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.540		0.0158	MDL	0.0990	PQL	mg/Kg	J	Q
CADMIUM	0.377		0.0436	MDL	0.0990	PQL	mg/Kg	J	E
CHROMIUM	20.6		0.119	MDL	0.396	PQL	mg/Kg	J	Q
COBALT	6.46		0.0198	MDL	0.0990	PQL	mg/Kg	J	Q
COPPER	10.1		0.0792	MDL	0.396	PQL	mg/Kg	J	Q
LEAD	11.1		0.0101	MDL	0.198	PQL	mg/Kg	J	E
NICKEL	12.9		0.0990	MDL	0.396	PQL	mg/Kg	J	Q
SILVER	0.0321	J	0.0141	MDL	0.0990	PQL	mg/Kg	J	Z, Q
THALLIUM	0.301		0.0297	MDL	0.0990	PQL	mg/Kg	J	Q

Sample ID: SL-006-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	0.151	J	0.0566	MDL	0.391	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-006-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 10:40:00			<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.616		0.0488	MDL	0.0977	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-006-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 10:40:00			<b>Analysis Type:</b> REA4		<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	120		0.104	MDL	0.391	PQL	mg/Kg	J	E

<b>Sample ID:</b> SL-006-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 10:40:00			<b>Analysis Type:</b> RES		<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.235		0.0723	MDL	0.195	PQL	mg/Kg	J	Q, E
ARSENIC	6.03		0.0781	MDL	0.391	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.665		0.0156	MDL	0.0977	PQL	mg/Kg	J	Q
CADMIUM	0.230		0.0430	MDL	0.0977	PQL	mg/Kg	J	E
CHROMIUM	24.1		0.117	MDL	0.391	PQL	mg/Kg	J	Q
COBALT	7.87		0.0195	MDL	0.0977	PQL	mg/Kg	J	Q
COPPER	12.5		0.0781	MDL	0.391	PQL	mg/Kg	J	Q
LEAD	14.4		0.010	MDL	0.195	PQL	mg/Kg	J	E
NICKEL	15.9		0.0977	MDL	0.391	PQL	mg/Kg	J	Q
SILVER	0.0674	J	0.0139	MDL	0.0977	PQL	mg/Kg	J	Z, Q
THALLIUM	0.368		0.0293	MDL	0.0977	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-043-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 1:55:00			<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.109	J	0.0563	MDL	0.388	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-043-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 1:55:00			<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.359		0.0485	MDL	0.0971	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-043-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	97.2		0.103	MDL	0.388	PQL	mg/Kg	J	E

Sample ID: SL-043-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	0.115	J	0.0718	MDL	0.194	PQL	mg/Kg	J	Z, Q, E
ARSENIC	4.58		0.0777	MDL	0.388	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.563		0.0155	MDL	0.0971	PQL	mg/Kg	J	Q
CADMIUM	0.134		0.0427	MDL	0.0971	PQL	mg/Kg	J	E
CHROMIUM	16.4		0.117	MDL	0.388	PQL	mg/Kg	J	Q
COBALT	5.96		0.0194	MDL	0.0971	PQL	mg/Kg	J	Q
COPPER	8.42		0.0777	MDL	0.388	PQL	mg/Kg	J	Q
LEAD	6.95		0.0099	MDL	0.194	PQL	mg/Kg	J	E
NICKEL	11.1		0.0971	MDL	0.388	PQL	mg/Kg	J	Q
SILVER	0.0416	J	0.0138	MDL	0.0971	PQL	mg/Kg	J	Z, Q
THALLIUM	0.302		0.0291	MDL	0.0971	PQL	mg/Kg	J	Q

Sample ID: SL-046-SA7-SS-0.0-0.5      Collected: 9/20/2011 10:15:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.155	J	0.0574	MDL	0.396	PQL	mg/Kg	J	Z, Q

Sample ID: SL-046-SA7-SS-0.0-0.5      Collected: 9/20/2011 10:15:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.587		0.0495	MDL	0.0990	PQL	mg/Kg	J	Q

Sample ID: SL-046-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
BARIUM	134		0.105	MDL	0.396	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Method:</b>	6020
		<b>Matrix:</b>	SO

Sample ID: SL-046-SA7-SS-0.0-0.5      Collected: 9/20/2011 10:15:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.210		0.0732	MDL	0.198	PQL	mg/Kg	J	Q, E
ARSENIC	6.88		0.0792	MDL	0.396	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.694		0.0158	MDL	0.0990	PQL	mg/Kg	J	Q
CADMIUM	0.180		0.0435	MDL	0.0990	PQL	mg/Kg	J	E
CHROMIUM	25.8		0.119	MDL	0.396	PQL	mg/Kg	J	Q
COBALT	8.64		0.0198	MDL	0.0990	PQL	mg/Kg	J	Q
COPPER	13.4		0.0792	MDL	0.396	PQL	mg/Kg	J	Q
LEAD	10.7		0.0101	MDL	0.198	PQL	mg/Kg	J	E
NICKEL	17.7		0.0990	MDL	0.396	PQL	mg/Kg	J	Q
SILVER	0.0405	J	0.0141	MDL	0.0990	PQL	mg/Kg	J	Z, Q
THALLIUM	0.399		0.0297	MDL	0.0990	PQL	mg/Kg	J	Q

Sample ID: SL-047-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	0.122	J	0.0576	MDL	0.397	PQL	mg/Kg	J	Z, Q

Sample ID: SL-047-SA7-SS-0.0-0.5      Collected: 9/20/2011 9:00:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.469		0.0496	MDL	0.0992	PQL	mg/Kg	J	Q

Sample ID: SL-047-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
BARIUM	105		0.105	MDL	0.397	PQL	mg/Kg	J	E

Sample ID: SL-047-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	0.166	J	0.0734	MDL	0.198	PQL	mg/Kg	J	Z, Q, E
ARSENIC	4.31		0.0794	MDL	0.397	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.570		0.0159	MDL	0.0992	PQL	mg/Kg	J	Q
CADMIUM	0.194		0.0437	MDL	0.0992	PQL	mg/Kg	J	E
CHROMIUM	18.4		0.119	MDL	0.397	PQL	mg/Kg	J	Q

\* 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: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-047-SA7-SS-0.0-0.5			Collected: 9/20/2011 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
COBALT	6.16		0.0198	MDL	0.0992	PQL	mg/Kg	J	Q
COPPER	9.35		0.0794	MDL	0.397	PQL	mg/Kg	J	Q
LEAD	8.29		0.0101	MDL	0.198	PQL	mg/Kg	J	E
NICKEL	12.1		0.0992	MDL	0.397	PQL	mg/Kg	J	Q
SILVER	0.0310	J	0.0141	MDL	0.0992	PQL	mg/Kg	J	Z, Q
THALLIUM	0.312		0.0298	MDL	0.0992	PQL	mg/Kg	J	Q

Sample ID: SL-049-SA7-SS-0.0-0.5			Collected: 9/20/2011 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	0.153	J	0.0572	MDL	0.395	PQL	mg/Kg	J	Z, Q

Sample ID: SL-049-SA7-SS-0.0-0.5			Collected: 9/20/2011 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	0.514		0.0493	MDL	0.0987	PQL	mg/Kg	J	Q

Sample ID: SL-049-SA7-SS-0.0-0.5			Collected: 9/20/2011 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	111		0.105	MDL	0.395	PQL	mg/Kg	J	E

Sample ID: SL-049-SA7-SS-0.0-0.5			Collected: 9/20/2011 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	0.125	J	0.0730	MDL	0.197	PQL	mg/Kg	J	Z, Q, E
ARSENIC	5.70		0.0789	MDL	0.395	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.600		0.0158	MDL	0.0987	PQL	mg/Kg	J	Q
CADMIUM	0.209		0.0434	MDL	0.0987	PQL	mg/Kg	J	E
CHROMIUM	20.9		0.118	MDL	0.395	PQL	mg/Kg	J	Q
COBALT	6.92		0.0197	MDL	0.0987	PQL	mg/Kg	J	Q
COPPER	10.3		0.0789	MDL	0.395	PQL	mg/Kg	J	Q
LEAD	9.89		0.0101	MDL	0.197	PQL	mg/Kg	J	E
NICKEL	14.0		0.0987	MDL	0.395	PQL	mg/Kg	J	Q
SILVER	0.0435	J	0.0140	MDL	0.0987	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-049-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
THALLIUM	0.311		0.0296	MDL	0.0987	PQL	mg/Kg	J	Q

Sample ID: SL-050-SA7-SS-0.0-0.5      Collected: 9/20/2011 7:30:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.127	J	0.0585	MDL	0.404	PQL	mg/Kg	J	Z, Q

Sample ID: SL-050-SA7-SS-0.0-0.5      Collected: 9/20/2011 7:30:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.467		0.0505	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-050-SA7-SS-0.0-0.5      Collected: 9/20/2011 7:30:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	113		0.107	MDL	0.404	PQL	mg/Kg	J	E

Sample ID: SL-050-SA7-SS-0.0-0.5      Collected: 9/20/2011 7:30:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.284		0.0747	MDL	0.202	PQL	mg/Kg	J	Q, E
ARSENIC	5.41		0.0807	MDL	0.404	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.628		0.0161	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.352		0.0444	MDL	0.101	PQL	mg/Kg	J	E
CHROMIUM	23.7		0.121	MDL	0.404	PQL	mg/Kg	J	Q
COBALT	8.24		0.0202	MDL	0.101	PQL	mg/Kg	J	Q
COPPER	13.1		0.0807	MDL	0.404	PQL	mg/Kg	J	Q
LEAD	16.3		0.0103	MDL	0.202	PQL	mg/Kg	J	E
NICKEL	17.4		0.101	MDL	0.404	PQL	mg/Kg	J	Q
SILVER	0.0618	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.347		0.0303	MDL	0.101	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-051-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	0.121	J	0.0563	MDL	0.388	PQL	mg/Kg	J	Z, Q

Sample ID: SL-051-SA7-SS-0.0-0.5      Collected: 9/20/2011 9:45:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.682		0.0485	MDL	0.0970	PQL	mg/Kg	J	Q

Sample ID: SL-051-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	124		0.103	MDL	0.388	PQL	mg/Kg	J	E

Sample ID: SL-051-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	0.591		0.0718	MDL	0.194	PQL	mg/Kg	J	Q, E
ARSENIC	13.5		0.0776	MDL	0.388	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.607		0.0155	MDL	0.0970	PQL	mg/Kg	J	Q
CADMIUM	0.275		0.0427	MDL	0.0970	PQL	mg/Kg	J	E
CHROMIUM	22.0		0.116	MDL	0.388	PQL	mg/Kg	J	Q
COBALT	8.03		0.0194	MDL	0.0970	PQL	mg/Kg	J	Q
COPPER	18.8		0.0776	MDL	0.388	PQL	mg/Kg	J	Q
LEAD	24.5		0.0099	MDL	0.194	PQL	mg/Kg	J	E
NICKEL	17.4		0.0970	MDL	0.388	PQL	mg/Kg	J	Q
SILVER	0.0763	J	0.0138	MDL	0.0970	PQL	mg/Kg	J	Z, Q
THALLIUM	0.352		0.0291	MDL	0.0970	PQL	mg/Kg	J	Q

Sample ID: SL-085-SA7-SS-0.0-0.5      Collected: 9/20/2011 2:25:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.222	J	0.0581	MDL	0.400	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-085-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 2:25:00			<b>Analysis Type:</b> REA3			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	0.498		0.0501	MDL	0.100	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-085-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 2:25:00			<b>Analysis Type:</b> REA4			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	122		0.106	MDL	0.400	PQL	mg/Kg	J	E	

<b>Sample ID:</b> SL-085-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 2:25:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.114	J	0.0741	MDL	0.200	PQL	mg/Kg	J	Z, Q, E	
ARSENIC	4.92		0.0801	MDL	0.400	PQL	mg/Kg	J	Q, E	
BERYLLIUM	0.670		0.0160	MDL	0.100	PQL	mg/Kg	J	Q	
CADMIUM	0.176		0.0440	MDL	0.100	PQL	mg/Kg	J	E	
CHROMIUM	23.7		0.120	MDL	0.400	PQL	mg/Kg	J	Q	
COBALT	7.88		0.0200	MDL	0.100	PQL	mg/Kg	J	Q	
COPPER	10.8		0.0801	MDL	0.400	PQL	mg/Kg	J	Q	
LEAD	10.5		0.0102	MDL	0.200	PQL	mg/Kg	J	E	
NICKEL	15.9		0.100	MDL	0.400	PQL	mg/Kg	J	Q	
SILVER	0.0571	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z, Q	
THALLIUM	0.374		0.0300	MDL	0.100	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-125-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 3:20:00			<b>Analysis Type:</b> REA2			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.128	J	0.0563	MDL	0.388	PQL	mg/Kg	J	Z, Q	

<b>Sample ID:</b> SL-125-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 3:20:00			<b>Analysis Type:</b> REA3			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	0.478		0.0485	MDL	0.0971	PQL	mg/Kg	J	Q	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-125-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 3:20:00		<b>Analysis Type:</b> REA4		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	91.8		0.103	MDL	0.388	PQL	mg/Kg	J	E

<b>Sample ID:</b> SL-125-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 3:20:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.131	J	0.0718	MDL	0.194	PQL	mg/Kg	J	Z, Q, E
ARSENIC	4.26		0.0777	MDL	0.388	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.504		0.0155	MDL	0.0971	PQL	mg/Kg	J	Q
CADMIUM	0.220		0.0427	MDL	0.0971	PQL	mg/Kg	J	E
CHROMIUM	16.2		0.116	MDL	0.388	PQL	mg/Kg	J	Q
COBALT	5.90		0.0194	MDL	0.0971	PQL	mg/Kg	J	Q
COPPER	8.16		0.0777	MDL	0.388	PQL	mg/Kg	J	Q
LEAD	6.85		0.0099	MDL	0.194	PQL	mg/Kg	J	E
NICKEL	10.7		0.0971	MDL	0.388	PQL	mg/Kg	J	Q
SILVER	0.0244	J	0.0138	MDL	0.0971	PQL	mg/Kg	J	Z, Q
THALLIUM	0.287		0.0291	MDL	0.0971	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-129-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 11:35:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.180		0.0434	MDL	0.0987	PQL	mg/Kg	J	E

<b>Sample ID:</b> SL-129-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 11:35:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.146	J	0.0573	MDL	0.395	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-129-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 11:35:00		<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.519		0.0494	MDL	0.0987	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-129-SA7-SS-0.0-0.5		Collected: 9/20/2011 11:35:00		Analysis Type: REA4		Dilution: 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIIUM	107		0.105	MDL	0.395	PQL	mg/Kg	J	E

Sample ID: SL-129-SA7-SS-0.0-0.5		Collected: 9/20/2011 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	0.163	J	0.0731	MDL	0.197	PQL	mg/Kg	J	Z, Q, E
ARSENIC	4.84		0.0790	MDL	0.395	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.510		0.0158	MDL	0.0987	PQL	mg/Kg	J	Q
CHROMIUM	24.5		0.118	MDL	0.395	PQL	mg/Kg	J	Q
COBALT	6.96		0.0197	MDL	0.0987	PQL	mg/Kg	J	Q
COPPER	11.8		0.0790	MDL	0.395	PQL	mg/Kg	J	Q
LEAD	20.0		0.0101	MDL	0.197	PQL	mg/Kg	J	E
NICKEL	15.7		0.0987	MDL	0.395	PQL	mg/Kg	J	Q
SILVER	0.132		0.0140	MDL	0.0987	PQL	mg/Kg	J	Q
THALLIUM	0.294		0.0296	MDL	0.0987	PQL	mg/Kg	J	Q

Sample ID: SL-131-SA7-SS-0.0-0.5		Collected: 9/19/2011 2:10:00		Analysis Type: REA2		Dilution: 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.108	J	0.0562	MDL	0.387	PQL	mg/Kg	J	Z, Q

Sample ID: SL-131-SA7-SS-0.0-0.5		Collected: 9/19/2011 2:10:00		Analysis Type: REA3		Dilution: 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.309		0.0484	MDL	0.0969	PQL	mg/Kg	J	Q

Sample ID: SL-131-SA7-SS-0.0-0.5		Collected: 9/19/2011 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
BARIIUM	73.8		0.103	MDL	0.387	PQL	mg/Kg	J	E

Sample ID: SL-131-SA7-SS-0.0-0.5		Collected: 9/19/2011 2:10:00		Analysis Type: RES		Dilution: 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.105	J	0.0717	MDL	0.194	PQL	mg/Kg	J	Z, Q, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Method:</b>	6020
		<b>Matrix:</b>	SO

Sample ID: SL-131-SA7-SS-0.0-0.5      Collected: 9/19/2011 2:10:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.55		0.0775	MDL	0.387	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.392		0.0155	MDL	0.0969	PQL	mg/Kg	J	Q
CADMIUM	0.0985		0.0426	MDL	0.0969	PQL	mg/Kg	J	E
CHROMIUM	14.5		0.116	MDL	0.387	PQL	mg/Kg	J	Q
COBALT	5.08		0.0194	MDL	0.0969	PQL	mg/Kg	J	Q
COPPER	6.84		0.0775	MDL	0.387	PQL	mg/Kg	J	Q
LEAD	6.88		0.0099	MDL	0.194	PQL	mg/Kg	J	E
NICKEL	9.83		0.0969	MDL	0.387	PQL	mg/Kg	J	Q
SILVER	0.0628	J	0.0138	MDL	0.0969	PQL	mg/Kg	J	Z, Q
THALLIUM	0.248		0.0291	MDL	0.0969	PQL	mg/Kg	J	Q

Sample ID: SL-134-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	0.139	J	0.0586	MDL	0.404	PQL	mg/Kg	J	Z, Q

Sample ID: SL-134-SA7-SS-0.0-0.5      Collected: 9/20/2011 9:25:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.657		0.0505	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-134-SA7-SS-0.0-0.5      Collected: 9/20/2011 9:25:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	103		0.107	MDL	0.404	PQL	mg/Kg	J	E

Sample ID: SL-134-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	0.242		0.0747	MDL	0.202	PQL	mg/Kg	J	Q, E
ARSENIC	5.75		0.0808	MDL	0.404	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.531		0.0162	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.240		0.0444	MDL	0.101	PQL	mg/Kg	J	E
CHROMIUM	20.0		0.121	MDL	0.404	PQL	mg/Kg	J	Q
COBALT	6.43		0.0202	MDL	0.101	PQL	mg/Kg	J	Q

\* 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: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-134-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
COPPER	11.3		0.0808	MDL	0.404	PQL	mg/Kg	J	Q
LEAD	16.8		0.0103	MDL	0.202	PQL	mg/Kg	J	E
NICKEL	13.4		0.101	MDL	0.404	PQL	mg/Kg	J	Q
SILVER	0.0837	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.284		0.0303	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-135-SA7-SS-0.0-0.5      Collected: 9/20/2011 8:10:00      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	0.0575	MDL	0.396	PQL	mg/Kg	J	Z, Q

Sample ID: SL-135-SA7-SS-0.0-0.5      Collected: 9/20/2011 8:10:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.477		0.0495	MDL	0.0991	PQL	mg/Kg	J	Q

Sample ID: SL-135-SA7-SS-0.0-0.5      Collected: 9/20/2011 8:10:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	114		0.105	MDL	0.396	PQL	mg/Kg	J	E

Sample ID: SL-135-SA7-SS-0.0-0.5      Collected: 9/20/2011 8:10:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.217		0.0733	MDL	0.198	PQL	mg/Kg	J	Q, E
ARSENIC	5.72		0.0793	MDL	0.396	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.615		0.0159	MDL	0.0991	PQL	mg/Kg	J	Q
CADMIUM	0.440		0.0436	MDL	0.0991	PQL	mg/Kg	J	E
CHROMIUM	25.5		0.119	MDL	0.396	PQL	mg/Kg	J	Q
COBALT	7.54		0.0198	MDL	0.0991	PQL	mg/Kg	J	Q
COPPER	13.9		0.0793	MDL	0.396	PQL	mg/Kg	J	Q
LEAD	35.3		0.0101	MDL	0.198	PQL	mg/Kg	J	E
NICKEL	16.0		0.0991	MDL	0.396	PQL	mg/Kg	J	Q
SILVER	0.0686	J	0.0141	MDL	0.0991	PQL	mg/Kg	J	Z, Q
THALLIUM	0.287		0.0297	MDL	0.0991	PQL	mg/Kg	J	Q

\* 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: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-136-SA7-SS-0.0-0.5      Collected: 9/20/2011 9:35:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.133	J	0.0589	MDL	0.406	PQL	mg/Kg	J	Z, Q

Sample ID: SL-136-SA7-SS-0.0-0.5      Collected: 9/20/2011 9:35:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.571		0.0508	MDL	0.102	PQL	mg/Kg	J	Q

Sample ID: SL-136-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
BARIUM	124		0.108	MDL	0.406	PQL	mg/Kg	J	E

Sample ID: SL-136-SA7-SS-0.0-0.5      Collected: 9/20/2011 9:35:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.260		0.0751	MDL	0.203	PQL	mg/Kg	J	Q, E
ARSENIC	9.37		0.0812	MDL	0.406	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.660		0.0162	MDL	0.102	PQL	mg/Kg	J	Q
CADMIUM	0.516		0.0447	MDL	0.102	PQL	mg/Kg	J	E
CHROMIUM	26.2		0.122	MDL	0.406	PQL	mg/Kg	J	Q
COBALT	8.33		0.0203	MDL	0.102	PQL	mg/Kg	J	Q
COPPER	14.7		0.0812	MDL	0.406	PQL	mg/Kg	J	Q
LEAD	22.8		0.0104	MDL	0.203	PQL	mg/Kg	J	E
NICKEL	17.8		0.102	MDL	0.406	PQL	mg/Kg	J	Q
SILVER	0.0659	J	0.0144	MDL	0.102	PQL	mg/Kg	J	Z, Q
THALLIUM	0.341		0.0305	MDL	0.102	PQL	mg/Kg	J	Q

Sample ID: SL-137-SA7-SS-0.0-0.5      Collected: 9/19/2011 1:45:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.103	J	0.0567	MDL	0.391	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	Method:	6020	Matrix:	SO
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Sample ID: SL-137-SA7-SS-0.0-0.5	Collected: 9/19/2011 1:45:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.316		0.0488	MDL	0.0977	PQL	mg/Kg	J	Q

Sample ID: SL-137-SA7-SS-0.0-0.5	Collected: 9/19/2011 1:45:00	Analysis Type: REA4	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	80.7		0.104	MDL	0.391	PQL	mg/Kg	J	E

Sample ID: SL-137-SA7-SS-0.0-0.5	Collected: 9/19/2011 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	0.0760	J	0.0723	MDL	0.195	PQL	mg/Kg	J	Z, Q, E
ARSENIC	3.74		0.0781	MDL	0.391	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.415		0.0156	MDL	0.0977	PQL	mg/Kg	J	Q
CADMIUM	0.557		0.0430	MDL	0.0977	PQL	mg/Kg	J	E
CHROMIUM	20.2		0.117	MDL	0.391	PQL	mg/Kg	J	Q
COBALT	4.84		0.0195	MDL	0.0977	PQL	mg/Kg	J	Q
COPPER	10.9		0.0781	MDL	0.391	PQL	mg/Kg	J	Q
LEAD	15.6		0.010	MDL	0.195	PQL	mg/Kg	J	E
NICKEL	9.44		0.0977	MDL	0.391	PQL	mg/Kg	J	Q
SILVER	0.0437	J	0.0139	MDL	0.0977	PQL	mg/Kg	J	Z, Q
THALLIUM	0.241		0.0293	MDL	0.0977	PQL	mg/Kg	J	Q

Sample ID: SL-138-SA7-SS-0.0-0.5	Collected: 9/19/2011 2:30:00	Analysis Type: REA2	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.166	J	0.0691	MDL	0.477	PQL	mg/Kg	J	Z, Q

Sample ID: SL-138-SA7-SS-0.0-0.5	Collected: 9/19/2011 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
MOLYBDENUM	0.528		0.0596	MDL	0.119	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-138-SA7-SS-0.0-0.5      Collected: 9/19/2011 2:30:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	84.6		0.126	MDL	0.477	PQL	mg/Kg	J	E

Sample ID: SL-138-SA7-SS-0.0-0.5      Collected: 9/19/2011 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	0.177	J	0.0882	MDL	0.238	PQL	mg/Kg	J	Z, Q, E
ARSENIC	3.63		0.0953	MDL	0.477	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.482		0.0191	MDL	0.119	PQL	mg/Kg	J	Q
CADMIUM	0.651		0.0524	MDL	0.119	PQL	mg/Kg	J	E
CHROMIUM	28.5		0.143	MDL	0.477	PQL	mg/Kg	J	Q
COBALT	5.08		0.0238	MDL	0.119	PQL	mg/Kg	J	Q
COPPER	12.8		0.0953	MDL	0.477	PQL	mg/Kg	J	Q
LEAD	22.0		0.0122	MDL	0.238	PQL	mg/Kg	J	E
NICKEL	10.4		0.119	MDL	0.477	PQL	mg/Kg	J	Q
SILVER	0.0734	J	0.0169	MDL	0.119	PQL	mg/Kg	J	Z, Q
THALLIUM	0.271		0.0357	MDL	0.119	PQL	mg/Kg	J	Q

Sample ID: SL-173-SA7-SS-0.0-0.5      Collected: 9/20/2011 2:45:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.235	J	0.0574	MDL	0.396	PQL	mg/Kg	J	Z, Q

Sample ID: SL-173-SA7-SS-0.0-0.5      Collected: 9/20/2011 2:45:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.556		0.0495	MDL	0.0990	PQL	mg/Kg	J	Q

Sample ID: SL-173-SA7-SS-0.0-0.5      Collected: 9/20/2011 2:45:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	130		0.105	MDL	0.396	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-173-SA7-SS-0.0-0.5      Collected: 9/20/2011 2:45:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.245		0.0733	MDL	0.198	PQL	mg/Kg	J	Q, E
ARSENIC	4.70		0.0792	MDL	0.396	PQL	mg/Kg	J	Q, E
BERYLLIUM	0.640		0.0158	MDL	0.0990	PQL	mg/Kg	J	Q
CADMIUM	0.105		0.0436	MDL	0.0990	PQL	mg/Kg	J	E
CHROMIUM	24.9		0.119	MDL	0.396	PQL	mg/Kg	J	Q
COBALT	8.79		0.0198	MDL	0.0990	PQL	mg/Kg	J	Q
COPPER	10.6		0.0792	MDL	0.396	PQL	mg/Kg	J	Q
LEAD	7.43		0.0101	MDL	0.198	PQL	mg/Kg	J	E
NICKEL	16.0		0.0990	MDL	0.396	PQL	mg/Kg	J	Q
SILVER	0.0447	J	0.0141	MDL	0.0990	PQL	mg/Kg	J	Z, Q
THALLIUM	0.396		0.0297	MDL	0.0990	PQL	mg/Kg	J	Q

Method Category:	METALS	
Method:	7199	Matrix: SO

Sample ID: DUP03-SA7-QC-092011      Collected: 9/20/2011 7:35:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.32	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-005-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	0.34	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-047-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	0.29	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-050-SA7-SS-0.0-0.5      Collected: 9/20/2011 7:30:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.37	J	0.20	MDL	1.0	PQL	mg/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: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	7199	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-136-SA7-SS-0.0-0.5	<b>Collected:</b> 9/20/2011 9:35:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
HEXAVALENT CHROMIUM	0.47	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-137-SA7-SS-0.0-0.5	<b>Collected:</b> 9/19/2011 1:45:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
HEXAVALENT CHROMIUM	0.42	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

<b>Method Category:</b>	METALS	
<b>Method:</b>	7471A	<b>Matrix:</b> SO

<b>Sample ID:</b> DUP03-SA7-QC-092011	<b>Collected:</b> 9/20/2011 7:35:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
MERCURY	0.0115	J	0.0066	MDL	0.0944	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-005-SA7-SS-0.0-0.5	<b>Collected:</b> 9/20/2011 11:05:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
MERCURY	0.0142	J	0.0069	MDL	0.0981	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-006-SA7-SS-0.0-0.5	<b>Collected:</b> 9/20/2011 10:40:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
MERCURY	0.0124	J	0.0069	MDL	0.0981	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-043-SA7-SS-0.0-0.5	<b>Collected:</b> 9/20/2011 1:55:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
MERCURY	0.0079	J	0.0070	MDL	0.0990	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-046-SA7-SS-0.0-0.5	<b>Collected:</b> 9/20/2011 10:15:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
MERCURY	0.0075	J	0.0070	MDL	0.0996	PQL	mg/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7471A</b>	<b>Matrix: SO</b>

<b>Sample ID:</b> SL-049-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 11:55:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0089	J	0.0068	MDL	0.0970	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-050-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 7:30:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0115	J	0.0070	MDL	0.0997	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-051-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 9:45:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0130	J	0.0070	MDL	0.0988	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-085-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 2:25:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0123	J	0.0069	MDL	0.0984	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-125-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 3:20:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0106	J	0.0069	MDL	0.0982	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-129-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 11:35:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0171	J	0.0070	MDL	0.0998	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-131-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 2:10:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0175	J	0.0069	MDL	0.0979	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-134-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 9:25:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0138	J	0.0070	MDL	0.0999	PQL	mg/Kg	U	B

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	7471A	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-135-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 8:10:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0163	J	0.0071	MDL	0.101	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-136-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 9:35:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0366	J	0.0068	MDL	0.0966	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-137-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 1:45:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0161	J	0.0070	MDL	0.0994	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-138-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 2:30:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0208	J	0.0085	MDL	0.121	PQL	mg/Kg	U	B

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8015M	<b>Matrix:</b> SO

<b>Sample ID:</b> DUP03-SA7-QC-092011		<b>Collected:</b> 9/20/2011 7:35:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 50			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	54	J	20	MDL	61	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-005-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 11:05:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 10			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	5.1	J	4.0	MDL	12	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-046-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 10:15:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 5			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	3.3	J	2.0	MDL	6.0	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8015M	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-050-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 7:30:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.1	U	5.1	MDL	10	PQL	mg/Kg	R	Q
ETHYLENE GLYCOL	5.1	U	5.1	MDL	10	PQL	mg/Kg	UJ	Q
Propylene glycol	5.1	U	5.1	MDL	10	PQL	mg/Kg	UJ	Q

<b>Sample ID:</b> SL-050-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 7:30:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 50			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	35	J	20	MDL	61	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-085-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 2:25:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.89	J	0.40	MDL	1.2	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-131-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 2:10:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	1.1	J	0.40	MDL	1.2	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-135-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 8:10:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 50			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	60	J	20	MDL	61	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-136-SA7-SS-0.0-0.5		<b>Collected:</b> 9/20/2011 9:35:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 25			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	14	J	10	MDL	30	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-137-SA7-SS-0.0-0.5		<b>Collected:</b> 9/19/2011 1:45:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 5			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	2.9	J	2.0	MDL	6.0	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8015M	Matrix: SO

Sample ID: SL-138-SA7-SS-0.0-0.5      Collected: 9/19/2011 2:30:00      Analysis Type: REA      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	12	J	4.9	MDL	15	PQL	mg/Kg	J	Z

Sample ID: SL-173-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
EFH (C15-C20)	0.67	J	0.40	MDL	1.2	PQL	mg/Kg	J	Z

Method Category:	SVOA	
Method:	8081A	Matrix: SO

Sample ID: DUP03-SA7-QC-092011      Collected: 9/20/2011 7:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.90	U	0.90	MDL	0.90	PQL	ug/Kg	UJ	S, C
4,4'-DDE	0.23	U	0.23	MDL	0.35	PQL	ug/Kg	UJ	S, C
4,4'-DDT	1.6	U	1.6	MDL	1.6	PQL	ug/Kg	UJ	S, C
ALDRIN	0.067	U	0.067	MDL	0.17	PQL	ug/Kg	UJ	S, C
ALPHA-BHC	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	S, C
BETA-BHC	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	S, C
Chlordane	5.8		0.81	MDL	3.5	PQL	ug/Kg	J	S, S, FD, C
DELTA-BHC	0.037	U	0.037	MDL	0.17	PQL	ug/Kg	UJ	S, C
DIELDRIN	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S, C
ENDOSULFAN I	0.045	U	0.045	MDL	0.17	PQL	ug/Kg	UJ	S, C
ENDOSULFAN II	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S, C
ENDOSULFAN SULFATE	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S, C
ENDRIN	0.16	U	0.16	MDL	0.35	PQL	ug/Kg	UJ	S, C
ENDRIN ALDEHYDE	0.14	U	0.14	MDL	0.35	PQL	ug/Kg	UJ	S, C
ENDRIN KETONE	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S, C
gamma-BHC (Lindane)	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	S, C, C
HEPTACHLOR	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	S, C
HEPTACHLOR EPOXIDE	0.16	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z, L, S, S, FD, C
METHOXYCHLOR	0.72	U	0.72	MDL	1.7	PQL	ug/Kg	UJ	S, C
MIREX	0.73	U	0.73	MDL	0.73	PQL	ug/Kg	UJ	S, C
TOXAPHENE	20	U	20	MDL	20	PQL	ug/Kg	UJ	S, C

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA
Method:	8081A
Matrix:	SO

Sample ID: SL-005-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	0.42	U	0.42	MDL	0.42	PQL	ug/Kg	UJ	S
4,4'-DDE	0.17	U	0.17	MDL	0.34	PQL	ug/Kg	UJ	S
4,4'-DDT	0.41	U	0.41	MDL	0.41	PQL	ug/Kg	UJ	S
ALDRIN	0.066	U	0.066	MDL	0.17	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	S
BETA-BHC	0.060	U	0.060	MDL	0.17	PQL	ug/Kg	UJ	S
Chlordane	0.80	U	0.80	MDL	3.4	PQL	ug/Kg	UJ	S
DELTA-BHC	0.036	U	0.036	MDL	0.17	PQL	ug/Kg	UJ	S
DIELDRIN	0.066	U	0.066	MDL	0.34	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.044	U	0.044	MDL	0.17	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.21	U	0.21	MDL	0.34	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.066	U	0.066	MDL	0.34	PQL	ug/Kg	UJ	S
ENDRIN	0.17	U	0.17	MDL	0.34	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.27	U	0.27	MDL	0.34	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.066	U	0.066	MDL	0.34	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	S, C
HEPTACHLOR	0.060	U	0.060	MDL	0.17	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.041	U	0.041	MDL	0.17	PQL	ug/Kg	UJ	L, S
METHOXYCHLOR	1.2	U	1.2	MDL	1.7	PQL	ug/Kg	UJ	S
MIREX	1.5	U	1.5	MDL	1.5	PQL	ug/Kg	UJ	S
TOXAPHENE	10	U	10	MDL	10	PQL	ug/Kg	UJ	S

Sample ID: SL-006-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
4,4'-DDD	0.066	U	0.066	MDL	0.34	PQL	ug/Kg	UJ	S
4,4'-DDE	0.077	U	0.077	MDL	0.34	PQL	ug/Kg	UJ	S
4,4'-DDT	0.25	U	0.25	MDL	0.34	PQL	ug/Kg	UJ	S
ALDRIN	0.066	U	0.066	MDL	0.17	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	S
BETA-BHC	0.060	U	0.060	MDL	0.17	PQL	ug/Kg	UJ	S
Chlordane	0.80	U	0.80	MDL	3.4	PQL	ug/Kg	UJ	S
DELTA-BHC	0.036	U	0.036	MDL	0.17	PQL	ug/Kg	UJ	S
DIELDRIN	0.066	U	0.066	MDL	0.34	PQL	ug/Kg	UJ	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SV0A	<b>Method:</b>	8081A
		<b>Matrix:</b>	SO

Sample ID: SL-006-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
ENDOSULFAN I	0.044	U	0.044	MDL	0.17	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.066	U	0.066	MDL	0.34	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.066	U	0.066	MDL	0.34	PQL	ug/Kg	UJ	S
ENDRIN	0.066	U	0.066	MDL	0.34	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.12	U	0.12	MDL	0.34	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.066	U	0.066	MDL	0.34	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	S, C
HEPTACHLOR	0.089	J	0.060	MDL	0.17	PQL	ug/Kg	J	Z, S
HEPTACHLOR EPOXIDE	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	L, S
METHOXYCHLOR	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	UJ	S
MIREX	0.067	U	0.067	MDL	0.34	PQL	ug/Kg	UJ	S
TOXAPHENE	2.2	U	2.2	MDL	6.6	PQL	ug/Kg	UJ	S

Sample ID: SL-043-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	L

Sample ID: SL-046-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
Chlordane	1.1	J	0.80	MDL	3.4	PQL	ug/Kg	J	Z, *XIII
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	L

Sample ID: SL-047-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
Chlordane	4.1		0.81	MDL	3.4	PQL	ug/Kg	J	S
gamma-BHC (Lindane)	0.049	J	0.034	MDL	0.17	PQL	ug/Kg	J	Z, S, C
HEPTACHLOR EPOXIDE	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	L

\* 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: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8081A
		<b>Matrix:</b>	SO

**Sample ID:** SL-049-SA7-SS-0.0-0.5      **Collected:** 9/20/2011 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
Chlordane	8.7		0.81	MDL	3.4	PQL	ug/Kg	J	S
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	L

**Sample ID:** SL-050-SA7-SS-0.0-0.5      **Collected:** 9/20/2011 7:30:00      **Analysis Type:** RES-BASE/NEUTRAL      **Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	1.1	U	1.1	MDL	1.7	PQL	ug/Kg	UJ	C
4,4'-DDE	0.45	U	0.45	MDL	1.7	PQL	ug/Kg	UJ	C
4,4'-DDT	1.4	U	1.4	MDL	1.7	PQL	ug/Kg	UJ	C
ALDRIN	0.34	U	0.34	MDL	0.85	PQL	ug/Kg	UJ	C
ALPHA-BHC	0.17	U	0.17	MDL	0.85	PQL	ug/Kg	UJ	C
BETA-BHC	0.31	U	0.31	MDL	0.85	PQL	ug/Kg	UJ	C
Chlordane	12	J	4.1	MDL	17	PQL	ug/Kg	J	Z, FD, C
DELTA-BHC	0.18	U	0.18	MDL	0.85	PQL	ug/Kg	UJ	C
DIELDRIN	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	UJ	C
ENDOSULFAN I	0.22	U	0.22	MDL	0.85	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.41	U	0.41	MDL	1.7	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	UJ	C
ENDRIN	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	UJ	C
ENDRIN KETONE	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	UJ	C
gamma-BHC (Lindane)	0.17	U	0.17	MDL	0.85	PQL	ug/Kg	UJ	C, C
HEPTACHLOR	0.31	U	0.31	MDL	0.85	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.22	U	0.22	MDL	0.85	PQL	ug/Kg	UJ	L, FD, C
METHOXYCHLOR	1.7	U	1.7	MDL	8.5	PQL	ug/Kg	UJ	C
MIREX	0.66	U	0.66	MDL	1.7	PQL	ug/Kg	UJ	C
TOXAPHENE	11	U	11	MDL	34	PQL	ug/Kg	UJ	C

**Sample ID:** SL-051-SA7-SS-0.0-0.5      **Collected:** 9/20/2011 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
4,4'-DDD	0.26	U	0.26	MDL	0.34	PQL	ug/Kg	UJ	S, C
4,4'-DDE	0.15	U	0.15	MDL	0.34	PQL	ug/Kg	UJ	S, C
4,4'-DDT	0.59		0.067	MDL	0.34	PQL	ug/Kg	J	S, C

\* 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: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8081A	<b>Matrix:</b>	SO
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Sample ID: SL-051-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
ALDRIN	0.067	U	0.067	MDL	0.17	PQL	ug/Kg	UJ	S, C
ALPHA-BHC	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	S, C
BETA-BHC	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	S, C
Chlordane	1.2	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z, S, C
DELTA-BHC	0.036	U	0.036	MDL	0.17	PQL	ug/Kg	UJ	S, C
DIELDRIN	0.067	U	0.067	MDL	0.34	PQL	ug/Kg	UJ	S, C
ENDOSULFAN I	0.044	U	0.044	MDL	0.17	PQL	ug/Kg	UJ	S, C
ENDOSULFAN II	0.27	U	0.27	MDL	0.34	PQL	ug/Kg	UJ	S, C
ENDOSULFAN SULFATE	0.067	U	0.067	MDL	0.34	PQL	ug/Kg	UJ	S, C
ENDRIN	0.073	U	0.073	MDL	0.34	PQL	ug/Kg	UJ	S, C
ENDRIN ALDEHYDE	0.15	U	0.15	MDL	0.34	PQL	ug/Kg	UJ	S, C
ENDRIN KETONE	0.067	U	0.067	MDL	0.34	PQL	ug/Kg	UJ	S, C
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	S, C, C
HEPTACHLOR	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	S, C
HEPTACHLOR EPOXIDE	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	L, S, C
METHOXYCHLOR	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	UJ	S, C
MIREX	0.64	U	0.64	MDL	0.64	PQL	ug/Kg	UJ	S, C
TOXAPHENE	12	U	12	MDL	12	PQL	ug/Kg	UJ	S, C

Sample ID: SL-085-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	L

Sample ID: SL-129-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
Chlordane	2.1	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	L

\* 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: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVDA
Method:	8081A
Matrix:	SO

Sample ID: SL-131-SA7-SS-0.0-0.5 Collected: 9/19/2011 2:10:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.14	J	0.066	MDL	0.34	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	L

Sample ID: SL-134-SA7-SS-0.0-0.5 Collected: 9/20/2011 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	0.30	U	0.30	MDL	0.34	PQL	ug/Kg	UJ	S, C
4,4'-DDE	0.23	U	0.23	MDL	0.34	PQL	ug/Kg	UJ	S, C
4,4'-DDT	0.51	U	0.51	MDL	0.51	PQL	ug/Kg	UJ	S, C
ALDRIN	0.067	U	0.067	MDL	0.17	PQL	ug/Kg	UJ	S, C
ALPHA-BHC	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	S, C
BETA-BHC	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	S, C
Chlordane	2.2	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z, S, S, C
DELTA-BHC	0.036	U	0.036	MDL	0.17	PQL	ug/Kg	UJ	S, C
DIELDRIN	0.067	U	0.067	MDL	0.34	PQL	ug/Kg	UJ	S, C
ENDOSULFAN I	1.1		0.044	MDL	0.17	PQL	ug/Kg	J	S, S, C
ENDOSULFAN II	0.23	U	0.23	MDL	0.34	PQL	ug/Kg	UJ	S, C
ENDOSULFAN SULFATE	0.067	U	0.067	MDL	0.34	PQL	ug/Kg	UJ	S, C
ENDRIN	0.13	U	0.13	MDL	0.34	PQL	ug/Kg	UJ	S, C
ENDRIN ALDEHYDE	0.44	U	0.44	MDL	0.44	PQL	ug/Kg	UJ	S, C
ENDRIN KETONE	0.067	U	0.067	MDL	0.34	PQL	ug/Kg	UJ	S, C
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	S, C, C
HEPTACHLOR	0.084	J	0.061	MDL	0.17	PQL	ug/Kg	J	Z, S, S, C
HEPTACHLOR EPOXIDE	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	L, S, C
METHOXYCHLOR	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	UJ	S, C
MIREX	0.42	U	0.42	MDL	0.42	PQL	ug/Kg	UJ	S, C
TOXAPHENE	15	U	15	MDL	15	PQL	ug/Kg	UJ	S, C

Sample ID: SL-135-SA7-SS-0.0-0.5 Collected: 9/20/2011 8:10:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	C
4,4'-DDE	0.18	J	0.067	MDL	0.35	PQL	ug/Kg	J	Z, S, C, *XIII
4,4'-DDT	2.0		0.067	MDL	0.35	PQL	ug/Kg	J	S, C

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVQA		
Method:	8081A	Matrix:	SO

Sample ID: SL-135-SA7-SS-0.0-0.5

Collected: 9/20/2011 8:10:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALDRIN	0.067	U	0.067	MDL	0.17	PQL	ug/Kg	UJ	C
ALPHA-BHC	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	C
BETA-BHC	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	C
Chlordane	2.6	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z, S, C
DELTA-BHC	0.037	U	0.037	MDL	0.17	PQL	ug/Kg	UJ	C
DIELDRIN	1.1		0.067	MDL	0.35	PQL	ug/Kg	J	S, C
ENDOSULFAN I	0.045	U	0.045	MDL	0.17	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	C
ENDRIN	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	C
ENDRIN KETONE	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	C
gamma-BHC (Lindane)	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	C, C
HEPTACHLOR	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.051	U	0.051	MDL	0.17	PQL	ug/Kg	UJ	L, C
METHOXYCHLOR	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	C
MIREX	0.67	U	0.67	MDL	0.67	PQL	ug/Kg	UJ	C
TOXAPHENE	2.2	U	2.2	MDL	6.7	PQL	ug/Kg	UJ	C

Sample ID: SL-136-SA7-SS-0.0-0.5

Collected: 9/20/2011 9:35:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.33	U	0.33	MDL	1.7	PQL	ug/Kg	UJ	C
4,4'-DDE	0.33	U	0.33	MDL	1.7	PQL	ug/Kg	UJ	C
4,4'-DDT	1.1	U	1.1	MDL	1.7	PQL	ug/Kg	UJ	C
ALDRIN	0.33	U	0.33	MDL	0.84	PQL	ug/Kg	UJ	C
ALPHA-BHC	0.17	U	0.17	MDL	0.84	PQL	ug/Kg	UJ	C
BETA-BHC	0.30	U	0.30	MDL	0.84	PQL	ug/Kg	UJ	C
Chlordane	31		4.0	MDL	17	PQL	ug/Kg	J	S, C
DELTA-BHC	0.18	U	0.18	MDL	0.84	PQL	ug/Kg	UJ	C
DIELDRIN	0.33	U	0.33	MDL	1.7	PQL	ug/Kg	UJ	C
ENDOSULFAN I	0.22	U	0.22	MDL	0.84	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.81	U	0.81	MDL	1.7	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.33	U	0.33	MDL	1.7	PQL	ug/Kg	UJ	C

\* 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: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8081A	<b>Matrix:</b> SO

Sample ID: SL-136-SA7-SS-0.0-0.5      Collected: 9/20/2011 9:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN	0.40	U	0.40	MDL	1.7	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.33	U	0.33	MDL	1.7	PQL	ug/Kg	UJ	C
ENDRIN KETONE	0.33	U	0.33	MDL	1.7	PQL	ug/Kg	UJ	C
gamma-BHC (Lindane)	0.17	U	0.17	MDL	0.84	PQL	ug/Kg	UJ	C, C
HEPTACHLOR	0.30	U	0.30	MDL	0.84	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.24	U	0.24	MDL	0.84	PQL	ug/Kg	UJ	L, C
METHOXYCHLOR	2.2	U	2.2	MDL	8.4	PQL	ug/Kg	UJ	C
MIREX	1.5	U	1.5	MDL	1.7	PQL	ug/Kg	UJ	C
TOXAPHENE	52	U	52	MDL	52	PQL	ug/Kg	UJ	C

Sample ID: SL-137-SA7-SS-0.0-0.5      Collected: 9/19/2011 1:45:00      Analysis Type: DL-BASE/NEUTRAL      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	45		8.0	MDL	34	PQL	ug/Kg	J	C, S

Sample ID: SL-137-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
4,4'-DDD	0.17	U	0.17	MDL	0.86	PQL	ug/Kg	UJ	C
4,4'-DDE	0.44	U	0.44	MDL	0.86	PQL	ug/Kg	UJ	C
4,4'-DDT	3.7		0.17	MDL	0.86	PQL	ug/Kg	J	S, C
ALDRIN	0.17	U	0.17	MDL	0.42	PQL	ug/Kg	UJ	C
ALPHA-BHC	0.086	U	0.086	MDL	0.42	PQL	ug/Kg	UJ	C
BETA-BHC	0.15	U	0.15	MDL	0.42	PQL	ug/Kg	UJ	C
DELTA-BHC	0.091	U	0.091	MDL	0.42	PQL	ug/Kg	UJ	C
DIELDRIN	0.17	U	0.17	MDL	0.86	PQL	ug/Kg	UJ	C
ENDOSULFAN I	0.11	U	0.11	MDL	0.42	PQL	ug/Kg	UJ	C
ENDOSULFAN II	0.17	U	0.17	MDL	0.86	PQL	ug/Kg	UJ	C
ENDOSULFAN SULFATE	0.17	U	0.17	MDL	0.86	PQL	ug/Kg	UJ	C
ENDRIN	0.17	U	0.17	MDL	0.86	PQL	ug/Kg	UJ	C
ENDRIN ALDEHYDE	0.29	U	0.29	MDL	0.86	PQL	ug/Kg	UJ	C
ENDRIN KETONE	0.17	U	0.17	MDL	0.86	PQL	ug/Kg	UJ	C
gamma-BHC (Lindane)	0.086	U	0.086	MDL	0.42	PQL	ug/Kg	UJ	C, C
HEPTACHLOR	0.15	U	0.15	MDL	0.42	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.48	U	0.48	MDL	0.48	PQL	ug/Kg	UJ	L, C

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVDA	
Method:	8081A	Matrix: SO

Sample ID: SL-137-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
METHOXYCHLOR	0.86	U	0.86	MDL	4.2	PQL	ug/Kg	UJ	C
MIREX	0.17	U	0.17	MDL	0.86	PQL	ug/Kg	UJ	C
TOXAPHENE	37	U	37	MDL	37	PQL	ug/Kg	UJ	C

Sample ID: SL-138-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
ALPHA-BHC	0.050	J	0.042	MDL	0.20	PQL	ug/Kg	J	Z, *XIII
Chlordane	4.1	J	0.98	MDL	4.2	PQL	ug/Kg	J	Z, *XIII
DELTA-BHC	0.048	J	0.044	MDL	0.20	PQL	ug/Kg	J	Z, *XIII
gamma-BHC (Lindane)	0.10	U	0.10	MDL	0.20	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.28	U	0.28	MDL	0.28	PQL	ug/Kg	UJ	L

Sample ID: SL-173-SA7-SS-0.0-0.5      Collected: 9/20/2011 2:45:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.093	J	0.066	MDL	0.34	PQL	ug/Kg	J	Z
4,4'-DDT	0.072	J	0.066	MDL	0.34	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	C
HEPTACHLOR EPOXIDE	0.034	U	0.034	MDL	0.17	PQL	ug/Kg	UJ	L
TOXAPHENE	2.5	J	2.2	MDL	6.6	PQL	ug/Kg	J	Z

Method Category:	SVDA	
Method:	8082	Matrix: SO

Sample ID: DUP03-SA7-QC-092011      Collected: 9/20/2011 7:35:00      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 1248	0.33	U	0.33	MDL	1.7	PQL	ug/Kg	UJ	FD
Aroclor 5460	6.9		1.0	MDL	3.3	PQL	ug/Kg	J	C

Sample ID: SL-005-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
Aroclor 5460	2.9	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVQA	<b>Method:</b>	8082	<b>Matrix:</b>	SO
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**Sample ID:** SL-006-SA7-SS-0.0-0.5      **Collected:** 9/20/2011 10:40:00      **Analysis Type:** RES      **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	3.0	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z, *XIII

**Sample ID:** SL-043-SA7-SS-0.0-0.5      **Collected:** 9/20/2011 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
AROCLOR 1254	0.98	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	1.0	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	2.7	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

**Sample ID:** SL-046-SA7-SS-0.0-0.5      **Collected:** 9/20/2011 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	0.75	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z, *XIII
AROCLOR 1260	1.2	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	1.7	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

**Sample ID:** SL-047-SA7-SS-0.0-0.5      **Collected:** 9/20/2011 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	1.3	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	1.5	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	1.5	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

**Sample ID:** SL-049-SA7-SS-0.0-0.5      **Collected:** 9/20/2011 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
AROCLOR 1248	1.4	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z, *XIII
Aroclor 5460	2.0	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

**Sample ID:** SL-050-SA7-SS-0.0-0.5      **Collected:** 9/20/2011 7:30:00      **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 1248	0.76	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z, FD

\* 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: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8082
		<b>Matrix:</b>	SO

Sample ID: SL-051-SA7-SS-0.0-0.5      Collected: 9/20/2011 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 1260	1.5	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	3.0	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-085-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	0.33	MDL	1.7	PQL	ug/Kg	J	Z, *XIII
AROCLOR 1260	0.52	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-125-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
AROCLOR 1248	1.0	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z, *XIII
Aroclor 5460	1.9	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z, C

Sample ID: SL-129-SA7-SS-0.0-0.5      Collected: 9/20/2011 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 1254	1.4	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	3.5		1.0	MDL	3.3	PQL	ug/Kg	J	C

Sample ID: SL-131-SA7-SS-0.0-0.5      Collected: 9/19/2011 2:10:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.59	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	1.6	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-134-SA7-SS-0.0-0.5      Collected: 9/20/2011 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 1254	1.2	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z, *XIII
Aroclor 5460	4.4		1.0	MDL	3.3	PQL	ug/Kg	J	C

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8082	Matrix: SO

Sample ID: SL-135-SA7-SS-0.0-0.5      Collected: 9/20/2011 8:10:00      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 1242	4.1		0.34	MDL	1.7	PQL	ug/Kg	J	*XIII
Aroclor 5460	10		1.0	MDL	3.4	PQL	ug/Kg	J	C

Sample ID: SL-136-SA7-SS-0.0-0.5      Collected: 9/20/2011 9:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1248	0.56	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z, *XIII
Aroclor 5460	11		1.0	MDL	3.3	PQL	ug/Kg	J	C

Sample ID: SL-137-SA7-SS-0.0-0.5      Collected: 9/19/2011 1:45:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	3.4	J	1.7	MDL	8.6	PQL	ug/Kg	J	Z
AROCLOR 1260	3.8	J	2.0	MDL	8.6	PQL	ug/Kg	J	Z, *XIII

Sample ID: SL-138-SA7-SS-0.0-0.5      Collected: 9/19/2011 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 1254	5.6		0.40	MDL	2.1	PQL	ug/Kg	J	S, *XIII
AROCLOR 1260	4.6		0.48	MDL	2.1	PQL	ug/Kg	J	S
Aroclor 5460	18		1.2	MDL	4.0	PQL	ug/Kg	J	S

Sample ID: SL-173-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
Aroclor 5460	1.0	U	1.0	MDL	3.3	PQL	ug/Kg	UJ	C

Method Category:	SVOA	
Method:	8151A	Matrix: SO

Sample ID: DUP03-SA7-QC-092011      Collected: 9/20/2011 7:35:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.11	J	0.083	MDL	0.17	PQL	ug/Kg	J	Z, FD, *IX
2,4-D	1.3	J	1.2	MDL	3.6	PQL	ug/Kg	J	Z, FD, *IX

\* 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: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVQA	
<b>Method:</b>	8151A	<b>Matrix:</b> SO

<b>Sample ID:</b> DUP03-SA7-QC-092011			<b>Collected:</b> 9/20/2011 7:35:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
2,4-DB	1.6	U	1.6	MDL	1.7	PQL	ug/Kg	UJ	FD	
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L	
MCPA	77	U	77	MDL	250	PQL	ug/Kg	UJ	FD	

<b>Sample ID:</b> SL-005-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 11:05:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
2,4,5-T	0.73		0.081	MDL	0.17	PQL	ug/Kg	J	*IX	
DINOSEB	0.79	U	0.79	MDL	2.4	PQL	ug/Kg	R	L	

<b>Sample ID:</b> SL-006-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 10:40:00			<b>Analysis Type:</b> RES-BASE/NEUTRAL			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L	

<b>Sample ID:</b> SL-043-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 1:55:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
2,4,5-T	0.83		0.081	MDL	0.17	PQL	ug/Kg	J	*IX	
2,4-DB	4.3		0.61	MDL	1.7	PQL	ug/Kg	J	*IX	
DINOSEB	0.79	U	0.79	MDL	2.4	PQL	ug/Kg	R	L	

<b>Sample ID:</b> SL-046-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 10:15:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
2,4-DB	4.2		0.62	MDL	1.7	PQL	ug/Kg	J	*IX	
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L	

<b>Sample ID:</b> SL-047-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 9:00:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
2,4-DB	1.9		0.62	MDL	1.7	PQL	ug/Kg	J	*IX	
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8151A
		<b>Matrix:</b>	SO

Sample ID: SL-049-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-050-SA7-SS-0.0-0.5      Collected: 9/20/2011 7:30:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.20		0.083	MDL	0.17	PQL	ug/Kg	J	Q, FD
2,4-D	1.2	U	1.2	MDL	3.6	PQL	ug/Kg	UJ	FD
2,4-DB	2.2		0.63	MDL	1.7	PQL	ug/Kg	J	Q, Q, FD, *IX
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L
MCPA	150	J	77	MDL	250	PQL	ug/Kg	J	Z, FD, *IX

Sample ID: SL-051-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-085-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-129-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-131-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-134-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVQA		
Method:	8151A	Matrix:	SO

Sample ID: SL-135-SA7-SS-0.0-0.5      Collected: 9/20/2011 8:10:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-136-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
2,4-DB	2.3		0.63	MDL	1.7	PQL	ug/Kg	J	*IX
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-137-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-138-SA7-SS-0.0-0.5      Collected: 9/19/2011 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
2,4,5-TP (Silvex)	0.11	J	0.092	MDL	0.21	PQL	ug/Kg	J	Z, *IX
DINOSEB	0.98	U	0.98	MDL	2.9	PQL	ug/Kg	R	L

Sample ID: SL-173-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
2,4,5-T	0.25		0.082	MDL	0.17	PQL	ug/Kg	J	*IX
2,4-DB	1.9		0.62	MDL	1.7	PQL	ug/Kg	J	*IX
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Method Category:	SVQA		
Method:	8270C	Matrix:	SO

Sample ID: DUP03-SA7-QC-092011      Collected: 9/20/2011 7:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	140	J	85	MDL	850	PQL	ug/Kg	J	Z
ANTHRACENE	430	J	85	MDL	850	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1300		85	MDL	850	PQL	ug/Kg	J	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C
		<b>Matrix:</b>	SO

Sample ID: DUP03-SA7-QC-092011      Collected: 9/20/2011 7:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	980		85	MDL	850	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	590	J	85	MDL	850	PQL	ug/Kg	J	Z, FD
BENZO(K)FLUORANTHENE	500	J	85	MDL	850	PQL	ug/Kg	J	Z
CARBAZOLE	340	J	85	MDL	850	PQL	ug/Kg	J	Z, FD
CHRYSENE	1200		85	MDL	850	PQL	ug/Kg	J	FD
DIBENZO(A,H)ANTHRACENE	160	J	85	MDL	850	PQL	ug/Kg	J	Z
DIBENZOFURAN	98	J	85	MDL	850	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	3500		85	MDL	850	PQL	ug/Kg	J	FD
FLUORENE	150	J	85	MDL	850	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	610	J	85	MDL	850	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	2400		85	MDL	850	PQL	ug/Kg	J	FD
PYRENE	2700		85	MDL	850	PQL	ug/Kg	J	FD

Sample ID: SL-005-SA7-SS-0.0-0.5      Collected: 9/20/2011 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(G,H,I)PERYLENE	160	J	17	MDL	170	PQL	ug/Kg	J	Z
CARBAZOLE	50	J	17	MDL	170	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	35	J	17	MDL	170	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	140	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-046-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	27	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	31	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	52	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	25	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	23	J	17	MDL	170	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	39	J	17	MDL	340	PQL	ug/Kg	J	Z
CHRYSENE	34	J	17	MDL	170	PQL	ug/Kg	J	Z
FLUORANTHENE	63	J	17	MDL	170	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	25	J	17	MDL	170	PQL	ug/Kg	J	Z
PHENANTHRENE	33	J	17	MDL	170	PQL	ug/Kg	J	Z
PYRENE	64	J	17	MDL	170	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVQA		
Method:	8270C	Matrix:	SO

Sample ID: SL-047-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	88	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-049-SA7-SS-0.0-0.5      Collected: 9/20/2011 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(A)PYRENE	25	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	38	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	34	J	17	MDL	170	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	34	J	17	MDL	340	PQL	ug/Kg	J	Z
CHRYSENE	26	J	17	MDL	170	PQL	ug/Kg	J	Z
FLUORANTHENE	47	J	17	MDL	170	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	21	J	17	MDL	170	PQL	ug/Kg	J	Z
PHENANTHRENE	21	J	17	MDL	170	PQL	ug/Kg	J	Z
PYRENE	41	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-050-SA7-SS-0.0-0.5      Collected: 9/20/2011 7:30:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	280	J	85	MDL	850	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	220	J	85	MDL	850	PQL	ug/Kg	J	Z, FD
BENZO(G,H,I)PERYLENE	170	J	85	MDL	850	PQL	ug/Kg	J	Z, FD
CARBAZOLE	90	J	85	MDL	850	PQL	ug/Kg	J	Z, FD
CHRYSENE	290	J	85	MDL	850	PQL	ug/Kg	J	Z, FD
DIBENZOFURAN	85	U	85	MDL	850	PQL	ug/Kg	UJ	FD
FLUORANTHENE	740	J	85	MDL	850	PQL	ug/Kg	J	Z, FD
INDENO(1,2,3-CD)PYRENE	150	J	85	MDL	850	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	520	J	85	MDL	850	PQL	ug/Kg	J	Z, FD
PYRENE	580	J	85	MDL	850	PQL	ug/Kg	J	Z, FD

Sample ID: SL-051-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
BENZO(A)ANTHRACENE	240	J	84	MDL	840	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	190	J	84	MDL	840	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	280	J	84	MDL	840	PQL	ug/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: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C	<b>Matrix:</b>	SO
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Sample ID: SL-051-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
BENZO(G,H,I)PERYLENE	130	J	84	MDL	840	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	130	J	84	MDL	840	PQL	ug/Kg	J	Z
CHRYSENE	260	J	84	MDL	840	PQL	ug/Kg	J	Z
FLUORANTHENE	550	J	84	MDL	840	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	160	J	84	MDL	840	PQL	ug/Kg	J	Z
PHENANTHRENE	380	J	84	MDL	840	PQL	ug/Kg	J	Z
PYRENE	460	J	84	MDL	840	PQL	ug/Kg	J	Z

Sample ID: SL-085-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	19	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-134-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
ACENAPHTHENE	78	J	17	MDL	170	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	30	J	17	MDL	340	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	120	J	17	MDL	170	PQL	ug/Kg	J	Z
DIBENZOFURAN	57	J	17	MDL	170	PQL	ug/Kg	J	Z
FLUORENE	65	J	17	MDL	170	PQL	ug/Kg	J	Z
NAPHTHALENE	19	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-135-SA7-SS-0.0-0.5      Collected: 9/20/2011 8:10:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CARBAZOLE	280	J	85	MDL	850	PQL	ug/Kg	J	Z
DIBENZOFURAN	93	J	85	MDL	850	PQL	ug/Kg	J	Z
Di-n-octylphthalate	630	J	85	MDL	850	PQL	ug/Kg	J	Z

Sample ID: SL-136-SA7-SS-0.0-0.5      Collected: 9/20/2011 9:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	92	J	85	MDL	850	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	240	J	85	MDL	850	PQL	ug/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: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8270C	Matrix: SO

Sample ID: SL-136-SA7-SS-0.0-0.5      Collected: 9/20/2011 9:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
INDENO(1,2,3-CD)PYRENE	250	J	85	MDL	850	PQL	ug/Kg	J	Z
PHENANTHRENE	580	J	85	MDL	850	PQL	ug/Kg	J	Z

Sample ID: SL-138-SA7-SS-0.0-0.5      Collected: 9/19/2011 2:30:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PENTACHLOROPHENOL	220	J	200	MDL	610	PQL	ug/Kg	J	Z

Sample ID: SL-173-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	27	J	17	MDL	340	PQL	ug/Kg	J	Z

Method Category:	SVOA	
Method:	8270C SIM	Matrix: SO

Sample ID: DUP03-SA7-QC-092011      Collected: 9/20/2011 7:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	7.1	J	6.7	MDL	17	PQL	ug/Kg	J	Z, FD
ACENAPHTHYLENE	4.4	J	3.4	MDL	17	PQL	ug/Kg	J	Z, FD
BIS(2-ETHYLHEXYL)PHTHALATE	61	J	60	MDL	180	PQL	ug/Kg	J	Z, FD
NAPHTHALENE	22		6.7	MDL	17	PQL	ug/Kg	J	FD

Sample ID: SL-005-SA7-SS-0.0-0.5      Collected: 9/20/2011 11:05:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	2.7	J	1.7	MDL	8.3	PQL	ug/Kg	J	Z

Sample ID: SL-006-SA7-SS-0.0-0.5      Collected: 9/20/2011 10:40:00      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	2.4	J	1.7	MDL	8.3	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	85	J	30	MDL	90	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C SIM
		<b>Matrix:</b>	SO

Sample ID: SL-043-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
BENZO(B)FLUORANTHENE	3.4	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	80	J	30	MDL	89	PQL	ug/Kg	J	Z

Sample ID: SL-046-SA7-SS-0.0-0.5      Collected: 9/20/2011 10:15:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	3.4	J	1.7	MDL	8.3	PQL	ug/Kg	J	Z

Sample ID: SL-047-SA7-SS-0.0-0.5      Collected: 9/20/2011 9:00:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	2.4	J	1.7	MDL	8.3	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	7.5	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	6.1	J	3.3	MDL	8.3	PQL	ug/Kg	J	Z

Sample ID: SL-050-SA7-SS-0.0-0.5      Collected: 9/20/2011 7:30:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	3.4	U	3.4	MDL	8.4	PQL	ug/Kg	UJ	FD
ACENAPHTHYLENE	2.4	J	1.7	MDL	8.4	PQL	ug/Kg	J	Z, FD
BIS(2-ETHYLHEXYL)PHTHALATE	30	U	30	MDL	91	PQL	ug/Kg	UJ	FD
NAPHTHALENE	8.5		3.4	MDL	8.4	PQL	ug/Kg	J	FD

Sample ID: SL-051-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	43	J	30	MDL	90	PQL	ug/Kg	J	Z
Di-n-octylphthalate	30	U	30	MDL	90	PQL	ug/Kg	UJ	I

Sample ID: SL-085-SA7-SS-0.0-0.5      Collected: 9/20/2011 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(A)ANTHRACENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.6	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z, I
BENZO(B)FLUORANTHENE	5.0		0.67	MDL	1.7	PQL	ug/Kg	J	I

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8270C SIM	Matrix: SO

Sample ID: SL-085-SA7-SS-0.0-0.5      Collected: 9/20/2011 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(G,H,I)PERYLENE	0.72	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z, I
BENZO(K)FLUORANTHENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z, I
Butylbenzylphthalate	7.2	J	6.0	MDL	18	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.67	U	0.67	MDL	1.7	PQL	ug/Kg	UJ	I
Di-n-octylphthalate	6.0	U	6.0	MDL	18	PQL	ug/Kg	UJ	I
INDENO(1,2,3-CD)PYRENE	0.67	U	0.67	MDL	1.7	PQL	ug/Kg	UJ	I
PHENANTHRENE	1.6	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-125-SA7-SS-0.0-0.5      Collected: 9/20/2011 3:20:00      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	1.7	MDL	8.4	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	11		3.4	MDL	8.4	PQL	ug/Kg	J	I
BENZO(B)FLUORANTHENE	23		3.4	MDL	8.4	PQL	ug/Kg	J	I
BENZO(G,H,I)PERYLENE	5.4	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z, I
BENZO(K)FLUORANTHENE	6.8	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z, I
DIBENZO(A,H)ANTHRACENE	3.4	U	3.4	MDL	8.4	PQL	ug/Kg	UJ	I
INDENO(1,2,3-CD)PYRENE	3.5	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z, I

Sample ID: SL-129-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
ACENAPHTHENE	0.71	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.74	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	9.4		0.67	MDL	1.7	PQL	ug/Kg	J	I
BENZO(B)FLUORANTHENE	20		0.67	MDL	1.7	PQL	ug/Kg	J	I
BENZO(G,H,I)PERYLENE	3.8		0.67	MDL	1.7	PQL	ug/Kg	J	I
BENZO(K)FLUORANTHENE	6.8		0.67	MDL	1.7	PQL	ug/Kg	J	I
Butylbenzylphthalate	10	J	6.0	MDL	18	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z, I
Di-n-octylphthalate	6.0	U	6.0	MDL	18	PQL	ug/Kg	UJ	I
INDENO(1,2,3-CD)PYRENE	3.5		0.67	MDL	1.7	PQL	ug/Kg	J	I

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C SIM
		<b>Matrix:</b>	SO

**Sample ID:** SL-131-SA7-SS-0.0-0.5      **Collected:** 9/19/2011 2:10:00      **Analysis Type:** RES-BASE/NEUTRAL      **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.1	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.6	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.5	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.1	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	7.5	J	5.9	MDL	18	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.1	J	5.9	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.4	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.6	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z

**Sample ID:** SL-134-SA7-SS-0.0-0.5      **Collected:** 9/20/2011 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
ACENAPHTHYLENE	3.7	J	1.7	MDL	8.4	PQL	ug/Kg	J	Z

**Sample ID:** SL-135-SA7-SS-0.0-0.5      **Collected:** 9/20/2011 8:10:00      **Analysis Type:** RES-BASE/NEUTRAL      **Dilution:** 50

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	38	J	17	MDL	84	PQL	ug/Kg	J	Z

**Sample ID:** SL-136-SA7-SS-0.0-0.5      **Collected:** 9/20/2011 9:35:00      **Analysis Type:** RES      **Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	3.6	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	4.2	J	1.7	MDL	8.4	PQL	ug/Kg	J	Z
Butylbenzylphthalate	35	J	30	MDL	91	PQL	ug/Kg	J	Z
NAPHTHALENE	7.3	J	3.4	MDL	8.4	PQL	ug/Kg	J	Z

**Sample ID:** SL-137-SA7-SS-0.0-0.5      **Collected:** 9/19/2011 1:45:00      **Analysis Type:** RES      **Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	5.2	J	3.3	MDL	8.4	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	6.1	J	3.3	MDL	8.4	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	1.7	J	1.7	MDL	8.4	PQL	ug/Kg	J	Z
Di-n-butylphthalate	57	J	30	MDL	90	PQL	ug/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: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8270C SIM	Matrix: SO

Sample ID: SL-138-SA7-SS-0.0-0.5      Collected: 9/19/2011 2:30:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	5.4	J	4.1	MDL	10	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	8.0	J	4.1	MDL	10	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	6.7	J	4.1	MDL	10	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	5.1	J	4.1	MDL	10	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	5.3	J	4.1	MDL	10	PQL	ug/Kg	J	Z
PHENANTHRENE	6.6	J	4.1	MDL	10	PQL	ug/Kg	J	Z

Sample ID: SL-173-SA7-SS-0.0-0.5      Collected: 9/20/2011 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	0.79	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	0.93	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.84	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Method Category:	VOA	
Method:	8015B	Matrix: SO

Sample ID: SL-006-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
Isopropanol	110	J	100	MDL	500	PQL	ug/Kg	J	Z

Sample ID: SL-046-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
METHANOL	310	J	100	MDL	500	PQL	ug/Kg	J	Z

Sample ID: SL-047-SA7-SS-0.0-0.5      Collected: 9/20/2011 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
METHANOL	330	J	100	MDL	510	PQL	ug/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: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	VOA
Method:	8015B
Matrix:	SO

Sample ID: SL-049-SA7-SS-0.0-0.5		Collected: 9/20/2011 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
METHANOL	310	J	100	MDL	510	PQL	ug/Kg	J	Z

Sample ID: SL-051-SA7-SS-0.0-0.5		Collected: 9/20/2011 9:45:00		Analysis Type: REA		Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m-Terphenyl	1.5	U	1.5	MDL	3.5	PQL	mg/Kg	UJ	S
O-TERPHENYL	1.5	U	1.5	MDL	3.5	PQL	mg/Kg	UJ	S
p-Terphenyl	1.5	U	1.5	MDL	3.5	PQL	mg/Kg	UJ	S

Sample ID: SL-051-SA7-SS-0.0-0.5		Collected: 9/20/2011 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
Isopropanol	280	J	100	MDL	500	PQL	ug/Kg	J	Z

Sample ID: SL-085-SA7-SS-0.0-0.5		Collected: 9/20/2011 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
METHANOL	100	U	100	MDL	510	PQL	ug/Kg	UJ	C

Sample ID: SL-129-SA7-SS-0.0-0.5		Collected: 9/20/2011 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
ETHANOL	100	U	100	MDL	500	PQL	ug/Kg	UJ	S
Isopropanol	100	U	100	MDL	500	PQL	ug/Kg	UJ	S

Sample ID: SL-134-SA7-SS-0.0-0.5		Collected: 9/20/2011 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
Isopropanol	110	J	100	MDL	510	PQL	ug/Kg	J	Z
METHANOL	250	J	100	MDL	510	PQL	ug/Kg	J	Z

Sample ID: SL-135-SA7-SS-0.0-0.5		Collected: 9/20/2011 8:10:00		Analysis Type: RES		Dilution: 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	360	J	100	MDL	510	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	VQA	
<b>Method:</b>	8015B	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-136-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 9:35:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
METHANOL	440	J	100	MDL	510	PQL	ug/Kg	J	Z	

<b>Sample ID:</b> SL-138-SA7-SS-0.0-0.5			<b>Collected:</b> 9/19/2011 2:30:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
METHANOL	120	U	120	MDL	610	PQL	ug/Kg	UJ	C	

<b>Sample ID:</b> SL-173-SA7-SS-0.0-0.5			<b>Collected:</b> 9/20/2011 2:45:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
METHANOL	100	U	100	MDL	500	PQL	ug/Kg	UJ	C	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

1/13/2012 2:00:05 PM

ADR version 1.4.0.111

# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
*IX, XIII	Compound Quantitation and RLs
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

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_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	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: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_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

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE248

# Method Blank Outlier Report

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P26508BB221741	9/30/2011 5:41:00 PM	CALCIUM IRON PHOSPHORUS STRONTIUM TIN	5.77 mg/Kg 2.84 mg/Kg 1.18 mg/Kg 0.0340 mg/Kg 1.51 mg/Kg	DUP03-SA7-QC-092011 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-131-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-173-SA7-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
DUP03-SA7-QC-092011(RES)	TIN	2.81 mg/Kg	2.81U mg/Kg
SL-005-SA7-SS-0.0-0.5(RES)	TIN	2.90 mg/Kg	2.90U mg/Kg
SL-006-SA7-SS-0.0-0.5(RES)	TIN	2.97 mg/Kg	2.97U mg/Kg
SL-043-SA7-SS-0.0-0.5(RES)	TIN	2.80 mg/Kg	2.80U mg/Kg
SL-046-SA7-SS-0.0-0.5(RES)	TIN	2.85 mg/Kg	2.85U mg/Kg
SL-047-SA7-SS-0.0-0.5(RES)	TIN	2.76 mg/Kg	2.76U mg/Kg
SL-049-SA7-SS-0.0-0.5(RES)	TIN	2.76 mg/Kg	2.76U mg/Kg
SL-050-SA7-SS-0.0-0.5(RES)	TIN	2.53 mg/Kg	2.53U mg/Kg
SL-051-SA7-SS-0.0-0.5(RES)	TIN	3.03 mg/Kg	3.03U mg/Kg
SL-085-SA7-SS-0.0-0.5(RES)	TIN	2.85 mg/Kg	2.85U mg/Kg
SL-125-SA7-SS-0.0-0.5(RES)	TIN	1.04 mg/Kg	1.04U mg/Kg
SL-129-SA7-SS-0.0-0.5(RES)	TIN	1.08 mg/Kg	1.08U mg/Kg
SL-131-SA7-SS-0.0-0.5(RES)	TIN	2.69 mg/Kg	2.69U mg/Kg
SL-134-SA7-SS-0.0-0.5(RES)	TIN	2.89 mg/Kg	2.89U mg/Kg
SL-135-SA7-SS-0.0-0.5(RES)	TIN	2.91 mg/Kg	2.91U mg/Kg
SL-136-SA7-SS-0.0-0.5(RES)	TIN	2.94 mg/Kg	2.94U mg/Kg
SL-137-SA7-SS-0.0-0.5(RES)	TIN	3.19 mg/Kg	3.19U mg/Kg
SL-138-SA7-SS-0.0-0.5(RES)	TIN	3.48 mg/Kg	3.48U mg/Kg
SL-173-SA7-SS-0.0-0.5(RES)	TIN	2.98 mg/Kg	2.98U mg/Kg

# Method Blank Outlier Report

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P26526AB220814A	9/23/2011 8:14:00 AM	LEAD	0.0322 mg/Kg	DUP03-SA7-QC-092011 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-131-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5

**Method:** 8015M  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P68682AB321432A	10/2/2011 2:32:00 PM	EFH (C21-C30) EFH (C30-C40)	0.68 mg/Kg 2.0 mg/Kg	DUP03-SA7-QC-092011 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-131-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_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-050-SA7-SS-0.0-0.5MSD (SL-050-SA7-SS-0.0-0.5)	ETHANOL METHANOL	- -	- -	48.00-130.00 43.00-138.00	26 (20.00) 25 (20.00)	ETHANOL METHANOL	J (all detects)
SL-050-SA7-SS-0.0-0.5MSD (SL-050-SA7-SS-0.0-0.5)	m-Terphenyl O-TERPHENYL p-Terphenyl	- - -	0 0 0	75.00-125.00 75.00-125.00 75.00-125.00	200 (20.00) 200 (20.00) 200 (20.00)	m-Terphenyl O-TERPHENYL p-Terphenyl	No Qual, Not Spiked

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-050-SA7-SS-0.0-0.5MSD (SL-050-SA7-SS-0.0-0.5)	2,4,5-T	-	-	10.00-156.00	44 (35.00)	2,4,5-T	J(all detects)
SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (SL-050-SA7-SS-0.0-0.5)	2,4-DB	0	-	10.00-201.00	85 (50.00)	2,4-DB	J(all detects) R(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-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (SL-050-SA7-SS-0.0-0.5)	4,4'-DDD 4,4'-DDT ENDRIN ALDEHYDE	267 - 262	266 - 215	16.00-163.00 10.00-176.00 10.00-148.00	- 62 (50.00) -	4,4'-DDD 4,4'-DDT ENDRIN ALDEHYDE	No Qual, Diluted Out
SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (SL-050-SA7-SS-0.0-0.5)	ALDRIN ALPHA-BHC BETA-BHC DELTA-BHC DIELDRIN ENDOSULFAN I ENDOSULFAN II ENDOSULFAN SULFATE ENDRIN ENDRIN KETONE gamma-BHC (Lindane) HEPTACHLOR METHOXYCHLOR	0 - 0 0 0 0 177 0 0 0 0 0 0 0 186	0 0 0 - 0 0 0 0 - 0 0 0 0 0	16.00-126.00 10.00-129.00 14.00-147.00 23.00-140.00 19.00-154.00 16.00-137.00 28.00-154.00 21.00-160.00 11.00-149.00 22.00-165.00 10.00-140.00 13.00-126.00 32.00-147.00	- 200 (50.00) - 200 (50.00) - - 200 (50.00) - 200 (50.00) - - - 200 (50.00)	ALDRIN ALPHA-BHC BETA-BHC DELTA-BHC DIELDRIN ENDOSULFAN I ENDOSULFAN II ENDOSULFAN SULFATE ENDRIN ENDRIN KETONE gamma-BHC (Lindane) HEPTACHLOR METHOXYCHLOR	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-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (SL-050-SA7-SS-0.0-0.5)	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	554 2854 1483	474 3079 9342	49.00-123.00 49.00-123.00 49.00-123.00	- - -	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	No Qual, Diluted Out
SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (SL-050-SA7-SS-0.0-0.5)	EFH (C12-C14) EFH (C8-C11)	0 0	0 0	49.00-123.00 49.00-123.00	- -	EFH (C12-C14) EFH (C8-C11)	No Qual, Diluted Out

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_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-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (SL-050-SA7-SS-0.0-0.5)	DIETHYLENE GLYCOL	0	0	59.00-109.00	-	DIETHYLENE GLYCOL	J(all detects) R(all non-detects)
SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (SL-050-SA7-SS-0.0-0.5)	ETHYLENE GLYCOL Propylene glycol	19 31	19 31	63.00-107.00 63.00-107.00	- -	ETHYLENE GLYCOL Propylene glycol	J(all detects) UJ(all non-detects)

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (DUP03-SA7-QC-092011)	BERYLLIUM	142	-	75.00-125.00	-	BERYLLIUM	J(all detects)
SL-005-SA7-SS-0.0-0.5	CHROMIUM	165	-	75.00-125.00	-	CHROMIUM	
SL-006-SA7-SS-0.0-0.5	COBALT	148	-	75.00-125.00	-	COBALT	
SL-043-SA7-SS-0.0-0.5	COPPER	178	127	75.00-125.00	-	COPPER	
SL-046-SA7-SS-0.0-0.5	NICKEL	190	130	75.00-125.00	-	NICKEL	
SL-047-SA7-SS-0.0-0.5	SILVER	154	129	75.00-125.00	-	SILVER	
SL-049-SA7-SS-0.0-0.5	THALLIUM	151	-	75.00-125.00	-	THALLIUM	
SL-050-SA7-SS-0.0-0.5	VANADIUM	209	-	75.00-125.00	-	VANADIUM	
SL-051-SA7-SS-0.0-0.5	ZINC	478	159	75.00-125.00	-	ZINC	
SL-125-SA7-SS-0.0-0.5							
SL-129-SA7-SS-0.0-0.5							
SL-131-SA7-SS-0.0-0.5							
SL-134-SA7-SS-0.0-0.5							
SL-135-SA7-SS-0.0-0.5							
SL-136-SA7-SS-0.0-0.5							
SL-137-SA7-SS-0.0-0.5							
SL-138-SA7-SS-0.0-0.5							
SL-173-SA7-SS-0.0-0.5							
SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (DUP03-SA7-QC-092011)	ANTIMONY	60	42	75.00-125.00	24 (20.00)	ANTIMONY	
SL-005-SA7-SS-0.0-0.5	ARSENIC	222	-	75.00-125.00	25 (20.00)	ARSENIC	
SL-006-SA7-SS-0.0-0.5	CADMIUM	166	129	75.00-125.00	21 (20.00)	CADMIUM	
SL-043-SA7-SS-0.0-0.5	LEAD	300	146	75.00-125.00	21 (20.00)	LEAD	
SL-046-SA7-SS-0.0-0.5							
SL-047-SA7-SS-0.0-0.5							
SL-049-SA7-SS-0.0-0.5							
SL-050-SA7-SS-0.0-0.5							
SL-051-SA7-SS-0.0-0.5							
SL-085-SA7-SS-0.0-0.5							
SL-125-SA7-SS-0.0-0.5							
SL-129-SA7-SS-0.0-0.5							
SL-131-SA7-SS-0.0-0.5							
SL-134-SA7-SS-0.0-0.5							
SL-135-SA7-SS-0.0-0.5							
SL-136-SA7-SS-0.0-0.5							
SL-137-SA7-SS-0.0-0.5							
SL-138-SA7-SS-0.0-0.5							
SL-173-SA7-SS-0.0-0.5							

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_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
<b>SL-050-SA7-SS-0.0-0.5MS</b> (DUP03-SA7-QC-092011 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-131-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5)	SELENIUM	140	-	75.00-125.00	-	SELENIUM	J(all detects)
<b>SL-050-SA7-SS-0.0-0.5MS</b> <b>SL-050-SA7-SS-0.0-0.5MSD</b> (DUP03-SA7-QC-092011 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-131-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5)	MOLYBDENUM	156	128	75.00-125.00	-	MOLYBDENUM	J(all detects)
<b>SL-050-SA7-SS-0.0-0.5MS</b> <b>SL-050-SA7-SS-0.0-0.5MSD</b> (DUP03-SA7-QC-092011 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-131-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5)	BARIUM	364	-	75.00-125.00	21 (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: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8010E**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (DUP03-SA7-QC-092011 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-131-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5)	ALUMINUM IRON MAGNESIUM POTASSIUM	2700 2076 469 144	1658 665 307 137	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINUM IRON MAGNESIUM POTASSIUM	No Qual, >4x
SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (DUP03-SA7-QC-092011 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-131-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5)	CALCIUM	292	-134	75.00-125.00	-	CALCIUM	No Qual, >4x

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (SL-050-SA7-SS-0.0-0.5)	2-METHYLNAPHTHALENE ACENAPHTHENE ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BIS(2-ETHYLHEXYL)PHTHALAT DIBENZO(A,H)ANTHRACENE Di-n-butylphthalate Di-n-octylphthalate FLUORENE INDENO(1,2,3-CD)PYRENE PYRENE	105 - - - 342 1645 - 157 219 - - -	- 217 417 767 1586 181 - - 213 215 200 1910	64.00-103.00 63.00-105.00 73.00-115.00 58.00-142.00 43.00-155.00 39.00-167.00 22.00-133.00 65.00-148.00 40.00-192.00 66.00-122.00 21.00-143.00 15.00-153.00	- 54 (30.00) 93 (30.00) 71 (30.00) 63 (30.00) 160 (30.00) 38 (30.00) 32 (30.00) - 55 (30.00) 54 (30.00) 84 (30.00)	2-METHYLNAPHTHALENE ACENAPHTHENE ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BIS(2-ETHYLHEXYL)PHTHALA DIBENZO(A,H)ANTHRACENE Di-n-butylphthalate Di-n-octylphthalate FLUORENE INDENO(1,2,3-CD)PYRENE PYRENE	No Qual, Diluted Out

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_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-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (SL-050-SA7-SS-0.0-0.5)	BENZO(K)FLUORANTHENE Dimethylphthalate FLUORANTHENE PHENANTHRENE	-40 - -93 -4	396 0 1851 1376	57.00-153.00 74.00-118.00 26.00-166.00 12.00-165.00	65 (30.00) 200 (30.00) 75 (30.00) 88 (30.00)	BENZO(K)FLUORANTHENE Dimethylphthalate FLUORANTHENE PHENANTHRENE	No Qual, Diluted Out
SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (SL-050-SA7-SS-0.0-0.5)	BENZO(A)ANTHRACENE BENZO(G,H,I)PERYLENE CHRYSENE	27 28 47	720 174 662	59.00-128.00 33.00-141.00 48.00-134.00	73 (30.00) 47 (30.00) 63 (30.00)	BENZO(A)ANTHRACENE BENZO(G,H,I)PERYLENE CHRYSENE	No Qual, Diluted Out

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (SL-050-SA7-SS-0.0-0.5)	ACENAPHTHENE ANTHRACENE BENZO(A)ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE CARBAZOLE CHRYSENE DIBENZO(A,H)ANTHRACENE FLUORANTHENE FLUORENE INDENO(1,2,3-CD)PYRENE PHENANTHRENE	117 153 196 176 203 155 140 129 185 126 465 - 155 430	- - - - - - - - - - - - - -	75.00-115.00 75.00-115.00 65.00-122.00 57.00-126.00 59.00-125.00 59.00-127.00 56.00-132.00 64.00-120.00 62.00-128.00 65.00-125.00 73.00-112.00 63.00-121.00 61.00-126.00 65.00-125.00	34 (30.00) 55 (30.00) 82 (30.00) 72 (30.00) 75 (30.00) 57 (30.00) 61 (30.00) 48 (30.00) 79 (30.00) 32 (30.00) 125 (30.00) 32 (30.00) 55 (30.00) 126 (30.00)	ACENAPHTHENE ANTHRACENE BENZO(A)ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE CARBAZOLE CHRYSENE DIBENZO(A,H)ANTHRACENE FLUORANTHENE FLUORENE INDENO(1,2,3-CD)PYRENE PHENANTHRENE	No Qual, Diluted Out
SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (SL-050-SA7-SS-0.0-0.5)	2,4-DINITROPHENOL 4,6-DINITRO-2-METHYLPHENOL ANILINE BENZIDINE BENZOIC ACID PENTACHLOROPHENOL	0 0 - 0 0 -	0 0 - 0 0 0	20.00-143.00 11.00-126.00 18.00-116.00 35.00-141.00 10.00-173.00 28.00-127.00	- - 200 (30.00) - - 200 (30.00)	2,4-DINITROPHENOL 4,6-DINITRO-2-METHYLPHENOL ANILINE BENZIDINE BENZOIC ACID PENTACHLOROPHENOL	No Qual, Diluted Out
SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (SL-050-SA7-SS-0.0-0.5)	4-CHLOROPHENYL-PHENYLET HEXACHLOROBENZENE PYRENE	- - 366	75 71 68	80.00-109.00 77.00-114.00 74.00-126.00	- - 118 (30.00)	4-CHLOROPHENYL-PHENYLET HEXACHLOROBENZENE PYRENE	No Qual, Diluted Out

**Method: 300.0**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-051-SA7-SS-0.0-0.5MS (DUP03-SA7-QC-092011 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5)	FLUORIDE	79	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_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-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD (DUP03-SA7-QC-092011 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-131-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5)	TITANIUM	309	257	75.00-125.00	-	TITANIUM	No Qual, >4x

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-050-SA7-SS-0.0-0.5DUP (DUP03-SA7-QC-092011 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-131-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5)	BORON CALCIUM	38 22	20.00 20.00	J (all detects) UJ (all non-detects)  B, No Qual, OK by Difference

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-050-SA7-SS-0.0-0.5DUP (DUP03-SA7-QC-092011 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-131-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5)	ANTIMONY	21	20.00	No Qual, OK by Difference

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12679AQ240229A (DUP03 -SA7-QC-092011 SL -005-SA7-SS-0.0-0.5 SL -006-SA7-SS-0.0-0.5 SL -043-SA7-SS-0.0-0.5 SL -046-SA7-SS-0.0-0.5 SL -047-SA7-SS-0.0-0.5 SL -049-SA7-SS-0.0-0.5 SL -050-SA7-SS-0.0-0.5 SL -051-SA7-SS-0.0-0.5 SL -085-SA7-SS-0.0-0.5 SL -129-SA7-SS-0.0-0.5 SL -131-SA7-SS-0.0-0.5 SL -134-SA7-SS-0.0-0.5 SL -135-SA7-SS-0.0-0.5 SL -136-SA7-SS-0.0-0.5 SL -137-SA7-SS-0.0-0.5 SL -138-SA7-SS-0.0-0.5 SL -173-SA7-SS-0.0-0.5)	DINOSEB	7	-	10.00-36.00	-	DINOSEB	J (all detects) R (all non-detects)

**Method: 8031A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12670AQ242105A (DUP03 -SA7-QC-092011 SL -005-SA7-SS-0.0-0.5 SL -006-SA7-SS-0.0-0.5 SL -043-SA7-SS-0.0-0.5 SL -046-SA7-SS-0.0-0.5 SL -047-SA7-SS-0.0-0.5 SL -049-SA7-SS-0.0-0.5 SL -050-SA7-SS-0.0-0.5 SL -051-SA7-SS-0.0-0.5 SL -085-SA7-SS-0.0-0.5 SL -129-SA7-SS-0.0-0.5 SL -131-SA7-SS-0.0-0.5 SL -134-SA7-SS-0.0-0.5 SL -135-SA7-SS-0.0-0.5 SL -136-SA7-SS-0.0-0.5 SL -137-SA7-SS-0.0-0.5 SL -138-SA7-SS-0.0-0.5 SL -173-SA7-SS-0.0-0.5)	HEPTACHLOR EPOXIDE	64	-	65.00-131.00	-	HEPTACHLOR EPOXIDE	J(all detects) UJ(all non-detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 6010E**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P26508BQ221745 (DUP03 -SA7-QC-092011 SL -005-SA7-SS-0.0-0.5 SL -006-SA7-SS-0.0-0.5 SL -043-SA7-SS-0.0-0.5 SL -046-SA7-SS-0.0-0.5 SL -047-SA7-SS-0.0-0.5 SL -049-SA7-SS-0.0-0.5 SL -050-SA7-SS-0.0-0.5 SL -051-SA7-SS-0.0-0.5 SL -085-SA7-SS-0.0-0.5 SL -125-SA7-SS-0.0-0.5 SL -129-SA7-SS-0.0-0.5 SL -131-SA7-SS-0.0-0.5 SL -134-SA7-SS-0.0-0.5 SL -135-SA7-SS-0.0-0.5 SL -136-SA7-SS-0.0-0.5 SL -137-SA7-SS-0.0-0.5 SL -138-SA7-SS-0.0-0.5 SL -173-SA7-SS-0.0-0.5)	ALUMINUM IRON	132 138	- -	80.00-120.00 80.00-120.00	- -	ALUMINUM IRON	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
P9LALCSQ261335 (DUP03 -SA7-QC-092011 SL -005-SA7-SS-0.0-0.5 SL -006-SA7-SS-0.0-0.5 SL -043-SA7-SS-0.0-0.5 SL -046-SA7-SS-0.0-0.5 SL -047-SA7-SS-0.0-0.5 SL -049-SA7-SS-0.0-0.5 SL -050-SA7-SS-0.0-0.5 SL -051-SA7-SS-0.0-0.5 SL -085-SA7-SS-0.0-0.5 SL -125-SA7-SS-0.0-0.5 SL -129-SA7-SS-0.0-0.5 SL -131-SA7-SS-0.0-0.5 SL -134-SA7-SS-0.0-0.5 SL -135-SA7-SS-0.0-0.5 SL -136-SA7-SS-0.0-0.5 SL -137-SA7-SS-0.0-0.5 SL -138-SA7-SS-0.0-0.5 SL -173-SA7-SS-0.0-0.5)	2-NITROPHENOL	114	-	76.00-111.00	-	2-NITROPHENOL	J(all detects)

# Surrogate Outlier Report

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 1625C  
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DUP03-SA7-QC-092011	N-Nitrosodimethylamine-d6	182	50.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-043-SA7-SS-0.0-0.5	N-Nitrosodimethylamine-d6	173	50.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-046-SA7-SS-0.0-0.5	N-Nitrosodimethylamine-d6	176	50.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-047-SA7-SS-0.0-0.5	N-Nitrosodimethylamine-d6	185	50.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-049-SA7-SS-0.0-0.5	N-Nitrosodimethylamine-d6	183	50.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-050-SA7-SS-0.0-0.5	N-Nitrosodimethylamine-d6	185	50.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-051-SA7-SS-0.0-0.5	N-Nitrosodimethylamine-d6	193	50.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-085-SA7-SS-0.0-0.5	N-Nitrosodimethylamine-d6	184	50.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-134-SA7-SS-0.0-0.5	N-Nitrosodimethylamine-d6	185	50.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-135-SA7-SS-0.0-0.5	N-Nitrosodimethylamine-d6	183	50.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-136-SA7-SS-0.0-0.5	N-Nitrosodimethylamine-d6	184	50.00-150.00	All Target Analytes	No Qual, Diluted Out
SL-173-SA7-SS-0.0-0.5	N-Nitrosodimethylamine-d6	193	50.00-150.00	All Target Analytes	No Qual, Diluted Out

Method: 8015B  
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-050-SA7-SS-0.0-0.5RLMS	n-Triacontane-d62	18	19.00-152.00	All Target Analytes	No Qual, Diluted Out
SL-051-SA7-SS-0.0-0.5	n-Triacontane-d62	15	19.00-152.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-129-SA7-SS-0.0-0.5	ACETONE	41	42.00-138.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-135-SA7-SS-0.0-0.5	n-Triacontane-d62	339	19.00-152.00	All Target Analytes	J(all detects)

Method: 8015M  
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-006-SA7-SS-0.0-0.5	O-TERPHENYL	158	47.00-145.00	All Target Analytes	No Qual, Diluted Out
SL-134-SA7-SS-0.0-0.5	O-TERPHENYL	149	47.00-145.00	All Target Analytes	No Qual, Diluted Out
SL-138-SA7-SS-0.0-0.5	O-TERPHENYL	156	47.00-145.00	All Target Analytes	No Qual, Diluted Out

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Surrogate Outlier Report

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8081A  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DUP03-SA7-QC-092011	DECACHLOROBIPHENYL	767	20.00-120.00	All Target Analytes	J (all detects)
DUP03-SA7-QC-092011	TETRACHLORO-M-XYLENE	42	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-005-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	1183	20.00-120.00	All Target Analytes	J(all detects)
SL-005-SA7-SS-0.0-0.5	TETRACHLORO-M-XYLENE	44	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-006-SA7-SS-0.0-0.5	TETRACHLORO-M-XYLENE	43	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-047-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	124	20.00-120.00	All Target Analytes	J(all detects)
SL-049-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	164	20.00-120.00	All Target Analytes	J(all detects)
SL-050-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	465	20.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-050-SA7-SS-0.0-0.5	TETRACHLORO-M-XYLENE	43	50.00-130.00	All Target Analytes	No Qual, Diluted Out
SL-050-SA7-SS-0.0-0.5RLLCS	TETRACHLORO-M-XYLENE	45	50.00-130.00	All Target Analytes	Not Validated
SL-050-SA7-SS-0.0-0.5RLMS	DECACHLOROBIPHENYL	422	20.00-120.00	All Target Analytes	Not Validated
SL-050-SA7-SS-0.0-0.5RLMS	TETRACHLORO-M-XYLENE	47	50.00-130.00	All Target Analytes	Not Validated
SL-051-SA7-SS-0.0-0.5	TETRACHLORO-M-XYLENE	32	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-134-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	494	20.00-120.00	All Target Analytes	J(all detects)
SL-134-SA7-SS-0.0-0.5	TETRACHLORO-M-XYLENE	49	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)
SL-135-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	132	20.00-120.00	All Target Analytes	J(all detects)
SL-136-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	1405	20.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-136-SA7-SS-0.0-0.5	TETRACHLORO-M-XYLENE	47	50.00-130.00	All Target Analytes	No Qual, Diluted Out
SL-137-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	284	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-137-SA7-SS-0.0-0.5	TETRACHLORO-M-XYLENE	23	53.00-139.00	All Target Analytes	No Qual, Diluted Out
SL-138-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	154	45.00-120.00	All Target Analytes	J(all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Field Duplicate RPD Report

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248 v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 160.3M  
**Matrix:** SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
MOISTURE	1.9	1.5	24		No Qualifiers Applied

**Method:** 300.0  
**Matrix:** SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
FLUORIDE	3.2	2.8	13	50.00	No Qualifiers Applied
Nitrate-NO3	1.3	1.4	7	50.00	

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

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
ALUMINUM	14300	16500	14	50.00	No Qualifiers Applied
BORON	1.40	0.997	34	50.00	
CALCIUM	8680	9990	14	50.00	
IRON	22700	24900	9	50.00	
LITHIUM	25.4	26.1	3	50.00	
MAGNESIUM	5040	5480	8	50.00	
MANGANESE	286	306	7	50.00	
PHOSPHORUS	392	390	1	50.00	
POTASSIUM	3130	3300	5	50.00	
SODIUM	103	97.4	6	50.00	
STRONTIUM	23.7	28.6	19	50.00	
TIN	2.53	2.81	10	50.00	
TITANIUM	1200	1190	1	50.00	
Zirconium	3.40	3.97	15	50.00	

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

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
ANTIMONY	0.284	0.313	10	50.00	No Qualifiers Applied
ARSENIC	5.41	6.73	22	50.00	
BARIUM	113	129	13	50.00	
BERYLLIUM	0.628	0.654	4	50.00	
CADMIUM	0.352	0.474	30	50.00	
CHROMIUM	23.7	25.9	9	50.00	
COBALT	8.24	8.49	3	50.00	
COPPER	13.1	14.8	12	50.00	
LEAD	16.3	19.8	19	50.00	
MOLYBDENUM	0.467	0.499	7	50.00	
NICKEL	17.4	20.0	14	50.00	
SELENIUM	0.127	0.148	15	50.00	
SILVER	0.0618	0.0672	8	50.00	
THALLIUM	0.347	0.357	3	50.00	
VANADIUM	45.8	48.6	6	50.00	
ZINC	132	127	4	50.00	

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 7199  
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
HEXAVALENT CHROMIUM	0.37	0.32	14	50.00	No Qualifiers Applied

Method: 7471A  
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
MERCURY	0.0115	0.0115	0	50.00	No Qualifiers Applied

Method: 8015M  
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
EFH (C15-C20)	35	54	43	50.00	No Qualifiers Applied
EFH (C21-C30)	230	370	47	50.00	
EFH (C30-C40)	1000	1200	18	50.00	

Method: 8081A  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
Chlordane	12	5.8	70	50.00	J(all detects) UJ(all non-detects)
HEPTACHLOR EPOXIDE	0.85 U	0.16	200	50.00	

Method: 8082  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
AROCLOR 1260	4.5	5.5	20	50.00	No Qualifiers Applied
Aroclor 5460	8.3	6.9	18	50.00	
AROCLOR 1248	0.76	1.7 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 8151A  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
2,4,5-T	0.20	0.11	58	50.00	J(all detects) UJ(all non-detects)
2,4-D	3.6 U	1.3	200	50.00	
2,4-DB	2.2	1.7 U	200	50.00	
MCPA	150	250 U	200	50.00	

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 8270C SIM  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
2-METHYLNAPHTHALENE	8.4 U	7.1	200	50.00	J(all detects) UJ(all non-detects)
ACENAPHTHYLENE	2.4	4.4	59	50.00	
BIS(2-ETHYLHEXYL)PHTHALATE	91 U	61	200	50.00	
NAPHTHALENE	8.5	22	89	50.00	

Method: 8270C  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
BENZO(A)ANTHRACENE	280	1300	129	50.00	J(all detects) UJ(all non-detects)
BENZO(A)PYRENE	220	980	127	50.00	
BENZO(G,H,I)PERYLENE	170	590	111	50.00	
CARBAZOLE	90	340	116	50.00	
CHRYSENE	290	1200	122	50.00	
DIBENZOFURAN	850 U	98	200	50.00	
FLUORANTHENE	740	3500	130	50.00	
INDENO(1,2,3-CD)PYRENE	150	610	121	50.00	
PHENANTHRENE	520	2400	129	50.00	
PYRENE	580	2700	129	50.00	

Method: 9045M  
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
PH	8.20	8.37	2	50.00	No Qualifiers Applied

# Reporting Limit Outliers

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 300.0  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP03-SA7-QC-092011	Nitrate-NO3	J	1.4	1.6	PQL	mg/Kg	J (all detects)
SL-046-SA7-SS-0.0-0.5	Nitrate-NO3	J	1.1	1.5	PQL	mg/Kg	J (all detects)
SL-047-SA7-SS-0.0-0.5	Nitrate-NO3	J	1.2	1.5	PQL	mg/Kg	J (all detects)
SL-049-SA7-SS-0.0-0.5	Nitrate-NO3	J	1.4	1.6	PQL	mg/Kg	J (all detects)
SL-050-SA7-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
DUP03-SA7-QC-092011	BORON	J	0.997	4.88	PQL	mg/Kg	J (all detects)
	SODIUM	J	97.4	97.6	PQL	mg/Kg	
	TIN	J	2.81	9.76	PQL	mg/Kg	
	Zirconium	J	3.97	4.88	PQL	mg/Kg	
SL-005-SA7-SS-0.0-0.5	SODIUM	J	74.6	98.0	PQL	mg/Kg	J (all detects)
	TIN	J	2.90	9.80	PQL	mg/Kg	
	Zirconium	J	2.48	4.90	PQL	mg/Kg	
SL-006-SA7-SS-0.0-0.5	SODIUM	J	65.3	99.6	PQL	mg/Kg	J (all detects)
	TIN	J	2.97	9.96	PQL	mg/Kg	
	Zirconium	J	2.54	4.98	PQL	mg/Kg	
SL-043-SA7-SS-0.0-0.5	SODIUM	J	61.8	96.2	PQL	mg/Kg	J (all detects)
	TIN	J	2.80	9.62	PQL	mg/Kg	
	Zirconium	J	2.50	4.81	PQL	mg/Kg	
SL-046-SA7-SS-0.0-0.5	SODIUM	J	68.6	99.0	PQL	mg/Kg	J (all detects)
	TIN	J	2.85	9.90	PQL	mg/Kg	
	Zirconium	J	2.60	4.95	PQL	mg/Kg	
SL-047-SA7-SS-0.0-0.5	SODIUM	J	64.4	101	PQL	mg/Kg	J (all detects)
	TIN	J	2.76	10.1	PQL	mg/Kg	
	Zirconium	J	2.45	5.06	PQL	mg/Kg	
SL-049-SA7-SS-0.0-0.5	SODIUM	J	68.0	99.6	PQL	mg/Kg	J (all detects)
	TIN	J	2.76	9.96	PQL	mg/Kg	
	Zirconium	J	2.43	4.98	PQL	mg/Kg	
SL-050-SA7-SS-0.0-0.5	BORON	J	1.40	5.05	PQL	mg/Kg	J (all detects)
	TIN	J	2.53	10.1	PQL	mg/Kg	
	Zirconium	J	3.40	5.05	PQL	mg/Kg	
SL-051-SA7-SS-0.0-0.5	SODIUM	J	76.2	98.9	PQL	mg/Kg	J (all detects)
	TIN	J	3.03	9.89	PQL	mg/Kg	
	Zirconium	J	2.38	4.94	PQL	mg/Kg	
SL-085-SA7-SS-0.0-0.5	SODIUM	J	67.3	100	PQL	mg/Kg	J (all detects)
	TIN	J	2.85	10.0	PQL	mg/Kg	
	Zirconium	J	2.85	5.01	PQL	mg/Kg	
SL-125-SA7-SS-0.0-0.5	SODIUM	J	69.8	99.9	PQL	mg/Kg	J (all detects)
	TIN	J	1.04	9.99	PQL	mg/Kg	
	Zirconium	J	2.31	5.00	PQL	mg/Kg	
SL-129-SA7-SS-0.0-0.5	SODIUM	J	70.7	98.7	PQL	mg/Kg	J (all detects)
	TIN	J	1.08	9.87	PQL	mg/Kg	
	Zirconium	J	2.48	4.94	PQL	mg/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-131-SA7-SS-0.0-0.5	SODIUM TIN Zirconium	J	62.3	96.9	PQL	mg/Kg	J (all detects)
		J	2.69	9.69	PQL	mg/Kg	
		J	2.71	4.84	PQL	mg/Kg	
SL-134-SA7-SS-0.0-0.5	SODIUM TIN Zirconium	J	64.4	100	PQL	mg/Kg	J (all detects)
		J	2.89	10.0	PQL	mg/Kg	
		J	2.35	5.00	PQL	mg/Kg	
SL-135-SA7-SS-0.0-0.5	SODIUM TIN Zirconium	J	74.6	101	PQL	mg/Kg	J (all detects)
		J	2.91	10.1	PQL	mg/Kg	
		J	4.60	5.05	PQL	mg/Kg	
SL-136-SA7-SS-0.0-0.5	SODIUM TIN Zirconium	J	76.2	98.6	PQL	mg/Kg	J (all detects)
		J	2.94	9.86	PQL	mg/Kg	
		J	3.29	4.93	PQL	mg/Kg	
SL-137-SA7-SS-0.0-0.5	SODIUM TIN Zirconium	J	79.9	96.7	PQL	mg/Kg	J (all detects)
		J	3.19	9.67	PQL	mg/Kg	
		J	2.58	4.84	PQL	mg/Kg	
SL-138-SA7-SS-0.0-0.5	BORON TIN Zirconium	J	2.05	5.96	PQL	mg/Kg	J (all detects)
		J	3.48	11.9	PQL	mg/Kg	
		J	1.93	5.96	PQL	mg/Kg	
SL-173-SA7-SS-0.0-0.5	SODIUM TIN Zirconium	J	68.5	100	PQL	mg/Kg	J (all detects)
		J	2.98	10.0	PQL	mg/Kg	
		J	2.00	5.00	PQL	mg/Kg	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP03-SA7-QC-092011	SELENIUM SILVER	J	0.148	0.394	PQL	mg/Kg	J (all detects)
		J	0.0672	0.0986	PQL	mg/Kg	
SL-005-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.140	0.198	PQL	mg/Kg	J (all detects)
		J	0.142	0.396	PQL	mg/Kg	
		J	0.0321	0.0990	PQL	mg/Kg	
SL-006-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.151	0.391	PQL	mg/Kg	J (all detects)
		J	0.0674	0.0977	PQL	mg/Kg	
SL-043-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.115	0.194	PQL	mg/Kg	J (all detects)
		J	0.109	0.388	PQL	mg/Kg	
		J	0.0416	0.0971	PQL	mg/Kg	
SL-046-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.155	0.396	PQL	mg/Kg	J (all detects)
		J	0.0405	0.0990	PQL	mg/Kg	
SL-047-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.166	0.198	PQL	mg/Kg	J (all detects)
		J	0.122	0.397	PQL	mg/Kg	
		J	0.0310	0.0992	PQL	mg/Kg	
SL-049-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.125	0.197	PQL	mg/Kg	J (all detects)
		J	0.153	0.395	PQL	mg/Kg	
		J	0.0435	0.0987	PQL	mg/Kg	
SL-050-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.127	0.404	PQL	mg/Kg	J (all detects)
		J	0.0618	0.101	PQL	mg/Kg	
SL-051-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.121	0.388	PQL	mg/Kg	J (all detects)
		J	0.0763	0.0970	PQL	mg/Kg	
SL-085-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.114	0.200	PQL	mg/Kg	J (all detects)
		J	0.222	0.400	PQL	mg/Kg	
		J	0.0571	0.100	PQL	mg/Kg	

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

# Reporting Limit Outliers

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-125-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.131	0.194	PQL	mg/Kg	J (all detects)
		J	0.128	0.388	PQL	mg/Kg	
		J	0.0244	0.0971	PQL	mg/Kg	
SL-129-SA7-SS-0.0-0.5	ANTIMONY SELENIUM	J	0.163	0.197	PQL	mg/Kg	J (all detects)
		J	0.146	0.395	PQL	mg/Kg	
SL-131-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.105	0.194	PQL	mg/Kg	J (all detects)
		J	0.108	0.387	PQL	mg/Kg	
		J	0.0628	0.0969	PQL	mg/Kg	
SL-134-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.139	0.404	PQL	mg/Kg	J (all detects)
		J	0.0837	0.101	PQL	mg/Kg	
SL-135-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.140	0.396	PQL	mg/Kg	J (all detects)
		J	0.0686	0.0991	PQL	mg/Kg	
SL-136-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.133	0.406	PQL	mg/Kg	J (all detects)
		J	0.0659	0.102	PQL	mg/Kg	
SL-137-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.0760	0.195	PQL	mg/Kg	J (all detects)
		J	0.103	0.391	PQL	mg/Kg	
		J	0.0437	0.0977	PQL	mg/Kg	
SL-138-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.177	0.238	PQL	mg/Kg	J (all detects)
		J	0.166	0.477	PQL	mg/Kg	
		J	0.0734	0.119	PQL	mg/Kg	
SL-173-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.235	0.396	PQL	mg/Kg	J (all detects)
		J	0.0447	0.0990	PQL	mg/Kg	

**Method:** 7199  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP03-SA7-QC-092011	HEXAVALENT CHROMIUM	J	0.32	1.0	PQL	mg/Kg	J (all detects)
SL-005-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.34	1.0	PQL	mg/Kg	J (all detects)
SL-047-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.29	1.0	PQL	mg/Kg	J (all detects)
SL-050-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.37	1.0	PQL	mg/Kg	J (all detects)
SL-136-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.47	1.0	PQL	mg/Kg	J (all detects)
SL-137-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.42	1.0	PQL	mg/Kg	J (all detects)

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP03-SA7-QC-092011	MERCURY	J	0.0115	0.0944	PQL	mg/Kg	J (all detects)
SL-005-SA7-SS-0.0-0.5	MERCURY	J	0.0142	0.0981	PQL	mg/Kg	J (all detects)
SL-006-SA7-SS-0.0-0.5	MERCURY	J	0.0124	0.0981	PQL	mg/Kg	J (all detects)
SL-043-SA7-SS-0.0-0.5	MERCURY	J	0.0079	0.0990	PQL	mg/Kg	J (all detects)
SL-046-SA7-SS-0.0-0.5	MERCURY	J	0.0075	0.0996	PQL	mg/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-049-SA7-SS-0.0-0.5	MERCURY	J	0.0089	0.0970	PQL	mg/Kg	J (all detects)
SL-050-SA7-SS-0.0-0.5	MERCURY	J	0.0115	0.0997	PQL	mg/Kg	J (all detects)
SL-051-SA7-SS-0.0-0.5	MERCURY	J	0.0130	0.0988	PQL	mg/Kg	J (all detects)
SL-085-SA7-SS-0.0-0.5	MERCURY	J	0.0123	0.0984	PQL	mg/Kg	J (all detects)
SL-125-SA7-SS-0.0-0.5	MERCURY	J	0.0106	0.0982	PQL	mg/Kg	J (all detects)
SL-129-SA7-SS-0.0-0.5	MERCURY	J	0.0171	0.0998	PQL	mg/Kg	J (all detects)
SL-131-SA7-SS-0.0-0.5	MERCURY	J	0.0175	0.0979	PQL	mg/Kg	J (all detects)
SL-134-SA7-SS-0.0-0.5	MERCURY	J	0.0138	0.0999	PQL	mg/Kg	J (all detects)
SL-135-SA7-SS-0.0-0.5	MERCURY	J	0.0163	0.101	PQL	mg/Kg	J (all detects)
SL-136-SA7-SS-0.0-0.5	MERCURY	J	0.0366	0.0966	PQL	mg/Kg	J (all detects)
SL-137-SA7-SS-0.0-0.5	MERCURY	J	0.0161	0.0994	PQL	mg/Kg	J (all detects)
SL-138-SA7-SS-0.0-0.5	MERCURY	J	0.0208	0.121	PQL	mg/Kg	J (all detects)

**Method:** 8015B  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA7-SS-0.0-0.5	Isopropanol	J	110	500	PQL	ug/Kg	J (all detects)
SL-046-SA7-SS-0.0-0.5	METHANOL	J	310	500	PQL	ug/Kg	J (all detects)
SL-047-SA7-SS-0.0-0.5	METHANOL	J	330	510	PQL	ug/Kg	J (all detects)
SL-049-SA7-SS-0.0-0.5	METHANOL	J	310	510	PQL	ug/Kg	J (all detects)
SL-051-SA7-SS-0.0-0.5	Isopropanol	J	280	500	PQL	ug/Kg	J (all detects)
SL-134-SA7-SS-0.0-0.5	Isopropanol METHANOL	J J	110 250	510 510	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-135-SA7-SS-0.0-0.5	METHANOL	J	360	510	PQL	ug/Kg	J (all detects)
SL-136-SA7-SS-0.0-0.5	METHANOL	J	440	510	PQL	ug/Kg	J (all detects)

**Method:** 8015M  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP03-SA7-QC-092011	EFH (C15-C20)	J	54	61	PQL	mg/Kg	J (all detects)
SL-005-SA7-SS-0.0-0.5	EFH (C15-C20)	J	5.1	12	PQL	mg/Kg	J (all detects)
SL-046-SA7-SS-0.0-0.5	EFH (C15-C20)	J	3.3	6.0	PQL	mg/Kg	J (all detects)
SL-050-SA7-SS-0.0-0.5	EFH (C15-C20)	J	35	61	PQL	mg/Kg	J (all detects)
SL-085-SA7-SS-0.0-0.5	EFH (C15-C20)	J	0.89	1.2	PQL	mg/Kg	J (all detects)
SL-131-SA7-SS-0.0-0.5	EFH (C15-C20)	J	1.1	1.2	PQL	mg/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8015M  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-135-SA7-SS-0.0-0.5	EFH (C15-C20)	J	60	61	PQL	mg/Kg	J (all detects)
SL-136-SA7-SS-0.0-0.5	EFH (C15-C20)	J	14	30	PQL	mg/Kg	J (all detects)
SL-137-SA7-SS-0.0-0.5	EFH (C15-C20)	J	2.9	6.0	PQL	mg/Kg	J (all detects)
SL-138-SA7-SS-0.0-0.5	EFH (C15-C20)	J	12	15	PQL	mg/Kg	J (all detects)
SL-173-SA7-SS-0.0-0.5	EFH (C15-C20)	J	0.67	1.2	PQL	mg/Kg	J (all detects)

**Method:** 8081A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP03-SA7-QC-092011	HEPTACHLOR EPOXIDE	J	0.16	0.17	PQL	ug/Kg	J (all detects)
SL-006-SA7-SS-0.0-0.5	HEPTACHLOR	J	0.089	0.17	PQL	ug/Kg	J (all detects)
SL-046-SA7-SS-0.0-0.5	Chlordane	J	1.1	3.4	PQL	ug/Kg	J (all detects)
SL-047-SA7-SS-0.0-0.5	gamma-BHC (Lindane)	J	0.049	0.17	PQL	ug/Kg	J (all detects)
SL-050-SA7-SS-0.0-0.5	Chlordane	J	12	17	PQL	ug/Kg	J (all detects)
SL-051-SA7-SS-0.0-0.5	Chlordane	J	1.2	3.4	PQL	ug/Kg	J (all detects)
SL-129-SA7-SS-0.0-0.5	Chlordane	J	2.1	3.4	PQL	ug/Kg	J (all detects)
SL-131-SA7-SS-0.0-0.5	4,4'-DDE	J	0.14	0.34	PQL	ug/Kg	J (all detects)
SL-134-SA7-SS-0.0-0.5	Chlordane HEPTACHLOR	J J	2.2 0.084	3.4 0.17	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-135-SA7-SS-0.0-0.5	4,4'-DDE Chlordane	J J	0.18 2.6	0.35 3.5	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-138-SA7-SS-0.0-0.5	ALPHA-BHC Chlordane DELTA-BHC	J J J	0.050 4.1 0.048	0.20 4.2 0.20	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-173-SA7-SS-0.0-0.5	4,4'-DDE 4,4'-DDT TOXAPHENE	J J J	0.093 0.072 2.5	0.34 0.34 6.6	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)

**Method:** 8082  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-005-SA7-SS-0.0-0.5	Aroclor 5460	J	2.9	3.3	PQL	ug/Kg	J (all detects)
SL-006-SA7-SS-0.0-0.5	Aroclor 5460	J	3.0	3.3	PQL	ug/Kg	J (all detects)
SL-043-SA7-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	0.98 1.0 2.7	1.7 1.7 3.3	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-046-SA7-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J J J	0.75 1.2 1.7	1.7 1.7 3.3	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)

## Reporting Limit Outliers

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8082  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-047-SA7-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260 Aroclor 5460	J	1.3	1.7	PQL	ug/Kg	J (all detects)
		J	1.5	1.7	PQL	ug/Kg	
		J	1.5	3.3	PQL	ug/Kg	
SL-049-SA7-SS-0.0-0.5	AROCLOR 1248 Aroclor 5460	J	1.4	1.7	PQL	ug/Kg	J (all detects)
		J	2.0	3.3	PQL	ug/Kg	
SL-050-SA7-SS-0.0-0.5	AROCLOR 1248	J	0.76	1.7	PQL	ug/Kg	J (all detects)
SL-051-SA7-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J	1.5	1.7	PQL	ug/Kg	J (all detects)
		J	3.0	3.3	PQL	ug/Kg	
SL-085-SA7-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260	J	1.5	1.7	PQL	ug/Kg	J (all detects)
		J	0.52	1.7	PQL	ug/Kg	
SL-125-SA7-SS-0.0-0.5	AROCLOR 1248 Aroclor 5460	J	1.0	1.7	PQL	ug/Kg	J (all detects)
		J	1.9	3.3	PQL	ug/Kg	
SL-129-SA7-SS-0.0-0.5	AROCLOR 1254	J	1.4	1.7	PQL	ug/Kg	J (all detects)
SL-131-SA7-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J	0.59	1.7	PQL	ug/Kg	J (all detects)
		J	1.6	3.3	PQL	ug/Kg	
SL-134-SA7-SS-0.0-0.5	AROCLOR 1254	J	1.2	1.7	PQL	ug/Kg	J (all detects)
SL-136-SA7-SS-0.0-0.5	AROCLOR 1248	J	0.56	1.7	PQL	ug/Kg	J (all detects)
SL-137-SA7-SS-0.0-0.5	AROCLOR 1254 AROCLOR 1260	J	3.4	8.6	PQL	ug/Kg	J (all detects)
		J	3.8	8.6	PQL	ug/Kg	

**Method:** 8151A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP03-SA7-QC-092011	2,4,5-T 2,4-D	J	0.11	0.17	PQL	ug/Kg	J (all detects)
		J	1.3	3.6	PQL	ug/Kg	
SL-050-SA7-SS-0.0-0.5	MCPA	J	150	250	PQL	ug/Kg	J (all detects)
SL-138-SA7-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.11	0.21	PQL	ug/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP03-SA7-QC-092011	ACENAPHTHENE	J	140	850	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	430	850	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	590	850	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	500	850	PQL	ug/Kg	
	CARBAZOLE	J	340	850	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	160	850	PQL	ug/Kg	
	DIBENZOFURAN	J	98	850	PQL	ug/Kg	
	FLUORENE	J	150	850	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	610	850	PQL	ug/Kg	
SL-005-SA7-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	160	170	PQL	ug/Kg	J (all detects)
	CARBAZOLE	J	50	170	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	35	170	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	140	170	PQL	ug/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-046-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	27	170	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	31	170	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	52	170	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	25	170	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	23	170	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	39	340	PQL	ug/Kg	
	CHRYSENE	J	34	170	PQL	ug/Kg	
	FLUORANTHENE	J	63	170	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	25	170	PQL	ug/Kg	
PHENANTHRENE	J	33	170	PQL	ug/Kg		
PYRENE	J	64	170	PQL	ug/Kg		
SL-047-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	88	340	PQL	ug/Kg	J (all detects)
SL-049-SA7-SS-0.0-0.5	BENZO(A)PYRENE	J	25	170	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	38	170	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	34	170	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	34	340	PQL	ug/Kg	
	CHRYSENE	J	26	170	PQL	ug/Kg	
	FLUORANTHENE	J	47	170	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	21	170	PQL	ug/Kg	
	PHENANTHRENE	J	21	170	PQL	ug/Kg	
PYRENE	J	41	170	PQL	ug/Kg		
SL-050-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	280	850	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	220	850	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	170	850	PQL	ug/Kg	
	CARBAZOLE	J	90	850	PQL	ug/Kg	
	CHRYSENE	J	290	850	PQL	ug/Kg	
	FLUORANTHENE	J	740	850	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	150	850	PQL	ug/Kg	
	PHENANTHRENE	J	520	850	PQL	ug/Kg	
PYRENE	J	580	850	PQL	ug/Kg		
SL-051-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	240	840	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	190	840	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	280	840	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	130	840	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	130	840	PQL	ug/Kg	
	CHRYSENE	J	260	840	PQL	ug/Kg	
	FLUORANTHENE	J	550	840	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	160	840	PQL	ug/Kg	
	PHENANTHRENE	J	380	840	PQL	ug/Kg	
PYRENE	J	460	840	PQL	ug/Kg		
SL-085-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	19	340	PQL	ug/Kg	J (all detects)
SL-134-SA7-SS-0.0-0.5	ACENAPHTHENE	J	78	170	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	30	340	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	120	170	PQL	ug/Kg	
	DIBENZOFURAN	J	57	170	PQL	ug/Kg	
	FLUORENE	J	65	170	PQL	ug/Kg	
	NAPHTHALENE	J	19	170	PQL	ug/Kg	
SL-135-SA7-SS-0.0-0.5	CARBAZOLE	J	280	850	PQL	ug/Kg	J (all detects)
	DIBENZOFURAN	J	93	850	PQL	ug/Kg	
	Di-n-octylphthalate	J	630	850	PQL	ug/Kg	
SL-136-SA7-SS-0.0-0.5	ANTHRACENE	J	92	850	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	240	850	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	250	850	PQL	ug/Kg	
	PHENANTHRENE	J	580	850	PQL	ug/Kg	
SL-138-SA7-SS-0.0-0.5	PENTACHLOROPHENOL	J	220	610	PQL	ug/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method:</b> 8270C
<b>Matrix:</b> SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-173-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	27	340	PQL	ug/Kg	J (all detects)

<b>Method:</b> 8270C SIM
<b>Matrix:</b> SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP03-SA7-QC-092011	2-METHYLNAPHTHALENE	J	7.1	17	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	4.4	17	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	61	180	PQL	ug/Kg	
SL-005-SA7-SS-0.0-0.5	ACENAPHTHYLENE	J	2.7	8.3	PQL	ug/Kg	J (all detects)
SL-006-SA7-SS-0.0-0.5	ANTHRACENE	J	2.4	8.3	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	85	90	PQL	ug/Kg	
SL-043-SA7-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	3.4	8.3	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	80	89	PQL	ug/Kg	
SL-046-SA7-SS-0.0-0.5	ANTHRACENE	J	3.4	8.3	PQL	ug/Kg	J (all detects)
SL-047-SA7-SS-0.0-0.5	ANTHRACENE	J	2.4	8.3	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	7.5	8.3	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	6.1	8.3	PQL	ug/Kg	
SL-050-SA7-SS-0.0-0.5	ACENAPHTHYLENE	J	2.4	8.4	PQL	ug/Kg	J (all detects)
SL-051-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	43	90	PQL	ug/Kg	J (all detects)
SL-085-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.0	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.6	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.72	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.1	1.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	7.2	18	PQL	ug/Kg	
SL-125-SA7-SS-0.0-0.5	PHENANTHRENE	J	1.6	1.7	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	4.6	8.4	PQL	ug/Kg	
SL-129-SA7-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	5.4	8.4	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	6.8	8.4	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	3.5	8.4	PQL	ug/Kg	
	ACENAPHTHENE	J	0.71	1.7	PQL	ug/Kg	
SL-131-SA7-SS-0.0-0.5	ANTHRACENE	J	0.74	1.7	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	10	18	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.0	1.7	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.1	1.7	PQL	ug/Kg	
SL-131-SA7-SS-0.0-0.5	BENZO(A)PYRENE	J	1.6	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.5	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.1	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.5	18	PQL	ug/Kg	
	Butylbenzylphthalate	J	6.1	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.4	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.6	1.7	PQL	ug/Kg	
	SL-134-SA7-SS-0.0-0.5	ACENAPHTHYLENE	J	3.7	8.4	PQL	
SL-135-SA7-SS-0.0-0.5	ACENAPHTHYLENE	J	38	84	PQL	ug/Kg	J (all detects)
SL-136-SA7-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	3.6	8.4	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	4.2	8.4	PQL	ug/Kg	
	Butylbenzylphthalate	J	35	91	PQL	ug/Kg	
	NAPHTHALENE	J	7.3	8.4	PQL	ug/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE248

Laboratory: LL

EDD Filename: DE248\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-137-SA7-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	5.2	8.4	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	6.1	8.4	PQL	ug/Kg	
	ACENAPHTHYLENE	J	1.7	8.4	PQL	ug/Kg	
	Di-n-butylphthalate	J	57	90	PQL	ug/Kg	
SL-138-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	5.4	10	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	8.0	10	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	6.7	10	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	5.1	10	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	5.3	10	PQL	ug/Kg	
PHENANTHRENE	J	6.6	10	PQL	ug/Kg		
SL-173-SA7-SS-0.0-0.5	BENZO(A)PYRENE	J	0.79	1.7	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.93	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.84	1.7	PQL	ug/Kg	
	PYRENE	J	1.4	1.7	PQL	ug/Kg	

## **Enclosure II**

### **Level IV Validation Reports**

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** September 19 through September 20, 2011  
**LDC Report Date:** January 4, 2012  
**Matrix:** Soil  
**Parameters:** Semivolatiles  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE248

### Sample Identification

SL-131-SA7-SS-0.0-0.5  
SL-137-SA7-SS-0.0-0.5  
SL-138-SA7-SS-0.0-0.5  
SL-005-SA7-SS-0.0-0.5  
SL-006-SA7-SS-0.0-0.5  
SL-043-SA7-SS-0.0-0.5  
SL-046-SA7-SS-0.0-0.5  
SL-047-SA7-SS-0.0-0.5  
SL-049-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5  
SL-051-SA7-SS-0.0-0.5  
SL-085-SA7-SS-0.0-0.5  
SL-125-SA7-SS-0.0-0.5  
SL-129-SA7-SS-0.0-0.5  
SL-134-SA7-SS-0.0-0.5  
SL-135-SA7-SS-0.0-0.5  
SL-173-SA7-SS-0.0-0.5  
DUP03-SA7-QC-092011  
SL-136-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5MS  
SL-050-SA7-SS-0.0-0.5MSD

## Introduction

This data review covers 21 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.

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 not within the QC limits. Since the samples were diluted out, no data were qualified.

## 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
269LALCS	2-Nitrophenol	114 (76-111)	All samples in SDG DE248	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 DE248	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-050-SA7-SS-0.0-0.5 and DUP03-SA7-QC-092011 were identified as field duplicates. No semivolatiles were detected in any of the samples.

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
Benzo(a)anthracene	280	1300	129 (≤50)	J (all detects)	A
Benzo(a)pyrene	220	980	127 (≤50)	J (all detects)	A
Benzo(g,h,i)perylene	170	590	111 (≤50)	J (all detects)	A
Carbazole	90	340	116 (≤50)	J (all detects)	A
Chrysene	290	1200	122 (≤50)	J (all detects)	A
Fluoranthene	740	3500	130 (≤50)	J (all detects)	A
Indeno(1,2,3-cd)pyrene	150	610	121 (≤50)	J (all detects)	A
Phenanthrene	520	2400	129 (≤50)	J (all detects)	A
Pyrene	580	2700	129 (≤50)	J (all detects)	A
Acenaphthene	Not reported	140	-	-	-
Anthracene	Not reported	430	-	-	-
Benzo(b)fluoranthene	Not reported	1400	-	-	-
Benzo(k)fluoranthene	Not reported	500	-	-	-
Dibenzo(a,h)anthracene	Not reported	160	-	-	-

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
Dibenzofuran	850U	98	200 (≤50)	J (all detects) UJ (all non-detects)	A
Fluorene	Not reported	150	-	-	-

**Santa Susana Field Laboratory  
Semivolatiles - Data Qualification Summary - SDG DE248**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	2-Nitrophenol	J (all detects)	P	Laboratory control samples (%R) (L)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
DE248	SL-050-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011	Benzo(a)anthracene Benzo(a)pyrene Benzo(g,h,i)perylene Carbazole Chrysene Fluoranthene Indeno(1,2,3-cd)pyrene Phenanthrene Pyrene	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	Field duplicates (RPD) (FD)
DE248	SL-050-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011	Dibenzofuran	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

**Santa Susana Field Laboratory  
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**  
**Semivolatiles - Field Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

**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	Δ	Sampling dates: 9/19 - 9/20/11
II.	GC/MS Instrument performance check	Δ	
III.	Initial calibration	<del>SW</del> A	% RSD ≤ 30, 12
IV.	Continuing calibration/ICV	Δ	100/CCV ≤ 25
V.	Blanks	Δ	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	SW	LC5
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	Δ	
XI.	Target compound identification	Δ	
XII.	Compound quantitation (R)/LOQ/LODs	<del>A</del>	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 10, 18
XVII.	Field blanks	N	

Note: A = Acceptable  
N = Not provided/applicable  
SW = See worksheet

ND = No compounds detected  
R = Rinstate  
FB = Field blank

D = Duplicate  
TB = Trip blank  
EB = Equipment blank

Validated Samples:

soil

1	SL-131-SA7-SS-0.0-0.5	11	SL-051-SA7-SS-0.0-0.5	21	SL-050-SA7-SS-0.0-0.5MSD	31	SBLKLA269
2	SL-137-SA7-SS-0.0-0.5	12	SL-085-SA7-SS-0.0-0.5	22		32	
3	SL-138-SA7-SS-0.0-0.5	13	SL-125-SA7-SS-0.0-0.5	23		33	
4	SL-005-SA7-SS-0.0-0.5	14	SL-129-SA7-SS-0.0-0.5	24		34	
5	SL-006-SA7-SS-0.0-0.5	15	SL-134-SA7-SS-0.0-0.5	25		35	
6	SL-043-SA7-SS-0.0-0.5	16	SL-135-SA7-SS-0.0-0.5	26		36	
7	SL-046-SA7-SS-0.0-0.5	17	SL-173-SA7-SS-0.0-0.5	27		37	
8	SL-047-SA7-SS-0.0-0.5	18	DUP03-SA7-QC-092011	28		38	
9	SL-049-SA7-SS-0.0-0.5	19	SL-136-SA7-SS-0.0-0.5	29		39	
10	SL-050-SA7-SS-0.0-0.5	20	SL-050-SA7-SS-0.0-0.5MS	30		40	

**Method:** Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/MS instrument performance check</b>				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples analyzed within the 12 hour clock criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		<input checked="" type="checkbox"/>		
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?			<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?			<input checked="" type="checkbox"/>	
<b>X. Internal standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>			
Were retention times within + 30 seconds from the associated calibration standard?	<input checked="" type="checkbox"/>			
<b>XI. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>			
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>			
<b>XII. Compound quantitation (CRQLs)</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input checked="" type="checkbox"/>			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>			
<b>XIII. Tentatively identified compounds (TIC)</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			<input checked="" type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XVI. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>			
Target compounds were detected in the field duplicates.	<input checked="" type="checkbox"/>			
<b>XVII. Field blanks</b>				
Field blanks were identified in this SDG.		<input checked="" type="checkbox"/>		
Target compounds were detected in the field blanks.			<input checked="" type="checkbox"/>	

# 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#: 26859R2a

**VALIDATION FINDINGS WORKSHEET**  
Field Duplicates

Page: 6 of 1  
 Reviewer: \_\_\_\_\_  
 2nd Reviewer: \_\_\_\_\_

**METHOD:** GC/MS SVOA (EPA SW 846 Method 8270C)

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	
	10	18		
CCC	280	1300	129	J/A det
III	220	980	127	
LLL	170	590	111	
WW	90	340	116	
DDD	290	1200	122	
YY	740	3500	130	
JJJ	150	610	121	
UU	520	2400	129	
ZZ	580	2700	129	✓
GG	NR	140	200	-
VV	NR	430	200	-
GGG	NR	1400	200	-
HHH	NR	500	200	-
KKK	NR	160	200	-
JJ	NR	98	200	-
NN	NR	150	200	-

V:\FIELD DUPLICATES\templates\26859R2a.wpd

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

**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:

$RRF = (A_x/C_x)/(A_{is}/C_{is})$   
 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		Recalculated		Reported		Recalculated	
				RRF (std)	(std)	RRF (std)	(std)	Average RRF (initial)	%RSD	Average RRF (initial)	%RSD
1	1CAL	9/22/11	Phenol (1st internal standard)	2.558	2.558	2.511	2.511	2.511	7	2.511	7
			4-chlorophenol (2nd internal standard)	0.465	0.465	0.461	0.461	0.461	2	0.461	2
			Fluorene (3rd internal standard)	0.396	0.396	0.380	0.380	0.380	5	0.380	5
			Pentachlorophenol (4th internal standard)	0.130	0.130	0.119	0.119	0.119	15	0.119	15
			Bis(2-ethylhexyl)phthalate (5th internal standard)	0.740	0.740	0.712	0.712	0.712	9	0.712	9
			<del>Benzo(a)pyrene (6th internal standard)</del>	1.113	1.113	1.071	1.071	1.071	6	1.071	6
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.

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

**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 =  $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$  Where: ave. RRF = initial calibration average RRF  
 RRF =  $(A_x)(C_b) / (A_b)(C_x)$  RRF = continuing calibration RRF  
 $A_x$  = Area of compound,  $A_b$  = Area of associated internal standard  
 $C_x$  = Concentration of compound,  $C_b$  = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	Reported		Recalculated	
					RRF (CC)	%D	RRF (CC)	%D
1	cen	10/02/11	Phenol (1st internal standard) <del>4-chlorophenol (1st internal standard)</del> Naphthalene (2nd internal standard) <del>4-nitrophenol (3rd internal standard)</del> Fluorene (3rd internal standard) Pentachlorophenol (4th internal standard) Bis(2-ethylhexyl)phthalate (5th internal standard) Benzo(a)pyrene (6th internal standard)	2.511	2.653	6	2.653	6
				0.461	0.457	1	0.457	1
				0.380	0.373	2	0.373	2
				0.119	0.113	5	0.113	5
				0.712	0.707	2	0.707	2
				1.071	1.103	3	1.103	3
2	cen	10/03/11	Phenol (1st internal standard) <del>4-chlorophenol (1st internal standard)</del> Naphthalene (2nd internal standard) <del>4-nitrophenol (3rd internal standard)</del> Fluorene (3rd internal standard) Pentachlorophenol (4th internal standard) Bis(2-ethylhexyl)phthalate (5th internal standard) Benzo(a)pyrene (6th internal standard)		2.4218	4	2.4218	4
					0.453	2	0.453	2
					0.396	4	0.396	4
					0.097	18	0.097	18
					0.732	3	0.732	3
					1.080	1	1.080	1
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.

**VALIDATION FINDINGS WORKSHEET I**  
**Surrogate Results Verification**

**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	94.360	94	94	0
2-Fluorobiphenyl	↓	96.394	96	96	↓
Terphenyl-d14	↓	87.050	87	87	
Phenol-d5	200	187.564	94	94	
2-Fluorophenol	↓	200.973	100	100	
2,4,6-Tribromophenol	↓	175.666	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					

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

**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      SC = Sample concentration  
 SA = Spike added

RPD =  $100 * (MSC - MS) / (MSC + MS)$       MSC = Matrix spike concentration      MSDC = Matrix spike duplicate concentration

MS/MSD samples: 20 + 21

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD		MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
Phenol	1666.67	1666.67	ND	1452.34	1305.69	87	87	78	78	11	11
N-Nitroso-di-n-propylamine				1340.04	1199.02	80	80	72	72	11	11
4-Chloro-3-methylphenol				1464.66	1322.36	88	88	79	79	10	10
Acenaphthene				1957.98	1346.07	117	117	83	83	34	34
Pentachlorophenol				810.42	ND	50	50	0	0	200	200
Pyrene			528.21	6668.23	1706.67	366	366	68	68	118	118

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.

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

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: 269 L A LCS

Compound	Spike Added (ug/L)		Spike Concentration (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	1666.67	NA	1756.2	NA	105	105				
N-Nitroso-di-n-propylamine			1515.9		91	91				
4-Chloro-3-methylphenol			1841.18		110	110				
Acenaphthene			1769.64		106	106				
Pentachlorophenol			1502.15		90	90				
Pyrene			1789.84		107	107			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.

**VALIDATION FINDINGS WORKSHEET  
Sample Calculation Verification**

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270)

Y/N N/A  
Y/N N/A

- Were all reported results recalculated and verified for all level IV samples?  
 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<sub>x</sub> = Area of the characteristic ion (EICP) for the compound to be measured
- A<sub>is</sub> = Area of the characteristic ion (EICP) for the specific internal standard
- I<sub>s</sub> = Amount of internal standard added in nanograms (ng)
- V<sub>o</sub> = Volume or weight of sample extract in milliliters (ml) or grams (g).
- V<sub>i</sub> = Volume of extract injected in microliters (ul)
- V<sub>c</sub> = 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, Di-n-butyl phthalate

Conc. =  $(31914) \times (20) \times (1000) \times ( ) \times ( )$   
 $\frac{469453 \times 1.399 \times 30 \times 0.99}{}$   
 = 33 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:** September 19 through September 20, 2011  
**LDC Report Date:** January 4, 2012  
**Matrix:** Soil  
**Parameters:** Semivolatiles  
**Validation Level:** Level IV  
**Laboratory:** Lancaster laboratories  
**Sample Delivery Group (SDG):** DE248

### Sample Identification

SL-131-SA7-SS-0.0-0.5  
SL-137-SA7-SS-0.0-0.5  
SL-138-SA7-SS-0.0-0.5  
SL-005-SA7-SS-0.0-0.5  
SL-006-SA7-SS-0.0-0.5  
SL-043-SA7-SS-0.0-0.5  
SL-046-SA7-SS-0.0-0.5  
SL-047-SA7-SS-0.0-0.5  
SL-049-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5  
SL-051-SA7-SS-0.0-0.5  
SL-085-SA7-SS-0.0-0.5  
SL-125-SA7-SS-0.0-0.5  
SL-129-SA7-SS-0.0-0.5  
SL-134-SA7-SS-0.0-0.5  
SL-135-SA7-SS-0.0-0.5  
SL-173-SA7-SS-0.0-0.5  
DUP03-SA7-QC-092011  
SL-136-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5MS  
SL-050-SA7-SS-0.0-0.5MSD

## Introduction

This data review covers 21 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.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination ( $r^2$ ) were greater than or equal to 0.990 .

Average relative response factors (RRF) for all compounds were within method and validation criteria.

## **IV. Continuing Calibration**

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) and 25.0% for all other compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration relative response factors (RRF) were within method and validation criteria.

## **V. Blanks**

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

No field blanks were identified in this SDG.

## VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within the QC limits. Since the samples were diluted out, no data were qualified.

## 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 with the following exceptions:

Sample	Internal Standards	Area (Limits)	Compound	Flag	A or P
SL-051-SA7-SS-0.0-0.5	Perylene-d12	119763 (152141-608562)	Di-n-octylphthalate	J (all detects) UJ (all non-detects)	A
SL-085-SA7-SS-0.0-0.5	Perylene-d12	143028 (152141-608562)	Di-n-octylphthalate 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) UJ (all non-detects)	A
SL-125-SA7-SS-0.0-0.5	Perylene-d12	118297 (152141-608562)	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) UJ (all non-detects)	A
SL-129-SA7-SS-0.0-0.5	Perylene-d12	123413 (152141-608562)	Di-n-octylphthalate 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) UJ (all non-detects)	A

## 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 DE248	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-050-SA7-SS-0.0-0.5 and DUP03-SA7-QC-092011 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-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
Naphthalene	8.5	22	89 (≤50)	J (all detects)	A
2-Methylnaphthalene	8.4U	7.1	200 (≤50)	J (all detects) UJ (all non-detects)	A
Acenaphthylene	2.4	4.4	59 (≤50)	J (all detects)	A
Acenaphthene	17	Not reported	-	-	-
Fluorene	16	Not reported	-	-	-

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
Anthracene	42	Not reported	-	-	-
Benzo(b)fluoranthene	340	Not reported	-	-	-
Benzo(k)fluoranthene	170	Not reported	-	-	-
Dibenz(a,h)anthracene	19	Not reported	-	-	-
Bis (2-Ethylhexyl) phthalate	91U	61	200 (≤50)	J (all detects) UJ (all non-detects)	A

**Santa Susana Field Laboratory  
Semivolatiles - Data Qualification Summary - SDG DE248**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE248	SL-051-SA7-SS-0.0-0.5	Di-n-octylphthalate	J (all detects) UJ (all non-detects)	A	Internal standard (area) (I)
DE248	SL-085-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5	Di-n-octylphthalate 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) UJ (all non-detects)	A	Internal standard (area) (I)
DE248	SL-125-SA7-SS-0.0-0.5	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) UJ (all non-detects)	A	Internal standard (area) (I)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
DE248	SL-050-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011	Naphthalene Acenaphthylene	J (all detects) J (all detects)	A	Field duplicates (RPD) (FD)
DE248	SL-050-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011	2-Methylnaphthalene  Bis (2-Ethylhexyl) phthalate	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

**Santa Susana Field Laboratory  
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory**  
**Semivolatiles - Field Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

LDC #: 26859R2b **VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE248

Level IV

Laboratory: Lancaster Laboratories

Date: 1/3/12

Page: 6 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**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: 9/19 - 9/20/11
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD = 30, r <sup>2</sup>
IV.	Continuing calibration/ICV	A	1σ/CCV = 25
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	SW	
XI.	Target compound identification	A	
XII.	Compound quantitation (R) LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 10 + 17
XVII.	Field blanks	N	

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

Validated Samples: 5011

1	SL-131-SA7-SS-0.0-0.5	11	SL-051-SA7-SS-0.0-0.5 ✓	21	SL-050-SA7-SS-0.0-0.5MSD	31	SBKLF267
2	SL-137-SA7-SS-0.0-0.5	12	SL-085-SA7-SS-0.0-0.5 ✓	22		32	
3	SL-138-SA7-SS-0.0-0.5	13	SL-125-SA7-SS-0.0-0.5 ✓	23		33	
4	SL-005-SA7-SS-0.0-0.5	14	SL-129-SA7-SS-0.0-0.5 ✓	24		34	
5	SL-006-SA7-SS-0.0-0.5	15	SL-134-SA7-SS-0.0-0.5	25		35	
6	SL-043-SA7-SS-0.0-0.5	16	SL-135-SA7-SS-0.0-0.5	26		36	
7	SL-046-SA7-SS-0.0-0.5	17	SL-173-SA7-SS-0.0-0.5	27		37	
8	SL-047-SA7-SS-0.0-0.5	18	DUP03-SA7-QC-092011	28		38	
9	SL-049-SA7-SS-0.0-0.5	19	SL-136-SA7-SS-0.0-0.5	29		39	
10	SL-050-SA7-SS-0.0-0.5	20	SL-050-SA7-SS-0.0-0.5MS	30		40	

**Method: Semivolatiles (EPA SW 846 Method 8270C)**

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/MS instrument performance check</b>				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples analyzed within the 12 hour clock criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of $> 0.990$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) $\leq 30\%$ and relative response factors (RRF) $> 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) $\leq 25\%$ and relative response factors (RRF) $\geq 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X. Internal standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within + 30 seconds from the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. Compound quantitation/CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Tentatively identified compounds/TICs</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XVI. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XVII. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

# 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	12, 13, 14
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol	FF. 3-Nitroaniline	UU. Phenanthrene	JJ. Indeno(1,2,3-cd)pyrene	12, 13, 14
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene	VV. Anthracene	KKK. Dibenz(a,h)anthracene	11, 12, 13, 14
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol	WW. Carbazole	LLL. Benzo(g,h,i)perylene	12, 13, 14
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.	11, 12, 14
N. 2-Nitrophenol	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.	12, 13, 14
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.	12, 13, 14



VALIDATION FINDINGS WORKSHEET  
Internal Standards

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/A Were all internal standard area counts within -50 to +100 of the associated calibration standard?

Y N N/A Were the retention times of the internal standards within +/- 30 seconds of the retention times of the associated calibration standard?

#	Date	Sample ID	Internal Standard	Area (Limits)	RT (Limits)	Qualifications
		20	PRY	82168 (122898-491592)		↓ / not / no qual MS
		21	↓	75831 ( )		no qual MS
		11	↓	119763 (15214)-608562		↓ / N/A qual FFF
		12	↓	143028 ( )		↓ FFF, GGG, HHH, III, JJJ, KKK, LLL
		13	↓	118297 ( )		↓ GGG, HHH, III, JJJ, KKK, LLL
		14	↓	123413 ( )		↓ → the same

\* QC limits are advisory  
 IS1 (DCB) = 1,4-Dichlorobenzene-d4  
 IS2 (NPT) = Naphthalene-d8  
 IS3 (ANT) = Acenaphthene-d10  
 IS4 (PHN) = Phenanthrene-d10  
 IS5 (CRY) = Chrysene-d12  
 IS6 (PRY) = Perylene-d12

LDC#: 26859R2b

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
Reviewer: F  
2nd Reviewer: A

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270C-SIM)

Y N NA Were field duplicate pairs identified in this SDG?  
Y N NA Were target analytes detected in the field duplicate pairs?

(fd)

Compound	Concentration (ug/Kg)		≤ 50 RPD	
	10	18		
Naphthalene	8.5	22	89	J/A det
2-Methylnaphthalene	8.4U	7.1	200	J/UJ/A
Acenaphthylene	2.4	4.4	59	J/A det
Acenaphthene	17	NR	-	
Fluorene	16	NR	-	
Anthracene	42	NR	-	
Benzo(b)fluoranthene	340	NR	-	
Benzo(k)fluoranthene	170	NR	-	
Dibenz(a,h)anthracene	19	NR	-	
Bis (2-Ethylhexyl) phthalate	91U	61	200	J/UJ/A

V:\FIELD DUPLICATES\templates\26859R2b.wpd

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

**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:

$RRF = (A_s)(C_{is}) / (A_{is})(C_s)$   
 average RRF = sum of the RRFs / number of standards  
 $\%RSD = 100 * (S / X)$   
 $A_s$  = Area of compound,  
 $C_s$  = 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		Recalculated		Reported		Recalculated	
				RRF ( ) std)	RRF ( ) std)	Average RRF (initial)	Average RRF (initial)	%RSD	%RSD		
1	1CAL	9/22/11	Phenol (1st internal standard)								
			Naphthalene (2nd internal standard)	1.096	1.096	1.094	1.094	3	3		
			Fluorene (3rd internal standard)	1.350	1.350	1.317	1.317	5	5		
			Anthracene (4th internal standard)	1.211	1.211	1.176	1.170	6	6		
			Pentachlorophenol (5th internal standard)	1.325	1.325	1.316	1.316	4	4		
			Bis(2-ethylhexyl)phthalate (6th internal standard)	1.266	1.266	1.213	1.213	5	5		
2	1CAL	10/4/11	Phenol (1st internal standard)								
			Naphthalene (2nd internal standard)	1.120	1.120	1.110	1.110	3	3		
			Fluorene (3rd internal standard)	1.410	1.410	1.352	1.352	7	7		
			Anthracene (4th internal standard)	1.217	1.217	1.165	1.165	9	9		
			Pentachlorophenol (5th internal standard)	1.286	1.286	1.263	1.263	3	3		
			Bis(2-ethylhexyl)phthalate (6th internal standard)	1.245	1.245	1.191	1.191	7	7		
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.

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

**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 =  $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$  Where: ave. RRF = initial calibration average RRF  
 RRF =  $(A_x)(C_{is}) / (A_{is})(C_x)$  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		Recalculated	
					RRF (CC)	%D	RRF (CC)	%D
1	ceV	10/01/11	<del>Phenol (1st internal standard)</del>					
			Naphthalene (2nd internal standard)	1.094	1.091	0	0	
			Fluorene (3rd internal standard)	1.317	1.369	4	4	
			<del>Anthracene</del>	1.170	1.192	2	2	
			<del>Bis(2-ethylhexyl)phthalate (4th internal standard)</del>	1.314	1.225	7	7	
			<del>Benzo(a)pyrene (5th internal standard)</del>	1.313	1.207	1	1	
2	ceV	10/5/11	<del>Phenol (1st internal standard)</del>					
			Naphthalene (2nd internal standard)	1.110	1.108	0	0	
			Fluorene (3rd internal standard)	1.352	1.372	1	1	
			<del>Anthracene</del>	1.165	1.176	1	1	
			<del>Bis(2-ethylhexyl)phthalate (4th internal standard)</del>	1.263	1.273	1	1	
			<del>Benzo(a)pyrene (5th internal standard)</del>	1.191	1.198	1	1	
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.

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

**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	1.003	100	100	0
2-Fluorobiphenyl	↓	0.949	95	95	↓
Terphenyl-d14	↓	1.226	123	123	↓
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					

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

**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      SC = Sample concentration  
 SA = Spike added

RPD =  $100 * MSC / (MSC + MSDC)$       MSC = Matrix spike concentration      MSDC = Matrix spike duplicate concentration

MS/MSD samples: 20 + 21

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	16.35	51.02	88.29	105	105	217	217	54	54
Pentachlorophenol											
Pyrene	33.11	33.11	443.64 381.05	413.64	1013.34	98	98	1910	1910	84	84

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.

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

**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: LC2

Compound	Spike Added (ug/kg)		Spike Concentration (ug/kg)		LCS		LCSD		Percent Recovery		Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalc	Reported	Recalc	Reported	Recalc
	Phenol													
N-Nitroso-di-n-propylamine														
4-Chloro-3-methylphenol														
Acenaphthene	33.33	NA	32.05	NA	96	96								
Pentachlorophenol														
Pyrene	✓	NA	31.02	NA	93	93								

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.

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

**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?

$$\text{Concentration} = \frac{(A_x)(I_s)(V_i)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$$

- A<sub>x</sub> = Area of the characteristic ion (EICP) for the compound to be measured
- A<sub>is</sub> = Area of the characteristic ion (EICP) for the specific internal standard
- I<sub>s</sub> = Amount of internal standard added in nanograms (ng)
- V<sub>o</sub> = Volume or weight of sample extract in milliliters (ml) or grams (g).
- V<sub>i</sub> = Volume of extract injected in microliters (ul)
- V<sub>i</sub> = Volume of the concentrated extract in microliters (ul)
- Df = Dilution Factor.
- %S = Percent solids, applicable to soil and solid matrices only.
- 2.0 = Factor of 2 to account for GPC cleanup

Example:

Sample I.D. #1, YY:

$$\text{Conc.} = \frac{(59153)(1.0)(1000)( )}{(39211)(1.264)(31)(0.99)( )}$$

= 3.90 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:** September 20, 2011  
**LDC Report Date:** January 3, 2012  
**Matrix:** Soil  
**Parameters:** N-Nitrosodimethylamine  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE248

### Sample Identification

SL-043-SA7-SS-0.0-0.5  
SL-046-SA7-SS-0.0-0.5  
SL-047-SA7-SS-0.0-0.5  
SL-049-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5  
SL-051-SA7-SS-0.0-0.5  
SL-085-SA7-SS-0.0-0.5  
SL-134-SA7-SS-0.0-0.5  
SL-135-SA7-SS-0.0-0.5  
SL-173-SA7-SS-0.0-0.5  
DUP03-SA7-QC-092011  
SL-136-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5MS  
SL-050-SA7-SS-0.0-0.5MSD

## Introduction

This data review covers 14 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. Surrogate recoveries (%R) were not within QC limits. Since the samples were diluted out, no data were qualified.

## **VII. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

### **VIII. Laboratory Control Samples (LCS)**

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) 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:

<b>Sample</b>	<b>Finding</b>	<b>Flag</b>	<b>A or P</b>
All samples in SDG DE248	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-050-SA7-SS-0.0-0.5 and DUP03-SA7-QC-092011 were identified as field duplicates. No N-nitrosodimethylamine was detected in any of the samples.

**Santa Susana Field Laboratory  
 N-Nitrosodimethylamine - Data Qualification Summary - SDG DE248**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE248	SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-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 DE248**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
 N-Nitrosodimethylamine - Field Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

**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: <u>9/20/11</u>
II.	GC/MS Instrument performance check	N	<u>not Required</u>
III.	Initial calibration	A	<u>% RSD ≤ 20</u>
IV.	Continuing calibration/ICV	A	<u>ICV ≤ 30      CCV ≤ 20</u>
V.	Blanks	A	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	<u>LCS</u>
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation (R) LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	<u>D = 5 + 11</u>
XVII.	Field blanks	N	<u>FB</u>

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:

5011

1	1	SL-043-SA7-SS-0.0-0.5	11	DUP03-SA7-QC-092011	21	<u>SBLKB269</u>	31	
2	2	SL-046-SA7-SS-0.0-0.5	12	SL-136-SA7-SS-0.0-0.5	22	<u>SBLKL B272</u>	32	
3		SL-047-SA7-SS-0.0-0.5	13	SL-050-SA7-SS-0.0-0.5MS	23		33	
4		SL-049-SA7-SS-0.0-0.5	14	SL-050-SA7-SS-0.0-0.5MSD	24		34	
5		SL-050-SA7-SS-0.0-0.5	15		25		35	
6		SL-051-SA7-SS-0.0-0.5	16		26		36	
7		SL-085-SA7-SS-0.0-0.5	17		27		37	
8		SL-134-SA7-SS-0.0-0.5	18		28		38	
9		SL-135-SA7-SS-0.0-0.5	19		29		39	
10		SL-173-SA7-SS-0.0-0.5	20		30		40	

Method: Semivolatiles (EPA SW 846 Method 8270C) - 1625C

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/MS Instrument performance check</b>				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were all samples analyzed within the 12 hour clock criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>III. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of $\geq 0.990$ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were all percent relative standard deviations (%RSD) $\leq 30\%$ and relative response factors (RRF) $> 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) $\leq 25\%$ and relative response factors (RRF) $\geq 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X. Internal standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within + 30 seconds from the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. Compound quantitation/CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Tentatively identified compounds (TICs)</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XVI. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>XVII. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### VALIDATION FINDINGS WORKSHEET

#### Surrogate Recovery

**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   
 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
		All	surrogates	outside limit	no qual 10x PL
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
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				( )	
				( )	

\* QC limits are advisory

S1 (NBZ) = Nitrobenzene-d5	QC Limits (Soil)	23-120	QC Limits (Water)	35-114	QC Limits (Water)	21-100
S2 (FBP) = 2-Fluorobiphenyl	30-115					10-123
S3 (TPH) = Terphenyl-d14	18-137					33-110*
S4 (PHL) = Phenol-d5	24-113					16-110*
S5 (2FP) = 2-Fluorophenol						
S6 (TBP) = 2,4,6-Tribromophenol						
S7 (2CP) = 2-Chlorophenol-d4						
S8 (DCB) = 1,2-Dichlorobenzene-d4						

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

**METHOD:** GC/MS\_BNA-(EPA-SW-846-Method\_8270) / 625C

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_s)(C_{is}) / (A_{is})(C_s)$   
 average RRF = sum of the RRFs/number of standards  
 $\%RSD = 100 * (S/X)$   
 $A_s$  = Area of compound,  
 $C_s$  = 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		Recalculated		Reported		Recalculated	
				RRF (std)	RRF (std)	RRF (std)	Average RRF (initial)	Average RRF (initial)	%RSD	%RSD	
1	1CAL	8/9/11	Phenol (1st internal standard) <del>NDMA</del>	1.043	1.043	1.043	0.983	0.983	13	13	
			Naphthalene (2nd internal standard)								
			Fluorene (3rd internal standard)								
			Pentachlorophenol (4th internal standard)								
			Bis(2-ethylhexyl)phthalate (5th internal standard)								
			<del>Benzo(a)pyrene (6th internal standard)</del>								
2			Phenol (1st internal standard)								
			Naphthalene (2nd internal standard)								
			Fluorene (3rd internal standard)								
			Pentachlorophenol (4th internal standard)								
			Bis(2-ethylhexyl)phthalate (5th internal standard)								
			<del>Benzo(a)pyrene (6th internal standard)</del>								
3			Phenol (1st internal standard)								
			Naphthalene (2nd internal standard)								
			Fluorene (3rd internal standard)								
			Pentachlorophenol (4th internal standard)								
			Bis(2-ethylhexyl)phthalate (5th internal standard)								
			<del>Benzo(a)pyrene (6th internal standard)</del>								

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.

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

**METHOD:** GC/MS BNA (EPA SW 846 Method 8270C) / 625 C

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 =  $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$  Where: ave. RRF = initial calibration average RRF  
 RRF =  $(A_x)(C_{is}) / (A_{is})(C_x)$  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		Recalculated	
					RRF (CC)	%D	RRF (CC)	%D
1	CV 14:20	10/3/11	Phenol (1st internal standard) NDM A Naphthalene (2nd internal standard) Fluorene (3rd internal standard) Pentachlorophenol (4th internal standard) Bis(2-ethylhexyl)phthalate (5th internal standard) <del>Benzo(a)pyrene (6th internal standard)</del>	0.98795	1.03609	5.40597	1.03609	5.40597
2	CV 21:48	10/3/11	Phenol (1st internal standard) NDM A Naphthalene (2nd internal standard) Fluorene (3rd internal standard) Pentachlorophenol (4th internal standard) Bis(2-ethylhexyl)phthalate (5th internal standard) <del>Benzo(a)pyrene (6th internal standard)</del>	↓	0.86663	11.83395	0.86663	11.83395
3	CV 01:29	10/4/11	Phenol (1st internal standard) NDM A Naphthalene (2nd internal standard) Fluorene (3rd internal standard) Pentachlorophenol (4th internal standard) Bis(2-ethylhexyl)phthalate (5th internal standard) <del>Benzo(a)pyrene (6th internal standard)</del>	↓	0.83052	15.50798	0.83052	15.50798

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.

**VALIDATION FINDINGS WORKSHEET I**  
**Surrogate Results Verification**

**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: #1 107

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl	NDMA-d6	43.217	173	173	0
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					

Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT

2nd Reviewer: *[Signature]*

METHOD: GC/MS BNA (EPA SW-846-Method-8270) / 625C

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 =  $100 * MSC / (MSC + MSDC)$

MSC = Matrix spike concentration

MSDC = Matrix spike duplicate concentration

MS/MSD samples: 13 + 14

Compound	Spike Added		Sample Concentration	Spiked Sample Concentration		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	83.333	833.333	ND	827.83	908.48	99	99	109	109	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.

**VALIDATION FINDINGS WORKSHEET**

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

**METHOD:** GC/MS BNA(EPA SW 846 Method 8270) / 625 C

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 =  $LCSC - LCSDC \div 2 / (LCSC + LCSDC)$       LCSC = Laboratory control sample concentration      LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: 269L3L2

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	833.33	NA	828.12	NA	99	99	NA			
N-Nitroso-di-n-propylamine										
4-Chloro-3-methylphenol										
Acenaphthene										
Penta-chlorophenol										
Fluorene										

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.

# VALIDATION FINDINGS WORKSHEET

## Sample Calculation Verification

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 =  $\frac{(A_x)(I_s)(V_i)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_t)(\%S)}$

- $A_x$  = Area of the characteristic ion (EICP) for the compound to be measured
- $A_{is}$  = Area of the characteristic ion (EICP) for the specific internal standard
- $I_s$  = Amount of internal standard added in nanograms (ng)
- $V_o$  = Volume or weight of sample extract in milliliters (ml) or grams (g).
- $V_i$  = Volume of extract injected in microliters (ul)
- $V_t$  = Volume of the concentrated extract in microliters (ul)
- Df = Dilution Factor.
- %S = Percent solids, applicable to soil and solid matrices only.
- 2.0 = Factor of 2 to account for GPC cleanup

Example:

Sample I.D. \_\_\_\_\_, \_\_\_\_\_:

Conc. =  $\frac{(\quad)(\quad)(\quad)(\quad)(\quad)}{(\quad)(\quad)(\quad)(\quad)(\quad)}$   
 = ND

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** September 19 through September 20, 2011  
**LDC Report Date:** January 4, 2012  
**Matrix:** Soil  
**Parameters:** Chlorinated Pesticides  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE248

### Sample Identification

SL-131-SA7-SS-0.0-0.5  
SL-137-SA7-SS-0.0-0.5  
SL-138-SA7-SS-0.0-0.5  
SL-005-SA7-SS-0.0-0.5  
SL-006-SA7-SS-0.0-0.5  
SL-043-SA7-SS-0.0-0.5  
SL-046-SA7-SS-0.0-0.5  
SL-047-SA7-SS-0.0-0.5  
SL-049-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5  
SL-051-SA7-SS-0.0-0.5  
SL-085-SA7-SS-0.0-0.5  
SL-129-SA7-SS-0.0-0.5  
SL-134-SA7-SS-0.0-0.5  
SL-135-SA7-SS-0.0-0.5  
SL-173-SA7-SS-0.0-0.5  
DUP03-SA7-QC-092011  
SL-136-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5MS  
SL-050-SA7-SS-0.0-0.5MSD

## Introduction

This data review covers 20 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- 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 single compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

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.

## IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
10/4/11 (1:16)	CCV	RTX-CLP1	alpha-BHC	29.9	SL-134-SA7-SS-0.0-0.5	J (all detects)	P
			gamma-BHC	28.0	SL-135-SA7-SS-0.0-0.5	UJ (all non-detects)	
			beta-BHC	28.6	SL-051-SA7-SS-0.0-0.5		
			delta-BHC	26.7	SL-050-SA7-SS-0.0-0.5		
			Heptachlor	34.0	SL-137-SA7-SS-0.0-0.5		
			Aldrin	36.8	SL-136-SA7-SS-0.0-0.5		
			Heptachlor epoxide	41.9	DUP03-SA7-QC-092011		
			4,4'-DDE	41.6	SL-050-SA7-SS-0.0-0.5MS		
			Endosulfan I	46.0	SL-050-SA7-SS-0.0-0.5MSD		
			Dieldrin	44.6			
			Endrin	41.0			
			4,4'-DDD	32.1			
			Endosulfan II	29.7			
			4,4'-DDT	43.8			
			Endrin aldehyde	44.7			
			Methoxychlor	39.8			
			Endosulfan sulfate	41.5			
			Endrin ketone	25.8			

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
10/4/11 (1:16)	CCV	RTX-CLP2	alpha-BHC gamma-BHC beta-BHC delta-BHC Heptachlor Aldrin Heptachlor epoxide Endosulfan I 4,4'-DDE Dieldrin Endrin 4,4'-DDD Endosulfan II 4,4'-DDT Endrin aldehyde Endosulfan sulfate Methoxychlor Endrin ketone	25.8 31.0 30.4 33.7 35.5 43.5 48.7 54.3 51.4 52.1 55.3 48.0 49.8 52.9 44.8 53.7 45.4 55.7	SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD	J (all detects) UJ (all non-detects)	P
10/4/11 (1:31)	CCV	RTX-CLP1	Mirex	47.7	SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD	J (all detects) UJ (all non-detects)	A
10/4/11 (1:31)	CCV	RTX-CLP2	Mirex	52.3	SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD	J (all detects) UJ (all non-detects)	A
10/4/11 (1:46)	CCV	RTX-CLP1	Toxaphene	45.4	SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD	J (all detects) UJ (all non-detects)	A
10/4/11 (1:46)	CCV	RTX-CLP2	Toxaphene	54.9	SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD	J (all detects) UJ (all non-detects)	A

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
10/4/11 (2:01)	CCV	RTX-CLP1	Chlordane	33.3	SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD	J (all detects) UJ (all non-detects)	A
10/4/11 (2:01)	CCV	RTX-CLP2	Chlordane	31.1	SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-050-SA7-SS-0.0-0.5MS SL-050-SA7-SS-0.0-0.5MSD	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 with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
10/3/11	ICV	RTX-CLP1	gamma-BHC	86.3	All samples in SDG DE248	J (all detects) UJ (all non-detects)	A

Retention times (RT) of all compounds in the calibration standards were within QC limits.

The individual 4,4'-DDT and Endrin breakdowns (%BD) were less than or equal to 15.0% .

## V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

No field blanks were identified in this SDG.

## VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
PBLK 60267	Not specified	Tetrachloro-m-xylene Decachlorobiphenyl	153 (50-130) 172 (20-120)	All TCL compounds	J (all detects)	P
SL-137-SA7-SS-0.0-0.5	Not specified	Decachlorobiphenyl	284 (20-120)	All TCL compounds except Chlordane	J (all detects)	A
SL-005-SA7-SS-0.0-0.5	Not specified	Tetrachloro-m-xylene Decachlorobiphenyl	44 (50-130) 1183 (20-120)	All TCL compounds	J (all detects) UJ (all non-detects)	P
SL-006-SA7-SS-0.0-0.5	Not specified	Tetrachloro-m-xylene	43 (50-130)	All TCL compounds	J (all detects) UJ (all non-detects)	P
SL-047-SA7-SS-0.0-0.5	Not specified	Decachlorobiphenyl	124 (20-120)	All TCL compounds	J (all detects)	P
SL-049-SA7-SS-0.0-0.5	Not specified	Decachlorobiphenyl	164 (20-120)	All TCL compounds	J (all detects)	P
SL-051-SA7-SS-0.0-0.5	Not specified	Tetrachloro-m-xylene	32 (50-130)	All TCL compounds	J (all detects) UJ (all non-detects)	P
SL-134-SA7-SS-0.0-0.5	Not specified	Tetrachloro-m-xylene Decachlorobiphenyl	49 (50-130) 494 (20-120)	All TCL compounds	J (all detects) UJ (all non-detects)	P
SL-135-SA7-SS-0.0-0.5	Not specified	Decachlorobiphenyl	132 (20-120)	All TCL compounds	J (all detects)	P
DUP03-SA7-QC-092011	Not specified	Tetrachloro-m-xylene Decachlorobiphenyl	42 (50-130) 767 (20-120)	All TCL compounds	J (all detects) UJ (all non-detects)	P
SL-137-SA7-SS-0.0-0.5	Not specified	Decachlorobiphenyl	451.5 (20-120)	Chlordane	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 not within QC limits. Since the samples were diluted out, no data were qualified.

## VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
LCS 60267	Heptachlor epoxide	64 (65-131)	All samples in SDG DE248	J (all detects) UJ (all non-detects)	P

## IX. Regional Quality Assurance and Quality Control

Not applicable.

## X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

## XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

## XII. Target Compound Identification

All target compound identifications were within validation criteria.

## XIII. Compound Quantitation and Reported 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-138-SA7-SS-0.0-0.5	alpha-BHC delta-BHC Chlordane	85.77 49.22 50.87	J (all detects) J (all detects) J (all detects)	A
SL-046-SA7-SS-0.0-0.5	Chlordane	41.02	J (all detects)	A
SL-135-SA7-SS-0.0-0.5	4,4'-DDE	57.75	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE248	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-050-SA7-SS-0.0-0.5 and DUP03-SA7-QC-092011 were identified as field duplicates. No chlorinated pesticides were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
Chlordane	12	5.8	70 ( $\leq 50$ )	J (all detects)	A
Heptachlor epoxide	0.85U	0.16	200 ( $\leq 50$ )	J (all detects) UJ (all non-detects)	A

**Santa Susana Field Laboratory  
Chlorinated Pesticides - Data Qualification Summary - SDG DE248**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE248	SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011	alpha-BHC gamma-BHC beta-BHC delta-BHC Heptachlor Aldrin Heptachlor epoxide 4,4'-DDE Endosulfan I Dieldrin Endrin 4,4'-DDD Endosulfan II 4,4'-DDT Endrin aldehyde Methoxychlor Endosulfan sulfate Endrin ketone	J (all detects) UJ (all non-detects)	P	Continuing calibration (%D) (C)
DE248	SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011	Mirex Toxaphene Chlordane	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	gamma-BHC	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D) (C)
DE248	SL-137-SA7-SS-0.0-0.5	All TCL compounds except Chlordane	J (all detects)	A	Surrogate spikes (%R) (S)
DE248	SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011	All TCL compounds	J (all detects) UJ (all non-detects)	P	Surrogate spikes (%R) (S)
DE248	SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5	All TCL compounds	J (all detects)	P	Surrogate spikes (%R) (S)

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE248	SL-137-SA7-SS-0.0-0.5	Chlordane	J (all detects)	A	Surrogate spikes (%R) (S)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	Heptachlor epoxide	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R) (L)
DE248	SL-138-SA7-SS-0.0-0.5	alpha-BHC delta-BHC Chlordane	J (all detects) J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE248	SL-046-SA7-SS-0.0-0.5	Chlordane	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE248	SL-135-SA7-SS-0.0-0.5	4,4'-DDE	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
DE248	SL-050-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011	Chlordane	J (all detects)	A	Field duplicates (RPD) (FD)
DE248	SL-050-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011	Heptachlor epoxide	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

**Santa Susana Field Laboratory  
Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG  
DE248**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Chlorinated Pesticides - Field Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

LDC #: 26859R3a

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE248

Level IV

Laboratory: Lancaster Laboratories

Date: 9/19/11

Page: 1 of 1

Reviewer: P

2nd Reviewer: A

**METHOD:** GC Chlorinated Pesticides (EPA SW846 Method 8081A)

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

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 9/19 - 9/20/11
II.	GC/ECD Instrument Performance Check	A	
III.	Initial calibration	A	% PSD $\leq 20$ , $r^2$
IV.	Continuing calibration/ICV	SW	ICV/CCV $\leq 20$
V.	Blanks	A	
VI.	Surrogate spikes	SW	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	SW	LCs
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	A	
XIII.	Compound quantitation/RL/LOQ/LODs	SW	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	SW	D = 10d 17
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-131-SA7-SS-0.0-0.5	11	SL-051-SA7-SS-0.0-0.5	21	PBK 60267	31	
2	SL-137-SA7-SS-0.0-0.5	12	SL-085-SA7-SS-0.0-0.5	22		32	
3	SL-138-SA7-SS-0.0-0.5	13	SL-129-SA7-SS-0.0-0.5	23		33	
4	SL-005-SA7-SS-0.0-0.5	14	SL-134-SA7-SS-0.0-0.5	24		34	
5	SL-006-SA7-SS-0.0-0.5	15	SL-135-SA7-SS-0.0-0.5	25		35	
6	SL-043-SA7-SS-0.0-0.5	16	SL-173-SA7-SS-0.0-0.5	26		36	
7	SL-046-SA7-SS-0.0-0.5	17	DUP03-SA7-QC-092011	27		37	
8	SL-047-SA7-SS-0.0-0.5	18	SL-136-SA7-SS-0.0-0.5	28		38	
9	SL-049-SA7-SS-0.0-0.5	19	SL-050-SA7-SS-0.0-0.5MS	29		39	
10	SL-050-SA7-SS-0.0-0.5	20	SL-050-SA7-SS-0.0-0.5MSD	30		40	

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

LDC #: 26859R3a  
 SDG #: su cones

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: PT  
 2nd Reviewer: A

Method: Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/ECD Instrument performance check</b>				
Was the instrument performance found to be acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) $\leq$ 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the required standard concentrations analyzed in the initial calibration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
What type of continuing calibration calculation was performed? ___%D or ___%R	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were Evaluation mix standards analyzed prior to the initial calibration and sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were endrin and 4,4'-DDT breakdowns $\leq$ 15%.0 for individual breakdown in the Evaluation mix standards?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) $\leq$ 15%.0 or percent recoveries 85-115%? <i>80-120</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were extract cleanup blanks analyzed with every batch requiring clean-up?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was there contamination in the method blanks or clean-up blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 26859R3a  
 SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Page: 2 of 5  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions, dry weight factors, and clean-up activities applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

# 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 #: 26859R32

# VALIDATION FINDINGS WORKSHEET

## Continuing Calibration

Page: 1 of 1  
Reviewer: FT

METHOD: GC HPLC

2nd Reviewer: [Signature]

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  $\leq 20.0\%$ ?

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 $\leq 20.0$ )	RT (limit)	Associated Samples	Qualifications
4	10/3/11	10V	RTX-CP1	D	86.3	( )	A11	J/W/A (c)
	10/4/11	CCV	RTX-CP1	A	29.9	( )	14, 15, 11, 10, 2,	J/W/P (c)
	1:16			D	28.0	( )	18, 17, 19, 20	
				B	28.6	( )		
				C	26.7	( )		
				E	34.0	( )		
				F	36.8	( )		
				G	41.9	( )		
				J	41.6	( )		
				H	46.0	( )		
				I	44.6	( )		
				K	41.0	( )		
				M	32.1	( )		
				L	29.7	( )		
				O	43.8	( )		
				R	44.7	( )		
				P	39.8	( )		
				N	41.5	( )		
				Q	25.8	( )		
			RTX-CP2	A	28.8	( )		
				D	31.0	( )		
				B	30.4	( )		

**VALIDATION FINDINGS WORKSHEET**  
Continuing Calibration

METHOD: GC HPLC  
 2nd Reviewer: CA

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? 33.7 %D or RPD  
 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  $\leq 20.0\%$ ?

**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 $\leq 20.0$ )	RT (limit)	Associated Samples	Qualifications
	10/4/11	cen	RTX- <u>altP2</u>	C	33.7	( )	14, 15, 11, 10, 2,	J/W/P (C)
	1:16			E	35.5	( )	18, 17, 19, 20	
				F	43.5	( )		
				G	48.7	( )		
				H	51.3	( )		
				J	51.4	( )		
				I	52.1	( )		
				K	55.3	( )		
				M	48.0	( )		
				L	47.8	( )		
				O	52.7	( )		
				R	44.8	( )		
				N	53.7	( )		
				P	45.4	( )		
				Q	55.7	( )		
	10/4/11	cen	RTX <u>altP1</u>	Mirex	47.7	( )		J/W/A (C)
	1:37		RTX <u>altP2</u>	↓	52.3	( )		
	10/4/11	cen	↓	U	45.4	( )		
	1:46		↓	↓	54.9	( )		
	10/4/11	cen	↓	chloroform	33.3	( )		
	2:07		↓	↓	31.1	( )		

VALIDATION FINDINGS WORKSHEET  
Surrogate Recovery

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".

Were surrogates spiked into all samples and blanks?  Y  N/A

Did all surrogate recoveries (%R) meet the QC limits?  Y  N/A

(5)

#	Sample ID	Detector/Column	Surrogate Compound	%R (Limits)	Qualifications
	PBLK60267	NS	Y	( 50-130 )	J/Pdet
			Ø	( 20-120 )	↓
2		↓	Ø	( )	J/A det All except chloroform
4		↓	Y	( )	J/W/Pdet
			Ø	( )	↓
5		↓	Y	( )	J/W/P
8		↓	Ø	( )	J/Pdet
9		↓	Ø	( )	J/Pdet
10		↓	Y	( )	no qual SX OL
			Ø	( )	
11		↓	Y	( )	J/W/P
14		↓	Y	( )	J/W/P
			Ø	( )	↓

Surrogate Compound	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-Trifluorotoluene	I Fluorobenzene (FBZ)	O Decachlorobiphenyl (DCB)	U Triphenyltin	
D Bromochlorobenzene	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	

# VALIDATION FINDINGS WORKSHEET

## Surrogate Recovery

LDC #: 26859232

Page: 1 of 1  
 Reviewer: FT  
 2nd Reviewer: [Signature]

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".  
 Were surrogates spiked into all samples and blanks? Y  
 Did all surrogate recoveries (%R) meet the QC limits? N/A

#	Sample ID	Detector/Column	Surrogate Compound	%R (Limits)	Qualifications
	15	NS	θ	132 ( 20 - 120 )	↓ / pdr
	17	NS	γ	42 ( 50 - 130 )	↓ / W / P
			θ	76.7 ( 20 - 120 )	↓
	18	↓	↓	47 ( )	no qual 5X PL
				140.5 ( )	↓
	2	NS	θ	451.5 ( 20 - 120 )	↓ / A det chloroform only
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

Surrogate Compound	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-Trifluorotoluene	I Fluorobenzene (FBZ)	O Decachlorobiphenyl (DCB)	U Triphenyltin	
D Bromochlorobenzene	J n-Tricosane	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 #: 26899 R 3a

# VALIDATION FINDINGS WORKSHEET

## Matrix Spike/Matrix Spike Duplicates

Page: 10 of 11  
Reviewer: FT  
2nd Reviewer: CA

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
	19 + 20	fennel	%R ( )	RPD outside limit	limit	10	no good SPD
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 26859R3e

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Samples (LCS)**

Page: 1 of 1  
Reviewer: FT  
2nd Reviewer: [Signature]

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
	12560267	G	64 (65-73)	( )	( )	A1	JUN/P(L)

LDC #: 2685923a  
**VALIDATION FINDINGS WORKSHEET**  
**Compound Quantitation and Reported CRQLs**

**METHOD:** GC/HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".  
**Level IV/ID 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	Finding	Associated Samples	Qualifications
	A			85.77	3	J/Adet * XIII
	C			49.22	↓	↓
	chlordane			50.87		
	chlordane			41.02	7	↓
	J			57.75	15	↓

Comments: See sample calculation verification worksheet for recalculations

LDC #: 26859232

# VALIDATION FINDINGS WORKSHEET

## Field Duplicates

Page: 1 of 1  
 Reviewer: FT  
 2nd reviewer: CA

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 ( <u>ug/kg</u> )		%RPD Limit <u>≤50</u>	Qualification Parent only / All Samples
chlordan G	10	17	70	J/Adet J/W/A

Compound	Concentration ( )		%RPD Limit _____	Qualification Parent only / All Samples

LDC #: 2685923a  
 SDG #: per conch

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: JFE  
 2nd Reviewer: CA

METHOD: GC  HPLC

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C  
 average CF = sum of the CF/number of standards  
 %RSD =  $100 * (S/X)$   
 A = Area of compound,  
 C = Concentration of compound,  
 S = Standard deviation of the CF  
 X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported		Recalculated		Reported		Recalculated	
				CF (std)	CF (std)	Average CF (initial)	Average CF (initial)	%RSD	%RSD		
1	1P10276	10/3/11	endosulfan / RKCUP / no thoxychlor	$3.27 \times 10^3$	$3.27 \times 10^3$	$3.34 \times 10^3$	$3.34 \times 10^3$	2.4	2.4	2.4	2.4
				$1.16 \times 10^3$	$1.16 \times 10^3$	$1.17 \times 10^3$	$1.17 \times 10^3$	2.9	2.9	2.9	2.9
2		10/3/11	RKCUP / ↓	$2.62 \times 10^3$	$2.62 \times 10^3$	$2.79 \times 10^3$	$2.79 \times 10^3$	13.8	13.8	13.8	13.8
				$8.50 \times 10^2$	$8.50 \times 10^2$	$8.77 \times 10^2$	$8.77 \times 10^2$	11.6	11.6	11.6	11.6
3											
4											

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26859R3  
 SDG #: per center

**VALIDATION FINDINGS WORKSHEET**  
Continuing Calibration Results Verification

Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

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 =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  Where: ave. CF = initial calibration average CF  
 CF = A/C CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	ccv 1:16	10/4/11	endosulfan / RTXcup1 methoxychlor ↓	10.0 100.0		5.40 60.20	46.0 37.8	46.0 39.8
2			↓ RTXcup2			4.57 54.56	54.3 45.4	54.3 45.4
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 #: 101100  
 SDG #: su cover

VALIDATION FINDINGS WORKSHEET  
Surrogate Results Verification

Page: 1 of 1  
 Reviewer: \_\_\_\_\_  
 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						
Tetrachloro-m-xylene	ATXCLP2	1.04	0.566413	55	55	0
Decachlorobiphenyl	RTXCLP1	1.04	1.152007	111	111	0
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 #: 26859R 39  
 SDG #: per email

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: A

**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

RPD =  $100 * |MS - MSD| / (MS + MSD)$

MS = Matrix spike percent recovery

MSD = Matrix spike duplicate percent recovery

MS/MSD samples: 19 + 20

5 x 12L

Compound	Spike Added (ug/kg)		Sample Concentration (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD		MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
gamma-BHC	0.34	0.34	ND	ND	0	0	0	0	0	0	0
4,4'-DDT	0.71	0.71	ND	0.95	134	134	70	70	62	62	62

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 #: 26 859239

SDG #: per control

### VALIDATION FINDINGS WORKSHEET Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Page: 6 of 7  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

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

RPD =  $|(LCS - LCSD) / (LCS + LCSD)| * 2$

SC = Concentration

LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: 12560267

Compound	Spike Added (ug/l)		Spiked Sample Concentration		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
gamma-BHC	0.34	NA	0.18	NA	53	53	NA	NA		
4,4'-DDT	0.71	↓	0.55	↓	77	77	NA	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 #: 268592 32  
 SDG #: pu cover

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

Page: 1 of 1  
 Reviewer: \_\_\_\_\_  
 2nd reviewer: \_\_\_\_\_

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Y N N/A  
Y N N/A

Were all reported results recalculated and verified for all level IV samples?

Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Example:

Sample I.D. #1 4,4'-DDE

$$\text{Conc.} = \frac{(6395) (10) (0.4)}{(2.99 \times 10^3) (60.4) (0.99)}$$

= 0.14 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:** September 19 through September 20, 2011  
**LDC Report Date:** January 5, 2012  
**Matrix:** Soil  
**Parameters:** Polychlorinated Biphenyls  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE248

### Sample Identification

SL-131-SA7-SS-0.0-0.5  
SL-137-SA7-SS-0.0-0.5  
SL-138-SA7-SS-0.0-0.5  
SL-005-SA7-SS-0.0-0.5  
SL-006-SA7-SS-0.0-0.5  
SL-043-SA7-SS-0.0-0.5  
SL-046-SA7-SS-0.0-0.5  
SL-047-SA7-SS-0.0-0.5  
SL-049-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5  
SL-051-SA7-SS-0.0-0.5  
SL-085-SA7-SS-0.0-0.5  
SL-125-SA7-SS-0.0-0.5  
SL-129-SA7-SS-0.0-0.5  
SL-134-SA7-SS-0.0-0.5  
SL-135-SA7-SS-0.0-0.5  
SL-173-SA7-SS-0.0-0.5  
DUP03-SA7-QC-092011  
SL-136-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5MS  
SL-050-SA7-SS-0.0-0.5MSD

## Introduction

This data review covers 21 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 with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Affected Compound	Flag	A or P
9/29/11	CCV	MR-1	Aroclor-5460	26.7	SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	Aroclor-5460	J (all detects) UJ (all non-detects)	A
9/29/11	CCV	MR-2	Aroclor-5460	23.9	SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	Aroclor-5460	J (all detects) UJ (all non-detects)	A

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

## V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

No field blanks were identified in this SDG.

## VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
SL-138-SA7-SS-0.0-0.5	Not specified	Decachlorobiphenyl	154 (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.

## 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-137-SA7-SS-0.0-0.5	Aroclor-1260	53.08	J (all detects)	A
SL-138-SA7-SS-0.0-0.5	Aroclor-1254	55.40	J (all detects)	A
SL-006-SA7-SS-0.0-0.5	Aroclor-5460	40.65	J (all detects)	A
SL-046-SA7-SS-0.0-0.5	Aroclor-1254	47.06	J (all detects)	A
SL-049-SA7-SS-0.0-0.5	Aroclor-1248	107.11	J (all detects)	A
SL-085-SA7-SS-0.0-0.5	Aroclor-1254	92.69	J (all detects)	A
SL-125-SA7-SS-0.0-0.5	Aroclor-1248	91.96	J (all detects)	A
SL-134-SA7-SS-0.0-0.5	Aroclor-1254	56.75	J (all detects)	A
SL-135-SA7-SS-0.0-0.5	Aroclor-1242	95.13	J (all detects)	A
SL-136-SA7-SS-0.0-0.5	Aroclor-1248	114.19	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE248	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-050-SA7-SS-0.0-0.5 and DUP03-SA7-QC-092011 were identified as field duplicates. No polychlorinated biphenyl contaminants were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
Aroclor-5460	8.3	6.9	18 (≤50)	-	-
Aroclor-1248	0.76	1.7U	200 (≤50)	J (all detects) UJ (all non-detects)	A
Aroclor-1260	4.5	5.5	20 (≤50)	-	-

**Santa Susana Field Laboratory  
Polychlorinated Biphenyls - Data Qualification Summary - SDG DE248**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE248	SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	Aroclor-5460	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D) (C)
DE248	SL-138-SA7-SS-0.0-0.5	All TCL compounds	J (all detects)	P	Surrogate spikes (%R) (S)
DE248	SL-137-SA7-SS-0.0-0.5	Aroclor-1260	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE248	SL-138-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5	Aroclor-1254	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE248	SL-006-SA7-SS-0.0-0.5	Aroclor-5460	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE248	SL-049-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5	Aroclor-1248	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE248	SL-135-SA7-SS-0.0-0.5	Aroclor-1242	J (all detects)	A	Compound quantitation and RLs (RPD) (*XIII)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
DE248	SL-050-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011	Aroclor-1248	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)

**Santa Susana Field Laboratory  
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG  
DE248**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

**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: 9/19 - 9/20/11
II.	GC/ECD Instrument Performance Check	NA	
III.	Initial calibration	A	% RSD ≤ 20
IV.	Continuing calibration/ICV	SW	104 / CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	SW	
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 = 10, 18
XVI.	Field blanks	N	

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

Validated Samples: 50/L

1	SL-131-SA7-SS-0.0-0.5	11	SL-051-SA7-SS-0.0-0.5	21	SL-050-SA7-SS-0.0-0.5MSD	31	PBLK50267
2	SL-137-SA7-SS-0.0-0.5	12	SL-085-SA7-SS-0.0-0.5	22		32	
3	SL-138-SA7-SS-0.0-0.5	13	SL-125-SA7-SS-0.0-0.5	23		33	
4	SL-005-SA7-SS-0.0-0.5	14	SL-129-SA7-SS-0.0-0.5	24		34	
5	SL-006-SA7-SS-0.0-0.5	15	SL-134-SA7-SS-0.0-0.5	25		35	
6	SL-043-SA7-SS-0.0-0.5	16	SL-135-SA7-SS-0.0-0.5	26		36	
7	SL-046-SA7-SS-0.0-0.5	17	SL-173-SA7-SS-0.0-0.5	27		37	
8	SL-047-SA7-SS-0.0-0.5	18	DUP03-SA7-QC-092011	28		38	
9	SL-049-SA7-SS-0.0-0.5	19	SL-136-SA7-SS-0.0-0.5	29		39	
10	SL-050-SA7-SS-0.0-0.5	20	SL-050-SA7-SS-0.0-0.5MS	30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC #: 26859 R3D  
 SDG #: per work

VALIDATION FINDINGS CHECKLIST

Page: / of 2  
 Reviewer: PA  
 2nd Reviewer: EC

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 26859R3b  
 SDG #: per count

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: F7  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

# 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 #: 26859R35

### VALIDATION FINDINGS WORKSHEET

Continuing Calibration

Page: 1 of 1  
Reviewer: FT

METHOD:  GC  HPLC

2nd Reviewer: E

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?

(2)

#	Date	Standard ID	Detector/Column	Compound	%D / RPD (Limit ≤ 20.0)	RT (limit)	Associated Samples	Qualifications
	9/29/11	cen	MR-1	Aracolor-S/60	26.7	( )	13-19	J/W/A (S/60 or 4)
	11:50		MR-2	V	23.9	( )	↓	↓
						( )		
						( )		
						( )		
						( )		
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**VALIDATION FINDINGS WORKSHEET**  
**Compound Quantitation and Reported CRQLs**

**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 ± 40 (Act 20)	Finding	Associated Samples	Qualifications
	BB		53.08	2	J/A det * XII
	AA		55.40	3	
				<del>3</del>	
	Aroclor - 5460		40.65	5	
	AA		47.06	7	
	Z		107.11	9	
	AA		92.69	12	
	Z		91.96	13	
	AA		56.75	15	✓

Comments: See sample calculation verification worksheet for recalculations

LDC #: 26859R36

# VALIDATION FINDINGS WORKSHEET Compound Quantitation and Reported CRQLs

Page: 1 of 1  
Reviewer: FT  
2nd Reviewer: [signature]

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	%RPP Bot 201	Finding $\pm$ 40	Associated Samples	Qualifications
	Y		95.13	16	J/Adet * XIII
	Z		114.19	19	↓ ↓

Comments: See sample calculation verification worksheet for recalculations

LDC #: 2685923 b

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 1  
 Reviewer: FT  
 2nd reviewer: [Signature]

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 ( <u>ng/kg</u> )		%RPD Limit <u>≤50</u>	Qualification Parent only / All Samples
Aroclor - 5460	10	18	18	J/W/A (fg)
Z	8.3	6.9	200	
BB	0.76	1.74	20	
	4.5	5.5		

Compound	Concentration ( )		%RPD Limit _____	Qualification Parent only / All Samples

LDC #: 26859R3b  
 SDG #: pk copy

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: FJ  
 2nd Reviewer: CA

METHOD: GC  HPLC

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

- CF = A/C
- average CF = sum of the CF/number of standards
- %RSD =  $100 \cdot (S/X)$
- 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		Recalculated		Reported		Recalculated	
				CF (20 std)	CF (20 std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD		
1	ICAL 1PXS243	9/20/11	1260-1 MR-1 1260-1 MR-2	85	85	85	85	8.3	8.3	9.7	9.7
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 #: 26859236  
 SDG #: see cover

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

Page: 1 of 7  
 Reviewer: FD  
 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 =  $100 \cdot (\text{ave. CF} - \text{CF}) / \text{ave. CF}$     Where: ave. CF = Initial calibration average CF  
 CF = A/C    CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	CON 2100	9/28/11	Aroclor 1260 MR-1	200	202.33	1.2	202.33	1.2
					195.37	2.3	195.37	2.3
2	CON 4:31	7/29/11	↓	↓	203.87	1.9	203.87	1.9
					220.26	10.1	220.26	10.1
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26 x 9R 3b  
 SDG #: see cover  
 METHOD: GC HPLC

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

Page: 1 of 1  
 Reviewer: FT  
 2nd reviewer: C

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS \* 100  
 Where: SF = Surrogate Found  
 SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
TCMX	MR-1	104	1.089511	105	105	0
DCB	↓	104	1.088113	105	105	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	

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

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: 20 42

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)											
<u>Feb-1260</u>	<u>16.64</u>	<u>16.64</u>	<u>4.46</u>	<u>12.24</u>	<u>11.70</u>	<u>47</u>	<u>47</u>	<u>44</u>	<u>44</u>	<u>5</u>	<u>5</u>

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.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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:

$$\% \text{ Recovery} = 100 \times (\text{SSC} - \text{SC}) / \text{SA}$$

$$\text{RPD} = | \text{LCS} - \text{LCSD} | \times 2 / (\text{LCS} + \text{LCSD})$$

Where: SSC = Spiked sample concentration      SC = Concentration  
 SA = Spike added  
 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		LCSD		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	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)														
<u>PeB-126 U</u>	<u>16.67</u>	<u>NA</u>	<u>17.54</u>	<u>NA</u>	<u>105</u>	<u>105</u>					<u>NA</u>			

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.

**VALIDATION FINDINGS WORKSHEET**  
Sample Calculation Verification

LDC #: 26859R36  
 SDG #: pu goney

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 =  $\frac{A(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$  Example: Sample ID: #1 Compound Name Aroclor 1260

Concentration = 0.5872  
0.99

= 0.59348/kg

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

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications
	Aroclor 1260-1	= 616.026672 (2000)	=	0.4525	
		45	(60.5)(1000)		
	1260-1	= 0.4525			
	-4	= 0.809447			
	-5	= 0.556244			
	-6	= 0.530591			
		0.5872			

Comments: \_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** September 19 through September 20, 2011  
**LDC Report Date:** December 28, 2011  
**Matrix:** Soil  
**Parameters:** Metals  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE248

### Sample Identification

SL-131-SA7-SS-0.0-0.5	SL-050-SA7-SS-0.0-0.5MSD
SL-137-SA7-SS-0.0-0.5	SL-050-SA7-SS-0.0-0.5DUP
SL-138-SA7-SS-0.0-0.5	
SL-005-SA7-SS-0.0-0.5	
SL-006-SA7-SS-0.0-0.5	
SL-043-SA7-SS-0.0-0.5	
SL-046-SA7-SS-0.0-0.5	
SL-047-SA7-SS-0.0-0.5	
SL-049-SA7-SS-0.0-0.5	
SL-050-SA7-SS-0.0-0.5	
SL-051-SA7-SS-0.0-0.5	
SL-085-SA7-SS-0.0-0.5	
SL-125-SA7-SS-0.0-0.5	
SL-129-SA7-SS-0.0-0.5	
SL-134-SA7-SS-0.0-0.5	
SL-135-SA7-SS-0.0-0.5	
SL-173-SA7-SS-0.0-0.5	
DUP03-SA7-QC-092011	
SL-136-SA7-SS-0.0-0.5	
SL-050-SA7-SS-0.0-0.5MS	

## Introduction

This data review covers 22 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)	Calcium Iron Lead Phosphorus Strontium Tin	5.771 mg/Kg 2.843 mg/Kg 0.032 mg/Kg 1.176 mg/Kg 0.034 mg/Kg 1.506 mg/Kg	All samples in SDG DE248
ICB/CCB	Mercury	0.16 ug/L	All samples in SDG DE248
ICB/CCB	Titanium	0.32 ug/L	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
ICB/CCB	Titanium	0.40 ug/L	SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-131-SA7-SS-0.0-0.5	Mercury Tin	0.017 mg/Kg 2.7 mg/Kg	0.017U mg/Kg 2.7U mg/Kg
SL-137-SA7-SS-0.0-0.5	Mercury Tin	0.016 mg/Kg 3.2 mg/Kg	0.016U mg/Kg 3.2U mg/Kg
SL-138-SA7-SS-0.0-0.5	Mercury Tin	0.021 mg/Kg 3.5 mg/Kg	0.021U mg/Kg 3.5U mg/Kg
SL-005-SA7-SS-0.0-0.5	Mercury Tin	0.014 mg/Kg 2.9 mg/Kg	0.014U mg/Kg 2.9U mg/Kg
SL-006-SA7-SS-0.0-0.5	Mercury Tin	0.012 mg/Kg 3.0 mg/Kg	0.012U mg/Kg 3.0U mg/Kg
SL-043-SA7-SS-0.0-0.5	Mercury Tin	0.0079 mg/Kg 2.8 mg/Kg	0.0079U mg/Kg 2.8U mg/Kg
SL-046-SA7-SS-0.0-0.5	Mercury Tin	0.0075 mg/Kg 2.8 mg/Kg	0.0075U mg/Kg 2.8U mg/Kg
SL-047-SA7-SS-0.0-0.5	Tin	2.8 mg/Kg	2.8U mg/Kg
SL-049-SA7-SS-0.0-0.5	Mercury Tin	0.008 mg/Kg 2.8 mg/Kg	0.008U mg/Kg 2.8U mg/Kg

Sample	Analyte	Reported Concentration	Modified Final Concentration
SL-050-SA7-SS-0.0-0.5	Mercury Tin	0.011 mg/Kg 2.5 mg/Kg	0.011U mg/Kg 2.5U mg/Kg
SL-051-SA7-SS-0.0-0.5	Mercury Tin	0.013 mg/Kg 3.0 mg/Kg	0.013U mg/Kg 3.0U mg/Kg
SL-085-SA7-SS-0.0-0.5	Mercury Tin	0.012 mg/Kg 2.9 mg/Kg	0.012U mg/Kg 2.9U mg/Kg
SL-125-SA7-SS-0.0-0.5	Mercury Tin	0.011 mg/Kg 1.0 mg/Kg	0.011U mg/Kg 1.0U mg/Kg
SL-129-SA7-SS-0.0-0.5	Mercury Tin	0.017 mg/Kg 1.1 mg/Kg	0.017U mg/Kg 1.1U mg/Kg
SL-134-SA7-SS-0.0-0.5	Mercury Tin	0.014 mg/Kg 2.9 mg/Kg	0.014U mg/Kg 2.9U mg/Kg
SL-135-SA7-SS-0.0-0.5	Mercury Tin	0.016 mg/Kg 2.9 mg/Kg	0.016U mg/Kg 2.9U mg/Kg
SL-173-SA7-SS-0.0-0.5	Tin	3.0 mg/Kg	3.0U mg/Kg
DUP03-SA7-QC-092011	Mercury Tin	0.011 mg/Kg 2.8 mg/Kg	0.011U mg/Kg 2.8U mg/Kg
SL-136-SA7-SS-0.0-0.5	Mercury Tin	0.037 mg/Kg 2.9 mg/Kg	0.037U mg/Kg 2.9U 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-050-SA7-SS-0.0-0.5MS/MSD (All samples in SDG DE248)	Antimony	60 (75-125)	42 (75-125)	24 ( $\leq 20$ )	J (all detects) UJ (all non-detects)	A
	Arsenic	222 (75-125)	-	25 ( $\leq 20$ )		
	Barium	-	-	21 ( $\leq 20$ )		
	Lead	-	-	21 ( $\leq 20$ )		
	Cadmium	-	-	21 ( $\leq 20$ )		
SL-050-SA7-SS-0.0-0.5MS/MSD (All samples in SDG DE248)	Beryllium	142 (75-125)	-	-	J (all detects)	A
	Cadmium	166 (75-125)	129 (75-125)	-	J (all detects)	
	Chromium	165 (75-125)	-	-	J (all detects)	
	Cobalt	148 (75-125)	-	-	J (all detects)	
	Copper	178 (75-125)	127 (75-125)	-	J (all detects)	
	Molybdenum	156 (75-125)	128 (75-125)	-	J (all detects)	
	Nickel	190 (75-125)	130 (75-125)	-	J (all detects)	
	Potassium	144 (75-125)	137 (75-125)	-	J (all detects)	
	Selenium	140 (75-125)	-	-	J (all detects)	
	Silver	154 (75-125)	129 (75-125)	-	J (all detects)	
	Thallium	151 (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-050-SA7-SS-0.0-0.5DUP (All samples in SDG DE248)	Calcium	22 ( $\leq 20$ )	-	J (all detects) UJ (all non-detects)	A

## VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

## IX. Internal Standards

All internal standard percent recoveries (%R) were within QC limits.

## X. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

## XI. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met.

## 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 DE248	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-050-SA7-SS-0.0-0.5 and DUP03-SA7-QC-092011 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-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
Aluminum	14300	16500	14 (≤50)	-	-
Antimony	0.28	0.31	10 (≤50)	-	-
Arsenic	5.4	6.7	21 (≤50)	-	-
Barium	113	129	13 (≤50)	-	-
Beryllium	0.63	0.65	3 (≤50)	-	-
Boron	1.4	1.0	33 (≤50)	-	-
Cadmium	0.35	0.47	29 (≤50)	-	-
Calcium	8680	9990	14 (≤50)	-	-
Chromium	23.7	25.9	9 (≤50)	-	-
Cobalt	8.2	8.5	4 (≤50)	-	-
Copper	13.1	14.8	12 (≤50)	-	-

Analyte	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
Iron	22700	24900	9 (≤50)	-	-
Lead	16.3	19.8	19 (≤50)	-	-
Lithium	25.4	26.1	3 (≤50)	-	-
Magnesium	5040	5480	8 (≤50)	-	-
Manganese	286	306	7 (≤50)	-	-
Mercury	0.011	0.011	0 (≤50)	-	-
Molybdenum	0.47	0.50	6 (≤50)	-	-
Nickel	17.4	20.0	14 (≤50)	-	-
Phosphorus	392	390	1 (≤50)	-	-
Potassium	3130	3300	5 (≤50)	-	-
Selenium	0.13	0.15	14 (≤50)	-	-
Silver	0.062	0.067	8 (≤50)	-	-
Sodium	103	97.4	6 (≤50)	-	-
Strontium	23.7	28.6	19 (≤50)	-	-
Thallium	0.35	0.36	3 (≤50)	-	-
Tin	2.5	2.8	11 (≤50)	-	-
Titanium	1200	1190	1 (≤50)	-	-
Vanadium	45.8	48.6	6 (≤50)	-	-
Zinc	132	127	4 (≤50)	-	-
Zirconium	3.4	4.0	16 (≤50)	-	-

**Santa Susana Field Laboratory  
Metals - Data Qualification Summary - SDG DE248**

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	Antimony  Arsenic	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q,E)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	Barium Lead Cadmium	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (RPD) (E)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	Beryllium Cadmium Chromium Cobalt Copper Molybdenum Nickel Potassium Selenium Silver Thallium	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)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	Calcium	J (all detects) UJ (all non-detects)	A	Duplicate sample analysis (RPD) (E)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	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 DE248**

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE248	SL-131-SA7-SS-0.0-0.5	Mercury Tin	0.017U mg/Kg 2.7U mg/Kg	A	B
DE248	SL-137-SA7-SS-0.0-0.5	Mercury Tin	0.016U mg/Kg 3.2U mg/Kg	A	B
DE248	SL-138-SA7-SS-0.0-0.5	Mercury Tin	0.021U mg/Kg 3.5U mg/Kg	A	B
DE248	SL-005-SA7-SS-0.0-0.5	Mercury Tin	0.014U mg/Kg 2.9U mg/Kg	A	B

SDG	Sample	Analyte	Modified Final Concentration	A or P	Code
DE248	SL-006-SA7-SS-0.0-0.5	Mercury Tin	0.012U mg/Kg 3.0U mg/Kg	A	B
DE248	SL-043-SA7-SS-0.0-0.5	Mercury Tin	0.0079U mg/Kg 2.8U mg/Kg	A	B
DE248	SL-046-SA7-SS-0.0-0.5	Mercury Tin	0.0075U mg/Kg 2.8U mg/Kg	A	B
DE248	SL-047-SA7-SS-0.0-0.5	Tin	2.8U mg/Kg	A	B
DE248	SL-049-SA7-SS-0.0-0.5	Mercury Tin	0.008U mg/Kg 2.8U mg/Kg	A	B
DE248	SL-050-SA7-SS-0.0-0.5	Mercury Tin	0.011U mg/Kg 2.5U mg/Kg	A	B
DE248	SL-051-SA7-SS-0.0-0.5	Mercury Tin	0.013U mg/Kg 3.0U mg/Kg	A	B
DE248	SL-085-SA7-SS-0.0-0.5	Mercury Tin	0.012U mg/Kg 2.9U mg/Kg	A	B
DE248	SL-125-SA7-SS-0.0-0.5	Mercury Tin	0.011U mg/Kg 1.0U mg/Kg	A	B
DE248	SL-129-SA7-SS-0.0-0.5	Mercury Tin	0.017U mg/Kg 1.1U mg/Kg	A	B
DE248	SL-134-SA7-SS-0.0-0.5	Mercury Tin	0.014U mg/Kg 2.9U mg/Kg	A	B
DE248	SL-135-SA7-SS-0.0-0.5	Mercury Tin	0.016U mg/Kg 2.9U mg/Kg	A	B
DE248	SL-173-SA7-SS-0.0-0.5	Tin	3.0U mg/Kg	A	B
DE248	DUP03-SA7-QC-092011	Mercury Tin	0.011U mg/Kg 2.8U mg/Kg	A	B
DE248	SL-136-SA7-SS-0.0-0.5	Mercury Tin	0.037U mg/Kg 2.9U mg/Kg	A	B

**Santa Susana Field Laboratory  
Metals - Field Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

747(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	A	Sampling dates: <u>9/19-20/11</u>
II.	ICP/MS Tune	A	
III.	Calibration	A	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	SW	
VI.	Matrix Spike Analysis	SW	MS/D
VII.	Duplicate Sample Analysis	SW	DUP
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	A	
X.	Furnace Atomic Absorption QC	N	Not utilized
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	A	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	SW	(10, 18)
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-131-SA7-SS-0.0-0.5	11	SL-051-SA7-SS-0.0-0.5	21	SL-050-SA7-SS-0.0-0.5MSD	31	
2	SL-137-SA7-SS-0.0-0.5	12	SL-085-SA7-SS-0.0-0.5	22	SL-050-SA7-SS-0.0-0.5DUP	32	
3	SL-138-SA7-SS-0.0-0.5	13	SL-125-SA7-SS-0.0-0.5	23		33	
4	SL-005-SA7-SS-0.0-0.5	14	SL-129-SA7-SS-0.0-0.5	24		34	
5	SL-006-SA7-SS-0.0-0.5	15	SL-134-SA7-SS-0.0-0.5	25		35	
6	SL-043-SA7-SS-0.0-0.5	16	SL-135-SA7-SS-0.0-0.5	26		36	
7	SL-046-SA7-SS-0.0-0.5	17	SL-173-SA7-SS-0.0-0.5	27		37	
8	SL-047-SA7-SS-0.0-0.5	18	DUP03-SA7-QC-092011	28		38	
9	SL-049-SA7-SS-0.0-0.5	19	SL-136-SA7-SS-0.0-0.5	29		39	
10	SL-050-SA7-SS-0.0-0.5	20	SL-050-SA7-SS-0.0-0.5MS	30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
<b>II. ICP/MS Tune</b>				
Were all isotopes in the tuning solution mass resolution within 0.1 amu?	/			
Were %RSD of isotopes in the tuning solution $\leq 5\%$ ?	/			
<b>III. Calibration</b>				
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 $> 0.995$ ?	/			
<b>IV. Blanks</b>				
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.	/			
<b>V. ICP Interference Check Sample</b>				
Were ICP interference check samples performed daily?	/			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	/			
<b>VI. Matrix spike/Matrix spike duplicates</b>				
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) $\leq 20\%$ for waters and $\leq 35\%$ for soil samples? A control limit of $\pm RL$ ( $\pm 2X RL$ for soil) was used for samples that were $\leq 5X$ the RL, including when only one of the duplicate sample values were $< 5X$ the RL.		/		
<b>VII. Laboratory control samples</b>				
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 80-120% QC limits for water samples and laboratory established QC limits for soils?	/			

LDC #: 2685934

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: ER  
 2nd Reviewer: W

Validation Area	Yes	No	NA	Findings/Comments
<b>VIII. Furnace Atomic Absorption QC</b>				
If MSA was performed, was the correlation coefficients > 0.995?			<input checked="" type="checkbox"/>	
Do all applicable analyses have duplicate injections? (Level IV only)			<input checked="" type="checkbox"/>	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			<input checked="" type="checkbox"/>	
Were analytical spike recoveries within the 85-115% QC limits?			<input checked="" type="checkbox"/>	
<b>IX. ICP Serial Dilution</b>				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the MDL (ICP)/>100X the MDL (ICP/MS)?	<input checked="" type="checkbox"/>			
Were all percent differences (%Ds) < 10%?	<input checked="" type="checkbox"/>			
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.			<input checked="" type="checkbox"/>	
<b>X. Internal Standards (EPA SW 846 Method 6020/EPA 200.8)</b>				
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?	<input checked="" type="checkbox"/>			
If the %Rs were outside the criteria, was a reanalysis performed?	<input checked="" type="checkbox"/>			
<b>XI. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?		<input checked="" type="checkbox"/>		
Were the performance evaluation (PE) samples within the acceptance limits?			<input checked="" type="checkbox"/>	
<b>XII. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>			
Target analytes were detected in the field duplicates.	<input checked="" type="checkbox"/>			
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.		<input checked="" type="checkbox"/>		
Target analytes were detected in the field blanks.			<input checked="" type="checkbox"/>	

**VALIDATION FINDINGS WORKSHEET**  
**Sample Specific Element Reference**

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1-19		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, Ti, 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, Ti, Sn, Ti, V, Zn, Zr
QC 2022		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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, 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, Ti, V, Zr

Comments: Mercury by CVAA if performed

Soil preparation factor applied: 100x (Hg=167x)

2nd Reviewer: [Signature]

Associated Samples: All

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
Ca	5.771		28.86																				
Fe	2.843		14.22																				
Pb	0.032		0.16																				
Hg		0.16	0.134	0.017	0.016	0.021	0.014	0.012	0.0079	0.0075	0.008	0.011	0.013	0.012	0.011	0.017	0.014	0.016	0.014	0.011	0.011	0.037	0.037
P	1.176		5.88																				
Sr	0.034		0.17																				
Sn	1.506		7.53	2.7	3.2	3.5	2.9	3.0	2.8	2.8	2.8	2.8	2.5	3.0	2.9	1.0	1.1	2.9	2.9	3.0	2.8	2.9	2.9

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 1, 2, 10

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	No Qualifiers
Ti		0.32	0.16	

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 3-9, 11-17

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	No Qualifiers
Ti		0.40	0.2	

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.

### VALIDATION FINDINGS WORKSHEET

ICP Interference Check Sample

**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".

- N N/A Were ICP interference check samples performed as required?
- N N/A Were the AB solution percent recoveries (%R) within the control limits of 80-120%?

**LEVEL IV ONLY:**

- N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	ICS Identification	Analyte	(mg/L) Finding	Associated Samples	Qualifications
913011	17:26 / 19:45	ICSA	Mn	4 (50.36)	1, 2, 4-19	NO Qual (>10x)

Comments: \_\_\_\_\_

LDC #: 26859051

VALIDATION FINDINGS WORKSHEET  
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1  
Reviewer: SR  
2nd Reviewer: SR

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)  $\leq 20\%$  for water samples and  $\leq 35\%$  for soil samples?

Y N N/A

LEVEL IV ONLY:

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
	20/21	S	Sb	60	42	24	All	JUSTIA (Q, E)
			As	222		25		↓ (E)
			Ba			21		↓ (E)
			Be	142				JUSTIA (Q)
			Cd	166	129	<del>21</del>		JUSTIA (Q)
			Cr	165				JUSTIA (Q)
			Co	148				
			Cu	178	127			
			Mn	156	128			
			Ni	190	130			
			K	144	137			
			Se	140				
			As	151	129			
			Pb	151				
			Cd			21		JUSTIA (E)
						21		↓

Comments:

LDC #: 2085 (R)

**VALIDATION FINDINGS WORKSHEET**  
**Duplicate Analysis**

Page: 1 of 1  
 Reviewer: CR  
 2nd Reviewer: CR

**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".

Was a duplicate sample analyzed for each matrix in this SDG? Y

N N/A

Were all duplicate sample relative percent differences (RPD) ≤ 20% for water samples and ≤ 35% for soil samples? If no, see qualifications below. A control limit of +R.L. (+2X R.L. for soil) was used for sample values that were <5X the R.L., including the case when only one of the duplicate sample values was <5X R.L.. If field blanks were used for laboratory duplicates, note in the Overall Assessment.

Y N N/A

**LEVEL IV ONLY:** Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Date	Duplicate ID	Matrix	Analyte	RPD (Limits)	Difference (Limits)	Associated Samples	Qualifications
		<u>22</u>	<u>S</u>	<u>Ca</u>	<u>22 (570)</u>		<u>All</u>	<u>JLJJ/ACE</u>

Comments: \_\_\_\_\_  
 \_\_\_\_\_

LDC#: 26859R4

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 1 of 2  
Reviewer: OC  
2nd Reviewer: W

**METHOD:** Metals (EPA Method 6010B/7000)

Analyte	Concentration (mg/Kg)		RPD (≤50)	
	10	18		
Aluminum	14300	16500	14	
Antimony	0.28	0.31	10	
Arsenic	5.4	6.7	21	
Barium	113	129	13	
Beryllium	0.63	0.65	3	
Boron	1.4	1.0	33	
Cadmium	0.35	0.47	29	
Calcium	8680	9990	14	
Chromium	23.7	25.9	9	
Cobalt	8.2	8.5	4	
Copper	13.1	14.8	12	
Iron	22700	24900	9	
Lead	16.3	19.8	19	
Lithium	25.4	26.1	3	
Magnesium	5040	5480	8	
Manganese	286	306	7	
Mercury	0.011	0.011	0	
Molybdenum	0.47	0.50	6	
Nickel	17.4	20.0	14	

LDC#: 26859R4

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Page: 22 of 22  
Reviewer: OR  
2nd Reviewer: ✓

**METHOD:** Metals (EPA Method 6010B/7000)

Analyte	Concentration (mg/Kg)		RPD ( $\leq 50$ )	
	10	18		
Phosphorus	392	390	1	
Potassium	3130	3300	5	
Selenium	0.13	0.15	14	
Silver	0.062	0.067	8	
Sodium	103	97.4	6	
Strontium	23.7	28.6	19	
Thallium	0.35	0.36	3	
Tin	2.5	2.8	11	
Titanium	1200	1190	1	
Vanadium	45.8	48.6	6	
Zinc	132	127	4	
Zirconium	3.4	4.0	16	

V:\FIELD DUPLICATES\FD\_inorganic\26859R4.wpd

**VALIDATION FINDINGS WORKSHEET**  
**Initial and Continuing Calibration Calculation Verification**

**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:

$\%R = \frac{\text{Found}}{\text{True}} \times 100$       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		Reported		Acceptable (Y/N)
					%R	%R	%R	%R	
ICV	ICP (Initial calibration)	P	603.6	600	100.6	100.6	100.6	100.6	Y
↓	ICPMS (Initial calibration)	Co	487.20	500	97.4	97.4	97.4	97.4	Y
↓	CVAA (Initial calibration)	Hg	2.56	2.5	102.4	102.4	102.4	102.4	Y
CCV	ICP (Continuing calibration)	Na	2409.94	2500	96.7	96.7	96.7	96.7	Y
↓	ICPMS (Continuing calibration)	V	253.90	250	101.6	101.6	101.6	101.6	Y
↓	CVAA (Continuing calibration)	Hg	1	1	100	100	100	100	Y
	GFAA (Initial calibration)								
	GFAA (Continuing calibration)								

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.

**VALIDATION FINDINGS WORKSHEET**  
**Level IV Recalculation Worksheet**

**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:

$$\%R = \frac{\text{Found} \times 100}{\text{True}} \quad \text{Where, Found} = \text{Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found} = \text{SSR (spiked sample result)} - \text{SR (sample result).}$$

$$\text{True} = \text{Concentration of each analyte in the source.}$$

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$\text{RPD} = \frac{|S-D|}{(S+D)/2} \times 100 \quad \text{Where, S} = \text{Original sample concentration}$$

$$D = \text{Duplicate sample concentration}$$

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$$\%D = \frac{|I-SDR|}{I} \times 100 \quad \text{Where, I} = \text{Initial Sample Result (mg/L)}$$

$$\text{SDR} = \text{Serial Dilution Result (mg/L) (Instrument Reading} \times 5)$$

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated		Reported		Acceptable (Y/N)
					%R / RPD / %D	%R / RPD / %D			
ICSA3	ICP interference check	Co	19.5	20	97.5	97.5	97.5	97.5	Y
CS	Laboratory control sample	Pb	710.4	812	87	87	87	87	Y
20	Matrix spike	Li	(SSR-SR) 100.7254	99,938	101	101	101	101	Y
22	Duplicate	B	1.3989	0.01566	38	38	38	38	Y
10	ICP serial dilution	Sr	234.39	240.85	3	3	3	3	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.

# VALIDATION FINDINGS WORKSHEET

## Sample Calculation Verification

**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 Fe were recalculated and verified using the following equation:

Concentration =  $\frac{(RD)(FV)(Dil)}{(In. Vol.)}$

Recalculation:

- RD = Raw data concentration
- FV = Final volume (ml)
- In. Vol. = Initial volume (ml) or weight (G)
- Dil = Dilution factor

$$\frac{100\text{mL} (203.51027\text{mg/L})}{1.04\text{g} (0.993)} = 19706\text{mg/Kg}$$

#	Sample ID	Analyte	Reported Concentration (mg/Kg)	Calculated Concentration (mg/Kg)	Acceptable (Y/N)
	1	Al	11000	11000	Y
		Sb	0.11	0.11	
		As	3.5	3.5	
		Ba	73.8	73.8	
		Be	0.39	0.39	
		Cd	0.098	0.098	
		Ca	2620	2620	
		Cr	14.5	14.5	
		Co	5.1	5.1	
		Cu	6.8	6.8	
		Fe	19700	19700	
		Pb	6.9	6.9	
		Li	24.8	24.8	
		Mg	4890	4890	
		Mn	260	260	
		Hg	0.017	0.017	
		Mo	0.31	0.31	
		Ni	9.8	9.8	
		P	419	419	
		K	3220	3220	
		Se	0.11	0.11	
		Ag	0.063	0.063	
		Na	62.3	62.3	
		Sr	9.8	9.8	

## VALIDATION FINDINGS WORKSHEET

### Sample Calculation Verification

**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 Na were recalculated and verified using the following equation:

Concentration =  $\frac{(RD)(FV)(Dil)}{(In. Vol.)}$

Recalculation:

- RD = Raw data concentration
- FV = Final volume (ml)
- In. Vol. = Initial volume (ml) or weight (G)
- Dil = Dilution factor

$$\frac{100\text{mL}(0.82553\text{mg/L})}{0.994(1.04\text{g})} = 79.91\text{mg/Kg}$$

#	Sample ID	Analyte	Reported Concentration (mg/Kg)	Calculated Concentration (mg/Kg)	Acceptable (Y/N)
	1	Tl	0.25	0.25	Y
		Sn	2.7	2.7	
		Ti	1200	1200	
		V	29.2	29.2	
		Zn	55.0	55.0	
		Zr	2.7	2.7	
	2	Al	11600	11600	Y
		Sb	0.076	0.076	
		As	3.7	3.7	
		Ba	80.7	80.7	
		Be	0.41	0.41	
		Cd	0.56	0.56	
		Ca	2900	2900	
		Cr	20.2	20.2	
		Co	4.8	4.8	
		Cu	10.9	10.9	
		Fe	20000	20000	
		Pb	15.6	15.6	
		Li	25.1	25.1	
		Mg	4340	4340	
		Mn	283	283	
		Hg	0.016	0.016	
		Mo	0.32	0.32	
		Ni	9.4	9.4	

## VALIDATION FINDINGS WORKSHEET

### Sample Calculation Verification

**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:

- RD = Raw data concentration
- FV = Final volume (ml)
- In. Vol. = Initial volume (ml) or weight (G)
- Dil = Dilution factor

See Previous page

#	Sample ID	Analyte	Reported Concentration (mg/Kg)	Calculated Concentration (mg/Kg)	Acceptable (Y/N)
	2	P	521	521	Y
		K	3330	3330	
		Se	0.10	0.10	
		Ag	0.044	0.044	
		Na	79.9	79.9	
		Sr	13.1	13.1	
		Tl	0.24	0.24	
		Sn	3.2	3.2	
		Ti	1140	1140	
		V	28.4	28.4	
		Zn	129	129	
		Zr	2.6	2.6	

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** September 19 through September 20, 2011  
**LDC Report Date:** January 3, 2012  
**Matrix:** Soil  
**Parameters:** Herbicides  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE248

### Sample Identification

SL-131-SA7-SS-0.0-0.5  
SL-137-SA7-SS-0.0-0.5  
SL-138-SA7-SS-0.0-0.5  
SL-005-SA7-SS-0.0-0.5  
SL-006-SA7-SS-0.0-0.5  
SL-043-SA7-SS-0.0-0.5  
SL-046-SA7-SS-0.0-0.5  
SL-047-SA7-SS-0.0-0.5  
SL-049-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5  
SL-051-SA7-SS-0.0-0.5  
SL-085-SA7-SS-0.0-0.5  
SL-129-SA7-SS-0.0-0.5  
SL-134-SA7-SS-0.0-0.5  
SL-135-SA7-SS-0.0-0.5  
SL-173-SA7-SS-0.0-0.5  
DUP03-SA7-QC-092011  
SL-136-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5MS  
SL-050-SA7-SS-0.0-0.5MSD

## Introduction

This data review covers 20 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8151A for Herbicides.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the 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 this 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.

## **III. Calibration Verification**

Calibration verification was performed at the required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

## **IV. Blanks**

Method blanks were reviewed for each matrix as applicable. No herbicide contaminants were found in the method blanks.

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 Duplicate**

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-050-SA7-SS-0.0-0.5MS/MSD (SL-050-SA7-SS-0.0-0.5)	2,4,5-T	-	-	44 (≤35)	J (all detects)	A
SL-050-SA7-SS-0.0-0.5MS/MSD (SL-050-SA7-SS-0.0-0.5)	2,4-DB	0 (10-201)	-	85 (≤50)	J (all detects) R (all non-detects)	A

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
LCS 49267	Dinoseb	7 (10-36)	All samples in SDG DE248	J (all detects) R (all non-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.

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-138-SA7-SS-0.0-0.5	2,4,5-TP	73.93	J (all detects)	A
SL-005-SA7-SS-0.0-0.5	2,4,5-T	182	J (all detects)	A
SL-043-SA7-SS-0.0-0.5	2,4,5-T 2,4-DB	72.08 44.95	J (all detects) J (all detects)	A
SL-046-SA7-SS-0.0-0.5	2,4-DB	40.54	J (all detects)	A
SL-047-SA7-SS-0.0-0.5	2,4-DB	70.37	J (all detects)	A
SL-050-SA7-SS-0.0-0.5	2,4-DB MCPA	81.50 40.84	J (all detects) J (all detects)	A

Sample	Compound	RPD	Flag	A or P
SL-173-SA7-SS-0.0-0.5	2,4-DB 2,4,5-T	59.63 82.14	J (all detects) J (all detects)	A
DUP03-SA7-QC-092011	2,4-D 2,4,5-T	40.83 68.97	J (all detects) J (all detects)	A
SL-136-SA7-SS-0.0-0.5	2,4-DB	79.80	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE248	All compounds reported below the RL.	J (all detects)	A

## X. System Performance

The system performance was acceptable.

## XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

## XII. Field Duplicates

Samples SL-050-SA7-SS-0.0-0.5 and DUP03-SA7-QC-092011 were identified as field duplicates. No herbicides were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD (Limits)	Flags	A or P
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
2,4-DB	2.2	1.7U	200 (≤50)	J (all detects) UJ (all non-detects)	A
MCPA	150	250U	200 (≤50)	J (all detects) UJ (all non-detects)	A
2,4,5-T	0.20	0.11	58 (≤50)	J (all detects)	A
2,4-D	1.2U	1.3	200 (≤50)	J (all detects) UJ (all non-detects)	A

**Santa Susana Field Laboratory  
Herbicides - Data Qualification Summary - SDG DE248**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE248	SL-050-SA7-SS-0.0-0.5	2,4,5-T	J (all detects)	A	Matrix spike/Matrix spike duplicate (RPD) (Q)
DE248	SL-050-SA7-SS-0.0-0.5	2,4-DB	J (all detects) R (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	Dinoseb	J (all detects) R (all non-detects)	P	Laboratory control samples (%R) (L)
DE248	SL-138-SA7-SS-0.0-0.5	2,4,5-TP	J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE248	SL-005-SA7-SS-0.0-0.5	2,4,5-T	J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE248	SL-043-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5	2,4,5-T 2,4-DB	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE248	SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-136-SA7-SS-0.0-0.5	2,4-DB	J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE248	SL-050-SA7-SS-0.0-0.5	2,4-DB MCPA	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)
DE248	DUP03-SA7-QC-092011	2,4-D 2,4,5-T	J (all detects) J (all detects)	A	Compound quantitation and RLs (RPD) (*IX)

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation and RLs (Z)
DE248	SL-050-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011	2,4-DB MCPA 2,4-D	J (all detects) UJ (all non-detects)	A	Field duplicates (RPD) (FD)
DE248	SL-050-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011	2,4,5-T	J (all detects)	A	Field duplicates (RPD) (FD)

**Santa Susana Field Laboratory  
Herbicides - Laboratory Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Herbicides - Field Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

LDC #: 26859R5

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE248

Level IV

Laboratory: Lancaster Laboratories

Date: 9/30/11

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**METHOD:** GC Herbicides (EPA SW 846 Method 8151A)

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

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 9/19 - 9/20/11
II.	Initial calibration	A	% PSD $\leq$ 20
III.	Calibration verification/ICV	A	ICV/ICV $\leq$ 20
IV.	Blanks	A	
V.	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	SW	
VII.	Laboratory control samples	SW	LC5
VIII.	Target compound identification	A	
IX.	Compound quantitation (RI)/LOQ/LODs	SW	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	SW	D = 10 + 17
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:

5012

1	SL-131-SA7-SS-0.0-0.5	11	SL-051-SA7-SS-0.0-0.5	21	PBLK49267	31	
2	SL-137-SA7-SS-0.0-0.5*	12	SL-085-SA7-SS-0.0-0.5	22		32	
3	SL-138-SA7-SS-0.0-0.5	13	SL-129-SA7-SS-0.0-0.5	23		33	
4	SL-005-SA7-SS-0.0-0.5	14	SL-134-SA7-SS-0.0-0.5	24		34	
5	SL-006-SA7-SS-0.0-0.5	15	SL-135-SA7-SS-0.0-0.5	25		35	
6	SL-043-SA7-SS-0.0-0.5	16	SL-173-SA7-SS-0.0-0.5	26		36	
7	SL-046-SA7-SS-0.0-0.5	17	DUP03-SA7-QC-092011	27		37	
8	SL-047-SA7-SS-0.0-0.5	18	SL-136-SA7-SS-0.0-0.5	28		38	
9	SL-049-SA7-SS-0.0-0.5	19	SL-050-SA7-SS-0.0-0.5MS	29		39	
10	SL-050-SA7-SS-0.0-0.5	20	SL-050-SA7-SS-0.0-0.5MSD	30		40	

Notes: \_\_\_\_\_

LDC #: 26859 R3  
 SDG #: per owner

VALIDATION FINDINGS CHECKLIST

Page: / of 2  
 Reviewer: FR  
 2nd Reviewer: C

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>V. Surrogate/spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VI. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 26859RS  
 SDG #: per count

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X: Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI: Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII: System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII: Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIV: Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV: Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### VALIDATION FINDINGS WORKSHEET Matrix Spike/Matrix Spike Duplicates

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
	19420	2,4,5-T	( )	( )	44 ( 35 )	10	J/A det (s)
		2,4-D	0 ( 10-20 )	( )	85 ( 50 )	↓	J/R/A ↓
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 2685925 **VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Samples (LCS)**

METHOD:  GC  HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- N  A  
 Were a laboratory control samples (LCS) and laboratory control sample duplicate (LCSD) analyzed for each matrix in this SDG?  
 N  A  
 Were the LCS percent recoveries (%R) and relative percent differences (RPD) within the QC limits?

**Level I/ID Only**

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
	<u>LCS 49267</u>	<u>Dinoseb</u>	<u>7</u> ( )	( )	( )	<u>All</u>	<u>J/R/FP (L)</u>

**VALIDATION FINDINGS WORKSHEET**  
**Compound Quantitation and Reported CRQLs**

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	Finding	Associated Samples	Qualifications
	2,4,5-TP	But 2	73.93	3	↓/A det *IX
	UV 2,4,5-T		182	4	↓
	2,4,5-T		73.08	6	↓
	2,4-DB		44.95		↓
	2,4-DB		40.51	7	↓
	↓		70.37	8	↓
	<del>2,4,5-T</del>			9	
	2,4-DB		81.50	10	↓
	MCPA		40.84		↓

Comments: See sample calculation verification worksheet for recalculations

LDC #: 2685925  
 SDG #: per cover

**VALIDATION FINDINGS WORKSHEET**  
Compound Quantitation and Reported CRQLs

METHOD: GC HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".  
 Level N/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 Finding	Associated Samples	Qualifications
		<u>201</u>		
	<u>3,4-DB</u>	<u>59.63</u>	<u>15</u>	<u>J/A det * / X</u>
	<u>3,4,5-T</u>	<u>82.14</u>		
	<u>3,4-D</u>	<u>40.83</u>	<u>17</u>	<u>↓ * / X</u>
	<u>3,4,5-T</u>	<u>68.97</u>		
	<u>3,4-DB</u>	<u>79.80</u>	<u>18</u>	<u>↓ * / X</u>

Comments: See sample calculation verification worksheet for recalculations

LDC #: 268985  
 SDG #: see cover

VALIDATION FINDINGS WORKSHEET  
 Field Duplicates

Page: 10 of 1  
 Reviewer: [Signature]  
 2nd reviewer: [Signature]

METHOD: GC HPLC

N/A Were field duplicate pairs identified in this SDG?  
 N/A Were target compounds detected in the field duplicate pairs?

(f9)

Compound	Concentration ( <u>ug/kg</u> )		%RPD Limit <u>±50</u>	Qualification Parent only / All Samples
2,4-DB	10	17	200	J/US/A
MCPA	2.2	<del>1.74</del>	200	↓
2,4,5-T	150	2504774	58	J/A det
2,4-D	0.20	0.11	200	J/US/A
	1.24	1.3		

Compound	Concentration ( )		%RPD Limit	Qualification Parent only / All Samples

LDC #: 26809ES  
 SDG #: pk wach

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: FJ  
 2nd Reviewer: A

METHOD: GC          HPLC         

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

- CF = A/C
- average CF = sum of the CF/number of standards
- %RSD =  $100 \cdot (S/X)$
- 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		Recalculated		Reported		Recalculated	
				CF (std)	CF (std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD		
1	1CAL	9/19/11	2, 4-DB Dinoseb	$6.99 \times 10^{-2}$	$6.99 \times 10^{-2}$	$6.97 \times 10^{-2}$	$6.97 \times 10^{-2}$	6.6	6.6	6.6	6.6
				$3.61 \times 10^{-1}$	$3.61 \times 10^{-1}$	$4.11 \times 10^{-1}$	$4.11 \times 10^{-1}$	17.8	17.8	17.8	17.8
2	1CAL	9/19/11	2B-35	$8.52 \times 10^{-2}$	$8.52 \times 10^{-2}$	$8.60 \times 10^{-2}$	$8.60 \times 10^{-2}$	13.2	13.2	13.2	13.2
				$3.79 \times 10^{-1}$	$3.79 \times 10^{-1}$	$4.32 \times 10^{-1}$	$4.32 \times 10^{-1}$	19.5	19.5	19.5	19.5
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 #: 76 85925  
 SDG #: see Conn

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

Page: 1 of 2  
 Reviewer: FE  
 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 =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  Where: ave. CF = Initial calibration average CF  
 CF = A/C  
 CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	CCV 22:22	9/29/11	3-4-DB	200.60	212.15	5.8	212.15	5.8
			Dino xeb	100.70	90.60	10.0	90.60	10.0
			↓	211.05	211.05	5.2	211.05	5.2
2	CCV 3:24	9/30/11	↓	92.79	92.79	7.9	92.79	7.9
			↓	212.31	212.31	5.8	212.31	5.8
			↓	92.10	92.10	8.5	92.10	8.5
3	CCV 8:52	9/30/11	↓	213.77	213.77	6.6	213.77	6.6
			↓	93.43	93.43	7.2	93.43	7.2
			↓	208.10	208.10	3.7	208.10	3.7
4			↓	87.25	87.25	13.4	87.25	13.4
			↓	206.94	206.94	3.2	206.94	3.2
			↓	91.31	91.31	9.3	91.31	9.3

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 2685925  
 SDG #: see cover  
 METHOD: GC HPLC

VALIDATION FINDINGS WORKSHEET  
Surrogate Results Verification

Page: 1 of 1  
 Reviewer: FT  
 2nd reviewer: [Signature]

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS \* 100  
 Where: SF = Surrogate Found  
 SS = Surrogate Spiked

Sample ID: # /

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
2,4-DcA Δ	DB ZB-35	6.667	8.447753	127	127	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	

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

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  
 RPD =  $(((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD)) * 100$  MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 19 + 20

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)	8.29	8.29	ND	6.73	5.29	81	81	64	64	24	24
Dinoseb (8151)	14.11	14.11	ND	2.84	2.9	20	20	20	20	2	2
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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 =  $100 \times \frac{SSC-SC}{SA}$       Where: SSC = Spiked sample concentration      SC = Concentration  
 RPD =  $100 \times \frac{LCS - LCSD}{LCS + LCSD}$       SA = Spike added  
 LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LC >

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS		LCSD		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)														
Diesel (8015)														
Benzene (8021B)														
Methane (RSK-175)														
2,4-D (8151)	8.33	NA	7.9	NA	95	95								
Dinoseb (8151)	1418	↓	104	↓	7	7								
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.



## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** September 20, 2011  
**LDC Report Date:** January 5, 2012  
**Matrix:** Soil  
**Parameters:** Wet Chemistry  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE248

### Sample Identification

SL-131-SA7-SS-0.0-0.5	SL-050-SA7-SS-0.0-0.5DUP
SL-137-SA7-SS-0.0-0.5	SL-051-SA7-SS-0.0-0.5MS
SL-138-SA7-SS-0.0-0.5	SL-051-SA7-SS-0.0-0.5DUP
SL-005-SA7-SS-0.0-0.5	SL-129-SA7-SS-0.0-0.5MS
SL-006-SA7-SS-0.0-0.5	SL-129-SA7-SS-0.0-0.5DUP
SL-043-SA7-SS-0.0-0.5	
SL-046-SA7-SS-0.0-0.5	
SL-047-SA7-SS-0.0-0.5	
SL-049-SA7-SS-0.0-0.5	
SL-050-SA7-SS-0.0-0.5	
SL-051-SA7-SS-0.0-0.5	
SL-085-SA7-SS-0.0-0.5	
SL-125-SA7-SS-0.0-0.5	
SL-129-SA7-SS-0.0-0.5	
SL-134-SA7-SS-0.0-0.5	
SL-135-SA7-SS-0.0-0.5	
SL-173-SA7-SS-0.0-0.5	
DUP03-SA7-QC-092011	
SL-136-SA7-SS-0.0-0.5	
SL-050-SA7-SS-0.0-0.5MS	

## Introduction

This data review covers 25 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-051-SA7-SS-0.0-0.5MS (SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5)	Fluoride	79 (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 DE248	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-050-SA7-SS-0.0-0.5 and DUP03-SA7-QC-092011 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)	Flags	A or P
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
Fluoride	3.2	2.8	13 ( $\leq 50$ )	-	-
Nitrate	1.3	1.4	7 ( $\leq 50$ )	-	-
Hexavalent chromium	0.37	0.32	14 ( $\leq 50$ )	-	-

**Santa Susana Field Laboratory  
Wet Chemistry - Data Qualification Summary - SDG DE248**

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
DE248	SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	Fluoride	J (all detects) UJ (all non-detects)	A	Matrix spike analysis (%R) (Q)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-125-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	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 DE248**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Wet Chemistry - Field Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

LDC #: 26859R6

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE248

Level IV

Laboratory: Lancaster Laboratories

Date: 1/5/12

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**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: 9/20/11
Ia.	Initial calibration	A	
Iib.	Calibration verification	A	
III.	Blanks	A	
IV	Matrix Spike/Matrix Spike Duplicates	SW	
V	Duplicates	A	
VI.	Laboratory control samples	A	Les
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	(10, 18)
X	Field blanks	N	

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

Validated Samples: 40

1	SL-131-SA7-SS-0.0-0.5	11	SL-051-SA7-SS-0.0-0.5	21	SL-050-SA7-SS-0.0-0.5DUP	31	M/S
2	SL-137-SA7-SS-0.0-0.5	12	SL-085-SA7-SS-0.0-0.5	22	#11 MS	32	
3	SL-138-SA7-SS-0.0-0.5	13	SL-125-SA7-SS-0.0-0.5	23	↓ Dup	33	
4	SL-005-SA7-SS-0.0-0.5	14	SL-129-SA7-SS-0.0-0.5	24	#14 MS	34	
5	SL-006-SA7-SS-0.0-0.5	15	SL-134-SA7-SS-0.0-0.5	25	↓ Dup	35	
6	SL-043-SA7-SS-0.0-0.5	16	SL-135-SA7-SS-0.0-0.5	26		36	
7	SL-046-SA7-SS-0.0-0.5	17	SL-173-SA7-SS-0.0-0.5	27		37	
8	SL-047-SA7-SS-0.0-0.5	18 ✓	DUP03-SA7-QC-092011	28		38	
9	SL-049-SA7-SS-0.0-0.5	19	SL-136-SA7-SS-0.0-0.5	29		39	
10 ✓	SL-050-SA7-SS-0.0-0.5	20	SL-050-SA7-SS-0.0-0.5MS	30		40	

Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Method: Inorganics (EPA Method See cover)

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
<b>II. Calibration</b>				
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)			✓	
<b>III. Blanks</b>				
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.		✓		
<b>IV. Matrix spike/Matrix spike duplicates and Duplicates</b>				
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.	✓			
<b>V. Laboratory control samples</b>				
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 80-120% (85-115% for Method 300.0) QC limits?	✓			
<b>VI. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

Validation Area	Yes	No	NA	Findings/Comments
<b>VII. Sample Result Verification</b>				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
Were detection limits < RL?	/			
<b>VIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>IX. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	/	/		
Target analytes were detected in the field duplicates.	/			
<b>X. Field blanks</b>				
Field blanks were identified in this SDG.		/	/	
Target analytes were detected in the field blanks.			/	

All circled methods are applicable to each sample.

Sample ID	Matrix	Parameter
1-19	(Soil)	pH TDS Cl F <u>NO<sub>3</sub></u> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC <u>CR<sup>6+</sup></u> <u>ClO<sub>4</sub></u>
6-17, 15-19		pH TDS Cl F <u>NO<sub>3</sub></u> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
1-5, 7-11, 14-16, 18, 19		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK <u>CN'</u> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
2-20, 21	(Soil)	pH TDS Cl F <u>NO<sub>3</sub></u> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK <u>CN'</u> NH <sub>3</sub> TKN TOC <u>CR<sup>6+</sup></u> <u>ClO<sub>4</sub></u>
22, 23		pH TDS Cl F <u>NO<sub>3</sub></u> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
24, 25		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK <u>CN'</u> NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>
		pH TDS Cl F NO <sub>3</sub> NO <sub>2</sub> SO <sub>4</sub> PO <sub>4</sub> ALK CN' NH <sub>3</sub> TKN TOC CR <sup>6+</sup> ClO <sub>4</sub>

Comments: \_\_\_\_\_

LDC #: 2685926

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike Analysis**

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

**METHOD:** Inorganics, Method See cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

N  N/A

Was a matrix spike analyzed for each matrix in this SDG?

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:**

N  N/A

Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	Matrix Spike ID	Matrix	Analyte	%R	Associated Samples	Qualifications
1		22	Soil	F	79 (80-120)	11-19	J/WJ/A (A)

Comments: \_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET**  
**Field Duplicates**

Inorganics, Method See Cover

N  NA  
 N  NA

Were field duplicate pairs identified in this SDG?

Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (mg/Kg)		RPD (≤50)	
	10	18		
Fluoride	3.2	2.8	13	
Nitrate	1.3	1.4	7	
Cr (VI)	0.37	0.32	14	

V:\FIELD DUPLICATES\FD\_inorganic\26859R6.wpd

LDC #: 2685126

**Validatin Findings Worksheet**  
**Initial and Continuing Calibration Calculation Verification**

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

Method: Inorganics, Method See lower

The correlation coefficient (r) for the calibration of ClO4 was recalculated. Calibration date: 8/4/11

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. (ug/L)	Area	Recalculated		Reported		Acceptable (Y/N)
					r or r <sup>2</sup>	r or r <sup>2</sup>			
Initial calibration	ClO4	s1	2	0.003	0.9999	0.9999			Y
		s2	4	0.006					
		s3	10	0.023					
		s4	25	0.061					
		s5	100	0.263					
Calibration verification	NO3	1.5	1.59		1.06	1.06		Y	
Calibration verification	Cl	0.15	0.149		0.99	0.99		Y	
Calibration verification	ClO4	100	110.7		1.11	1.11		Y	

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 #: 26659 R6

VALIDATION FINDINGS WORKSHEET  
Level IV Recalculation Worksheet

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

METHOD: Inorganics, Method see run

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{\text{Found}}{\text{True}} \times 100$$
 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		Acceptable (Y/N)
					%R / RPD	Reported %R / RPD	
LCS	Laboratory control sample	CO4	536	500	107	NR	Y
20	Matrix spike sample	CN	5.11 (SSR-SR)	5.26	97	97	Y
21	Duplicate sample	F	3.87	3.22	18	18	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.

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VALIDATION FINDINGS WORKSHEET  
Sample Calculation Verification

METHOD: Inorganics, Method See over

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- N N/A Have results been reported and calculated correctly?
- N N/A Are results within the calibrated range of the instruments?
- N N/A Are all detection limits below the CRQL?

Compound (analyte) results for 10, 19 reported with a positive detect were recalculated and verified using the following equation:

Concentration = Recalculation:  

$$\#19 \text{ Cr6+} = \frac{(0.1079 + 0.02694) \times 0.12}{0.011087 \times 2.578 \times 0.985} = 0.48 \text{ mg/kg}$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
<u>10/1</u>	<u>10</u>	<u>F</u>	<u>3.2</u>	<u>3.2</u>	<u>Y</u>
		<u>NO3</u>	<u>1.3</u>	<u>1.3</u>	<u>Y</u>
		<u>Cr6+</u>	<u>0.37</u>	<u>0.387</u>	<u>Y</u>
<u>2</u>	<u>19</u>	<u>WATER F</u>	<u>3.5</u>	<u>3.5</u>	<u>Y</u>
		<u>NO3</u>	<u>2.3</u>	<u>2.3</u>	<u>Y</u>
		<u>Cr6+</u>	<u>0.47</u>	<u>0.48</u>	<u>Y</u>

Note: \_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** September 19 through September 20, 2011  
**LDC Report Date:** January 3, 2012  
**Matrix:** Soil  
**Parameters:** Total Petroleum Hydrocarbons as Extractables  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE248

### Sample Identification

SL-131-SA7-SS-0.0-0.5  
SL-137-SA7-SS-0.0-0.5  
SL-138-SA7-SS-0.0-0.5  
SL-005-SA7-SS-0.0-0.5  
SL-006-SA7-SS-0.0-0.5  
SL-043-SA7-SS-0.0-0.5  
SL-046-SA7-SS-0.0-0.5  
SL-047-SA7-SS-0.0-0.5  
SL-049-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5  
SL-051-SA7-SS-0.0-0.5  
SL-085-SA7-SS-0.0-0.5  
SL-129-SA7-SS-0.0-0.5  
SL-134-SA7-SS-0.0-0.5  
SL-135-SA7-SS-0.0-0.5  
SL-173-SA7-SS-0.0-0.5  
DUP03-SA7-QC-092011  
SL-136-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5MS  
SL-050-SA7-SS-0.0-0.5MSD

## Introduction

This data review covers 20 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 with the following exceptions:

Method Blank ID	Extraction Date	Compound	Concentration	Associated Samples
PBLK02268	9/26/11	Extractable fuel hydrocarbons (C21-C30) Extractable fuel hydrocarbons (C30-C40)	0.68 mg/Kg 2.0 mg/Kg	All samples in SDG DE248

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks.

No field blanks were identified in this SDG.

## V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. Surrogate recoveries (%R) were not within QC limits for 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 not within QC limits. Since the sample was diluted out, no data were qualified.

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

## VIII. Target Compound Identification

All target compound identifications were within validation criteria.

## IX. Compound Quantitation and 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 DE248	All compounds reported below the RL.	J (all detects)	A

## X. System Performance

The system performance was acceptable.

## XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

## XII. Field Duplicates

Samples SL-050-SA7-SS-0.0-0.5 and DUP03-SA7-QC-092011 were identified as field duplicates. No total petroleum hydrocarbons as extractables were detected in any of the samples with the following exceptions:

Compound	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
Extractable fuel hydrocarbons (C21-C30)	230	370	47 (≤50)	-	-
Extractable fuel hydrocarbons (C30-C40)	1000	1200	18 (≤50)	-	-

Compound	Concentration (mg/Kg)		RPD (Limits)	Flags	A or P
	SL-050-SA7-SS-0.0-0.5	DUP03-SA7-QC-092011			
Extractable fuel hydrocarbons (C15-C20)	35	54	42 (≤50)	-	-

**Santa Susana Field Laboratory  
 Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -  
 SDG DE248**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-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 DE248**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
 Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification  
 Summary - SDG DE248**

No Sample Data Qualified in this SDG

LDC #: 26859R8

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12/30/11

SDG #: DE248

Level IV

Page: 1 of 1

Laboratory: Lancaster Laboratories

Reviewer:                     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: 9/19 - 9/20/11
II.	Initial calibration	A	% RSD $\leq 20$
III.	Calibration verification/ICV	A	100/cv $\leq 20$
IV.	Blanks	SW	
V.	Surrogate recovery	SW	
VI.	Matrix spike/Matrix spike duplicates	SW	
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	SW	D = 10 + 17
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:

2011

1†	SL-131-SA7-SS-0.0-0.5	11	SL-051-SA7-SS-0.0-0.5	21	PBLK0226X	31
2†	SL-137-SA7-SS-0.0-0.5	12	SL-085-SA7-SS-0.0-0.5	22		32
3	SL-138-SA7-SS-0.0-0.5	13	SL-129-SA7-SS-0.0-0.5	23		33
4	SL-005-SA7-SS-0.0-0.5	14	SL-134-SA7-SS-0.0-0.5	24		34
5	SL-006-SA7-SS-0.0-0.5	15	SL-135-SA7-SS-0.0-0.5	25		35
6	SL-043-SA7-SS-0.0-0.5	16	SL-173-SA7-SS-0.0-0.5	26		36
7	SL-046-SA7-SS-0.0-0.5	17	DUP03-SA7-QC-092011	27		37
8	SL-047-SA7-SS-0.0-0.5	18	SL-136-SA7-SS-0.0-0.5	28		38
9	SL-049-SA7-SS-0.0-0.5	19	SL-050-SA7-SS-0.0-0.5MS	29		39
10	SL-050-SA7-SS-0.0-0.5	20	SL-050-SA7-SS-0.0-0.5MSD	30		40

Notes: \_\_\_\_\_

LDC #: 26859 P8  
 SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: FI  
 2nd Reviewer: [Signature]

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20% or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 26859 RY  
 SDG #: per count

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: FJ  
 2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	/			
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
<b>XII. System performance</b>				
System performance was found to be acceptable.	/			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	/			
Target compounds were detected in the field duplicates.	/			
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.		/		
Target compounds were detected in the field blanks.			/	

LDC #: 26859P8  
 SDG#:

**VALIDATION FINDINGS WORKSHEET**  
**Blanks**

Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

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: 9/26/11 Blank analysis date: 10/02/11

Associated samples: All (>5X)

Conc. units: mg/kg

Compound	Blank ID	Sample Identification
	<u>181K0226B</u>	<u>5X</u>
<u>EFH (c21-c30)</u>	<u>0.68</u>	<u>3.4</u>
<u>EFH (c30-c40)</u>	<u>2.0</u>	<u>10.0</u>

Blank extraction date: \_\_\_\_\_ Blank analysis date: \_\_\_\_\_  
 Conc. units: \_\_\_\_\_

Associated samples: \_\_\_\_\_

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".

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Recovery**

**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/A Were surrogates spiked into all samples and blanks?  
 Y  N/A Did all surrogate recoveries (%R) meet the QC limits?

#	Sample ID	Detector/Column	Surrogate Compound	%R (Limits)	Qualifications
	3	NS	H	156 ( 47-195 )	no qual 10X DL
	5	NS	H	158 ( )	↓ 5X PL
	14	NS	H	149 ( )	↓ 10X DL

Surrogate Compound	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-Trifluorotoluene	I Fluorobenzene (FBZ)	O Decachlorobiphenyl (DCB)	U Triphenyltin	
D Bromochlorobenzene	J n-Tricortane	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	

VALIDATION FINDINGS WORKSHEET  
Matrix Spike/Matrix Spike Duplicates

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
	19 & 20	phenol	100% ( )	100% ( )	( )	10	no qual ISOX 12L
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 26859R8  
 SDG #: see cover

VALIDATION FINDINGS WORKSHEET  
 Field Duplicates

Page: 7 of 7  
 Reviewer: [Signature]  
 2nd reviewer: [Signature]

METHOD: GC HPLC

X 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 ( mg/kg )		%RPD Limit	Qualification Parent only / All Samples
	10	17		
EFH (c21-c30)	230	140 370	47 ≤ 50	
EFH (c30-c40)	1000	1200	18 ≤ 50	
EFH (c15-c20)	35	51	42 ≤ 50	

Compound	Concentration ( )		%RPD Limit	Qualification Parent only / All Samples

LDC #: 26859R  
 SDG #: GC

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: [Signature]  
 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		Recalculated		Reported		Recalculated	
				CF (std)	CF (std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD		
1	1CAL	9/13/11	CG-240	22403	22403	22857	22857	2.3	2.3	2.3	2.3
2	1CAL	10/01/11	↓	24669	24669	25106	25106	4.4	4.4	4.4	4.4
3											
4											

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

LDC #: 26857 PJ  
 SDG #: 20 Conn

Page: 1 of 7  
 Reviewer: FD  
 2nd Reviewer: CA

METHOD: GC            HPLC           

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$       Where:    ave. CF = Initial calibration average CF  
 CF = A/C    CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	CV 14-08	10/2/11	cg - cyD	144.00	146.03	1.4	1.4	
	CV 21-41	10/2/11	↓	576.00	583.60	1.3	1.3	
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 #: 2689 RJ  
 SDG #: see cover

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

Page: 1 of       
 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:      # /     

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	
<i>chloro benzene</i>	<i>MS</i>	<i>1.0</i>	<i>0.79183</i>	<i>79</i>	<i>79</i>	<i>0</i>
<i>or the other plug</i>	<i>↓</i>	<i>1.0</i>	<i>0.930593</i>	<i>93</i>	<i>93</i>	<i>0</i>

Sample ID:     

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

Sample ID:     

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

LDC #: 26859R  
 SDG #: for water

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 =  $100 * ((SSCMS - SSC) / SA)$  Where SSC = Spiked sample concentration SC = Sample concentration  
 SA = Spike added  
 RPD =  $(((SSCMS - SSCMSD) * 2) / ((SSCMS + SSCMSD))) * 100$  MSD = Matrix spike duplicate

MS/MSD samples: 19 & 20

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)											
<del>FFH (exp-cy)</del> Diesel (8015)	2.51	2.51	1012.37	1049.6	1246.86	1483	1483	9342	9342	17	17
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 2685928  
 SDG #: see cover

Page: 1 of 1  
 Reviewer: PS  
 2nd Reviewer: C

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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      SC = Concentration  
 RPD =  $|LCS - LCSD| * 2 / (LCS + LCSD)$       SA = Spike added  
 LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LC5

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS		LCSD		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)														
<u>EFH (230-240)</u> Diesel (8015)	2.51	NA	2.35	NA	94	94								
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.

VALIDATION FINDINGS WORKSHEET  
Sample Calculation Verification

LDC #: 26 859R PJ  
SDG #: fu goner

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

METHOD: GC HPLC

Y/N N/A  
Y/N N/A

Were all reported results recalculated and verified for all level IV samples?  
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 C30 - CYD  
 Concentration = 23482634 (1000)  
22854 (60) (0.993) (1000)  
25106

= 16 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:** September 19 through September 20, 2011  
**LDC Report Date:** January 3, 2012  
**Matrix:** Soil  
**Parameters:** Explosives  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE248

**Sample Identification**

SL-046-SA7-SS-0.0-0.5  
SL-047-SA7-SS-0.0-0.5  
SL-049-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5  
SL-051-SA7-SS-0.0-0.5  
SL-134-SA7-SS-0.0-0.5  
SL-135-SA7-SS-0.0-0.5  
DUP03-SA7-QC-092011  
SL-136-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5MS  
SL-050-SA7-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 8330A for Explosives.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the compound at an estimated quantity.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

## **I. Technical Holding Times**

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

## **II. Initial Calibration**

Initial calibration of compounds was performed for the primary (quantitation) column and confirmation column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination ( $r^2$ ) were greater than or equal to 0.990 .

Retention time windows were evaluated and considered technically acceptable.

## **III. Calibration Verification**

Calibration verification was performed at the required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

## **IV. Blanks**

Method blanks were reviewed for each matrix as applicable. No explosive contaminants were found in the method blanks.

No field blanks were identified in this SDG.

## **V. Surrogate Recovery**

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

## **VI. Matrix Spike/Matrix Spike Duplicates**

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) 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 DE248	All compounds reported below the RL.	J (all detects)	A

## X. System Performance

The system performance was acceptable.

## XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

## XII. Field Duplicates

Samples SL-050-SA7-SS-0.0-0.5 and DUP03-SA7-QC-092011 were identified as field duplicates. No explosives were detected in any of the samples.

**Santa Susana Field Laboratory  
Explosives - Data Qualification Summary - SDG DE248**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE248	SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-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 DE248**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Explosives - Field Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

LDC #: 26859R40

## VALIDATION COMPLETENESS WORKSHEET

SDG #: DE248

Level IV

Laboratory: Lancaster Laboratories

Date: 12/30/11

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

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	Δ	Sampling dates: 9/19 - 9/20/11
II.	Initial calibration	Δ	% RSD ≤ 20, R <sup>2</sup>
III.	Calibration verification/ICV	Δ	1CV/CCV ≤ 20
IV.	Blanks	Δ	
V.	Surrogate recovery	Δ	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	see ID
VIII.	Target compound identification	Δ	
IX.	Compound quantitation (RV)/LOQ/LODs	A	
X.	System Performance	Δ	
XI.	Overall assessment of data	A	
XII.	Field duplicates	ND	D = 4 + 8
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:

1	SL-046-SA7-SS-0.0-0.5	11	SL-050-SA7-SS-0.0-0.5MSD	21	PBLK16269	31	
2	SL-047-SA7-SS-0.0-0.5	12		22		32	
3	SL-049-SA7-SS-0.0-0.5	13		23		33	
4	SL-050-SA7-SS-0.0-0.5	14		24		34	
5	SL-051-SA7-SS-0.0-0.5	15		25		35	
6	SL-134-SA7-SS-0.0-0.5	16		26		36	
7	SL-135-SA7-SS-0.0-0.5	17		27		37	
8	DUP03-SA7-QC-092011 ✓	18		28		38	
9	SL-136-SA7-SS-0.0-0.5	19		29		39	
10	SL-050-SA7-SS-0.0-0.5MS	20		30		40	

Notes: \_\_\_\_\_

LDC #: 2685924U  
 SDG #: per owner

VALIDATION FINDINGS CHECKLIST

Page: / of 2  
 Reviewer: FR  
 2nd Reviewer: C

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>V. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VI. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 26859R4U  
 SDG #: per count

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: F7  
 2nd Reviewer: C

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?			/	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
<b>XII. System performance</b>				
System performance was found to be acceptable.	/			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	/			
Target compounds were detected in the field duplicates.		/		
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.			/	
Target compounds were detected in the field blanks.			/	

LDC #: 26859 R4U  
 SDG #: JKC

**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 =  $100 \cdot (S/X)$
- 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		Recalculated		Reported		Recalculated	
				CF (std)	CF (std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD	%RSD	%RSD
1	1CAL	8/26/11	2,6-DNT chromat	$1.29 \times 10^2$	$1.29 \times 10^2$	$1.29 \times 10^2$	$1.29 \times 10^2$	3.7	3.7	3.7	3.7
			2,4-DNT	$2.88 \times 10^2$	$2.88 \times 10^2$	$2.88 \times 10^2$	$2.88 \times 10^2$	2.3	2.3	2.3	2.3
2			Capcel 1	$3.53 \times 10^2$	$3.53 \times 10^2$	$3.53 \times 10^2$	$3.53 \times 10^2$	9.5	9.5	9.5	9.5
				$2.48 \times 10^2$	$2.48 \times 10^2$	$2.48 \times 10^2$	$2.48 \times 10^2$	16.5	16.5	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 #: 26859R40  
 SDG #: per cover

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

Page: 1 of 7  
 Reviewer: FD  
 2nd Reviewer: LC

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 =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  Where: ave. CF = Initial calibration average CF  
 CF = A/C  
 CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	004:54	10/4/11	2.6-DNT	1001.00	1021.54	2.1	1021.54	2.1
			2.4-DNT	1003.00	1000.54	1.8	1020.58	1.8
			capcell	NA	NA			
2				1003.00	1114.92	11.2	1114.92	11.2
3	0013:23	10/4/11	↓	502.30	496.88	0.7	496.88	0.7
			↓	501.30	487.10	2.9	487.10	2.9
			↓	502.30	7079.34	10.8	446.39	10.8
4			↓	501.30	7075.55	10.8	533.95	6.5

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 #: 26809 R4U  
 SDG #: see cover

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

Page: 1 of 1  
 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: # /

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	
2-Nitro-m-xylene	chrompack	2000	2250.178/6	113	113	0

Sample ID: \_\_\_\_\_

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

Sample ID: \_\_\_\_\_

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

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 → 11

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)	2000	2000	ND	1837.78	1855.76	92	92	93	93	1	1
2,4,6-Trinitrotoluene (8330)	1999.2	1999.2	ND	2119.77	2133.98	106	106	107	107	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 #: 26859R4U  
 SDG #: for cover

Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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      SC = Concentration  
 RPD =  $1 LCS - LCSD \div 2(LCS + LCSD)$       SA = Spike added  
 LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: 4516269

Compound	Spike Added ( <u>4516269</u> )		Spiked Sample Concentration ( <u>4516269</u> )		LCS		LCSD		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	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)	<u>2000</u>	<u>N/A</u>	<u>1850.60</u>	<u>1800.64</u>	<u>93</u>	<u>93</u>								
2,4,6-Trinitrotoluene (8330)	<u>1999.2</u>	<u>L</u>	<u>2151.55</u>	<u>2151.55</u>	<u>105</u>	<u>105</u>								

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.

VALIDATION FINDINGS WORKSHEET  
Sample Calculation Verification

METHOD:  GC  HPLC

Y N / N/A  
 Y N / N/A

Were all reported results recalculated and verified for all level IV samples?  
 Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration =  $\frac{A(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$  Example: \_\_\_\_\_  
 Sample ID: \_\_\_\_\_ Compound Name \_\_\_\_\_  
 Concentration = \_\_\_\_\_

MP

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications

Comments: \_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** September 19 through September 20, 2011  
**LDC Report Date:** January 3, 2012  
**Matrix:** Soil  
**Parameters:** Terphenyls  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE248

### Sample Identification

SL-131-SA7-SS-0.0-0.5  
SL-137-SA7-SS-0.0-0.5  
SL-138-SA7-SS-0.0-0.5  
SL-005-SA7-SS-0.0-0.5  
SL-006-SA7-SS-0.0-0.5  
SL-043-SA7-SS-0.0-0.5  
SL-046-SA7-SS-0.0-0.5  
SL-047-SA7-SS-0.0-0.5  
SL-049-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5  
SL-051-SA7-SS-0.0-0.5  
SL-085-SA7-SS-0.0-0.5  
SL-129-SA7-SS-0.0-0.5  
SL-134-SA7-SS-0.0-0.5  
SL-135-SA7-SS-0.0-0.5  
SL-173-SA7-SS-0.0-0.5  
DUP03-SA7-QC-092011  
SL-136-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5MS

## 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 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.

No field blanks were identified in this SDG.

## V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
SL-051-SA7-SS-0.0-0.5	Not specified	n-Triacontane	15 (19-152)	All TCL compounds	J (all detects) UJ (all non-detects)	P
SL-135-SA7-SS-0.0-0.5	Not specified	n-Triacontane	339 (19-152)	All TCL compounds	J (all detects)	P

## VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) samples were reviewed for each matrix as applicable. Percent recoveries (%R) 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 DE248	All compounds reported below the RL.	J (all detects)	A

### X. System Performance

The system performance was acceptable.

### XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

### XII. Field Duplicates

Samples SL-050-SA7-SS-0.0-0.5 and DUP03-SA7-QC-092011 were identified as field duplicates. No terphenyls were detected in any of the samples.

**Santa Susana Field Laboratory  
Terphenyls - Data Qualification Summary - SDG DE248**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE248	SL-051-SA7-SS-0.0-0.5	All TCL compounds	J (all detects) UJ (all non-detects)	P	Surrogate recovery (%R) (S)
DE248	SL-135-SA7-SS-0.0-0.5	All TCL compounds	J (all detects)	P	Surrogate recovery (%R) (S)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-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 DE248**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Terphenyls - Field Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

**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: <u>9/19 - 9/20/11</u>
II.	Initial calibration	A	<u>% RSD ≤ 20</u>
III.	Calibration verification/IC <del>Q</del>	A	<u>CV ≤ 20</u>
IV.	Blanks	A	
V.	Surrogate recovery	SW	
VI.	Matrix spike/Matrix spike duplicates	A	<u>MS only</u>
VII.	Laboratory control samples	A	<u>LC &gt; 0</u>
VIII.	Target compound identification	A	
IX.	Compound quantitation (R)/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	ND	<u>D = 10 &amp; 17</u>
XIII.	Field blanks	N	

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

Validated Samples:  
SOIL

1	SL-131-SA7-SS-0.0-0.5	11	SL-051-SA7-SS-0.0-0.5	21	<u>PBLK44267</u>	31	
2	SL-137-SA7-SS-0.0-0.5	12	SL-085-SA7-SS-0.0-0.5	22		32	
3	SL-138-SA7-SS-0.0-0.5	13	SL-129-SA7-SS-0.0-0.5	23		33	
4	SL-005-SA7-SS-0.0-0.5	14	SL-134-SA7-SS-0.0-0.5	24		34	
5	SL-006-SA7-SS-0.0-0.5	15	SL-135-SA7-SS-0.0-0.5	25		35	
6	SL-043-SA7-SS-0.0-0.5	16	SL-173-SA7-SS-0.0-0.5	26		36	
7	SL-046-SA7-SS-0.0-0.5	17	DUP03-SA7-QC-092011	27		37	
8	SL-047-SA7-SS-0.0-0.5	18	SL-136-SA7-SS-0.0-0.5	28		38	
9	SL-049-SA7-SS-0.0-0.5	19	SL-050-SA7-SS-0.0-0.5MS	29		39	
10	SL-050-SA7-SS-0.0-0.5	20	<del>SL-050-SA7-SS-0.0-0.5MSD</del>	30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC #: 26859R41  
 SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Method:  GC  HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 26859 R41  
 SDG #: per count

VALIDATION FINDINGS CHECKLIST

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 Reviewer: F7  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?			/	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
<b>XII. System performance</b>				
System performance was found to be acceptable.	/			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	/			
Target compounds were detected in the field duplicates.		/		
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.		/		
Target compounds were detected in the field blanks.			/	

VALIDATION FINDINGS WORKSHEET

Surrogate Recovery

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  
 Y X N/A  
 Were surrogates spiked into all samples and blanks?  
 Did all surrogate recoveries (%R) meet the QC limits?

#	Sample ID	Detector/Column	Surrogate Compound	%R (Limits)	Qualifications
	11	MS	J	15 ( 19-152 )	J/MS/P (S)
	15	↓	J	337 ( )	J/Pdet (S)

Surrogate Compound	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-ylene
B 4-Bromofluorobenzene (BFB)	H Ortho-Terphenyl	N Terphenyl-D14	T 3,4-Dinitrotoluene	
C a,a-Trifluorotoluene	I Fluorobenzene (FBZ)	O Decachlorobiphenyl (DCB)	U Triphenyltin	
D Bromochlorobenzene	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 #: 2689R41  
 SDG #: JK walt

**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 =  $100 \cdot (S/X)$
- 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		Recalculated		Reported		Recalculated	
				CF (std)	CF (std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD		
1	1CA L	9/18/11	m-terphenyl	14.9944 (std)	16.9744 (std)	2.52 x 10 <sup>-4</sup>	2.52 x 10 <sup>-4</sup>	2.55 x 10 <sup>-4</sup>	2.55 x 10 <sup>-4</sup>	5.3	5.3
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.

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

LDC #: 268984  
 SDG #: 20 Con

Page: 1 of 7  
 Reviewer: FD  
 2nd Reviewer: CA

METHOD: GC  HPLC

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$       Where:    ave. CF = Initial calibration average CF  
 CF = A/C      CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	ceV 23.25	9/29/11	m-Terpene	33.99	32.88	3.3	3.3	
2	ceV 3.29	9/30/11	↓	↓	34.00	0	0	
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

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  
 Sample ID:   #                        SS = Surrogate Spiked

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	
n-Triacontane - d62	NS	0.333	0.22611	68	68	0

Sample ID:   

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

Sample ID:   

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery		Percent Difference
				Reported	Recalculated	

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

**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: 19

Compound	Spike Added (mg/kg)		Sample Conc. (mg/kg)	Spike Sample Concentration (mg/kg)		Matrix spike		Matrix Spike Duplicate		MS/MSD	
	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)											
<u>m-Terphenyl</u>	8.21	NA	ND	7.58	NA	92	92	NA	NA		

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.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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      SC = Concentration  
 RPD =  $|(LCS - LCSD) / ((LCS + LCSD) / 2)|$       SA = Spike added

LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: A vs S

Compound	Spike Added (mg/kg)		Spiked Sample Concentration		LCS		LCSD		Percent Recovery		Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	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-Terpene	8.21	NA	7.66	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.

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

LDC #: 2685924  
 SDG #: pu gene

METHOD: GC HPLC

Y N/A  
 Y N/A  
 Were all reported results recalculated and verified for all level IV samples?  
 Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration =  $\frac{A \cdot (FV)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$  Example: \_\_\_\_\_ Compound Name \_\_\_\_\_  
 Sample ID: \_\_\_\_\_  
 Concentration = \_\_\_\_\_

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

MP

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications

Comments: \_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory  
**Collection Date:** September 19 through September 20, 2011  
**LDC Report Date:** January 3, 2012  
**Matrix:** Soil  
**Parameters:** Alcohols  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE248

### Sample Identification

SL-131-SA7-SS-0.0-0.5  
SL-137-SA7-SS-0.0-0.5  
SL-138-SA7-SS-0.0-0.5  
SL-005-SA7-SS-0.0-0.5  
SL-006-SA7-SS-0.0-0.5  
SL-043-SA7-SS-0.0-0.5  
SL-046-SA7-SS-0.0-0.5  
SL-047-SA7-SS-0.0-0.5  
SL-049-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5  
SL-051-SA7-SS-0.0-0.5  
SL-085-SA7-SS-0.0-0.5  
SL-129-SA7-SS-0.0-0.5  
SL-134-SA7-SS-0.0-0.5  
SL-135-SA7-SS-0.0-0.5  
SL-173-SA7-SS-0.0-0.5  
DUP03-SA7-QC-092011  
SL-136-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5MS  
SL-050-SA7-SS-0.0-0.5MSD

## Introduction

This data review covers 20 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 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% .

Retention time windows were evaluated and considered technically acceptable.

## III. Calibration Verification

Calibration verification was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits with the following exceptions:

Date	Column	Compound	%D	Associated Samples	Flag	A or P
9/24/11	RTX-200	Methanol	26.1	SL-138-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 PBLK34265	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 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 with the following exceptions:

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
SL-129-SA7-SS-0.0-0.5	Not specified	Acetone	41 (42-138)	All TCL compounds	J (all detects) UJ (all non-detects)	A

## 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-050-SA7-SS-0.0-0.5MS/MSD (SL-050-SA7-SS-0.0-0.5)	Methanol Ethanol	- -	- -	25 (≤20) 26 (≤20)	J (all detects) J (all detects)	A

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

## 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 DE248	All compounds reported below the RL.	J (all detects)	A

## X. System Performance

The system performance was acceptable.

## XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

## **XII. Field Duplicates**

Samples SL-050-SA7-SS-0.0-0.5 and DUP03-SA7-QC-092011 were identified as field duplicates. No alcohols were detected in any of the samples.

**Santa Susana Field Laboratory  
Alcohols - Data Qualification Summary - SDG DE248**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE248	SL-138-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5	Methanol	J (all detects) UJ (all non-detects)	A	Calibration verification (%D) (C)
DE248	SL-129-SA7-SS-0.0-0.5	All TCL compounds	J (all detects) UJ (all non-detects)	A	Surrogate recovery (%R) (S)
DE248	SL-050-SA7-SS-0.0-0.5	Methanol Ethanol	J (all detects) J (all detects)	A	Matrix spike/Matrix spike duplicate (RPD) (Q)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-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 DE248**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Alcohols - Field Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

**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: 9/19 - 9/20/11
II.	Initial calibration	Δ	% PSD ≤ 20
III.	Calibration verification/ICV	SW	1CW / CW ≤ 2W
IV.	Blanks	Δ	
V.	Surrogate recovery	SW	
VI.	Matrix spike/Matrix spike duplicates	SW	
VII.	Laboratory control samples	A	LOS
VIII.	Target compound identification	Δ	
IX.	Compound quantitation (R)/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	Δ	
XII.	Field duplicates	ND	P = 10 + 17
XIII.	Field blanks	N	

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

Validated Samples:

1	2	SL-131-SA7-SS-0.0-0.5	11	2	SL-051-SA7-SS-0.0-0.5	21	1	PBLK 34265	31	
2	2	SL-137-SA7-SS-0.0-0.5	12	1	SL-085-SA7-SS-0.0-0.5	22	2	PBLK 24269	32	
3	1	SL-138-SA7-SS-0.0-0.5	13	2	SL-129-SA7-SS-0.0-0.5	23			33	
4	2	SL-005-SA7-SS-0.0-0.5	14	2	SL-134-SA7-SS-0.0-0.5	24			34	
5	2	SL-006-SA7-SS-0.0-0.5	15	2	SL-135-SA7-SS-0.0-0.5	25			35	
6	2	SL-043-SA7-SS-0.0-0.5	16	1	SL-173-SA7-SS-0.0-0.5	26			36	
7	2	SL-046-SA7-SS-0.0-0.5	17	2	DUP03-SA7-QC-092011	27			37	
8	2	SL-047-SA7-SS-0.0-0.5	18	2	SL-136-SA7-SS-0.0-0.5	28			38	
9	2	SL-049-SA7-SS-0.0-0.5	19	2	SL-050-SA7-SS-0.0-0.5MS	29			39	
10	2	SL-050-SA7-SS-0.0-0.5	20	2	SL-050-SA7-SS-0.0-0.5MSD	30			40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

DC #: 26559243  
 DG #: su coner

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2  
 Reviewer: F2  
 2nd Reviewer: C

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 15%:0 or percent recoveries <sup>80-120</sup> 85-115%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>Surrogate spikes</b>				
Were all surrogate %R within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>Laboratory controls samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

DC #: 26859 R43  
 DG #: see cover

VALIDATION FINDINGS CHECKLIST

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 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>XI: Target compound identification</b>				
Were the retention times of reported detects within the RT windows?	<input checked="" type="checkbox"/>			
<b>XII: Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>			
<b>XIII: System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XIV: Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XV: Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>			
Target compounds were detected in the field duplicates.		<input checked="" type="checkbox"/>		
<b>XVI: Field blanks</b>				
Field blanks were identified in this SDG.		<input checked="" type="checkbox"/>		
Target compounds were detected in the field blanks.			<input checked="" type="checkbox"/>	

LDC #: 2685911  
SDG #: 24 con

Page: 1 of 1  
Reviewer: RF

# VALIDATION FINDINGS WORKSHEET

## Continuing Calibration

METHOD: GC HPLC

2nd Reviewer: RF

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y)  What type of continuing calibration calculation was performed? (%D) or RPD

N  N/A

Y  N/A

Level IV Only

Y  N  N/A

Were continuing calibration standards analyzed at the required frequencies?

Did the continuing calibration standards meet the %D / RPD validation criteria of <15.0%? Y

Were the retention times for all calibrated compounds within their respective acceptance windows?

#	Date	Standard ID	Detector/ Column	Compound	(%D)/RPD (Limit $\leq$ 15.0)	RT (limit)	Associated Samples	Qualifications
	<u>9/24/11</u> <u>22:45</u>	<u>ceV</u>	<u>RX-200</u>	<u>methanol</u>	<u>26.1</u>	<u>( )</u>	<u>PBLK 34265, 3,</u> <u>12, 16</u>	<u>J/W/A</u> <u>(C)</u>

VALIDATION FINDINGS WORKSHEET  
 Surrogate Recovery

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".  
 N N/A Were surrogates spiked into all samples and blanks?  
 N N/A Did all surrogate recoveries (%R) meet the QC limits?

#	Sample ID	Detector/Column	Surrogate Compound	%R (Limits)	Qualifications
	13	MS	AceTone	41 ( 42-138 )	J/M/A (S)
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

	Surrogate Compound		Surrogate Compound		Surrogate Compound		Surrogate Compound
A	Chlorobenzene (CBZ)	G	Octacosane	M	Benzo(e)Pyrene	S	1-Chloro-3-Nitrobenzene
B	4-Bromofluorobenzene (BFB)	H	Ortho-Terphenyl	N	Terphenyl-D14	T	3,4-Dinitrotoluene
C	a,a-Trifluorotoluene	I	Fluorobenzene (FBZ)	O	Decachlorobiphenyl (DCB)	U	Triphenyltin
D	Bromochlorobenzene	J	n-Tricosane	P	1-methylinaphthalene	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

# VALIDATION FINDINGS WORKSHEET

## Matrix Spike/Matrix Spike Duplicates

METHOD: GC  HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".  
 N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG?  
 N N/A Was an MS/MSD analyzed every 20 samples for each matrix or whenever a sample extraction was performed?  
 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
	<u>19 + 20</u>	<u>Methano</u>	( )	( )	<u>15 ( 20 )</u>	<u>10</u>	<u>N/A okT (S)</u>
		<u>Ethano</u>	( )	( )	<u>24 ( 20 )</u>	<u>↓</u>	<u>↓</u>
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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LDC #: 26859R43  
 SDG #: PK con

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: FA  
 2nd Reviewer: CA

METHOD: GC ✓ HPLC

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C  
 average CF = sum of the CF/number of standards  
 %RSD =  $100 \cdot (S/X)$   
 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		Recalculated		Reported		Recalculated	
				SPOD CF (std)	SPOD CF (std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD	Average CF (Initial)	%RSD
1	ICAL IM27235 SP-1000	8/23/11	methanol	$4.99 \times 10^{-1}$	$4.99 \times 10^{-1}$	$5.19 \times 10^{-1}$	$5.19 \times 10^{-1}$	6.3	6.3	$5.19 \times 10^{-1}$	6.3
2	ICAL IM27241A RSX-200	8/29/11	methanol	$7.22 \times 10^0$	$7.22 \times 10^0$	$7.75 \times 10^0$	$7.75 \times 10^0$	4.4	4.4	$7.75 \times 10^0$	4.4
3	ICAL IM27270A	9/27/11	methanol	$8.29 \times 10^0$	$8.29 \times 10^0$	$7.95 \times 10^0$	$7.95 \times 10^0$	16.3	16.3	$7.95 \times 10^0$	16.3
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 #: 26 859 R 43  
 SDG #: per cover

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

Page: 1 of 1  
 Reviewer: FD  
 2nd Reviewer: E

METHOD: GC ✓ HPLC \_\_\_\_\_

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference =  $100 \cdot (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  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 (cal)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	CON 22:45 (M27241A) (RTX-200)	9/24/11	methanol	5000.00	6306.82	26.1	6306.82	26.1
2	CON 0:49 IM27235 (SF-100)	9/27/11	methanol	↓	4938.39	1.2	4938.39	1.2
3	CON 23:20 IM27270A	9/27/11	methanol	↓	5723.63	14.5	5723.63	14.5
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.

**VALIDATION FINDINGS WORKSHEET I**  
**Surrogate Results Verification**

LDC #: 26859R43  
 SDG #: full center

METHOD:  GC  HPLC

Reviewer: [Signature]  
 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 Reported	Percent Recovery Recalculated	Percent Difference
Acetone	col. B	250g	1855.94g	74	74	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

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

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 =  $100 \cdot ((SSC - SC) / SA)$  Where SSC = Spiked sample concentration SC = Sample concentration  
 SA = Spike added  
 MS = Matrix spike  
 MSD = Matrix spike duplicate

RPD =  $((SSCMS - SSCMSD) \cdot 2) / ((SSCMS + SSCMSD)) \cdot 100$

MS/MSD samples: 19 d 20

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration		Matrix spike		Matrix Spike Duplicate		MS/MSD	
	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)											
Methano	2500	2500	ND	2679.3	2081.43	107	107	83	83	25	25

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 #: 26857243  
 SDG #: GC cover

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

METHOD: GC HPLC

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery =  $100 \times \frac{SSC-SC}{SA}$       Where: SSC = Spiked sample concentration      SC = Concentration  
 RPD =  $100 \times \frac{LCS - LCSD}{LCS + LCSD}$       SA = Spike added

LCS/LCSD samples: LCS 34265      LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

Compound	Spike Added (ug/kg)		Spiked Sample Concentration		LCS		LCSD		LCS		LCSD		LCS/LCSD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	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	2806	NA	2861.32	NA	114	114							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.

**VALIDATION FINDINGS WORKSHEET**  
**Sample Calculation Verification**

LDC #: 26 857243  
SDG #: fu owner

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

METHOD: GC HPLC

Y N K/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 =  $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$  Example: Sample ID: 7 Compound Name: Methano

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  
Vs= Initial volume of the sample  
Ws= Initial weight of the sample  
%S= Percent Solid

Concentration =  $323 \frac{5000}{775 \times 10^0} (10) (0.99) (1000)$   
 $= 314 \mu\text{g/kg}$

#	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:** September 19 through September 20, 2011  
**LDC Report Date:** January 3, 2012  
**Matrix:** Soil  
**Parameters:** Glycols  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE248

### Sample Identification

SL-131-SA7-SS-0.0-0.5  
SL-137-SA7-SS-0.0-0.5  
SL-138-SA7-SS-0.0-0.5  
SL-005-SA7-SS-0.0-0.5  
SL-006-SA7-SS-0.0-0.5  
SL-043-SA7-SS-0.0-0.5  
SL-046-SA7-SS-0.0-0.5  
SL-047-SA7-SS-0.0-0.5  
SL-049-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5  
SL-051-SA7-SS-0.0-0.5  
SL-085-SA7-SS-0.0-0.5  
SL-129-SA7-SS-0.0-0.5  
SL-134-SA7-SS-0.0-0.5  
SL-135-SA7-SS-0.0-0.5  
SL-173-SA7-SS-0.0-0.5  
DUP03-SA7-QC-092011  
SL-136-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5MS  
SL-050-SA7-SS-0.0-0.5MSD

## Introduction

This data review covers 20 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 with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-050-SA7-SS-0.0-0.5MS/MSD (SL-050-SA7-SS-0.0-0.5)	Ethylene glycol	19 (63-107)	19 (63-107)	-	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A
	Propylene glycol	31 (63-107)	31 (63-107)	-		
SL-050-SA7-SS-0.0-0.5MS/MSD (SL-050-SA7-SS-0.0-0.5)	Diethylene glycol	0 (59-109)	0 (59-109)	-	J (all detects) R (all non-detects)	A

## VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

## VIII. Target Compound Identification

All target compound identifications were within validation criteria.

## IX. Compound Quantitation and 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 DE248	All compounds reported below the RL.	J (all detects)	A

## X. System Performance

The system performance was acceptable.

## XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

## XII. Field Duplicates

Samples SL-050-SA7-SS-0.0-0.5 and DUP03-SA7-QC-092011 were identified as field duplicates. No glycols were detected in any of the samples.

**Santa Susana Field Laboratory  
Glycols - Data Qualification Summary - SDG DE248**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE248	SL-050-SA7-SS-0.0-0.5	Ethylene glycol Propylene glycol	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE248	SL-050-SA7-SS-0.0-0.5	Diethylene glycol	J (all detects) R (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R) (Q)
DE248	SL-131-SA7-SS-0.0-0.5 SL-137-SA7-SS-0.0-0.5 SL-138-SA7-SS-0.0-0.5 SL-005-SA7-SS-0.0-0.5 SL-006-SA7-SS-0.0-0.5 SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-129-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-SS-0.0-0.5	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 DE248**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
Glycols - Field Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

**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	Δ	Sampling dates: 9/19- 9/20/11
II.	Initial calibration	Δ	% PSD ≤ 20
III.	Calibration verification/ICV	A	100/ICV ≤ 20
IV.	Blanks	Δ	
V.	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	SW	
VII.	Laboratory control samples	A	LC9
VIII.	Target compound identification	A	
IX.	Compound quantitation (RL) LOQ/LODs	A	
X.	System Performance	Δ	
XI.	Overall assessment of data	Δ	
XII.	Field duplicates	ND	D = 10 + 17
XIII.	Field blanks	N	

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

Validated Samples:

1	SL-131-SA7-SS-0.0-0.5	11	SL-051-SA7-SS-0.0-0.5	21	PBLK42272	31	
2	SL-137-SA7-SS-0.0-0.5	12	SL-085-SA7-SS-0.0-0.5	22		32	
3	SL-138-SA7-SS-0.0-0.5	13	SL-129-SA7-SS-0.0-0.5	23		33	
4	SL-005-SA7-SS-0.0-0.5	14	SL-134-SA7-SS-0.0-0.5	24		34	
5	SL-006-SA7-SS-0.0-0.5	15	SL-135-SA7-SS-0.0-0.5	25		35	
6	SL-043-SA7-SS-0.0-0.5	16	SL-173-SA7-SS-0.0-0.5	26		36	
7	SL-046-SA7-SS-0.0-0.5	17	DUP03-SA7-QC-092011 ✓	27		37	
8	SL-047-SA7-SS-0.0-0.5	18	SL-136-SA7-SS-0.0-0.5	28		38	
9	SL-049-SA7-SS-0.0-0.5	19	SL-050-SA7-SS-0.0-0.5MS	29		39	
10	SL-050-SA7-SS-0.0-0.5	20	SL-050-SA7-SS-0.0-0.5MSD	30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC #: 26559 R45  
 SDG #: per owner

VALIDATION FINDINGS CHECKLIST

Page: / of 2  
 Reviewer: FP  
 2nd Reviewer: C

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20% or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VI. Surrogate/spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 26559145  
 SDG #: per count

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: FJ  
 2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?			<input checked="" type="checkbox"/>	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>			
<b>XII. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input checked="" type="checkbox"/>			
Target compounds were detected in the field duplicates.		<input checked="" type="checkbox"/>		
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.		<input checked="" type="checkbox"/>		
Target compounds were detected in the field blanks.			<input checked="" type="checkbox"/>	

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates**

METHOD: GC HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG?
- N N/A Was an MS/MSD analyzed every 20 samples for each matrix or whenever a sample extraction was performed?
- 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
19 + 20		Ethylene Glycol	19 (63-107)	19 (63-107)	( )	10	J/A/A (R)
		Propylene Glycol	31 (63-107)	31 (63-107)	( )	↓	↓
		Diethylene Glycol	0 (59-109)	0 (59-109)	( )	↓	J/P/A

LDC #: 26859845  
 SDG #: full work

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Calculation Verification

Page: 1 of 1  
 Reviewer: FJ  
 2nd Reviewer: A

METHOD: GC ✓ HPLC \_\_\_\_\_

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

- CF = A/C
- average CF = sum of the CF/number of standards
- %RSD =  $100 \cdot (S/X)$
- 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		Recalculated		Reported		Recalculated	
				CF (std)	CF (std)	Average CF (Initial)	Average CF (Initial)	%RSD	%RSD		
1	1CAL GLFS234A	8/22/11	Propylene Glycol	$8.0 \times 10^2$	$105.3594$ CF (std)	$8.0 \times 10^2$	$105.3594$ CF (std)	$8.04 \times 10^2$	$8.04 \times 10^2$	3.1	3.1
2											
3											
4											

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 76859R45  
 SDG #: per cover

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

Page: 1 of 7  
 Reviewer: FD  
 2nd Reviewer: R

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 =  $100 * (\text{ave. CF} - \text{CF}) / \text{ave. CF}$  Where: ave. CF = initial calibration average CF  
 CF = A/C CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	ceV 20:49	9/29/11	propylene glycol	210.72	200.0	5.1	200.0	5.1
2	ceV 0:52	9/30/11	↓	↓	190.09	9.8	190.09	9.8
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 26887 R45  
 SDG #: see cover

**VALIDATION FINDINGS WORKSHEET**  
**Surrogate Results Verification**

Page: 1 of 1  
 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 Recovery	Percent Difference
				Reported	Recalculated		
Tetramethylene glycol	MS	195	129.918747	67	67		0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated		

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated		

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

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: 191 & 190

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	190.31	190.31	ND	36.75	36.59	19	19	19	19	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.

**VALIDATION FINDINGS WORKSHEET**  
**Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification**

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 =  $100 \times \frac{SSC-SC}{SA}$       Where: SSC = Spiked sample concentration      SC = Concentration  
 RPD =  $100 \times \frac{LCS - LCSD}{LCS + LCSD}$       SA = Spike added  
 LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: 105422-12

Compound	Spike Added (mg/kg)		Spiked Sample Concentration (mg/kg)		LCS		LCSD		Percent Recovery		LCS		LCSD		LCS/LCSD		
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	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	190.31	NA	181.27	NA	98	98									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.

**VALIDATION FINDINGS WORKSHEET**  
Sample Calculation Verification

LDC #: 26159845  
 SDG #: JU gawey

Page: 6 of 7  
 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 =  $\frac{A(X)(F_v)(D_f)}{(RF)(V_s \text{ or } W_s)(\%S/100)}$  Example: \_\_\_\_\_  
 Sample ID: \_\_\_\_\_ Compound Name ND  
 Concentration = \_\_\_\_\_

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

#	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:** September 20, 2011  
**LDC Report Date:** January 3, 2012  
**Matrix:** Soil  
**Parameters:** Formaldehyde  
**Validation Level:** Level IV  
**Laboratory:** Lancaster Laboratories  
**Sample Delivery Group (SDG):** DE248

### Sample Identification

SL-043-SA7-SS-0.0-0.5  
SL-046-SA7-SS-0.0-0.5  
SL-047-SA7-SS-0.0-0.5  
SL-049-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5  
SL-051-SA7-SS-0.0-0.5  
SL-085-SA7-SS-0.0-0.5  
SL-134-SA7-SS-0.0-0.5  
SL-135-SA7-SS-0.0-0.5  
SL-173-SA7-SS-0.0-0.5  
DUP03-SA7-QC-092011  
SL-136-SA7-SS-0.0-0.5  
SL-050-SA7-SS-0.0-0.5MS  
SL-050-SA7-SS-0.0-0.5MSD

## Introduction

This data review covers 14 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.

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 .

## **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 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.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG DE248	All compounds reported below the RL.	J (all detects)	A

## X. System Performance

The system performance was acceptable.

## XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

## XII. Field Duplicates

Samples SL-050-SA7-SS-0.0-0.5 and DUP03-SA7-QC-092011 were identified as field duplicates. No formaldehyde was detected in any of the samples.

**Santa Susana Field Laboratory  
 Formaldehyde - Data Qualification Summary - SDG DE248**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE248	SL-043-SA7-SS-0.0-0.5 SL-046-SA7-SS-0.0-0.5 SL-047-SA7-SS-0.0-0.5 SL-049-SA7-SS-0.0-0.5 SL-050-SA7-SS-0.0-0.5 SL-051-SA7-SS-0.0-0.5 SL-085-SA7-SS-0.0-0.5 SL-134-SA7-SS-0.0-0.5 SL-135-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5 DUP03-SA7-QC-092011 SL-136-SA7-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 DE248**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
 Formaldehyde - Field Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

LDC #: 26859R71  
 SDG #: DE248  
 Laboratory: Lancaster Laboratories

**VALIDATION COMPLETENESS WORKSHEET**  
 Level IV

Date: 12/30/11  
 Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**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	△	Sampling dates: <u>9/20/11</u>
II.	Initial calibration	△	<u>12</u>
III.	Calibration verification/ICV	△	<u>ICV/CCV ≤ 20</u>
IV.	Blanks	△	
V.	Surrogate recovery	△	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	<u>LCS</u>
VIII.	Target compound identification	△	
IX.	Compound quantitation (R)/LOQ/LODs	△	
X.	System Performance	△	
XI.	Overall assessment of data	△	
XII.	Field duplicates	ND	<u>D = 5 + 11</u>
XIII.	Field blanks	N	

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

Validated Samples: SOV

1	SL-043-SA7-SS-0.0-0.5	11	DUP03-SA7-QC-092011	21	<u>PBLK08267</u>	31	
2	SL-046-SA7-SS-0.0-0.5	12	SL-136-SA7-SS-0.0-0.5	22		32	
3	SL-047-SA7-SS-0.0-0.5	13	SL-050-SA7-SS-0.0-0.5MS	23		33	
4	SL-049-SA7-SS-0.0-0.5	14	SL-050-SA7-SS-0.0-0.5MSD	24		34	
5	SL-050-SA7-SS-0.0-0.5	15		25		35	
6	SL-051-SA7-SS-0.0-0.5	16		26		36	
7	SL-085-SA7-SS-0.0-0.5	17		27		37	
8	SL-134-SA7-SS-0.0-0.5	18		28		38	
9	SL-135-SA7-SS-0.0-0.5	19		29		39	
10	SL-173-SA7-SS-0.0-0.5	20		30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LDC #: 26859 R71  
 SDG #: per owner

VALIDATION FINDINGS CHECKLIST

Page: / of 2  
 Reviewer: FJ  
 2nd Reviewer: [Signature]

Method: GC HPLC

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) < 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a curve fit used for evaluation?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the RT windows properly established?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration analyzed daily?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) < 20%.0 or percent recoveries 80-120%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all the retention times within the acceptance windows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VI. Surrogate/spikes</b>				
Were all surrogate %R within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicates</b>				
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC #: 26859 R71  
 SDG #: per count

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2  
 Reviewer: F7  
 2nd Reviewer: [Signature]

Validation Area	Yes	No	NA	Findings/Comments
<b>X. Target compound identification</b>				
Were the retention times of reported detects within the RT windows?			/	
<b>XI. Compound quantitation/CRQLs</b>				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	/			
<b>XII. System performance</b>				
System performance was found to be acceptable.	/			
<b>XIII. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	/			
<b>XIV. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	/			
Target compounds were detected in the field duplicates.		/		
<b>XV. Field blanks</b>				
Field blanks were identified in this SDG.		/		
Target compounds were detected in the field blanks.			/	

LDC # 26859271  
SDG#                     

Page: 1 of 1  
Reviewer: [Signature]  
2nd Reviewer: [Signature]

**VALIDATION FINDINGS WORKSHEET**  
Initial Calibration Calculation Verification

**METHOD:** method 8315A

**Parameter:** formaldehyde

Date	Column	Compound	y	x
09/28/2011	ns	formaldehyde	44138.10	500.5
			62587.60	1001.0
			120519.40	2002.0
			371098.90	6006.0
			605415.80	10010.0

Regression Output:	Regression Output:	Reported
Constant	6764.90238	
Std Err of Y Est	6618.71728	
R Squared	0.99944	0.99940
No. of Observations	5.00000	
Degrees of Freedom	3.00000	
X Coefficient(s)	5.994E+001	0.25

LDC #: 26859R71  
 SDG #: per cover

**VALIDATION FINDINGS WORKSHEET**  
Continuing Calibration Results Verification

Page: 1 of 2  
 Reviewer: FEJ  
 2nd Reviewer: CR

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 =  $100 \cdot (\text{ave. CF} - \text{CF}) / \text{ave. CF}$     Where:    ave. CF = initial calibration average CF  
 CF = A/C    CF = continuing calibration CF  
 A = Area of compound  
 C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported		Recalculated	
					CF/Conc. CCV	%D	CF/Conc. CCV	%D
1	ccv 18:32	9/28/11	Formaldehyde	2002.00	187.90	6.5	187.90	6.5
2	ccv 20:37	9/28/11	Formaldehyde	↓	188.34	7.2	188.34	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 #: 268987

SDG #: see cover

METHOD: GC HPLC

# VALIDATION FINDINGS WORKSHEET

## Surrogate Results Verification

Page: 1 of 2  
Reviewer: FT  
2nd reviewer: GC

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 Reported	Percent Recovery Recalculated	Percent Difference
Butyraldehyde	NS	1992	380.4/2	95	95	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

**VALIDATION FINDINGS WORKSHEET**  
**Matrix Spike/Matrix Spike Duplicates Results Verification**

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  
 RPD =  $(((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD)) * 100$  MS = Matrix spike  
 SC = Sample concentration MSD = Matrix spike duplicate

MS/MSD samples: 13 4 14

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD		MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
<del>Gasoline (8019)</del>	5025	5025	ND	4833.54	4918.3	96	96	98	98	2	2
<del>Diesel (9015)</del>											
<del>Benzene (8021B)</del>											
<del>Methane (RSK-175)</del>											
<del>2,4-D (8151)</del>											
<del>Dinoseb (8151)</del>											
<del>Naphthalene (8310)</del>											
<del>Anthracene (8310)</del>											
<del>HMX (8330)</del>											
<del>2,4,6-Trinitrotoluene (8330)</del>											

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.

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      SC = Concentration  
 RPD =  $|(LCS - LCSD) / ((LCS + LCSD) / 2)| * 100$       SA = Spike added  
 LCS = Laboratory control sample percent recovery      LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LC >

Compound	Spike Added (ug/kg)		Spiked Sample Concentration (ug/kg)		LCS		LCSD		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
<del>Formaldehyde</del>														
Gasoline (8015)	SDS	NA	5161.55	NA	103	<del>103</del> 103	NA							
Diesel (8015)														
Benzene (8021B)														
Methane (RSK-175)														
2,4-D (8151)														
Diisodecyl (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.

**VALIDATION FINDINGS WORKSHEET**  
Sample Calculation Verification

LDC #: 2685987  
 SDG #: fu goney

Page: 6 of 7  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

METHOD: GC HPLC

Were all reported results recalculated and verified for all level IV samples?  
 Were all recalculated results for detected target compounds within 10% of the reported results?

Y N N/A  
 Y N N/A

Concentration =  $\frac{A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$  Example: \_\_\_\_\_ Compound Name \_\_\_\_\_  
 Sample ID: \_\_\_\_\_

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

Concentration = \_\_\_\_\_

MP

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: \_\_\_\_\_

## Laboratory Data Consultants, Inc. Data Validation Report

**Project/Site Name:** Santa Susana Field Laboratory

**Collection Date:** September 20, 2011

**LDC Report Date:** January 3, 2012

**Matrix:** Soil

**Parameters:** Perchlorate

**Validation Level:** Level IV

**Laboratory:** Lancaster Laboratories

**Sample Delivery Group (SDG):** DE248

### Sample Identification

SL-085-SA7-SS-0.0-0.5

SL-173-SA7-SS-0.0-0.5

## Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6850 for Perchlorate.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- NJ Presumptive evidence of presence of the 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

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 DE248	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 DE248**

SDG	Sample	Compound	Flag	A or P	Reason (Code)
DE248	SL-085-SA7-SS-0.0-0.5 SL-173-SA7-SS-0.0-0.5	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 DE248**

No Sample Data Qualified in this SDG

**Santa Susana Field Laboratory  
 Perchlorate - Field Blank Data Qualification Summary - SDG DE248**

No Sample Data Qualified in this SDG

**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	Δ	Sampling dates: <u>9/20/11</u>
II.	GC/MS Instrument performance check	Δ	<u>PK</u>
III.	Initial calibration	Δ	<u>r<sup>2</sup></u>
IV.	Continuing calibration/ICV	Δ	<u>ccv/icv ≤ 15/50 LODV ≤ 50</u>
V.	Blanks	A	
VI.	Surrogate spikes	N	
VII.	Matrix spike/Matrix spike duplicates	N	<u>client specified</u>
VIII.	Laboratory control samples	Δ	<u>LCs</u>
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	Δ	
XII.	Compound quantitation/RL/LOQ/LODs	A	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	Δ	
XV.	Overall assessment of data	Δ	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

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

Validated Samples:  
SOIL

1	SL-085-SA7-SS-0.0-0.5	11	<u>PBLK03269</u>	21		31	
2	SL-173-SA7-SS-0.0-0.5	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	

Method: Semivolatiles (EPA SW 846 Method 8270C) 6850

Validation Area	Yes	No	NA	Findings/Comments
<b>I. Technical holding times</b>				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>II. GC/MS Instrument performance check</b>				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples analyzed within the 12 hour clock criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>III. Initial calibration</b>				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a curve fit used for evaluation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of $\geq 0.990$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) $\leq 30\%$ and relative response factors (RRF) $> 0.05$ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>IV. Continuing calibration</b>				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were all percent differences (%D) $\leq 25\%$ and relative response factors (RRF) $\geq 0.05$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>15/50</u>
<b>V. Blanks</b>				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VI. Surrogate spikes</b>				
Were all surrogate %R within QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VII. Matrix spike/Matrix spike duplicate</b>				
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>VIII. Laboratory control samples</b>				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>IX. Regional Quality Assurance and Quality Control</b>				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>X. Internal standards</b>				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within + 30 seconds from the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XI. Target compound identification</b>				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XII. Compound quantitation/CRQLs</b>				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XIII. Tentatively identified compounds (TICs)</b>				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XIV. System performance</b>				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XV. Overall assessment of data</b>				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>XVI. Field duplicates</b>				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>XVII. Field blanks</b>				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

LDC # 2685987  
 SDG#           

**VALIDATION FINDINGS WORKSHEET**  
**Initial Calibration Calculation Verification**

Page: 1 of 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**METHOD:** Method 6850

**Parameter:** perchlorate

Date	Column	Compound	y	x
09/28/2011	LCMS	perchlorate		
			0.0483598	0.040
			0.1050638	0.100
			0.2176812	0.200
			0.4230758	0.400
			1.1221277	1.000
			3.0476197	2.500

Regression Output:	Regression Output:	Reported
Constant	-0.03653	
Std Err of Y Est	0.04325	
R Squared	0.99888	0.99707
No. of Observations	6.00000	
Degrees of Freedom	4.00000	
X Coefficient(s)	1.222E+000	
Std Err of Coef.	0.020467	0.04

**VALIDATION FINDINGS WORKSHEET**  
**Continuing Calibration Results Verification**

**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 =  $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$   
 RRF =  $(A_x)(C_b) / (A_b)(C_x)$   
 Where: ave. RRF = initial calibration average RRF  
 RRF = continuing calibration RRF  
 A<sub>x</sub> = Area of compound,  
 C<sub>x</sub> = Concentration of compound,  
 A<sub>b</sub> = Area of associated internal standard  
 C<sub>b</sub> = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	Reported		Recalculated	
					RRF (CC)	%D	RRF (CC)	%D
1	M55-1010	9/27/11	Phenol (1st internal standard) <i>Perchloral</i> <del>Naphthalene (2nd internal standard)</del> <del>Fluorene (3rd internal standard)</del> <del>Pentachlorophenol (4th internal standard)</del> <del>Bis(2-ethylhexyl)phthalate (5th internal standard)</del> <del>Benzo(a)pyrene (6th internal standard)</del>	4	3.68	8	3.68	8
2	M55-1021	9/27/11	Phenol (1st internal standard) <i>Perchloral</i> <del>Naphthalene (2nd internal standard)</del> <del>Fluorene (3rd internal standard)</del> <del>Pentachlorophenol (4th internal standard)</del> <del>Bis(2-ethylhexyl)phthalate (5th internal standard)</del> <del>Benzo(a)pyrene (6th internal standard)</del>	0.4	0.422	5	0.422	5
3	M55-1028	9/27/11	Phenol (1st internal standard) <i>Perchloral</i> <del>Naphthalene (2nd internal standard)</del> <del>Fluorene (3rd internal standard)</del> <del>Pentachlorophenol (4th internal standard)</del> <del>Bis(2-ethylhexyl)phthalate (5th internal standard)</del> <del>Benzo(a)pyrene (6th internal standard)</del>	4	3.7	8	3.7	8

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.

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT

2nd Reviewer: [Signature]

METHOD: GG/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 =  $100 * (LCS - LCSD) / (LCS + LCSD)$

LCSC = Laboratory control sample concentration    LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: LES 03269

Compound	Spike Added ( <u>ug/kg</u> )		Spike Concentration ( <u>ug/kg</u> )		LCS		LCSD		Percent Recovery		Percent Recovery		RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalc	Reported	Recalculated		
Perchlorate	100	NA	97	NA	97	97	NA	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.

# VALIDATION FINDINGS WORKSHEET

## Sample Calculation Verification

**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?

$$\text{Concentration} = \frac{(A_x)(I_s)(V_i)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_t)(\%S)}$$

- $A_x$  = Area of the characteristic ion (EICP) for the compound to be measured
- $A_{is}$  = Area of the characteristic ion (EICP) for the specific internal standard
- $I_s$  = Amount of internal standard added in nanograms (ng)
- $V_o$  = Volume or weight of sample extract in milliliters (ml) or grams (g).
- $V_i$  = Volume of extract injected in microliters (ul)
- $V_t$  = Volume of the concentrated extract in microliters (ul)
- Df = Dilution Factor.
- %S = Percent solids, applicable to soil and solid matrices only.
- 2.0 = Factor of 2 to account for GPC cleanup

Example:

Sample I.D. \_\_\_\_\_, \_\_\_\_\_:

$$\text{Conc.} = \frac{( ) ( ) ( ) ( ) ( )}{( ) ( ) ( ) ( ) ( )}$$

= 

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

# **SAMPLE DELIVERY GROUP**

**DE249**

# **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-Sep-2011	TB-092011	6414174	TB	5030B	8015M	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	3050B	6010B	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	3050B	6020	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	3060A	7199	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	3546	1625C	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	3550B	8015B	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	3550B	8015M	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	3550B	8082	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	3550B	8270C	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	3550B	8270C SIM	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	5035	8015M	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	8330	8330A	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	METHOD	300.0	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	METHOD	314.0	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	METHOD	7471A	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	METHOD	8015B	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	METHOD	8015M	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	METHOD	8315A	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0	6414173	N	METHOD	9012B	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0DUP	P414173D272000B	DUP	METHOD	9012B	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0DUP	P414173D272315A	DUP	3060A	7199	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0MS	P414173R272001B	MS	METHOD	9012B	III
20-Sep-2011	SL-174-SA7-SB-1.0-2.0MS	P414173R272218A	MS	3060A	7199	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	3050B	6010B	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	3050B	6020	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	3060A	7199	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	3546	1625C	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	3550B	8015B	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	3550B	8015M	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	3550B	8082	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	3550B	8270C	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	3550B	8270C SIM	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	5035	8015M	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	8330	8330A	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	METHOD	300.0	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	METHOD	314.0	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	METHOD	7471A	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	METHOD	8015B	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	METHOD	8015M	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	METHOD	8315A	III
20-Sep-2011	SL-154-SA7-SB-0.0-1.0	6414172	N	METHOD	9012B	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	3050B	6010B	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	3050B	6020	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	3060A	7199	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	3546	1625C	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	3550B	8015B	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	3550B	8015M	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	3550B	8082	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	3550B	8270C	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	3550B	8270C SIM	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	5035	8015M	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	8330	8330A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	METHOD	300.0	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	METHOD	314.0	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	METHOD	7471A	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	METHOD	8015B	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	METHOD	8015M	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	METHOD	8315A	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0	6414170	N	METHOD	9012B	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0MSD	P414170M260217	MSD	3550B	8270C	III
20-Sep-2011	SL-149-SA7-SB-0.0-1.0MS	P414170R260152	MS	3550B	8270C	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	3050B	6010B	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	3050B	6020	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	3060A	7199	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	3546	1625C	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	3550B	8015B	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	3550B	8015M	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	3550B	8082	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	3550B	8270C	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	3550B	8270C SIM	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	5035	8015M	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	8330	8330A	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	METHOD	300.0	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	METHOD	314.0	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	METHOD	7471A	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	METHOD	8015B	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	METHOD	8015M	III
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	METHOD	8315A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-150-SA7-SB-0.0-1.0	6414171	N	METHOD	9012B	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0	6414169	N	3050B	6010B	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0	6414169	N	3050B	6020	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0	6414169	N	3060A	7199	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0	6414169	N	3550B	8015B	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0	6414169	N	3550B	8015M	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0	6414169	N	3550B	8082	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0	6414169	N	3550B	8270C	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0	6414169	N	3550B	8270C SIM	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0	6414169	N	5035	8015M	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0	6414169	N	METHOD	300.0	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0	6414169	N	METHOD	314.0	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0	6414169	N	METHOD	7471A	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0	6414169	N	METHOD	8015B	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0	6414169	N	METHOD	8015M	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0	6414169	N	METHOD	9012B	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0MSD	P414169M320140A	MSD	3550B	8015M	III
20-Sep-2011	SL-059-SA7-SB-5.0-6.0MS	P414169R320116A	MS	3550B	8015M	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	3050B	6010B	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	3050B	6020	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	3060A	7199	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	3546	1625C	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	3550B	8015B	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	3550B	8015M	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	3550B	8082	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	3550B	8270C	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	3550B	8270C SIM	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	5035	8015M	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	8330	8330A	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	METHOD	300.0	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	METHOD	314.0	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	METHOD	7471A	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	METHOD	8015B	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	METHOD	8015M	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	METHOD	8315A	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5	6414168	N	METHOD	9012B	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5DUP	P414168D220741A	DUP	3050B	6020	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5DUP	P414168D220741B	DUP	3050B	6020	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5DUP	P414168D220741C	DUP	3050B	6020	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5DUP	P414168D220741D	DUP	3050B	6020	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5DUP	P414168D220827	DUP	METHOD	7471A	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5DUP	P414168D220951	DUP	3050B	6010B	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5DUP	P414168D221242	DUP	3050B	6010B	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5DUP	P414168D271203A	DUP	METHOD	300.0	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5DUP	P414168D271716A	DUP	METHOD	314.0	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MSD	P414168M220747A	MSD	3050B	6020	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MSD	P414168M220747B	MSD	3050B	6020	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MSD	P414168M220747C	MSD	3050B	6020	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MSD	P414168M220747D	MSD	3050B	6020	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MSD	P414168M220829	MSD	METHOD	7471A	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MSD	P414168M220959	MSD	3050B	6010B	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MSD	P414168M221250	MSD	3050B	6010B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MSD	P414168M240207A	MSD	8330	8330A	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MSD	P414168M241837A	MSD	3550B	8082	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MSD	P414168M260237	MSD	3550B	8270C SIM	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MSD	P414168M320310A	MSD	METHOD	8015B	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MS	P414168R220744A	MS	3050B	6020	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MS	P414168R220744B	MS	3050B	6020	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MS	P414168R220744C	MS	3050B	6020	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MS	P414168R220744D	MS	3050B	6020	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MS	P414168R220828	MS	METHOD	7471A	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MS	P414168R220955	MS	3050B	6010B	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MS	P414168R221246	MS	3050B	6010B	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MS	P414168R240124A	MS	8330	8330A	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MS	P414168R241818A	MS	3550B	8082	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MS	P414168R260204	MS	3550B	8270C SIM	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MS	P414168R271218A	MS	METHOD	300.0	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MS	P414168R271739A	MS	METHOD	314.0	III
20-Sep-2011	SL-058-SA7-SB-0.5-1.5MS	P414168R320255A	MS	METHOD	8015B	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	GENCHEM	
Method:	300.0	Matrix: SO

Sample ID: SL-058-SA7-SB-0.5-1.5	Collected: 9/20/2011 2:40:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.1		0.86	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-059-SA7-SB-5.0-6.0	Collected: 9/20/2011 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
FLUORIDE	6.4		0.90	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-149-SA7-SB-0.0-1.0	Collected: 9/20/2011 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	0.84	U	0.84	MDL	1.1	PQL	mg/Kg	UJ	Q

Sample ID: SL-150-SA7-SB-0.0-1.0	Collected: 9/20/2011 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	2.3		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-154-SA7-SB-0.0-1.0	Collected: 9/20/2011 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	1.7		0.85	MDL	1.1	PQL	mg/Kg	J	Q

Sample ID: SL-174-SA7-SB-1.0-2.0	Collected: 9/20/2011 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		0.84	MDL	1.1	PQL	mg/Kg	J	Q

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: SL-058-SA7-SB-0.5-1.5	Collected: 9/20/2011 2:40:00	Analysis Type: REA2	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	1810		11.9	MDL	52.5	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6010E	<b>Matrix:</b> SO

Sample ID: SL-058-SA7-SB-0.5-1.5      Collected: 9/20/2011 2:40:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.98	J	0.336	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	2.76	J	0.483	MDL	5.25	PQL	mg/Kg	J	Z

Sample ID: SL-059-SA7-SB-5.0-6.0      Collected: 9/20/2011 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
POTASSIUM	1410		12.4	MDL	54.7	PQL	mg/Kg	J	Q

Sample ID: SL-059-SA7-SB-5.0-6.0      Collected: 9/20/2011 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
TIN	3.30	J	0.350	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	3.53	J	0.503	MDL	5.47	PQL	mg/Kg	J	Z

Sample ID: SL-149-SA7-SB-0.0-1.0      Collected: 9/20/2011 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
SODIUM	87.0	J	5.95	MDL	100	PQL	mg/Kg	J	Z

Sample ID: SL-149-SA7-SB-0.0-1.0      Collected: 9/20/2011 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
POTASSIUM	2500		11.3	MDL	50.0	PQL	mg/Kg	J	Q

Sample ID: SL-149-SA7-SB-0.0-1.0      Collected: 9/20/2011 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	2.79	J	0.320	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	2.17	J	0.460	MDL	5.00	PQL	mg/Kg	J	Z

Sample ID: SL-150-SA7-SB-0.0-1.0      Collected: 9/20/2011 11:45:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2380		11.5	MDL	50.7	PQL	mg/Kg	J	Q

\* 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: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Method:</b>	6010B
		<b>Matrix:</b>	SO

Sample ID: SL-150-SA7-SB-0.0-1.0      Collected: 9/20/2011 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
TIN	3.48	J	0.324	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	2.70	J	0.466	MDL	5.07	PQL	mg/Kg	J	Z

Sample ID: SL-154-SA7-SB-0.0-1.0      Collected: 9/20/2011 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
POTASSIUM	2510		11.8	MDL	52.4	PQL	mg/Kg	J	Q

Sample ID: SL-154-SA7-SB-0.0-1.0      Collected: 9/20/2011 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	2.98	J	0.335	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	2.31	J	0.482	MDL	5.24	PQL	mg/Kg	J	Z

Sample ID: SL-174-SA7-SB-1.0-2.0      Collected: 9/20/2011 9:35:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2760		11.8	MDL	52.0	PQL	mg/Kg	J	Q

Sample ID: SL-174-SA7-SB-1.0-2.0      Collected: 9/20/2011 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
TIN	3.08	J	0.333	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	2.38	J	0.479	MDL	5.20	PQL	mg/Kg	J	Z

<b>Method Category:</b>	METALS	<b>Method:</b>	6020
		<b>Matrix:</b>	SO

Sample ID: SL-058-SA7-SB-0.5-1.5      Collected: 9/20/2011 2:40:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.191	J	0.0597	MDL	0.412	PQL	mg/Kg	J	Z, Q

\* 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: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS									
Method:	6020			Matrix: SO						

Sample ID: SL-058-SA7-SB-0.5-1.5      Collected: 9/20/2011 2:40:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.450		0.0515	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-058-SA7-SB-0.5-1.5      Collected: 9/20/2011 2:40:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	85.9		0.109	MDL	0.412	PQL	mg/Kg	J	A

Sample ID: SL-058-SA7-SB-0.5-1.5      Collected: 9/20/2011 2:40:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.120	J	0.0762	MDL	0.206	PQL	mg/Kg	J	Z, Q
ARSENIC	4.04		0.0824	MDL	0.412	PQL	mg/Kg	J	Q
BERYLLIUM	0.566		0.0165	MDL	0.103	PQL	mg/Kg	J	Q
CADMIUM	0.0544	J	0.0453	MDL	0.103	PQL	mg/Kg	J	Z, Q
CHROMIUM	16.1		0.124	MDL	0.412	PQL	mg/Kg	J	Q, A
COBALT	4.61		0.0206	MDL	0.103	PQL	mg/Kg	J	Q, A
COPPER	5.81		0.0824	MDL	0.412	PQL	mg/Kg	J	Q
LEAD	4.41		0.0105	MDL	0.206	PQL	mg/Kg	J	Q, E, A
NICKEL	8.91		0.103	MDL	0.412	PQL	mg/Kg	J	Q
SILVER	0.0201	J	0.0146	MDL	0.103	PQL	mg/Kg	J	Z, Q
THALLIUM	0.210		0.0309	MDL	0.103	PQL	mg/Kg	J	Q
VANADIUM	30.8		0.0227	MDL	0.103	PQL	mg/Kg	J	Q, A
ZINC	44.6		0.577	MDL	3.09	PQL	mg/Kg	J	E

Sample ID: SL-059-SA7-SB-5.0-6.0      Collected: 9/20/2011 12:30:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.271	J	0.0634	MDL	0.437	PQL	mg/Kg	J	Z, Q

Sample ID: SL-059-SA7-SB-5.0-6.0      Collected: 9/20/2011 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
MOLYBDENUM	0.813		0.0547	MDL	0.109	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-059-SA7-SB-5.0-6.0      Collected: 9/20/2011 12:30:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	52.1		0.116	MDL	0.437	PQL	mg/Kg	J	A

Sample ID: SL-059-SA7-SB-5.0-6.0      Collected: 9/20/2011 12:30:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.139	J	0.0809	MDL	0.219	PQL	mg/Kg	J	Z, Q
ARSENIC	6.53		0.0875	MDL	0.437	PQL	mg/Kg	J	Q
BERYLLIUM	0.534		0.0175	MDL	0.109	PQL	mg/Kg	J	Q
CHROMIUM	16.3		0.131	MDL	0.437	PQL	mg/Kg	J	Q, A
COBALT	6.70		0.0219	MDL	0.109	PQL	mg/Kg	J	Q, A
COPPER	5.35		0.0875	MDL	0.437	PQL	mg/Kg	J	Q
LEAD	4.91		0.0112	MDL	0.219	PQL	mg/Kg	J	Q, E, A
NICKEL	7.18		0.109	MDL	0.437	PQL	mg/Kg	J	Q
SILVER	0.0300	J	0.0155	MDL	0.109	PQL	mg/Kg	J	Z, Q
THALLIUM	0.176		0.0328	MDL	0.109	PQL	mg/Kg	J	Q
VANADIUM	38.4		0.0241	MDL	0.109	PQL	mg/Kg	J	Q, A
ZINC	35.9		0.612	MDL	3.28	PQL	mg/Kg	J	E

Sample ID: SL-149-SA7-SB-0.0-1.0      Collected: 9/20/2011 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	0.0724	J	0.0580	MDL	0.400	PQL	mg/Kg	J	Z, Q

Sample ID: SL-149-SA7-SB-0.0-1.0      Collected: 9/20/2011 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	0.374		0.0500	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: SL-149-SA7-SB-0.0-1.0      Collected: 9/20/2011 11:05:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	79.1		0.106	MDL	0.400	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-149-SA7-SB-0.0-1.0      Collected: 9/20/2011 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	0.0887	J	0.0740	MDL	0.200	PQL	mg/Kg	J	Z, Q
ARSENIC	3.26		0.0800	MDL	0.400	PQL	mg/Kg	J	Q
BERYLLIUM	0.473		0.0160	MDL	0.100	PQL	mg/Kg	J	Q
CADMIUM	0.0643	J	0.0440	MDL	0.100	PQL	mg/Kg	J	Z, Q
CHROMIUM	16.6		0.120	MDL	0.400	PQL	mg/Kg	J	Q, A
COBALT	5.46		0.0200	MDL	0.100	PQL	mg/Kg	J	Q, A
COPPER	6.71		0.0800	MDL	0.400	PQL	mg/Kg	J	Q
LEAD	3.54		0.0102	MDL	0.200	PQL	mg/Kg	J	Q, E, A
NICKEL	10.2		0.100	MDL	0.400	PQL	mg/Kg	J	Q
SILVER	0.0166	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z, Q
THALLIUM	0.219		0.0300	MDL	0.100	PQL	mg/Kg	J	Q
VANADIUM	31.9		0.0220	MDL	0.100	PQL	mg/Kg	J	Q, A
ZINC	57.9		0.560	MDL	3.00	PQL	mg/Kg	J	E

Sample ID: SL-150-SA7-SB-0.0-1.0      Collected: 9/20/2011 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	0.191	J	0.0588	MDL	0.405	PQL	mg/Kg	J	Z, Q

Sample ID: SL-150-SA7-SB-0.0-1.0      Collected: 9/20/2011 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
MOLYBDENUM	0.435		0.0507	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-150-SA7-SB-0.0-1.0      Collected: 9/20/2011 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
BARIUM	76.9		0.107	MDL	0.405	PQL	mg/Kg	J	A

Sample ID: SL-150-SA7-SB-0.0-1.0      Collected: 9/20/2011 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	0.147	J	0.0750	MDL	0.203	PQL	mg/Kg	J	Z, Q
ARSENIC	4.41		0.0811	MDL	0.405	PQL	mg/Kg	J	Q
BERYLLIUM	0.554		0.0162	MDL	0.101	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS									
<b>Method:</b>	6020			Matrix: SO						

Sample ID: SL-150-SA7-SB-0.0-1.0      Collected: 9/20/2011 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
CADMIUM	0.124		0.0446	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	19.4		0.122	MDL	0.405	PQL	mg/Kg	J	Q, A
COBALT	5.40		0.0203	MDL	0.101	PQL	mg/Kg	J	Q, A
COPPER	7.24		0.0811	MDL	0.405	PQL	mg/Kg	J	Q
LEAD	5.85		0.0103	MDL	0.203	PQL	mg/Kg	J	Q, E, A
NICKEL	10.7		0.101	MDL	0.405	PQL	mg/Kg	J	Q
SILVER	0.0252	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.268		0.0304	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	37.0		0.0223	MDL	0.101	PQL	mg/Kg	J	Q, A
ZINC	65.6		0.568	MDL	3.04	PQL	mg/Kg	J	E

Sample ID: SL-154-SA7-SB-0.0-1.0      Collected: 9/20/2011 10:30:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0706	J	0.0602	MDL	0.415	PQL	mg/Kg	J	Z, Q

Sample ID: SL-154-SA7-SB-0.0-1.0      Collected: 9/20/2011 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
MOLYBDENUM	0.571		0.0519	MDL	0.104	PQL	mg/Kg	J	Q

Sample ID: SL-154-SA7-SB-0.0-1.0      Collected: 9/20/2011 10:30:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	124		0.110	MDL	0.415	PQL	mg/Kg	J	A

Sample ID: SL-154-SA7-SB-0.0-1.0      Collected: 9/20/2011 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	0.110	J	0.0768	MDL	0.208	PQL	mg/Kg	J	Z, Q
ARSENIC	4.38		0.0830	MDL	0.415	PQL	mg/Kg	J	Q
BERYLLIUM	0.569		0.0166	MDL	0.104	PQL	mg/Kg	J	Q
CADMIUM	0.0995	J	0.0457	MDL	0.104	PQL	mg/Kg	J	Z, Q
CHROMIUM	20.7		0.125	MDL	0.415	PQL	mg/Kg	J	Q, A
COBALT	7.57		0.0208	MDL	0.104	PQL	mg/Kg	J	Q, A

\* 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: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-154-SA7-SB-0.0-1.0      Collected: 9/20/2011 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
COPPER	9.87		0.0830	MDL	0.415	PQL	mg/Kg	J	Q
LEAD	4.77		0.0106	MDL	0.208	PQL	mg/Kg	J	Q, E, A
NICKEL	14.1		0.104	MDL	0.415	PQL	mg/Kg	J	Q
THALLIUM	0.282		0.0311	MDL	0.104	PQL	mg/Kg	J	Q
VANADIUM	41.6		0.0228	MDL	0.104	PQL	mg/Kg	J	Q, A
ZINC	75.3		0.581	MDL	3.11	PQL	mg/Kg	J	E

Sample ID: SL-174-SA7-SB-1.0-2.0      Collected: 9/20/2011 9:35:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.166	J	0.0616	MDL	0.425	PQL	mg/Kg	J	Z, Q

Sample ID: SL-174-SA7-SB-1.0-2.0      Collected: 9/20/2011 9:35:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.645		0.0531	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-174-SA7-SB-1.0-2.0      Collected: 9/20/2011 9:35:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	90.7		0.113	MDL	0.425	PQL	mg/Kg	J	A

Sample ID: SL-174-SA7-SB-1.0-2.0      Collected: 9/20/2011 9:35:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.153	J	0.0786	MDL	0.212	PQL	mg/Kg	J	Z, Q
ARSENIC	5.01		0.0849	MDL	0.425	PQL	mg/Kg	J	Q
BERYLLIUM	0.535		0.0170	MDL	0.106	PQL	mg/Kg	J	Q
CADMIUM	0.140		0.0467	MDL	0.106	PQL	mg/Kg	J	Q
CHROMIUM	21.7		0.127	MDL	0.425	PQL	mg/Kg	J	Q, A
COBALT	7.82		0.0212	MDL	0.106	PQL	mg/Kg	J	Q, A
COPPER	8.70		0.0849	MDL	0.425	PQL	mg/Kg	J	Q
LEAD	4.73		0.0108	MDL	0.212	PQL	mg/Kg	J	Q, E, A
NICKEL	16.1		0.106	MDL	0.425	PQL	mg/Kg	J	Q
THALLIUM	0.311		0.0318	MDL	0.106	PQL	mg/Kg	J	Q

\* 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: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-174-SA7-SB-1.0-2.0      Collected: 9/20/2011 9:35:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	45.1		0.0234	MDL	0.106	PQL	mg/Kg	J	Q, A
ZINC	68.1		0.594	MDL	3.18	PQL	mg/Kg	J	E

Method Category:	METALS	
Method:	7199	Matrix: SO

Sample ID: SL-058-SA7-SB-0.5-1.5      Collected: 9/20/2011 2:40:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.26	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Method Category:	METALS	
Method:	7471A	Matrix: SO

Sample ID: SL-058-SA7-SB-0.5-1.5      Collected: 9/20/2011 2:40:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0088	J	0.0073	MDL	0.103	PQL	mg/Kg	J	Z

Sample ID: SL-059-SA7-SB-5.0-6.0      Collected: 9/20/2011 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	0.0081	J	0.0075	MDL	0.106	PQL	mg/Kg	J	Z

Sample ID: SL-150-SA7-SB-0.0-1.0      Collected: 9/20/2011 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	0.0076	J	0.0072	MDL	0.102	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA
Method:	8015M
Matrix:	SO

Sample ID: SL-059-SA7-SB-5.0-6.0      Collected: 9/20/2011 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 (C15-C20)	0.58	J	0.45	MDL	1.3	PQL	mg/Kg	J	Z
EFH (C21-C30)	3.6		0.45	MDL	1.3	PQL	mg/Kg	J	Q

Sample ID: SL-149-SA7-SB-0.0-1.0      Collected: 9/20/2011 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)	0.52	J	0.41	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-150-SA7-SB-0.0-1.0      Collected: 9/20/2011 11:45:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	1.1	J	0.41	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-174-SA7-SB-1.0-2.0      Collected: 9/20/2011 9:35:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.94	J	0.42	MDL	1.3	PQL	mg/Kg	J	Z

Method Category:	SVOA
Method:	8082
Matrix:	SO

Sample ID: SL-150-SA7-SB-0.0-1.0      Collected: 9/20/2011 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 1254	0.70	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z

Method Category:	SVOA
Method:	8270C
Matrix:	SO

Sample ID: SL-058-SA7-SB-0.5-1.5      Collected: 9/20/2011 2:40:00      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	350	U	350	MDL	1100	PQL	ug/Kg	R	L
4,6-DINITRO-2-METHYLPHENOL	180	U	180	MDL	530	PQL	ug/Kg	UJ	L
BENZOIC ACID	180	U	180	MDL	530	PQL	ug/Kg	UJ	L

\* 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: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA
Method:	8270C
Matrix:	SO

Sample ID: SL-059-SA7-SB-5.0-6.0      Collected: 9/20/2011 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
2,4-DINITROPHENOL	370	U	370	MDL	1100	PQL	ug/Kg	R	L
4,6-DINITRO-2-METHYLPHENOL	190	U	190	MDL	560	PQL	ug/Kg	UJ	L
BENZOIC ACID	190	U	190	MDL	560	PQL	ug/Kg	UJ	L

Sample ID: SL-149-SA7-SB-0.0-1.0      Collected: 9/20/2011 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	340	U	340	MDL	1000	PQL	ug/Kg	R	Q, L
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	510	PQL	ug/Kg	R	Q
BENZOIC ACID	170	U	170	MDL	510	PQL	ug/Kg	UJ	L

Sample ID: SL-150-SA7-SB-0.0-1.0      Collected: 9/20/2011 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	340	U	340	MDL	1000	PQL	ug/Kg	R	L
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	510	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	510	PQL	ug/Kg	UJ	L

Sample ID: SL-154-SA7-SB-0.0-1.0      Collected: 9/20/2011 10:30:00      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	350	U	350	MDL	1000	PQL	ug/Kg	R	L
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	520	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	520	PQL	ug/Kg	UJ	L

Sample ID: SL-174-SA7-SB-1.0-2.0      Collected: 9/20/2011 9:35:00      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	350	U	350	MDL	1000	PQL	ug/Kg	R	L
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	520	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	520	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVQA	
Method:	8270C SIM	Matrix: SO

Sample ID: SL-058-SA7-SB-0.5-1.5      Collected: 9/20/2011 2:40:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	1.2	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-059-SA7-SB-5.0-6.0      Collected: 9/20/2011 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	1.7	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-150-SA7-SB-0.0-1.0      Collected: 9/20/2011 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
BENZO(A)PYRENE	0.81	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
CHRYSENE	1.1	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.74	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.3	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

\* 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: DE249

Laboratory: LL

EDD Filename: DE249\_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	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: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_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

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE249

# Method Blank Outlier Report

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P26908GB221223	9/30/2011 12:23:00 PM	MAGNESIUM	0.522 mg/Kg	SL-058-SA7-SB-0.5-1.5 SL-059-SA7-SB-5.0-6.0 SL-149-SA7-SB-0.0-1.0 SL-150-SA7-SB-0.0-1.0 SL-154-SA7-SB-0.0-1.0 SL-174-SA7-SB-1.0-2.0
P26908GB221638	9/29/2011 4:38:00 PM	CALCIUM	6.45 mg/Kg	SL-058-SA7-SB-0.5-1.5 SL-059-SA7-SB-5.0-6.0 SL-149-SA7-SB-0.0-1.0 SL-150-SA7-SB-0.0-1.0 SL-154-SA7-SB-0.0-1.0 SL-174-SA7-SB-1.0-2.0
P26908GB221803	9/28/2011 6:03:00 PM	PHOSPHORUS STRONTIUM TIN	1.28 mg/Kg 0.0340 mg/Kg 1.49 mg/Kg	SL-058-SA7-SB-0.5-1.5 SL-059-SA7-SB-5.0-6.0 SL-149-SA7-SB-0.0-1.0 SL-150-SA7-SB-0.0-1.0 SL-154-SA7-SB-0.0-1.0 SL-174-SA7-SB-1.0-2.0

*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-058-SA7-SB-0.5-1.5(RES)	TIN	2.98 mg/Kg	2.98U mg/Kg
SL-059-SA7-SB-5.0-6.0(RES)	TIN	3.30 mg/Kg	3.30U mg/Kg
SL-149-SA7-SB-0.0-1.0(RES)	TIN	2.79 mg/Kg	2.79U mg/Kg
SL-150-SA7-SB-0.0-1.0(RES)	TIN	3.48 mg/Kg	3.48U mg/Kg
SL-154-SA7-SB-0.0-1.0(RES)	TIN	2.98 mg/Kg	2.98U mg/Kg
SL-174-SA7-SB-1.0-2.0(RES)	TIN	3.08 mg/Kg	3.08U mg/Kg

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_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-058-SA7-SB-0.5-1.5MSD (SL-058-SA7-SB-0.5-1.5)	ETHANOL Isopropanol METHANOL	- - -	- - -	48.00-130.00 12.00-149.00 43.00-138.00	58 (20.00) 58 (20.00) 52 (20.00)	ETHANOL Isopropanol METHANOL	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-059-SA7-SB-5.0-6.0MSD (SL-059-SA7-SB-5.0-6.0)	EFH (C21-C30)	-	-	49.00-123.00	22 (20.00)	EFH (C21-C30)	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-058-SA7-SB-0.5-1.5MS SL-058-SA7-SB-0.5-1.5MSD (SL-058-SA7-SB-0.5-1.5 SL-058-SA7-SB-0.5-1.5 SL-059-SA7-SB-5.0-6.0 SL-149-SA7-SB-0.0-1.0 SL-150-SA7-SB-0.0-1.0 SL-154-SA7-SB-0.0-1.0 SL-174-SA7-SB-1.0-2.0)	ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT COPPER LEAD NICKEL SILVER THALLIUM VANADIUM ZINC	219 160 141 167 144 171 202 188 143 165 224 352	229 158 157 179 156 186 218 199 152 170 250 395	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 75.00-125.00	- - - - - - - - - - - -	ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT COPPER LEAD NICKEL SILVER THALLIUM VANADIUM ZINC	J(all detects)             Zn, No Qual, >4x
SL-058-SA7-SB-0.5-1.5MS SL-058-SA7-SB-0.5-1.5MSD (SL-058-SA7-SB-0.5-1.5 SL-059-SA7-SB-5.0-6.0 SL-149-SA7-SB-0.0-1.0 SL-150-SA7-SB-0.0-1.0 SL-154-SA7-SB-0.0-1.0 SL-174-SA7-SB-1.0-2.0)	ANTIMONY	67	73	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)
SL-058-SA7-SB-0.5-1.5MS SL-058-SA7-SB-0.5-1.5MSD (SL-058-SA7-SB-0.5-1.5 SL-059-SA7-SB-5.0-6.0 SL-149-SA7-SB-0.0-1.0 SL-150-SA7-SB-0.0-1.0 SL-154-SA7-SB-0.0-1.0 SL-174-SA7-SB-1.0-2.0)	SELENIUM	128	150	75.00-125.00	-	SELENIUM	J(all detects)
SL-058-SA7-SB-0.5-1.5MS SL-058-SA7-SB-0.5-1.5MSD (SL-058-SA7-SB-0.5-1.5 SL-059-SA7-SB-5.0-6.0 SL-149-SA7-SB-0.0-1.0 SL-150-SA7-SB-0.0-1.0 SL-154-SA7-SB-0.0-1.0 SL-174-SA7-SB-1.0-2.0)	MOLYBDENUM	151	161	75.00-125.00	-	MOLYBDENUM	J(all detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_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-058-SA7-SB-0.5-1.5MS SL-058-SA7-SB-0.5-1.5MSD (SL-058-SA7-SB-0.5-1.5 SL-059-SA7-SB-5.0-6.0 SL-149-SA7-SB-0.0-1.0 SL-150-SA7-SB-0.0-1.0 SL-154-SA7-SB-0.0-1.0 SL-174-SA7-SB-1.0-2.0)	BARIUM	256	272	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-058-SA7-SB-0.5-1.5MS SL-058-SA7-SB-0.5-1.5MSD (SL-058-SA7-SB-0.5-1.5 SL-059-SA7-SB-5.0-6.0 SL-149-SA7-SB-0.0-1.0 SL-150-SA7-SB-0.0-1.0 SL-154-SA7-SB-0.0-1.0 SL-174-SA7-SB-1.0-2.0)	ALUMINUM CALCIUM MAGNESIUM MANGANESE POTASSIUM TITANIUM	1678 148 232 195 131 316	1794 166 333 - 143 373	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 MAGNESIUM MANGANESE POTASSIUM TITANIUM	J(all detects)  Al, Ca, Mg, Mn, Ti, 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-149-SA7-SB-0.0-1.0MSD (SL-149-SA7-SB-0.0-1.0)	BENZOIC ACID	-	-	10.00-173.00	43 (30.00)	BENZOIC ACID	J(all detects)
SL-149-SA7-SB-0.0-1.0MS SL-149-SA7-SB-0.0-1.0MSD (SL-149-SA7-SB-0.0-1.0)	2,4-DINITROPHENOL 4,6-DINITRO-2-METHYLPHENOL	0 -	0 0	20.00-143.00 11.00-126.00	- 200 (30.00)	2,4-DINITROPHENOL 4,6-DINITRO-2-METHYLPHEN	J(all detects) R(all non-detects)

**Method: 300.0**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-058-SA7-SB-0.5-1.5MS (SL-058-SA7-SB-0.5-1.5 SL-059-SA7-SB-5.0-6.0 SL-149-SA7-SB-0.0-1.0 SL-150-SA7-SB-0.0-1.0 SL-154-SA7-SB-0.0-1.0 SL-174-SA7-SB-1.0-2.0)	FLUORIDE	66	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_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-058-SA7-SB-0.5-1.5MS SL-058-SA7-SB-0.5-1.5MSD (SL-058-SA7-SB-0.5-1.5 SL-059-SA7-SB-5.0-6.0 SL-149-SA7-SB-0.0-1.0 SL-150-SA7-SB-0.0-1.0 SL-154-SA7-SB-0.0-1.0 SL-174-SA7-SB-1.0-2.0)	IRON	1258	610	75.00-125.00	-	IRON	No Qual, >4x

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8010B**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P26908GQ221227 P26908GQ221642 P26908GQ221807 (SL-058-SA7-SB-0.5-1.5 SL-059-SA7-SB-5.0-6.0 SL-149-SA7-SB-0.0-1.0 SL-150-SA7-SB-0.0-1.0 SL-154-SA7-SB-0.0-1.0 SL-174-SA7-SB-1.0-2.0)	ALUMINUM MAGNESIUM POTASSIUM SODIUM	156 136 127 125	- - - -	80.00-120.00 80.00-120.00 80.00-120.00 80.00-120.00	- - - -	ALUMINUM MAGNESIUM POTASSIUM SODIUM	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
P11LALCSQ260037 (SL-058-SA7-SB-0.5-1.5 SL-059-SA7-SB-5.0-6.0 SL-149-SA7-SB-0.0-1.0 SL-150-SA7-SB-0.0-1.0 SL-154-SA7-SB-0.0-1.0 SL-174-SA7-SB-1.0-2.0)	2,4-DINITROPHENOL	0	-	18.00-133.00	-	2,4-DINITROPHENOL	J(all detects) R(all non-detects)
P11LALCSQ260037 (SL-058-SA7-SB-0.5-1.5 SL-059-SA7-SB-5.0-6.0 SL-149-SA7-SB-0.0-1.0 SL-150-SA7-SB-0.0-1.0 SL-154-SA7-SB-0.0-1.0 SL-174-SA7-SB-1.0-2.0)	4,6-DINITRO-2-METHYLPHENOL BENZOIC ACID	10 14	- -	46.00-120.00 62.00-113.00	- -	4,6-DINITRO-2-METHYLPHENOL BENZOIC ACID	J(all detects) UJ(all non-detects)

**Method: 8010B**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P27608AQ220938 (SL-058-SA7-SB-0.5-1.5 SL-059-SA7-SB-5.0-6.0 SL-149-SA7-SB-0.0-1.0 SL-150-SA7-SB-0.0-1.0 SL-154-SA7-SB-0.0-1.0 SL-174-SA7-SB-1.0-2.0)	IRON	134	-	80.00-120.00	-	IRON	No Qual, SRM within QC Limits

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-058-SA7-SB-0.5-1.5DUP (SL-058-SA7-SB-0.5-1.5 SL -059-SA7-SB-5.0-6.0 SL -149-SA7-SB-0.0-1.0 SL -150-SA7-SB-0.0-1.0 SL -154-SA7-SB-0.0-1.0 SL -174-SA7-SB-1.0-2.0)	Zirconium	28	20.00	No Qual, OK by Difference

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-058-SA7-SB-0.5-1.5DUP (SL-058-SA7-SB-0.5-1.5 SL -059-SA7-SB-5.0-6.0 SL -149-SA7-SB-0.0-1.0 SL -150-SA7-SB-0.0-1.0 SL -154-SA7-SB-0.0-1.0 SL -174-SA7-SB-1.0-2.0)	LEAD ZINC	22 21	20.00 20.00	J(all detects) UJ(all non-detects)

**Method: 7371A**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-058-SA7-SB-0.5-1.5DUP (SL-058-SA7-SB-0.5-1.5 SL -059-SA7-SB-5.0-6.0 SL -149-SA7-SB-0.0-1.0 SL -150-SA7-SB-0.0-1.0 SL -154-SA7-SB-0.0-1.0 SL -174-SA7-SB-1.0-2.0)	MERCURY	200	20.00	No Qual, OK by Difference

# Reporting Limit Outliers

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-058-SA7-SB-0.5-1.5	TIN Zirconium	J	2.98	10.5	PQL	mg/Kg	J (all detects)
		J	2.76	5.25	PQL	mg/Kg	
SL-059-SA7-SB-5.0-6.0	TIN Zirconium	J	3.30	10.9	PQL	mg/Kg	J (all detects)
		J	3.53	5.47	PQL	mg/Kg	
SL-149-SA7-SB-0.0-1.0	SODIUM TIN Zirconium	J	87.0	100	PQL	mg/Kg	J (all detects)
		J	2.79	10.0	PQL	mg/Kg	
		J	2.17	5.00	PQL	mg/Kg	
SL-150-SA7-SB-0.0-1.0	TIN Zirconium	J	3.48	10.1	PQL	mg/Kg	J (all detects)
		J	2.70	5.07	PQL	mg/Kg	
SL-154-SA7-SB-0.0-1.0	TIN Zirconium	J	2.98	10.5	PQL	mg/Kg	J (all detects)
		J	2.31	5.24	PQL	mg/Kg	
SL-174-SA7-SB-1.0-2.0	TIN Zirconium	J	3.08	10.4	PQL	mg/Kg	J (all detects)
		J	2.38	5.20	PQL	mg/Kg	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-058-SA7-SB-0.5-1.5	ANTIMONY CADMIUM SELENIUM SILVER	J	0.120	0.206	PQL	mg/Kg	J (all detects)
		J	0.0544	0.103	PQL	mg/Kg	
		J	0.191	0.412	PQL	mg/Kg	
		J	0.0201	0.103	PQL	mg/Kg	
SL-059-SA7-SB-5.0-6.0	ANTIMONY SELENIUM SILVER	J	0.139	0.219	PQL	mg/Kg	J (all detects)
		J	0.271	0.437	PQL	mg/Kg	
		J	0.0300	0.109	PQL	mg/Kg	
SL-149-SA7-SB-0.0-1.0	ANTIMONY CADMIUM SELENIUM SILVER	J	0.0887	0.200	PQL	mg/Kg	J (all detects)
		J	0.0643	0.100	PQL	mg/Kg	
		J	0.0724	0.400	PQL	mg/Kg	
		J	0.0166	0.100	PQL	mg/Kg	
SL-150-SA7-SB-0.0-1.0	ANTIMONY SELENIUM SILVER	J	0.147	0.203	PQL	mg/Kg	J (all detects)
		J	0.191	0.405	PQL	mg/Kg	
		J	0.0252	0.101	PQL	mg/Kg	
SL-154-SA7-SB-0.0-1.0	ANTIMONY CADMIUM SELENIUM	J	0.110	0.208	PQL	mg/Kg	J (all detects)
		J	0.0995	0.104	PQL	mg/Kg	
		J	0.0706	0.415	PQL	mg/Kg	
SL-174-SA7-SB-1.0-2.0	ANTIMONY SELENIUM	J	0.153	0.212	PQL	mg/Kg	J (all detects)
		J	0.166	0.425	PQL	mg/Kg	

**Method:** 7199  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-058-SA7-SB-0.5-1.5	HEXAVALENT CHROMIUM	J	0.26	1.1	PQL	mg/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE249

Laboratory: LL

EDD Filename: DE249\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-058-SA7-SB-0.5-1.5	MERCURY	J	0.0088	0.103	PQL	mg/Kg	J (all detects)
SL-059-SA7-SB-5.0-6.0	MERCURY	J	0.0081	0.106	PQL	mg/Kg	J (all detects)
SL-150-SA7-SB-0.0-1.0	MERCURY	J	0.0076	0.102	PQL	mg/Kg	J (all detects)

**Method:** 8015M  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-059-SA7-SB-5.0-6.0	EFH (C15-C20)	J	0.58	1.3	PQL	mg/Kg	J (all detects)
SL-149-SA7-SB-0.0-1.0	EFH (C15-C20)	J	0.52	1.2	PQL	mg/Kg	J (all detects)
SL-150-SA7-SB-0.0-1.0	EFH (C15-C20)	J	1.1	1.2	PQL	mg/Kg	J (all detects)
SL-174-SA7-SB-1.0-2.0	EFH (C30-C40)	J	0.94	1.3	PQL	mg/Kg	J (all detects)

**Method:** 8082  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-150-SA7-SB-0.0-1.0	AROCLOR 1254	J	0.70	1.7	PQL	ug/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-058-SA7-SB-0.5-1.5	CHRYSENE	J	1.2	1.8	PQL	ug/Kg	J (all detects)
SL-059-SA7-SB-5.0-6.0	2-METHYLNAPHTHALENE	J	1.7	1.9	PQL	ug/Kg	J (all detects)
SL-150-SA7-SB-0.0-1.0	BENZO(A)PYRENE	J	0.81	1.7	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.1	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.74	1.7	PQL	ug/Kg	
	PYRENE	J	1.3	1.7	PQL	ug/Kg	

LDC #: 26859S4

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12/30/11

SDG #: DE249

ADR

Page: 1 of 1

Laboratory: Lancaster Laboratories

Reviewer: [Signature]

2nd Reviewer: [Signature]

**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 find by 2003/03
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Fe, Mg, Mn, Ti, Zn 74X
VII.	Duplicate Sample Analysis	SW	Hg, Pb 25X
VIII.	Laboratory Control Samples (LCS)	NA	SKM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Ba, Cr, Co, Pb, 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: 501

1	SL-058-SA7-SB-0.5-1.5	11	*	21	31
2	SL-059-SA7-SB-5.0-6.0	12		22	32
3	SL-149-SA7-SB-0.0-1.0	13		23	33
4	SL-150-SA7-SB-0.0-1.0	14		24	34
5	SL-154-SA7-SB-0.0-1.0	15		25	35
6	SL-174-SA7-SB-1.0-2.0	16		26	36
7	↓ 1M7	17		27	37
8	↓ 1M8	18		28	38
9	↓ 1M9	19		29	39
10		20		30	40

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



QUALITY ASSURANCE SUMMARY  
 FORM 5A (MS/MSD)  
 MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
 SDG No.: DE249  
 Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6414168BKG Matrix Spike Lab Sample ID: 6414168MS Matrix Spike Duplicate Lab Sample ID: 6414168MSD  
 & Solids for Sample: 94.3  
 Batch Id(s): P26908G, P26926B, P27608A, P26911D

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				%R	Q	%R	Q	%R	RPD
Aluminum	121	12760.8748		16249.2639		16491.7951		207.9305	207.9305	MG/KG	1678	1794	1	74	20P	
Antimony	75	0.1203	B	0.9590		1.0299		1.2476	1.2476	MG/KG	67N	73N	7	75-125	20MS	
Arsenic	137	4.0441		8.5938		8.8100		2.0793	2.0793	MG/KG	219N	229N	2	75-125	20MS	
Barium	9	85.9064		112.5112		114.1746		10.3965	10.3965	MG/KG	256	272	1	74	20MS	
Beryllium	111	0.5663		1.8940		1.8770		0.8317	0.8317	MG/KG	160N	158N	1	75-125	20MS	
Boron	107	0.3780	U	200.7839		201.3567		207.9305	207.9305	MG/KG	97	97	0	84-115	20P	
Cadmium	52	0.0544	B	1.5158		1.6861		1.0397	1.0397	MG/KG	141N	157N	11	75-125	20MS	
Calcium	63	2730.4295		3345.9204		3421.3472		415.8609	415.8609	MG/KG	148	166	2	74	20P	
Chromium	59	16.0632		33.4768		34.6620		10.3965	10.3965	MG/KG	167N	179N	3	75-125	20MS	
Cobalt	60	4.6104		79.4918		85.8753		51.9826	51.9826	MG/KG	144N	156N	8	75-125	20MS	
Copper	208	5.8088		23.5377		25.1804		10.3965	10.3965	MG/KG	171N	186N	7	75-125	20MS	
Iron	208	20206.2348		21513.7515		20840.5080		103.9652	103.9652	MG/KG	1258	610	3	74	20P	
Lead	208	4.4065		10.7063		11.2158		3.1190	3.1190	MG/KG	202N	218N	5	75-125	20MS	
Lithium	98	20.2115		120.4863		122.7372		103.9652	103.9652	MG/KG	96	99	2	82-114	20P	
Magnesium	60	4507.4242		4989.8800		5199.5342		207.9305	207.9305	MG/KG	232	333	4	74	20P	
Manganese	60	237.8778		338.9953		290.4622		51.9826	51.9826	MG/KG	195	101	15	74	20P	
Mercury	98	0.0088	B	0.1660		0.1667		0.1710	0.1710	MG/KG	92	93	0	65-135	20CV	
Molybdenum	60	0.4501		16.1604		17.1605		10.3965	10.3965	MG/KG	151N	161N	6	75-125	20MS	
Nickel	60	8.9077		28.4241		29.6301		10.3965	10.3965	MG/KG	188N	199N	4	75-125	20MS	
Phosphorus	66	240.1363		354.4539		366.1832		103.9652	103.9652	MG/KG	110	121	3	75-125	20P	
Potassium	78	1805.3999		3170.2597		3288.7406		1039.6523	1039.6523	MG/KG	131N	143N	4	75-125	20P	
Selenium	107	0.1906	B	2.8507		3.3186		2.0793	2.0793	MG/KG	128N	150N	15	75-125	20MS	
Silver	107	0.0201	B	14.9024		15.8693		10.3965	10.3965	MG/KG	143N	152N	6	75-125	20MS	
Sodium	203	134.0602		1181.3310		1175.6046		1039.6523	1039.6523	MG/KG	101	100	0	75-125	20P	
Strontium	203	12.8450		113.8232		114.2703		103.9652	103.9652	MG/KG	97	98	0	75-115	20P	
Thallium	203	0.2104		0.8962		0.9184		0.4159	0.4159	MG/KG	165N	170N	2	75-125	20MS	
Tin	203	2.9755	B	372.5532		370.3761		415.8609	415.8609	MG/KG	89	88	1	80-110	20P	
Titanium	51	1137.0631		1465.2756		1524.7708		103.9652	103.9652	MG/KG	316	373	4	74	20P	
Vanadium	66	30.8456		54.1451		56.8690		10.3965	10.3965	MG/KG	224N	250N	5	75-125	20MS	
Zinc	66	44.6211		81.2176		85.7089		10.3965	10.3965	MG/KG	352	395	5	74	20MS	
Zirconium	203	2.7624	B	100.4980		102.2207		103.9652	103.9652	MG/KG	94	96	2	75-125	20P	

METHODS: P = ICP Atomic Emission Spectrometer CV = Cold Vapor MS = ICP Mass Spectrometry  
 CONCENTRATION QUALIFIERS: U = Below MDL, B = Below LOQ  
 FLAGS: N = Matrix Spike OOS, \* = Duplicate OOS



QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: DE249

Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6414168BKG

Duplicate Lab Sample ID: 6414168DUP

% Solids for Duplicate: 94.3

% Solids for Sample: 94.3

Batch ID(s): P26908G, P26926B, P27608A, P26911D

Concentration Units: MG/KG

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			12760.8748		14217.9551		11		P
Antimony	121		0.1203	B	0.1184	B	2		MS
Arsenic	75		4.0441		4.7325		16		MS
Barium	137		85.9064		77.7660		10		MS
Beryllium	9		0.5663		0.6367		12		MS
Boron			0.3780	U	0.3780	U			P
Cadmium	111		0.0544	B	0.0501	B	8		MS
Calcium			2730.4295		2915.6389		7		P
Chromium	52		16.0632		17.6782		10		MS
Cobalt	59		4.6104		5.6016		19		MS
Copper	63		5.8088		7.0280		19		MS
Iron			20206.2348		18930.4639		7		P
Lead	208		4.4065		5.5060		22	*	MS
Lithium			20.2115		22.4268		10		P
Magnesium			4507.4242		4912.6120		9		P
Manganese			237.8778		268.7064		12		P
Mercury			0.0088	B	0.0075	U	<del>200</del>		CV
Molybdenum	98	0.1	0.4501		0.5242		15		MS
Nickel	60		8.9077		10.3466		15		MS
Phosphorus			240.1363		275.0071		14		P
Potassium			1805.3999		1976.8203		9		P
Selenium	78		0.1906	B	0.1959	B	3		MS
Silver	107		0.0201	B	0.0242	B	19		MS
Sodium		105.0	134.0602		141.6703		6		P
Strontium			12.8450		13.8960		8		P
Thallium	203	0.1	0.2104		0.2501		17		MS
Tin			2.9755	B	3.0469	B	2		P
Titanium			1137.0631		1244.4022		9		P
Vanadium	51		30.8456		35.6601		14		MS
Zinc	66		44.6211		55.3511		21	*	MS
Zirconium			2.7624	B	3.6643	B	<del>28</del>		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.

DE249 2344

<p>METHODS:</p> <p>P = ICP Atomic Emission Spectrometer</p> <p>MS = ICP Mass Spectrometry</p> <p>CV = Cold Vapor</p> <p>AF = Cold Vapor Atomic Fluorescence</p>	<p>CONCENTRATION QUALIFIERS:</p> <p>U= Below MDL</p> <p>B= Below LOQ</p> <p>FLAGS:</p> <p>* = Duplicate Out of Spec</p>
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# **SAMPLE DELIVERY GROUP**

**DE250**

# **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-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	3050B	6010B	III
21-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	3050B	6020	III
21-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	3060A	7199	III
21-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	3550B	8015B	III
21-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	3550B	8015M	III
21-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	3550B	8081A	III
21-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	3550B	8082	III
21-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	3550B	8151A	III
21-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	3550B	8270C	III
21-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	3550B	8270C SIM	III
21-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	METHOD	300.0	III
21-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	METHOD	314.0	III
21-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	METHOD	6850	III
21-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	METHOD	7471A	III
21-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	METHOD	8015B	III
21-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	METHOD	8015M	III
21-Sep-2011	SL-143-SA7-SS-0.0-0.5	6417437	N	METHOD	9012B	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	3050B	6010B	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	3050B	6020	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	3060A	7199	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	3550B	8015B	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	3550B	8015M	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	3550B	8081A	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	3550B	8082	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	3550B	8151A	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	3550B	8270C	III

III = EPA Level 3 Data Review  
IV = EPA Level 4 Data Validation

N = Normal Sample  
FD = Field Duplicate

TB = Trip Blank  
FB = Field Blank

MS = Matrix Spike  
MSD = Matrix Spike Duplicate

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Sep-2011	SL-001-SA7-SS-0.0-0.5	6415776	N	3050B	6010B	III
21-Sep-2011	SL-001-SA7-SS-0.0-0.5	6415776	N	3050B	6020	III
21-Sep-2011	SL-001-SA7-SS-0.0-0.5	6415776	N	3060A	7199	III
21-Sep-2011	SL-001-SA7-SS-0.0-0.5	6415776	N	3550B	8081A	III
21-Sep-2011	SL-001-SA7-SS-0.0-0.5	6415776	N	3550B	8082	III
21-Sep-2011	SL-001-SA7-SS-0.0-0.5	6415776	N	3550B	8151A	III
21-Sep-2011	SL-001-SA7-SS-0.0-0.5	6415776	N	3550B	8270C	III
21-Sep-2011	SL-001-SA7-SS-0.0-0.5	6415776	N	3550B	8270C SIM	III
21-Sep-2011	SL-001-SA7-SS-0.0-0.5	6415776	N	METHOD	300.0	III
21-Sep-2011	SL-001-SA7-SS-0.0-0.5	6415776	N	METHOD	314.0	III
21-Sep-2011	SL-001-SA7-SS-0.0-0.5	6415776	N	METHOD	7471A	III
21-Sep-2011	TB-092111	6415797	TB	5030B	8015M	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	3050B	6010B	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	3050B	6020	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	3060A	7199	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	3546	1625C	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	3550B	8015B	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	3550B	8015M	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	3550B	8082	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	3550B	8270C	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	3550B	8270C SIM	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	5035	8015M	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	8330	8330A	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	Gen Prep	300.0	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	METHOD	300.0	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	METHOD	314.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	METHOD	7471A	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	METHOD	8015B	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	METHOD	8015M	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	METHOD	8315A	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0	6415791	N	METHOD	9012B	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0DUP	P415791D270357B	DUP	Gen Prep	300.0	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0DUP	P415791D270357B	DUP	METHOD	300.0	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0MS	P415791R270412B	MS	Gen Prep	300.0	III
21-Sep-2011	SL-057-SA7-SB-3.0-4.0MS	P415791R270412B	MS	METHOD	300.0	III
21-Sep-2011	SL-124-SA7-SS-0.0-0.5	6415787	N	3050B	6010B	III
21-Sep-2011	SL-124-SA7-SS-0.0-0.5	6415787	N	3050B	6020	III
21-Sep-2011	SL-124-SA7-SS-0.0-0.5	6415787	N	3060A	7199	III
21-Sep-2011	SL-124-SA7-SS-0.0-0.5	6415787	N	3550B	8081A	III
21-Sep-2011	SL-124-SA7-SS-0.0-0.5	6415787	N	3550B	8082	III
21-Sep-2011	SL-124-SA7-SS-0.0-0.5	6415787	N	3550B	8151A	III
21-Sep-2011	SL-124-SA7-SS-0.0-0.5	6415787	N	3550B	8270C	III
21-Sep-2011	SL-124-SA7-SS-0.0-0.5	6415787	N	3550B	8270C SIM	III
21-Sep-2011	SL-124-SA7-SS-0.0-0.5	6415787	N	METHOD	300.0	III
21-Sep-2011	SL-124-SA7-SS-0.0-0.5	6415787	N	METHOD	314.0	III
21-Sep-2011	SL-124-SA7-SS-0.0-0.5	6415787	N	METHOD	7471A	III
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	3050B	6010B	III
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	3050B	6020	III
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	3060A	7199	III
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	3550B	8015B	III
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	3550B	8015M	III
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	3550B	8081A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	3550B	8082	III
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	3550B	8151A	III
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	3550B	8270C	III
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	3550B	8270C SIM	III
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	METHOD	300.0	III
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	METHOD	314.0	III
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	METHOD	6850	III
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	METHOD	7471A	III
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	METHOD	8015B	III
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	METHOD	8015M	III
21-Sep-2011	SL-123-SA7-SS-0.0-0.5	6415786	N	METHOD	9012B	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	3050B	6010B	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	3050B	6020	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	3060A	7199	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	3546	1625C	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	3550B	8015B	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	3550B	8015M	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	3550B	8082	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	3550B	8270C	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	3550B	8270C SIM	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	5035	8015M	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	8330	8330A	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	Gen Prep	300.0	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	METHOD	300.0	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	METHOD	314.0	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	METHOD	6850	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	METHOD	7471A	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	METHOD	8015B	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	METHOD	8015M	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	METHOD	8315A	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0	6415790	N	METHOD	9012B	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0MSD	P415790M262230	MSD	3546	1625C	III
21-Sep-2011	SL-056-SA7-SB-4.0-5.0MS	P415790R262209	MS	3546	1625C	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	3050B	6010B	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	3050B	6020	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	3060A	7199	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	3550B	8015B	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	3550B	8015M	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	3550B	8081A	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	3550B	8082	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	3550B	8151A	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	3550B	8270C	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	3550B	8270C SIM	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	METHOD	300.0	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	METHOD	314.0	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	METHOD	6850	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	METHOD	7471A	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	METHOD	8015B	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	METHOD	8015M	III
21-Sep-2011	SL-175-SA7-SS-0.0-0.5	6415788	N	METHOD	9012B	III
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	3050B	6010B	III
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	3050B	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	3060A	7199	III
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	3550B	8015B	III
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	3550B	8015M	III
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	3550B	8081A	III
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	3550B	8082	III
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	3550B	8151A	III
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	3550B	8270C	III
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	3550B	8270C SIM	III
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	METHOD	300.0	III
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	METHOD	314.0	III
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	METHOD	6850	III
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	METHOD	7471A	III
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	METHOD	8015B	III
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	METHOD	8015M	III
21-Sep-2011	SL-121-SA7-SS-0.0-0.5	6415785	N	METHOD	9012B	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	3050B	6010B	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	3050B	6020	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	3060A	7199	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	3550B	8015B	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	3550B	8015M	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	3550B	8081A	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	3550B	8082	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	3550B	8151A	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	3550B	8270C	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	3550B	8270C SIM	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	METHOD	300.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	METHOD	314.0	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	METHOD	6850	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	METHOD	7471A	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	METHOD	8015B	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	METHOD	8015M	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5	6415779	N	METHOD	9012B	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	3050B	6010B	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	3050B	6020	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	3060A	7199	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	3550B	8015B	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	3550B	8015M	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	3550B	8081A	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	3550B	8082	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	3550B	8151A	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	3550B	8270C	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	3550B	8270C SIM	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	METHOD	300.0	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	METHOD	314.0	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	METHOD	6850	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	METHOD	7471A	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	METHOD	8015B	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	METHOD	8015M	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MS	6415780	MS	METHOD	9012B	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MSD	6415781	MSD	3050B	6010B	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MSD	6415781	MSD	3050B	6020	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MSD	6415781	MSD	3550B	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MSD	6415781	MSD	3550B	8015M	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MSD	6415781	MSD	3550B	8081A	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MSD	6415781	MSD	3550B	8082	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MSD	6415781	MSD	3550B	8151A	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MSD	6415781	MSD	3550B	8270C	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MSD	6415781	MSD	3550B	8270C SIM	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MSD	6415781	MSD	METHOD	6850	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MSD	6415781	MSD	METHOD	7471A	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MSD	6415781	MSD	METHOD	8015B	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5MSD	6415781	MSD	METHOD	8015M	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5DUP	6415782	DUP	3050B	6010B	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5DUP	6415782	DUP	3050B	6020	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5DUP	6415782	DUP	3060A	7199	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5DUP	6415782	DUP	METHOD	300.0	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5DUP	6415782	DUP	METHOD	314.0	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5DUP	6415782	DUP	METHOD	7471A	III
21-Sep-2011	SL-120-SA7-SS-0.0-0.5DUP	6415782	DUP	METHOD	9012B	III
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	3050B	6010B	III
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	3050B	6020	III
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	3060A	7199	III
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	3550B	8015B	III
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	3550B	8015M	III
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	3550B	8081A	III
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	3550B	8082	III
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	3550B	8151A	III
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	3550B	8270C	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	3550B	8270C SIM	III
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	METHOD	300.0	III
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	METHOD	314.0	III
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	METHOD	6850	III
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	METHOD	7471A	III
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	METHOD	8015B	III
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	METHOD	8015M	III
21-Sep-2011	DUP04-SA7-QC-092111	6415789	FD	METHOD	9012B	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	3050B	6010B	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	3050B	6020	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	3060A	7199	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	3550B	8015B	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	3550B	8015M	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	3550B	8081A	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	3550B	8082	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	3550B	8151A	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	3550B	8270C	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	3550B	8270C SIM	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	METHOD	300.0	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	METHOD	314.0	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	METHOD	6850	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	METHOD	7471A	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	METHOD	8015B	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	METHOD	8015M	III
21-Sep-2011	SL-119-SA7-SS-0.0-0.5	6415778	N	METHOD	9012B	III
21-Sep-2011	SL-158-SA7-SB-4.0-5.0	6415796	N	3050B	6010B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Sep-2011	SL-158-SA7-SB-4.0-5.0	6415796	N	3050B	6020	III
21-Sep-2011	SL-158-SA7-SB-4.0-5.0	6415796	N	3060A	7199	III
21-Sep-2011	SL-158-SA7-SB-4.0-5.0	6415796	N	3550B	8015B	III
21-Sep-2011	SL-158-SA7-SB-4.0-5.0	6415796	N	3550B	8015M	III
21-Sep-2011	SL-158-SA7-SB-4.0-5.0	6415796	N	3550B	8082	III
21-Sep-2011	SL-158-SA7-SB-4.0-5.0	6415796	N	3550B	8270C	III
21-Sep-2011	SL-158-SA7-SB-4.0-5.0	6415796	N	3550B	8270C SIM	III
21-Sep-2011	SL-158-SA7-SB-4.0-5.0	6415796	N	5035	8015M	III
21-Sep-2011	SL-158-SA7-SB-4.0-5.0	6415796	N	METHOD	300.0	III
21-Sep-2011	SL-158-SA7-SB-4.0-5.0	6415796	N	METHOD	314.0	III
21-Sep-2011	SL-158-SA7-SB-4.0-5.0	6415796	N	METHOD	7471A	III
21-Sep-2011	SL-158-SA7-SB-4.0-5.0	6415796	N	METHOD	8015B	III
21-Sep-2011	SL-158-SA7-SB-4.0-5.0	6415796	N	METHOD	8015M	III
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	3050B	6010B	III
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	3050B	6020	III
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	3060A	7199	III
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	3550B	8015B	III
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	3550B	8015M	III
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	3550B	8081A	III
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	3550B	8082	III
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	3550B	8151A	III
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	3550B	8270C	III
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	3550B	8270C SIM	III
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	METHOD	300.0	III
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	METHOD	314.0	III
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	METHOD	6850	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	METHOD	7471A	III
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	METHOD	8015B	III
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	METHOD	8015M	III
21-Sep-2011	SL-061-SA7-SS-0.0-0.5	6415777	N	METHOD	9012B	III
21-Sep-2011	SL-078-SA7-SB-4.0-5.0	6415792	N	3050B	6010B	III
21-Sep-2011	SL-078-SA7-SB-4.0-5.0	6415792	N	3050B	6020	III
21-Sep-2011	SL-078-SA7-SB-4.0-5.0	6415792	N	3060A	7199	III
21-Sep-2011	SL-078-SA7-SB-4.0-5.0	6415792	N	3550B	8015B	III
21-Sep-2011	SL-078-SA7-SB-4.0-5.0	6415792	N	3550B	8015M	III
21-Sep-2011	SL-078-SA7-SB-4.0-5.0	6415792	N	3550B	8082	III
21-Sep-2011	SL-078-SA7-SB-4.0-5.0	6415792	N	3550B	8270C	III
21-Sep-2011	SL-078-SA7-SB-4.0-5.0	6415792	N	3550B	8270C SIM	III
21-Sep-2011	SL-078-SA7-SB-4.0-5.0	6415792	N	5035	8015M	III
21-Sep-2011	SL-078-SA7-SB-4.0-5.0	6415792	N	METHOD	300.0	III
21-Sep-2011	SL-078-SA7-SB-4.0-5.0	6415792	N	METHOD	314.0	III
21-Sep-2011	SL-078-SA7-SB-4.0-5.0	6415792	N	METHOD	7471A	III
21-Sep-2011	SL-078-SA7-SB-4.0-5.0	6415792	N	METHOD	8015B	III
21-Sep-2011	SL-078-SA7-SB-4.0-5.0	6415792	N	METHOD	8015M	III
21-Sep-2011	SL-078-SA7-SB-4.0-5.0DUP	P415792D270750B	DUP	METHOD	314.0	III
21-Sep-2011	SL-078-SA7-SB-4.0-5.0MS	P415792R270836B	MS	METHOD	314.0	III
21-Sep-2011	SL-078-SA7-SB-7.0-8.0	6415793	N	3050B	6010B	III
21-Sep-2011	SL-078-SA7-SB-7.0-8.0	6415793	N	3050B	6020	III
21-Sep-2011	SL-078-SA7-SB-7.0-8.0	6415793	N	3060A	7199	III
21-Sep-2011	SL-078-SA7-SB-7.0-8.0	6415793	N	3550B	8015B	III
21-Sep-2011	SL-078-SA7-SB-7.0-8.0	6415793	N	3550B	8015M	III
21-Sep-2011	SL-078-SA7-SB-7.0-8.0	6415793	N	3550B	8082	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Sep-2011	SL-078-SA7-SB-7.0-8.0	6415793	N	3550B	8270C	III
21-Sep-2011	SL-078-SA7-SB-7.0-8.0	6415793	N	3550B	8270C SIM	III
21-Sep-2011	SL-078-SA7-SB-7.0-8.0	6415793	N	5035	8015M	III
21-Sep-2011	SL-078-SA7-SB-7.0-8.0	6415793	N	METHOD	300.0	III
21-Sep-2011	SL-078-SA7-SB-7.0-8.0	6415793	N	METHOD	314.0	III
21-Sep-2011	SL-078-SA7-SB-7.0-8.0	6415793	N	METHOD	7471A	III
21-Sep-2011	SL-078-SA7-SB-7.0-8.0	6415793	N	METHOD	8015B	III
21-Sep-2011	SL-078-SA7-SB-7.0-8.0	6415793	N	METHOD	8015M	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	3005A	6010B	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	3020A	6020	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	3510C	8015B	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	3510C	8015M	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	3510C	8081A	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	3510C	8082	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	3510C	8270C	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	3510C	8270C SIM	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	3520C	1625C	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	8330	8330A	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	Gen Prep	300.0	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	Gen Prep	314.0	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	Gen Prep	7199	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	Gen Prep	8015B	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	Gen Prep	8015M	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	METHOD	7470A	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	METHOD	8151A	III
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	METHOD	8315A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Sep-2011	EB-SA7-SS-092111	6415798	EB	METHOD	9012B	III
21-Sep-2011	SL-156-SA7-SB-4.0-5.0	6415794	N	3050B	6010B	III
21-Sep-2011	SL-156-SA7-SB-4.0-5.0	6415794	N	3050B	6020	III
21-Sep-2011	SL-156-SA7-SB-4.0-5.0	6415794	N	3060A	7199	III
21-Sep-2011	SL-156-SA7-SB-4.0-5.0	6415794	N	3550B	8015B	III
21-Sep-2011	SL-156-SA7-SB-4.0-5.0	6415794	N	3550B	8015M	III
21-Sep-2011	SL-156-SA7-SB-4.0-5.0	6415794	N	3550B	8082	III
21-Sep-2011	SL-156-SA7-SB-4.0-5.0	6415794	N	3550B	8270C	III
21-Sep-2011	SL-156-SA7-SB-4.0-5.0	6415794	N	3550B	8270C SIM	III
21-Sep-2011	SL-156-SA7-SB-4.0-5.0	6415794	N	5035	8015M	III
21-Sep-2011	SL-156-SA7-SB-4.0-5.0	6415794	N	METHOD	300.0	III
21-Sep-2011	SL-156-SA7-SB-4.0-5.0	6415794	N	METHOD	314.0	III
21-Sep-2011	SL-156-SA7-SB-4.0-5.0	6415794	N	METHOD	7471A	III
21-Sep-2011	SL-156-SA7-SB-4.0-5.0	6415794	N	METHOD	8015B	III
21-Sep-2011	SL-156-SA7-SB-4.0-5.0	6415794	N	METHOD	8015M	III
21-Sep-2011	SL-156-SA7-SB-7.5-8.5	6415795	N	3050B	6010B	III
21-Sep-2011	SL-156-SA7-SB-7.5-8.5	6415795	N	3050B	6020	III
21-Sep-2011	SL-156-SA7-SB-7.5-8.5	6415795	N	3060A	7199	III
21-Sep-2011	SL-156-SA7-SB-7.5-8.5	6415795	N	3550B	8015B	III
21-Sep-2011	SL-156-SA7-SB-7.5-8.5	6415795	N	3550B	8015M	III
21-Sep-2011	SL-156-SA7-SB-7.5-8.5	6415795	N	3550B	8082	III
21-Sep-2011	SL-156-SA7-SB-7.5-8.5	6415795	N	3550B	8270C	III
21-Sep-2011	SL-156-SA7-SB-7.5-8.5	6415795	N	3550B	8270C SIM	III
21-Sep-2011	SL-156-SA7-SB-7.5-8.5	6415795	N	5035	8015M	III
21-Sep-2011	SL-156-SA7-SB-7.5-8.5	6415795	N	METHOD	300.0	III
21-Sep-2011	SL-156-SA7-SB-7.5-8.5	6415795	N	METHOD	314.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Sep-2011	SL-156-SA7-SB-7.5-8.5	6415795	N	METHOD	7471A	III
21-Sep-2011	SL-156-SA7-SB-7.5-8.5	6415795	N	METHOD	8015B	III
21-Sep-2011	SL-156-SA7-SB-7.5-8.5	6415795	N	METHOD	8015M	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	GENCHEM	
<b>Method:</b>	300.0	<b>Matrix:</b> SO

<b>Sample ID:</b> DUP04-SA7-QC-092111		<b>Collected:</b> 9/21/2011 10:05:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 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	E

<b>Sample ID:</b> SL-001-SA7-SS-0.0-0.5		<b>Collected:</b> 9/21/2011 8:00:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 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	E

<b>Sample ID:</b> SL-056-SA7-SB-4.0-5.0		<b>Collected:</b> 9/21/2011 8:42:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.7		0.88	MDL	1.1	PQL	mg/Kg	J	E

<b>Sample ID:</b> SL-057-SA7-SB-3.0-4.0		<b>Collected:</b> 9/21/2011 8:05:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.8		0.87	MDL	1.1	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-061-SA7-SS-0.0-0.5		<b>Collected:</b> 9/21/2011 11:50:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.83	U	0.83	MDL	1.0	PQL	mg/Kg	UJ	E

<b>Sample ID:</b> SL-078-SA7-SB-4.0-5.0		<b>Collected:</b> 9/21/2011 12:09:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.1		0.87	MDL	1.1	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-078-SA7-SB-7.0-8.0		<b>Collected:</b> 9/21/2011 12:13:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	5.1		0.86	MDL	1.1	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-119-SA7-SS-0.0-0.5		<b>Collected:</b> 9/21/2011 10:35:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.80	U	0.80	MDL	1.0	PQL	mg/Kg	UJ	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	GENCHEM	
Method:	300.0	Matrix: SO

Sample ID: SL-120-SA7-SS-0.0-0.5			Collected: 9/21/2011 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	0.83	U	0.83	MDL	1.0	PQL	mg/Kg	UJ	E	

Sample ID: SL-121-SA7-SS-0.0-0.5			Collected: 9/21/2011 9:35:00			Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	0.82	U	0.82	MDL	1.0	PQL	mg/Kg	UJ	E	

Sample ID: SL-123-SA7-SS-0.0-0.5			Collected: 9/21/2011 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	0.82	U	0.82	MDL	1.0	PQL	mg/Kg	UJ	E	

Sample ID: SL-124-SA7-SS-0.0-0.5			Collected: 9/21/2011 8:20:00			Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	0.83	U	0.83	MDL	1.0	PQL	mg/Kg	UJ	E	

Sample ID: SL-156-SA7-SB-4.0-5.0			Collected: 9/21/2011 2:39:00			Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	3.2		0.87	MDL	1.1	PQL	mg/Kg	J	Q	

Sample ID: SL-156-SA7-SB-7.5-8.5			Collected: 9/21/2011 2:43:00			Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	3.8		0.88	MDL	1.1	PQL	mg/Kg	J	Q	

Sample ID: SL-158-SA7-SB-4.0-5.0			Collected: 9/21/2011 10:51:00			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		0.82	MDL	1.0	PQL	mg/Kg	J	Q	

Sample ID: SL-175-SA7-SS-0.0-0.5			Collected: 9/21/2011 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	0.82	U	0.82	MDL	1.0	PQL	mg/Kg	UJ	E	

\* 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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	GENCHEM	
<b>Method:</b>	300.0	<b>Matrix:</b> SO

<b>Method Category:</b>	GENCHEM	
<b>Method:</b>	9012B	<b>Matrix:</b> SO

<b>Sample ID:</b> DUP04-SA7-QC-092111	<b>Collected:</b> 9/21/2011 10:05:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
CYANIDE	0.18	U	0.18	MDL	0.51	PQL	mg/Kg	UJ	FD

<b>Sample ID:</b> SL-061-SA7-SS-0.0-0.5	<b>Collected:</b> 9/21/2011 11:50:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
CYANIDE	0.32	J	0.18	MDL	0.51	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-120-SA7-SS-0.0-0.5	<b>Collected:</b> 9/21/2011 10:00:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
CYANIDE	0.23	J	0.18	MDL	0.49	PQL	mg/Kg	J	Z, FD

<b>Method Category:</b>	METALS	
<b>Method:</b>	6010B	<b>Matrix:</b> SO

<b>Sample ID:</b> DUP04-SA7-QC-092111	<b>Collected:</b> 9/21/2011 10:05:00	<b>Analysis Type:</b> REA2	<b>Dilution:</b> 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
BORON	3.78	J	0.358	MDL	4.97	PQL	mg/Kg	J	Z
POTASSIUM	3810		11.2	MDL	49.7	PQL	mg/Kg	J	Q
SODIUM	80.4	J	5.92	MDL	99.5	PQL	mg/Kg	J	Z
TIN	6.59	J	0.318	MDL	9.95	PQL	mg/Kg	UJ	B, FD
Zirconium	3.13	J	0.458	MDL	4.97	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-001-SA7-SS-0.0-0.5	<b>Collected:</b> 9/21/2011 8:00:00	<b>Analysis Type:</b> REA2	<b>Dilution:</b> 1						
<b>Analyte</b>	<b>Lab Result</b>	<b>Lab Qual</b>	<b>DL</b>	<b>DL Type</b>	<b>RL</b>	<b>RL Type</b>	<b>Units</b>	<b>Data Review Qual</b>	<b>Reason Code</b>
POTASSIUM	4390		11.1	MDL	49.0	PQL	mg/Kg	J	Q
SODIUM	79.8	J	5.83	MDL	98.0	PQL	mg/Kg	J	Z
TIN	3.11	J	0.314	MDL	9.80	PQL	mg/Kg	U	B
Zirconium	2.83	J	0.451	MDL	4.90	PQL	mg/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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010E</b>	<b>Matrix: SO</b>

<b>Sample ID: SL-056-SA7-SB-4.0-5.0</b>			<b>Collected: 9/21/2011 8:42:00</b>			<b>Analysis Type: REA2</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM	2390		12.4	MDL	54.7	PQL	mg/Kg	J	Q	
TIN	3.12	J	0.350	MDL	10.9	PQL	mg/Kg	U	B	
Zirconium	2.54	J	0.503	MDL	5.47	PQL	mg/Kg	J	Z	

<b>Sample ID: SL-057-SA7-SB-3.0-4.0</b>			<b>Collected: 9/21/2011 8:05:00</b>			<b>Analysis Type: REA2</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM	2200		11.8	MDL	52.4	PQL	mg/Kg	J	Q	
TIN	3.09	J	0.335	MDL	10.5	PQL	mg/Kg	U	B	
Zirconium	2.46	J	0.482	MDL	5.24	PQL	mg/Kg	J	Z	

<b>Sample ID: SL-061-SA7-SS-0.0-0.5</b>			<b>Collected: 9/21/2011 11:50:00</b>			<b>Analysis Type: REA2</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BORON	0.737	J	0.367	MDL	5.10	PQL	mg/Kg	J	Z	
POTASSIUM	3830		11.5	MDL	51.0	PQL	mg/Kg	J	Q	
SODIUM	91.0	J	6.07	MDL	102	PQL	mg/Kg	J	Z	
TIN	3.09	J	0.327	MDL	10.2	PQL	mg/Kg	U	B	
Zirconium	2.63	J	0.470	MDL	5.10	PQL	mg/Kg	J	Z	

<b>Sample ID: SL-078-SA7-SB-4.0-5.0</b>			<b>Collected: 9/21/2011 12:09:00</b>			<b>Analysis Type: REA2</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM	1470		12.3	MDL	54.6	PQL	mg/Kg	J	Q	
TIN	3.29	J	0.350	MDL	10.9	PQL	mg/Kg	U	B	
Zirconium	4.02	J	0.503	MDL	5.46	PQL	mg/Kg	J	Z	

<b>Sample ID: SL-078-SA7-SB-7.0-8.0</b>			<b>Collected: 9/21/2011 12:13:00</b>			<b>Analysis Type: REA2</b>			<b>Dilution: 1</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
POTASSIUM	1600		12.1	MDL	53.5	PQL	mg/Kg	J	Q	
TIN	3.42	J	0.342	MDL	10.7	PQL	mg/Kg	U	B	
Zirconium	2.69	J	0.492	MDL	5.35	PQL	mg/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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Method:</b>	6010B	<b>Matrix:</b>	SO
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Sample ID: SL-119-SA7-SS-0.0-0.5      Collected: 9/21/2011 10:35:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3790		11.0	MDL	48.7	PQL	mg/Kg	J	Q
SODIUM	82.9	J	5.80	MDL	97.4	PQL	mg/Kg	J	Z
TIN	3.04	J	0.312	MDL	9.74	PQL	mg/Kg	U	B
Zirconium	2.96	J	0.448	MDL	4.87	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA7-SS-0.0-0.5      Collected: 9/21/2011 10:00:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.77	J	0.369	MDL	5.13	PQL	mg/Kg	J	Z
POTASSIUM	3920		11.6	MDL	51.3	PQL	mg/Kg	J	Q
SODIUM	84.3	J	6.10	MDL	103	PQL	mg/Kg	J	Z
TIN	3.30	J	0.328	MDL	10.3	PQL	mg/Kg	UJ	B, FD
Zirconium	3.08	J	0.472	MDL	5.13	PQL	mg/Kg	J	Z

Sample ID: SL-121-SA7-SS-0.0-0.5      Collected: 9/21/2011 9:35:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3250		11.3	MDL	50.2	PQL	mg/Kg	J	Q
SODIUM	76.0	J	5.97	MDL	100	PQL	mg/Kg	J	Z
TIN	2.94	J	0.321	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	2.97	J	0.461	MDL	5.02	PQL	mg/Kg	J	Z

Sample ID: SL-123-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
BORON	0.695	J	0.358	MDL	4.97	PQL	mg/Kg	J	Z
POTASSIUM	3830		11.2	MDL	49.7	PQL	mg/Kg	J	Q
SODIUM	85.5	J	5.91	MDL	99.4	PQL	mg/Kg	J	Z
TIN	2.93	J	0.318	MDL	9.94	PQL	mg/Kg	U	B
Zirconium	3.54	J	0.457	MDL	4.97	PQL	mg/Kg	J	Z

Sample ID: SL-124-SA7-SS-0.0-0.5      Collected: 9/21/2011 8:20:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	4060		11.5	MDL	51.0	PQL	mg/Kg	J	Q

\* 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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: SL-124-SA7-SS-0.0-0.5      Collected: 9/21/2011 8:20:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	91.7	J	6.07	MDL	102	PQL	mg/Kg	J	Z
TIN	3.23	J	0.327	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	2.64	J	0.470	MDL	5.10	PQL	mg/Kg	J	Z

Sample ID: SL-156-SA7-SB-4.0-5.0      Collected: 9/21/2011 2:39:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.877	J	0.373	MDL	5.18	PQL	mg/Kg	J	Z
POTASSIUM	2770		11.7	MDL	51.8	PQL	mg/Kg	J	Q
TIN	3.23	J	0.331	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	2.94	J	0.476	MDL	5.18	PQL	mg/Kg	J	Z

Sample ID: SL-156-SA7-SB-7.5-8.5      Collected: 9/21/2011 2:43:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3190		12.0	MDL	53.3	PQL	mg/Kg	J	Q
TIN	2.96	J	0.341	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	1.94	J	0.490	MDL	5.33	PQL	mg/Kg	J	Z

Sample ID: SL-158-SA7-SB-4.0-5.0      Collected: 9/21/2011 10:51:00      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	0.362	MDL	5.03	PQL	mg/Kg	J	Z
POTASSIUM	2540		11.4	MDL	50.3	PQL	mg/Kg	J	Q
TIN	2.97	J	0.322	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	2.74	J	0.462	MDL	5.03	PQL	mg/Kg	J	Z

Sample ID: SL-175-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
POTASSIUM	3440		11.3	MDL	50.2	PQL	mg/Kg	J	Q
SODIUM	90.4	J	5.97	MDL	100	PQL	mg/Kg	J	Z
TIN	3.10	J	0.321	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	3.44	J	0.461	MDL	5.02	PQL	mg/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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: AQ

Sample ID: EB-SA7-SS-092111	Collected: 9/21/2011 2:00:00	Analysis Type: REA5	Dilution: 1
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	0.00021	J	0.000080	MDL	0.0010	PQL	mg/L	J	Z

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: DUP04-SA7-QC-092111	Collected: 9/21/2011 10:05:00	Analysis Type: REA2	Dilution: 2
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.161	J	0.0588	MDL	0.406	PQL	mg/Kg	J	Z, Q

Sample ID: DUP04-SA7-QC-092111	Collected: 9/21/2011 10:05:00	Analysis Type: REA3	Dilution: 2
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.947		0.0507	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: DUP04-SA7-QC-092111	Collected: 9/21/2011 10:05:00	Analysis Type: RES	Dilution: 2
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.264		0.0751	MDL	0.203	PQL	mg/Kg	J	Q
ARSENIC	4.81		0.0812	MDL	0.406	PQL	mg/Kg	J	Q
BERYLLIUM	0.578		0.0162	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.499		0.0446	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	21.0		0.122	MDL	0.406	PQL	mg/Kg	J	Q, A
COBALT	6.80		0.0203	MDL	0.101	PQL	mg/Kg	J	Q, A
COPPER	14.4		0.0812	MDL	0.406	PQL	mg/Kg	J	Q
LEAD	30.1		0.0103	MDL	0.203	PQL	mg/Kg	J	E
NICKEL	16.6		0.101	MDL	0.406	PQL	mg/Kg	J	Q, A
SILVER	0.0652	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.257		0.0304	MDL	0.101	PQL	mg/Kg	J	Q, E
VANADIUM	40.1		0.0223	MDL	0.101	PQL	mg/Kg	J	Q, A

Sample ID: SL-001-SA7-SS-0.0-0.5	Collected: 9/21/2011 8:00:00	Analysis Type: REA2	Dilution: 2
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Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.215	J	0.0580	MDL	0.400	PQL	mg/Kg	J	Z, Q

\* 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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-001-SA7-SS-0.0-0.5	Collected: 9/21/2011 8:00:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.853		0.0500	MDL	0.0999	PQL	mg/Kg	J	Q

Sample ID: SL-001-SA7-SS-0.0-0.5	Collected: 9/21/2011 8:00:00	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		0.0740	MDL	0.200	PQL	mg/Kg	J	Q
ARSENIC	6.38		0.0800	MDL	0.400	PQL	mg/Kg	J	Q
BERYLLIUM	0.747		0.0160	MDL	0.0999	PQL	mg/Kg	J	Q
CADMIUM	0.296		0.0440	MDL	0.0999	PQL	mg/Kg	J	Q
CHROMIUM	25.4		0.120	MDL	0.400	PQL	mg/Kg	J	Q, A
COBALT	9.30		0.0200	MDL	0.0999	PQL	mg/Kg	J	Q, A
COPPER	14.4		0.0800	MDL	0.400	PQL	mg/Kg	J	Q
LEAD	18.6		0.0102	MDL	0.200	PQL	mg/Kg	J	E
NICKEL	19.9		0.0999	MDL	0.400	PQL	mg/Kg	J	Q, A
SILVER	0.0609	J	0.0142	MDL	0.0999	PQL	mg/Kg	J	Z, Q
THALLIUM	0.367		0.0300	MDL	0.0999	PQL	mg/Kg	J	Q, E
VANADIUM	53.1		0.0220	MDL	0.0999	PQL	mg/Kg	J	Q, A

Sample ID: SL-056-SA7-SB-4.0-5.0	Collected: 9/21/2011 8:42:00	Analysis Type: REA2	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.107	J	0.0628	MDL	0.433	PQL	mg/Kg	J	Z, Q

Sample ID: SL-056-SA7-SB-4.0-5.0	Collected: 9/21/2011 8:42:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.562		0.0542	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-056-SA7-SB-4.0-5.0	Collected: 9/21/2011 8:42:00	Analysis Type: RES	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0994	J	0.0802	MDL	0.217	PQL	mg/Kg	J	Z, Q
ARSENIC	5.66		0.0867	MDL	0.433	PQL	mg/Kg	J	Q
BERYLLIUM	0.711		0.0173	MDL	0.108	PQL	mg/Kg	J	Q
CADMIUM	0.0809	J	0.0477	MDL	0.108	PQL	mg/Kg	J	Z, Q

\* 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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-056-SA7-SB-4.0-5.0      Collected: 9/21/2011 8:42:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	20.1		0.130	MDL	0.433	PQL	mg/Kg	J	Q, A
COBALT	7.70		0.0217	MDL	0.108	PQL	mg/Kg	J	Q, A
COPPER	8.48		0.0867	MDL	0.433	PQL	mg/Kg	J	Q
LEAD	5.71		0.0110	MDL	0.217	PQL	mg/Kg	J	E
NICKEL	13.6		0.108	MDL	0.433	PQL	mg/Kg	J	Q, A
SILVER	0.0187	J	0.0154	MDL	0.108	PQL	mg/Kg	J	Z, Q
THALLIUM	0.317		0.0325	MDL	0.108	PQL	mg/Kg	J	Q, E
VANADIUM	42.2		0.0238	MDL	0.108	PQL	mg/Kg	J	Q, A

Sample ID: SL-057-SA7-SB-3.0-4.0      Collected: 9/21/2011 8:05:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.175	J	0.0608	MDL	0.419	PQL	mg/Kg	J	Z, Q

Sample ID: SL-057-SA7-SB-3.0-4.0      Collected: 9/21/2011 8:05:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.527		0.0524	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-057-SA7-SB-3.0-4.0      Collected: 9/21/2011 8:05:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0955	J	0.0775	MDL	0.209	PQL	mg/Kg	J	Z, Q
ARSENIC	5.40		0.0838	MDL	0.419	PQL	mg/Kg	J	Q
BERYLLIUM	0.612		0.0168	MDL	0.105	PQL	mg/Kg	J	Q
CADMIUM	0.0781	J	0.0461	MDL	0.105	PQL	mg/Kg	J	Z, Q
CHROMIUM	18.1		0.126	MDL	0.419	PQL	mg/Kg	J	Q, A
COBALT	5.96		0.0209	MDL	0.105	PQL	mg/Kg	J	Q, A
COPPER	7.63		0.0838	MDL	0.419	PQL	mg/Kg	J	Q
LEAD	5.89		0.0107	MDL	0.209	PQL	mg/Kg	J	E
NICKEL	11.5		0.105	MDL	0.419	PQL	mg/Kg	J	Q, A
SILVER	0.0183	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z, Q
THALLIUM	0.277		0.0314	MDL	0.105	PQL	mg/Kg	J	Q, E
VANADIUM	37.7		0.0230	MDL	0.105	PQL	mg/Kg	J	Q, A

\* 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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-061-SA7-SS-0.0-0.5	Collected: 9/21/2011 11:50:00	Analysis Type: REA2	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.178	J	0.0592	MDL	0.408	PQL	mg/Kg	J	Z, Q

Sample ID: SL-061-SA7-SS-0.0-0.5	Collected: 9/21/2011 11:50:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.787		0.0510	MDL	0.102	PQL	mg/Kg	J	Q

Sample ID: SL-061-SA7-SS-0.0-0.5	Collected: 9/21/2011 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
ANTIMONY	0.250		0.0755	MDL	0.204	PQL	mg/Kg	J	Q
ARSENIC	6.20		0.0817	MDL	0.408	PQL	mg/Kg	J	Q
BERYLLIUM	0.717		0.0163	MDL	0.102	PQL	mg/Kg	J	Q
CADMIUM	0.357		0.0449	MDL	0.102	PQL	mg/Kg	J	Q
CHROMIUM	22.4		0.122	MDL	0.408	PQL	mg/Kg	J	Q, A
COBALT	7.83		0.0204	MDL	0.102	PQL	mg/Kg	J	Q, A
COPPER	16.1		0.0817	MDL	0.408	PQL	mg/Kg	J	Q
LEAD	25.4		0.0104	MDL	0.204	PQL	mg/Kg	J	E
NICKEL	16.3		0.102	MDL	0.408	PQL	mg/Kg	J	Q, A
SILVER	0.0671	J	0.0145	MDL	0.102	PQL	mg/Kg	J	Z, Q
THALLIUM	0.371		0.0306	MDL	0.102	PQL	mg/Kg	J	Q, E
VANADIUM	44.1		0.0225	MDL	0.102	PQL	mg/Kg	J	Q, A

Sample ID: SL-078-SA7-SB-4.0-5.0	Collected: 9/21/2011 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	0.159	J	0.0622	MDL	0.429	PQL	mg/Kg	J	Z, Q

Sample ID: SL-078-SA7-SB-4.0-5.0	Collected: 9/21/2011 12:09:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.39		0.0536	MDL	0.107	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-078-SA7-SB-4.0-5.0		Collected: 9/21/2011 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	0.108	J	0.0793	MDL	0.214	PQL	mg/Kg	J	Z, Q
ARSENIC	6.70		0.0857	MDL	0.429	PQL	mg/Kg	J	Q
BERYLLIUM	1.10		0.0171	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	23.3		0.129	MDL	0.429	PQL	mg/Kg	J	Q, A
COBALT	7.67		0.0214	MDL	0.107	PQL	mg/Kg	J	Q, A
COPPER	7.34		0.0857	MDL	0.429	PQL	mg/Kg	J	Q
LEAD	8.41		0.0109	MDL	0.214	PQL	mg/Kg	J	E
NICKEL	14.8		0.107	MDL	0.429	PQL	mg/Kg	J	Q, A
SILVER	0.0523	J	0.0152	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.258		0.0321	MDL	0.107	PQL	mg/Kg	J	Q, E
VANADIUM	48.8		0.0236	MDL	0.107	PQL	mg/Kg	J	Q, A

Sample ID: SL-078-SA7-SB-7.0-8.0		Collected: 9/21/2011 12:13:00		Analysis Type: REA2		Dilution: 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.110	J	0.0626	MDL	0.432	PQL	mg/Kg	J	Z, Q

Sample ID: SL-078-SA7-SB-7.0-8.0		Collected: 9/21/2011 12:13:00		Analysis Type: REA3		Dilution: 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.547		0.0540	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-078-SA7-SB-7.0-8.0		Collected: 9/21/2011 12:13:00		Analysis Type: RES		Dilution: 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0799	U	0.0799	MDL	0.216	PQL	mg/Kg	UJ	Q
ARSENIC	6.86		0.0864	MDL	0.432	PQL	mg/Kg	J	Q
BERYLLIUM	0.634		0.0173	MDL	0.108	PQL	mg/Kg	J	Q
CHROMIUM	17.9		0.130	MDL	0.432	PQL	mg/Kg	J	Q, A
COBALT	3.80		0.0216	MDL	0.108	PQL	mg/Kg	J	Q, A
COPPER	3.69		0.0864	MDL	0.432	PQL	mg/Kg	J	Q
LEAD	6.41		0.0110	MDL	0.216	PQL	mg/Kg	J	E
NICKEL	6.19		0.108	MDL	0.432	PQL	mg/Kg	J	Q, A
SILVER	0.0176	J	0.0153	MDL	0.108	PQL	mg/Kg	J	Z, Q
THALLIUM	0.202		0.0324	MDL	0.108	PQL	mg/Kg	J	Q, E

\* 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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-078-SA7-SB-7.0-8.0      Collected: 9/21/2011 12:13:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	40.4		0.0238	MDL	0.108	PQL	mg/Kg	J	Q, A

Sample ID: SL-119-SA7-SS-0.0-0.5      Collected: 9/21/2011 10:35:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.160	J	0.0571	MDL	0.393	PQL	mg/Kg	J	Z, Q

Sample ID: SL-119-SA7-SS-0.0-0.5      Collected: 9/21/2011 10:35:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.957		0.0492	MDL	0.0984	PQL	mg/Kg	J	Q

Sample ID: SL-119-SA7-SS-0.0-0.5      Collected: 9/21/2011 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	0.292		0.0728	MDL	0.197	PQL	mg/Kg	J	Q
ARSENIC	5.63		0.0787	MDL	0.393	PQL	mg/Kg	J	Q
BERYLLIUM	0.710		0.0157	MDL	0.0984	PQL	mg/Kg	J	Q
CADMIUM	0.373		0.0433	MDL	0.0984	PQL	mg/Kg	J	Q
CHROMIUM	24.6		0.118	MDL	0.393	PQL	mg/Kg	J	Q, A
COBALT	7.57		0.0197	MDL	0.0984	PQL	mg/Kg	J	Q, A
COPPER	14.0		0.0787	MDL	0.393	PQL	mg/Kg	J	Q
LEAD	16.9		0.0100	MDL	0.197	PQL	mg/Kg	J	E
NICKEL	17.9		0.0984	MDL	0.393	PQL	mg/Kg	J	Q, A
SILVER	0.0461	J	0.0140	MDL	0.0984	PQL	mg/Kg	J	Z, Q
THALLIUM	0.350		0.0295	MDL	0.0984	PQL	mg/Kg	J	Q, E
VANADIUM	47.4		0.0216	MDL	0.0984	PQL	mg/Kg	J	Q, A

Sample ID: SL-120-SA7-SS-0.0-0.5      Collected: 9/21/2011 10:00:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.194	J	0.0595	MDL	0.410	PQL	mg/Kg	J	Z, Q

\* 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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Method:</b>	6020	<b>Matrix:</b>	SO
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<b>Sample ID:</b> SL-120-SA7-SS-0.0-0.5		<b>Collected:</b> 9/21/2011 10:00:00		<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.810		0.0513	MDL	0.103	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-120-SA7-SS-0.0-0.5		<b>Collected:</b> 9/21/2011 10:00:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.261		0.0759	MDL	0.205	PQL	mg/Kg	J	Q
ARSENIC	4.05		0.0821	MDL	0.410	PQL	mg/Kg	J	Q
BERYLLIUM	0.550		0.0164	MDL	0.103	PQL	mg/Kg	J	Q
CADMIUM	0.466		0.0451	MDL	0.103	PQL	mg/Kg	J	Q
CHROMIUM	20.4		0.123	MDL	0.410	PQL	mg/Kg	J	Q, A
COBALT	6.02		0.0205	MDL	0.103	PQL	mg/Kg	J	Q, A
COPPER	13.2		0.0821	MDL	0.410	PQL	mg/Kg	J	Q
LEAD	24.9		0.0105	MDL	0.205	PQL	mg/Kg	J	E
NICKEL	16.4		0.103	MDL	0.410	PQL	mg/Kg	J	Q, A
SILVER	0.0531	J	0.0146	MDL	0.103	PQL	mg/Kg	J	Z, Q
THALLIUM	0.282		0.0308	MDL	0.103	PQL	mg/Kg	J	Q, E
VANADIUM	36.9		0.0226	MDL	0.103	PQL	mg/Kg	J	Q, A

<b>Sample ID:</b> SL-121-SA7-SS-0.0-0.5		<b>Collected:</b> 9/21/2011 9:35:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.125	J	0.0588	MDL	0.405	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-121-SA7-SS-0.0-0.5		<b>Collected:</b> 9/21/2011 9:35:00		<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.815		0.0507	MDL	0.101	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-121-SA7-SS-0.0-0.5		<b>Collected:</b> 9/21/2011 9:35:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.227		0.0750	MDL	0.203	PQL	mg/Kg	J	Q
ARSENIC	4.93		0.0811	MDL	0.405	PQL	mg/Kg	J	Q
BERYLLIUM	0.634		0.0162	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.372		0.0446	MDL	0.101	PQL	mg/Kg	J	Q

\* 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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	Matrix:	SO
Method:	6020		

Sample ID: SL-121-SA7-SS-0.0-0.5      Collected: 9/21/2011 9:35:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	27.4		0.122	MDL	0.405	PQL	mg/Kg	J	Q, A
COBALT	7.10		0.0203	MDL	0.101	PQL	mg/Kg	J	Q, A
COPPER	14.0		0.0811	MDL	0.405	PQL	mg/Kg	J	Q
LEAD	27.4		0.0103	MDL	0.203	PQL	mg/Kg	J	E
NICKEL	18.7		0.101	MDL	0.405	PQL	mg/Kg	J	Q, A
SILVER	0.0571	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.288		0.0304	MDL	0.101	PQL	mg/Kg	J	Q, E
VANADIUM	40.9		0.0223	MDL	0.101	PQL	mg/Kg	J	Q, A

Sample ID: SL-123-SA7-SS-0.0-0.5      Collected: 9/21/2011 8:40:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.140	J	0.0582	MDL	0.401	PQL	mg/Kg	J	Z, Q

Sample ID: SL-123-SA7-SS-0.0-0.5      Collected: 9/21/2011 8:40:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.784		0.0502	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: SL-123-SA7-SS-0.0-0.5      Collected: 9/21/2011 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	0.198	J	0.0743	MDL	0.201	PQL	mg/Kg	J	Z, Q
ARSENIC	7.67		0.0803	MDL	0.401	PQL	mg/Kg	J	Q
BERYLLIUM	0.770		0.0161	MDL	0.100	PQL	mg/Kg	J	Q
CADMIUM	0.413		0.0442	MDL	0.100	PQL	mg/Kg	J	Q
CHROMIUM	27.1		0.120	MDL	0.401	PQL	mg/Kg	J	Q, A
COBALT	8.91		0.0201	MDL	0.100	PQL	mg/Kg	J	Q, A
COPPER	17.2		0.0803	MDL	0.401	PQL	mg/Kg	J	Q
LEAD	15.6		0.0102	MDL	0.201	PQL	mg/Kg	J	E
NICKEL	18.0		0.100	MDL	0.401	PQL	mg/Kg	J	Q, A
SILVER	0.0489	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z, Q
THALLIUM	0.343		0.0301	MDL	0.100	PQL	mg/Kg	J	Q, E
VANADIUM	52.3		0.0221	MDL	0.100	PQL	mg/Kg	J	Q, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-124-SA7-SS-0.0-0.5			<b>Collected:</b> 9/21/2011 8:20:00			<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.259	J	0.0586	MDL	0.404	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-124-SA7-SS-0.0-0.5			<b>Collected:</b> 9/21/2011 8:20:00			<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.837		0.0505	MDL	0.101	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-124-SA7-SS-0.0-0.5			<b>Collected:</b> 9/21/2011 8:20:00			<b>Analysis Type:</b> RES		<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.227		0.0748	MDL	0.202	PQL	mg/Kg	J	Q
ARSENIC	5.99		0.0809	MDL	0.404	PQL	mg/Kg	J	Q
BERYLLIUM	0.659		0.0162	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.280		0.0445	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	23.8		0.121	MDL	0.404	PQL	mg/Kg	J	Q, A
COBALT	8.36		0.0202	MDL	0.101	PQL	mg/Kg	J	Q, A
COPPER	14.3		0.0809	MDL	0.404	PQL	mg/Kg	J	Q
LEAD	22.1		0.0103	MDL	0.202	PQL	mg/Kg	J	E
NICKEL	18.0		0.101	MDL	0.404	PQL	mg/Kg	J	Q, A
SILVER	0.0571	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.333		0.0303	MDL	0.101	PQL	mg/Kg	J	Q, E
VANADIUM	46.4		0.0222	MDL	0.101	PQL	mg/Kg	J	Q, A

<b>Sample ID:</b> SL-156-SA7-SB-4.0-5.0			<b>Collected:</b> 9/21/2011 2:39:00			<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.150	J	0.0612	MDL	0.422	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-156-SA7-SB-4.0-5.0			<b>Collected:</b> 9/21/2011 2:39:00			<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.713		0.0528	MDL	0.106	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-156-SA7-SB-4.0-5.0      Collected: 9/21/2011 2:39:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0781	U	0.0781	MDL	0.211	PQL	mg/Kg	UJ	Q
ARSENIC	4.76		0.0844	MDL	0.422	PQL	mg/Kg	J	Q
BERYLLIUM	0.622		0.0169	MDL	0.106	PQL	mg/Kg	J	Q
CADMIUM	0.0818	J	0.0464	MDL	0.106	PQL	mg/Kg	J	Z, Q
CHROMIUM	14.0		0.127	MDL	0.422	PQL	mg/Kg	J	Q, A
COBALT	5.54		0.0211	MDL	0.106	PQL	mg/Kg	J	Q, A
COPPER	6.53		0.0844	MDL	0.422	PQL	mg/Kg	J	Q
LEAD	5.48		0.0108	MDL	0.211	PQL	mg/Kg	J	E
NICKEL	10.1		0.106	MDL	0.422	PQL	mg/Kg	J	Q, A
SILVER	0.0219	J	0.0150	MDL	0.106	PQL	mg/Kg	J	Z, Q
THALLIUM	0.275		0.0317	MDL	0.106	PQL	mg/Kg	J	Q, E
VANADIUM	30.2		0.0232	MDL	0.106	PQL	mg/Kg	J	Q, A

Sample ID: SL-156-SA7-SB-7.5-8.5      Collected: 9/21/2011 2:43:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0762	J	0.0612	MDL	0.422	PQL	mg/Kg	J	Z, Q

Sample ID: SL-156-SA7-SB-7.5-8.5      Collected: 9/21/2011 2:43:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.630		0.0528	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-156-SA7-SB-7.5-8.5      Collected: 9/21/2011 2:43:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0781	U	0.0781	MDL	0.211	PQL	mg/Kg	UJ	Q
ARSENIC	4.43		0.0844	MDL	0.422	PQL	mg/Kg	J	Q
BERYLLIUM	0.426		0.0169	MDL	0.106	PQL	mg/Kg	J	Q
CADMIUM	0.0582	J	0.0464	MDL	0.106	PQL	mg/Kg	J	Z, Q
CHROMIUM	13.1		0.127	MDL	0.422	PQL	mg/Kg	J	Q, A
COBALT	4.45		0.0211	MDL	0.106	PQL	mg/Kg	J	Q, A
COPPER	5.49		0.0844	MDL	0.422	PQL	mg/Kg	J	Q
LEAD	4.09		0.0108	MDL	0.211	PQL	mg/Kg	J	E
NICKEL	7.01		0.106	MDL	0.422	PQL	mg/Kg	J	Q, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-156-SA7-SB-7.5-8.5      Collected: 9/21/2011 2:43:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.293		0.0317	MDL	0.106	PQL	mg/Kg	J	Q, E
VANADIUM	25.9		0.0232	MDL	0.106	PQL	mg/Kg	J	Q, A

Sample ID: SL-158-SA7-SB-4.0-5.0      Collected: 9/21/2011 10:51:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.149	J	0.0583	MDL	0.402	PQL	mg/Kg	J	Z, Q

Sample ID: SL-158-SA7-SB-4.0-5.0      Collected: 9/21/2011 10:51:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.664		0.0503	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-158-SA7-SB-4.0-5.0      Collected: 9/21/2011 10:51:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0744	U	0.0744	MDL	0.201	PQL	mg/Kg	UJ	Q
ARSENIC	4.62		0.0804	MDL	0.402	PQL	mg/Kg	J	Q
BERYLLIUM	0.590		0.0161	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.0829	J	0.0442	MDL	0.101	PQL	mg/Kg	J	Z, Q
CHROMIUM	14.2		0.121	MDL	0.402	PQL	mg/Kg	J	Q, A
COBALT	5.62		0.0201	MDL	0.101	PQL	mg/Kg	J	Q, A
COPPER	6.61		0.0804	MDL	0.402	PQL	mg/Kg	J	Q
LEAD	5.51		0.0103	MDL	0.201	PQL	mg/Kg	J	E
NICKEL	9.19		0.101	MDL	0.402	PQL	mg/Kg	J	Q, A
SILVER	0.0235	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.270		0.0302	MDL	0.101	PQL	mg/Kg	J	Q, E
VANADIUM	31.7		0.0221	MDL	0.101	PQL	mg/Kg	J	Q, A

Sample ID: SL-175-SA7-SS-0.0-0.5      Collected: 9/21/2011 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	0.111	J	0.0582	MDL	0.401	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-175-SA7-SS-0.0-0.5      Collected: 9/21/2011 9:00:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.667		0.0502	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: SL-175-SA7-SS-0.0-0.5      Collected: 9/21/2011 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	0.309		0.0742	MDL	0.201	PQL	mg/Kg	J	Q
ARSENIC	5.27		0.0803	MDL	0.401	PQL	mg/Kg	J	Q
BERYLLIUM	0.615		0.0161	MDL	0.100	PQL	mg/Kg	J	Q
CADMIUM	0.300		0.0441	MDL	0.100	PQL	mg/Kg	J	Q
CHROMIUM	21.5		0.120	MDL	0.401	PQL	mg/Kg	J	Q, A
COBALT	7.63		0.0201	MDL	0.100	PQL	mg/Kg	J	Q, A
COPPER	14.3		0.0803	MDL	0.401	PQL	mg/Kg	J	Q
LEAD	12.7		0.0102	MDL	0.201	PQL	mg/Kg	J	E
NICKEL	14.3		0.100	MDL	0.401	PQL	mg/Kg	J	Q, A
SILVER	0.0381	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z, Q
THALLIUM	0.294		0.0301	MDL	0.100	PQL	mg/Kg	J	Q, E
VANADIUM	44.9		0.0221	MDL	0.100	PQL	mg/Kg	J	Q, A

Method Category:	METALS	
Method:	7199	Matrix: SO

Sample ID: DUP04-SA7-QC-092111      Collected: 9/21/2011 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	0.37	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z, FD

Sample ID: SL-001-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
HEXAVALENT CHROMIUM	0.48	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-056-SA7-SB-4.0-5.0      Collected: 9/21/2011 8:42:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.38	J	0.22	MDL	1.1	PQL	mg/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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	Method:	7199	Matrix:	SO
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Sample ID: SL-057-SA7-SB-3.0-4.0	Collected: 9/21/2011 8:05:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.34	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-078-SA7-SB-4.0-5.0	Collected: 9/21/2011 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	0.60	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-078-SA7-SB-7.0-8.0	Collected: 9/21/2011 12:13:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.57	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA7-SS-0.0-0.5	Collected: 9/21/2011 10:00:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.21	U	0.21	MDL	1.0	PQL	mg/Kg	UJ	FD

Sample ID: SL-123-SA7-SS-0.0-0.5	Collected: 9/21/2011 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	0.56	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-175-SA7-SS-0.0-0.5	Collected: 9/21/2011 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	0.46	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Method Category:	METALS	Method:	7471A	Matrix:	SO
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Sample ID: DUP04-SA7-QC-092111	Collected: 9/21/2011 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	0.0233	J	0.0071	MDL	0.101	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	7471A	Matrix: SO

Sample ID: SL-057-SA7-SB-3.0-4.0	Collected: 9/21/2011 8:05:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0099	J	0.0074	MDL	0.106	PQL	mg/Kg	J	Z

Sample ID: SL-061-SA7-SS-0.0-0.5	Collected: 9/21/2011 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
MERCURY	0.0320	J	0.0072	MDL	0.102	PQL	mg/Kg	J	Z

Sample ID: SL-078-SA7-SB-4.0-5.0	Collected: 9/21/2011 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	0.0169	J	0.0073	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-078-SA7-SB-7.0-8.0	Collected: 9/21/2011 12:13:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0078	J	0.0073	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-119-SA7-SS-0.0-0.5	Collected: 9/21/2011 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	0.0215	J	0.0069	MDL	0.0984	PQL	mg/Kg	J	Z

Sample ID: SL-120-SA7-SS-0.0-0.5	Collected: 9/21/2011 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	0.0266	J	0.0068	MDL	0.0967	PQL	mg/Kg	J	Z

Sample ID: SL-121-SA7-SS-0.0-0.5	Collected: 9/21/2011 9:35:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0193	J	0.0069	MDL	0.0976	PQL	mg/Kg	J	Z

Sample ID: SL-123-SA7-SS-0.0-0.5	Collected: 9/21/2011 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	0.0280	J	0.0067	MDL	0.0955	PQL	mg/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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7471A</b>	<b>Matrix: SO</b>

<b>Sample ID: SL-124-SA7-SS-0.0-0.5</b>			<b>Collected: 9/21/2011 8:20:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 1</b>		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
MERCURY	0.0286	J	0.0070	MDL	0.0999	PQL	mg/Kg	J	Z		

<b>Sample ID: SL-156-SA7-SB-4.0-5.0</b>			<b>Collected: 9/21/2011 2:39:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 1</b>		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
MERCURY	0.0078	J	0.0074	MDL	0.106	PQL	mg/Kg	J	Z		

<b>Sample ID: SL-158-SA7-SB-4.0-5.0</b>			<b>Collected: 9/21/2011 10:51:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 1</b>		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
MERCURY	0.0094	J	0.0070	MDL	0.0989	PQL	mg/Kg	J	Z		

<b>Sample ID: SL-175-SA7-SS-0.0-0.5</b>			<b>Collected: 9/21/2011 9:00:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 1</b>		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
MERCURY	0.0159	J	0.0066	MDL	0.0942	PQL	mg/Kg	J	Z		

<b>Method Category:</b>	<b>SVOA</b>	
<b>Method:</b>	<b>1625C</b>	<b>Matrix: AQ</b>

<b>Sample ID: EB-SA7-SS-092111</b>			<b>Collected: 9/21/2011 2:00:00</b>			<b>Analysis Type: RES-BASE/NEUTRAL</b>			<b>Dilution: 1</b>		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
N-NITROSODIMETHYLAMINE	2.38		0.508	MDL	1.02	PQL	ng/L	UJ	B, S		

<b>Method Category:</b>	<b>SVOA</b>	
<b>Method:</b>	<b>8015M</b>	<b>Matrix: SO</b>

<b>Sample ID: SL-123-SA7-SS-0.0-0.5</b>			<b>Collected: 9/21/2011 8:40:00</b>			<b>Analysis Type: REA</b>			<b>Dilution: 2</b>		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code		
EFH (C15-C20)	2.1	J	0.82	MDL	2.5	PQL	mg/Kg	J	Z		

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8015M	Matrix: SO

Sample ID: SL-175-SA7-SS-0.0-0.5      Collected: 9/21/2011 9:00:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.96	J	0.81	MDL	2.4	PQL	mg/Kg	J	Z

Method Category:	SVOA	
Method:	8081A	Matrix: AQ

Sample ID: EB-SA7-SS-092111      Collected: 9/21/2011 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
ENDRIN	0.0084	U	0.0084	MDL	0.021	PQL	ug/L	UJ	E

Method Category:	SVOA	
Method:	8081A	Matrix: SO

Sample ID: DUP04-SA7-QC-092111      Collected: 9/21/2011 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
4,4'-DDE	1.3	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
4,4'-DDT	4.0		0.34	MDL	1.7	PQL	ug/Kg	J	FD
Chlordane	4.1	U	4.1	MDL	17	PQL	ug/Kg	UJ	FD
HEPTACHLOR EPOXIDE	0.30	J	0.17	MDL	0.85	PQL	ug/Kg	J	Z, FD

Sample ID: SL-001-SA7-SS-0.0-0.5      Collected: 9/21/2011 8:00:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	2.4	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-061-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
ALPHA-BHC	0.040	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z
BETA-BHC	0.078	J	0.062	MDL	0.17	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	5061A
		<b>Matrix:</b>	SO

**Sample ID:** SL-120-SA7-SS-0.0-0.5      **Collected:** 9/21/2011 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
4,4'-DDE	2.1		0.34	MDL	1.7	PQL	ug/Kg	J	Q
4,4'-DDT	10		0.34	MDL	1.7	PQL	ug/Kg	J	FD
BETA-BHC	0.31	U	0.31	MDL	0.85	PQL	ug/Kg	R	Q
Chlordane	11	J	4.1	MDL	17	PQL	ug/Kg	J	Z, FD
ENDOSULFAN SULFATE	0.55	U	0.55	MDL	1.7	PQL	ug/Kg	R	Q
ENDRIN	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	R	Q
ENDRIN ALDEHYDE	0.44	U	0.44	MDL	1.7	PQL	ug/Kg	R	Q
ENDRIN KETONE	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	R	Q
HEPTACHLOR EPOXIDE	0.26	U	0.26	MDL	0.85	PQL	ug/Kg	UJ	FD

**Sample ID:** SL-121-SA7-SS-0.0-0.5      **Collected:** 9/21/2011 9:35:00      **Analysis Type:** RES-BASE/NEUTRAL      **Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	6.7	J	4.0	MDL	17	PQL	ug/Kg	J	Z

**Sample ID:** SL-123-SA7-SS-0.0-0.5      **Collected:** 9/21/2011 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
ALPHA-BHC	0.047	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z
Chlordane	1.4	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.088	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z

**Sample ID:** SL-124-SA7-SS-0.0-0.5      **Collected:** 9/21/2011 8:20:00      **Analysis Type:** RES-BASE/NEUTRAL      **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	1.2		0.068	MDL	0.35	PQL	ug/Kg	J	S
4,4'-DDT	1.3		0.068	MDL	0.35	PQL	ug/Kg	J	S

**Sample ID:** SL-175-SA7-SS-0.0-0.5      **Collected:** 9/21/2011 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
Chlordane	3.1	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.052	J	0.034	MDL	0.17	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVQA		
Method:	8082	Matrix:	SO

Sample ID: DUP04-SA7-QC-092111      Collected: 9/21/2011 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 1254	14		0.34	MDL	1.7	PQL	ug/Kg	J	FD
AROCLOR 1260	9.3		0.40	MDL	1.7	PQL	ug/Kg	J	FD
Aroclor 5460	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	FD

Sample ID: SL-001-SA7-SS-0.0-0.5      Collected: 9/21/2011 8:00:00      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	1.6	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	2.0	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-119-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
Aroclor 5460	1.9	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-120-SA7-SS-0.0-0.5      Collected: 9/21/2011 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 1242	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	UJ	Q
AROCLOR 1248	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	UJ	Q
AROCLOR 1254	2.8		0.34	MDL	1.7	PQL	ug/Kg	J	FD, Q
AROCLOR 1260	1.3	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z, FD, Q
Aroclor 5460	6.1		1.0	MDL	3.4	PQL	ug/Kg	J	FD

Sample ID: SL-123-SA7-SS-0.0-0.5      Collected: 9/21/2011 8:40:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.4	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-158-SA7-SB-4.0-5.0      Collected: 9/21/2011 10:51:00      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	0.52	J	0.40	MDL	1.8	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8151A	<b>Matrix:</b>	SO
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Sample ID: DUP04-SA7-QC-092111      Collected: 9/21/2011 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-T	0.14	J	0.084	MDL	0.17	PQL	ug/Kg	J	Z, S, FD
2,4,5-TP (Silvex)	0.077	U	0.077	MDL	0.17	PQL	ug/Kg	UJ	S, FD
2,4-D	1.2	U	1.2	MDL	3.7	PQL	ug/Kg	UJ	S
2,4-DB	0.64	U	0.64	MDL	1.7	PQL	ug/Kg	UJ	S
DALAPON	4.5	U	4.5	MDL	9.2	PQL	ug/Kg	UJ	S
DICAMBA	0.41	U	0.41	MDL	1.2	PQL	ug/Kg	UJ	S
DICHLOROPROP	0.82	U	0.82	MDL	1.7	PQL	ug/Kg	UJ	S
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L
MCPA	78	U	78	MDL	260	PQL	ug/Kg	UJ	S
MCPD	77	U	77	MDL	260	PQL	ug/Kg	UJ	S

Sample ID: SL-001-SA7-SS-0.0-0.5      Collected: 9/21/2011 8:00:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-061-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
DICAMBA	0.74	J	0.41	MDL	1.2	PQL	ug/Kg	J	Z
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L

Sample ID: SL-119-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
2,4,5-TP (Silvex)	0.11	J	0.076	MDL	0.17	PQL	ug/Kg	J	Z
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-120-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
2,4,5-T	0.69		0.084	MDL	0.17	PQL	ug/Kg	J	Q, Q, FD
2,4,5-TP (Silvex)	0.087	J	0.077	MDL	0.17	PQL	ug/Kg	J	Z, Q, Q, FD
2,4-D	1.2	U	1.2	MDL	3.7	PQL	ug/Kg	R	Q
DALAPON	4.5	U	4.5	MDL	9.2	PQL	ug/Kg	R	Q

\* 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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8151A	Matrix:	SO

Sample ID: SL-120-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
DICAMBA	0.41	U	0.41	MDL	1.2	PQL	ug/Kg	R	Q
DICHLOROPROP	0.82	U	0.82	MDL	1.7	PQL	ug/Kg	UJ	Q
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	Q, L
MCPA	78	U	78	MDL	260	PQL	ug/Kg	R	Q
MCPP	77	U	77	MDL	260	PQL	ug/Kg	R	Q

Sample ID: SL-121-SA7-SS-0.0-0.5      Collected: 9/21/2011 9:35:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.13	J	0.083	MDL	0.17	PQL	ug/Kg	J	Z
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-123-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
DINOSEB	0.82	U	0.82	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-124-SA7-SS-0.0-0.5      Collected: 9/21/2011 8:20:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L

Sample ID: SL-175-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Method Category:	SVOA		
Method:	8270C	Matrix:	AQ

Sample ID: EB-SA7-SS-092111      Collected: 9/21/2011 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
BENZOIC ACID	7	U	7	MDL	17	PQL	ug/L	UJ	E

\* 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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C	<b>Matrix:</b>	SO
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Sample ID: DUP04-SA7-QC-092111      Collected: 9/21/2011 10:05:00      Analysis Type: RES-ACID      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	7300	J	4300	MDL	13000	PQL	ug/Kg	J	Z, FD
PHENANTHRENE	470	J	430	MDL	4300	PQL	ug/Kg	J	Z

Sample ID: SL-001-SA7-SS-0.0-0.5      Collected: 9/21/2011 8:00:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHENOL	19	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-119-SA7-SS-0.0-0.5      Collected: 9/21/2011 10:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	190	J	84	MDL	840	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	85	J	84	MDL	1700	PQL	ug/Kg	J	Z
CHRYSENE	100	J	84	MDL	840	PQL	ug/Kg	J	Z
FLUORANTHENE	140	J	84	MDL	840	PQL	ug/Kg	J	Z

Sample ID: SL-120-SA7-SS-0.0-0.5      Collected: 9/21/2011 10:00:00      Analysis Type: RES-ACID      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	4300	U	4300	MDL	13000	PQL	ug/Kg	UJ	FD

Sample ID: SL-121-SA7-SS-0.0-0.5      Collected: 9/21/2011 9:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	1400	J	420	MDL	8300	PQL	ug/Kg	J	Z

Sample ID: SL-124-SA7-SS-0.0-0.5      Collected: 9/21/2011 8:20:00      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	32	J	17	MDL	340	PQL	ug/Kg	J	Z
Di-n-butylphthalate	24	J	17	MDL	170	PQL	ug/Kg	J	Z
FLUORANTHENE	18	J	17	MDL	170	PQL	ug/Kg	J	Z
PHENOL	19	J	17	MDL	170	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C	<b>Matrix:</b>	SO
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Sample ID: SL-158-SA7-SB-4.0-5.0      Collected: 9/21/2011 10:51:00      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

Sample ID: SL-175-SA7-SS-0.0-0.5      Collected: 9/21/2011 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	72	J	17	MDL	170	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	24	J	17	MDL	170	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	23	J	17	MDL	170	PQL	ug/Kg	J	Z

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C SIM	<b>Matrix:</b>	AQ
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Sample ID: EB-SA7-SS-092111      Collected: 9/21/2011 2:00:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	0.16	J	0.056	MDL	1.1	PQL	ug/L	U	B
Diethylphthalate	0.35	J	0.056	MDL	1.1	PQL	ug/L	J	Z
Di-n-butylphthalate	0.83	J	0.056	MDL	1.1	PQL	ug/L	J	Z

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C SIM	<b>Matrix:</b>	SO
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Sample ID: DUP04-SA7-QC-092111      Collected: 9/21/2011 10:05:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	20	J	13	MDL	34	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	29	J	13	MDL	34	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	19	J	13	MDL	34	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	160	J	120	MDL	360	PQL	ug/Kg	J	Z, FD
DIBENZO(A,H)ANTHRACENE	17	J	13	MDL	34	PQL	ug/Kg	J	Z, FD
INDENO(1,2,3-CD)PYRENE	17	J	13	MDL	34	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	Matrix:	SO
Method:	8270C SIM		

Sample ID: SL-001-SA7-SS-0.0-0.5      Collected: 9/21/2011 8:00:00      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	0.95	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.4	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.99	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	12	J	6.1	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-057-SA7-SB-3.0-4.0      Collected: 9/21/2011 8:05:00      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	0.91	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-061-SA7-SS-0.0-0.5      Collected: 9/21/2011 11:50:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	13	J	6.9	MDL	17	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	100	J	62	MDL	180	PQL	ug/Kg	J	Z
CHRYSENE	6.0	J	3.4	MDL	17	PQL	ug/Kg	J	Z
FLUORANTHENE	7.5	J	6.9	MDL	17	PQL	ug/Kg	J	Z

Sample ID: SL-078-SA7-SB-4.0-5.0      Collected: 9/21/2011 12:09:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	14	J	6.6	MDL	20	PQL	ug/Kg	J	Z

Sample ID: SL-119-SA7-SS-0.0-0.5      Collected: 9/21/2011 10:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	24	J	13	MDL	33	PQL	ug/Kg	J	Z
PYRENE	15	J	13	MDL	33	PQL	ug/Kg	J	Z

Sample ID: SL-120-SA7-SS-0.0-0.5      Collected: 9/21/2011 10:00:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	23	J	14	MDL	34	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	24	J	14	MDL	34	PQL	ug/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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8270C SIM	Matrix: SO

Sample ID: SL-120-SA7-SS-0.0-0.5      Collected: 9/21/2011 10:00:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(K)FLUORANTHENE	25	J	14	MDL	34	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	340	J	120	MDL	370	PQL	ug/Kg	J	Z, FD
DIBENZO(A,H)ANTHRACENE	14	U	14	MDL	34	PQL	ug/Kg	UJ	FD
INDENO(1,2,3-CD)PYRENE	14	J	14	MDL	34	PQL	ug/Kg	J	Z

Sample ID: SL-121-SA7-SS-0.0-0.5      Collected: 9/21/2011 9:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	20	J	13	MDL	33	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	26	J	13	MDL	33	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	17	J	13	MDL	33	PQL	ug/Kg	J	Z
FLUORANTHENE	20	J	13	MDL	33	PQL	ug/Kg	J	Z
PYRENE	14	J	13	MDL	33	PQL	ug/Kg	J	Z

Sample ID: SL-123-SA7-SS-0.0-0.5      Collected: 9/21/2011 8:40:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	11	J	6.7	MDL	17	PQL	ug/Kg	J	Z
CHRYSENE	9.6	J	3.4	MDL	17	PQL	ug/Kg	J	Z
PHENANTHRENE	16	J	6.7	MDL	17	PQL	ug/Kg	J	Z

Sample ID: SL-124-SA7-SS-0.0-0.5      Collected: 9/21/2011 8:20:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.64	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	9.9	J	6.2	MDL	19	PQL	ug/Kg	J	Z
NAPHTHALENE	1.2	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-156-SA7-SB-4.0-5.0      Collected: 9/21/2011 2:39:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	7.7	J	6.5	MDL	19	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C SIM	<b>Matrix:</b> SO

Sample ID: SL-175-SA7-SS-0.0-0.5      Collected: 9/21/2011 9:00:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	9.5	J	3.4	MDL	17	PQL	ug/Kg	J	Z

<b>Method Category:</b>	VOA	
<b>Method:</b>	8015B	<b>Matrix:</b> SO

Sample ID: SL-175-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
Isopropanol	220	J	100	MDL	510	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_v1

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
<b>*#</b>	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

\* 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: DE250

Laboratory: LL

EDD Filename: PrepDE250\_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	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: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

# Data Qualifier Summary

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: PrepDE250\_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

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE250

# Method Blank Outlier Report

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method:</b>	<b>1625C</b>
<b>Matrix:</b>	<b>AQ</b>

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWA26B261601	10/3/2011 4:01:00 PM	N-NITROSODIMETHYLAMINE	1.47 ng/L	EB-SA7-SS-092111

*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
EB-SA7-SS-092111(RES)	N-NITROSODIMETHYLAMINE	2.38 ng/L	2.38U ng/L

<b>Method:</b>	<b>6010B</b>
<b>Matrix:</b>	<b>SO</b>

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P26608BB222102	9/30/2011 9:02:00 PM	CALCIUM MAGNESIUM MANGANESE PHOSPHORUS STRONTIUM TIN	7.08 mg/Kg 0.811 mg/Kg 0.0490 mg/Kg 1.23 mg/Kg 0.0390 mg/Kg 1.55 mg/Kg	DUP04-SA7-QC-092111 SL-001-SA7-SS-0.0-0.5 SL-056-SA7-SB-4.0-5.0 SL-057-SA7-SB-3.0-4.0 SL-061-SA7-SS-0.0-0.5 SL-078-SA7-SB-4.0-5.0 SL-078-SA7-SB-7.0-8.0 SL-119-SA7-SS-0.0-0.5 SL-120-SA7-SS-0.0-0.5 SL-121-SA7-SS-0.0-0.5 SL-123-SA7-SS-0.0-0.5 SL-124-SA7-SS-0.0-0.5 SL-156-SA7-SB-4.0-5.0 SL-156-SA7-SB-7.5-8.5 SL-158-SA7-SB-4.0-5.0 SL-175-SA7-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-SA7-QC-092111(REA2)	TIN	6.59 mg/Kg	6.59U mg/Kg
SL-001-SA7-SS-0.0-0.5(REA2)	TIN	3.11 mg/Kg	3.11U mg/Kg
SL-056-SA7-SB-4.0-5.0(REA2)	TIN	3.12 mg/Kg	3.12U mg/Kg
SL-057-SA7-SB-3.0-4.0(REA2)	TIN	3.09 mg/Kg	3.09U mg/Kg
SL-061-SA7-SS-0.0-0.5(REA2)	TIN	3.09 mg/Kg	3.09U mg/Kg
SL-078-SA7-SB-4.0-5.0(REA2)	TIN	3.29 mg/Kg	3.29U mg/Kg
SL-078-SA7-SB-7.0-8.0(REA2)	TIN	3.42 mg/Kg	3.42U mg/Kg
SL-119-SA7-SS-0.0-0.5(REA2)	TIN	3.04 mg/Kg	3.04U mg/Kg
SL-120-SA7-SS-0.0-0.5(REA2)	TIN	3.30 mg/Kg	3.30U mg/Kg
SL-121-SA7-SS-0.0-0.5(REA2)	TIN	2.94 mg/Kg	2.94U mg/Kg
SL-123-SA7-SS-0.0-0.5(REA2)	TIN	2.93 mg/Kg	2.93U mg/Kg
SL-124-SA7-SS-0.0-0.5(REA2)	TIN	3.23 mg/Kg	3.23U mg/Kg
SL-156-SA7-SB-4.0-5.0(REA2)	TIN	3.23 mg/Kg	3.23U mg/Kg
SL-156-SA7-SB-7.5-8.5(REA2)	TIN	2.96 mg/Kg	2.96U mg/Kg
SL-158-SA7-SB-4.0-5.0(REA2)	TIN	2.97 mg/Kg	2.97U mg/Kg

**Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling**

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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*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-175-SA7-SS-0.0-0.5(REA2)	TIN	3.10 mg/Kg	3.10U mg/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P26626AB221131A	9/26/2011 11:31:00 AM	LEAD	0.0136 mg/Kg	DUP04-SA7-QC-092111 SL-001-SA7-SS-0.0-0.5 SL-056-SA7-SB-4.0-5.0 SL-057-SA7-SB-3.0-4.0 SL-061-SA7-SS-0.0-0.5 SL-078-SA7-SB-4.0-5.0 SL-078-SA7-SB-7.0-8.0 SL-119-SA7-SS-0.0-0.5 SL-120-SA7-SS-0.0-0.5 SL-121-SA7-SS-0.0-0.5 SL-123-SA7-SS-0.0-0.5 SL-124-SA7-SS-0.0-0.5 SL-156-SA7-SB-4.0-5.0 SL-156-SA7-SB-7.5-8.5 SL-158-SA7-SB-4.0-5.0 SL-175-SA7-SS-0.0-0.5

**Method: 8015B**  
**Matrix: AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P70706AB320238A	9/29/2011 2:38:00 AM	METHANOL	240 ug/L	EB-SA7-SS-092111

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWI26B262107	10/11/2011 9:07:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	0.13 ug/L	EB-SA7-SS-092111

*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
EB-SA7-SS-092111(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.16 ug/L	1.1U ug/L

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8082**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-120-SA7-SS-0.0-0.5MS (SL-120-SA7-SS-0.0-0.5)	AROCLOR 1260	34	-	39.00-149.00	-	AROCLOR 1260, AROCLOR 1242, AROCLOR 1248, AROCLOR 1254	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-120-SA7-SS-0.0-0.5MSD (SL-120-SA7-SS-0.0-0.5)	ETHANOL Isopropanol METHANOL	- - -	- - -	48.00-130.00 12.00-149.00 43.00-138.00	46 (20.00) 59 (20.00) 36 (20.00)	ETHANOL Isopropanol METHANOL	J(all detects)

**Method: 8081A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-120-SA7-SS-0.0-0.5MS SL-120-SA7-SS-0.0-0.5MSD (SL-120-SA7-SS-0.0-0.5)	4,4'-DDD ALPHA-BHC	166 -	212 -	16.00-163.00 10.00-129.00	- 67 (50.00)	4,4'-DDD ALPHA-BHC	J(all detects)
SL-120-SA7-SS-0.0-0.5MS SL-120-SA7-SS-0.0-0.5MSD (SL-120-SA7-SS-0.0-0.5)	4,4'-DDE 4,4'-DDT BETA-BHC ENDOSULFAN SULFATE ENDRIN ENDRIN ALDEHYDE ENDRIN KETONE	-25 -243 - 175 0 0 -	-1 -389 0 0 0 185 0	18.00-161.00 10.00-176.00 14.00-147.00 21.00-160.00 11.00-149.00 10.00-148.00 22.00-165.00	- - 200 (50.00) 200 (50.00) - 200 (35.00) 200 (50.00)	4,4'-DDE 4,4'-DDT BETA-BHC ENDOSULFAN SULFATE ENDRIN ENDRIN ALDEHYDE ENDRIN KETONE	J(all detects) R(all non-detects)  4,4'-DDT, No Qual, >4x

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-120-SA7-SS-0.0-0.5MSD (SL-120-SA7-SS-0.0-0.5)	2,4-DB	-	-	10.00-201.00	61 (50.00)	2,4-DB	J(all detects)
SL-120-SA7-SS-0.0-0.5MS SL-120-SA7-SS-0.0-0.5MSD (SL-120-SA7-SS-0.0-0.5)	2,4,5-T 2,4-D DALAPON DICAMBA DINOSEB MCPA MCPP	-65 0 0 0 0 0 0	-36 0 0 0 0 0 -	10.00-156.00 17.00-180.00 10.00-125.00 10.00-190.00 10.00-46.00 10.00-213.00 10.00-184.00	100 (35.00) - - - - - 200 (50.00)	2,4,5-T 2,4-D DALAPON DICAMBA DINOSEB MCPA MCPP	J(all detects) R(all non-detects)
SL-120-SA7-SS-0.0-0.5MS SL-120-SA7-SS-0.0-0.5MSD (SL-120-SA7-SS-0.0-0.5)	2,4,5-TP (Silvex) DICHLOROPROP	10 20	- 30	24.00-141.00 33.00-178.00	74 (35.00) -	2,4,5-TP (Silvex) DICHLOROPROP	J(all detects) UJ(all non-detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_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-SA7-SS-0.0-0.5MS SL-120-SA7-SS-0.0-0.5MSD (SL-120-SA7-SS-0.0-0.5)	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30) EFH (C30-C40) EFH (C8-C11)	0 0 -20557 -58067 0	0 0 -9238 -1494 0	49.00-123.00 49.00-123.00 49.00-123.00 49.00-123.00 49.00-123.00	- - 29 (20.00) 49 (20.00) -	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30) EFH (C30-C40) EFH (C8-C11)	No Qual, Diluted Out
SL-120-SA7-SS-0.0-0.5MS SL-120-SA7-SS-0.0-0.5MSD (SL-120-SA7-SS-0.0-0.5)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	5 30 42	7 31 42	59.00-109.00 63.00-107.00 63.00-107.00	21 (20.00) - -	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	No Qual, Diluted Out

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-120-SA7-SS-0.0-0.5MS SL-120-SA7-SS-0.0-0.5MSD (DUP04-SA7-QC-092111 SL-001-SA7-SS-0.0-0.5 SL-056-SA7-SB-4.0-5.0 SL-057-SA7-SB-3.0-4.0 SL-061-SA7-SS-0.0-0.5 SL-078-SA7-SB-4.0-5.0 SL-078-SA7-SB-7.0-8.0 SL-119-SA7-SS-0.0-0.5 SL-120-SA7-SS-0.0-0.5 SL-121-SA7-SS-0.0-0.5 SL-123-SA7-SS-0.0-0.5 SL-124-SA7-SS-0.0-0.5 SL-156-SA7-SB-4.0-5.0 SL-156-SA7-SB-7.5-8.5 SL-158-SA7-SB-4.0-5.0 SL-175-SA7-SS-0.0-0.5)	ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT COPPER LEAD NICKEL SILVER VANADIUM	134 - - 185 - - 159 128 - -	200 139 145 186 141 163 325 182 139 178	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - - - - - -	ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT COPPER LEAD NICKEL SILVER VANADIUM	J(all detects)  Pb, No Qual, >4x
SL-120-SA7-SS-0.0-0.5MS SL-120-SA7-SS-0.0-0.5MSD (DUP04-SA7-QC-092111 SL-001-SA7-SS-0.0-0.5 SL-056-SA7-SB-4.0-5.0 SL-057-SA7-SB-3.0-4.0 SL-061-SA7-SS-0.0-0.5 SL-078-SA7-SB-4.0-5.0 SL-078-SA7-SB-7.0-8.0 SL-119-SA7-SS-0.0-0.5 SL-120-SA7-SS-0.0-0.5 SL-121-SA7-SS-0.0-0.5 SL-123-SA7-SS-0.0-0.5 SL-124-SA7-SS-0.0-0.5 SL-156-SA7-SB-4.0-5.0 SL-156-SA7-SB-7.5-8.5 SL-158-SA7-SB-4.0-5.0 SL-175-SA7-SS-0.0-0.5)	ANTIMONY THALLIUM ZINC	44 - 228	54 146 62	75.00-125.00 75.00-125.00 75.00-125.00	- 21 (20.00) -	ANTIMONY THALLIUM ZINC	J(all detects) UJ(all non-detects)  Zn, No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_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-SA7-SS-0.0-0.5MSD (DUP04 -SA7-QC-092111 SL -001-SA7-SS-0.0-0.5 SL -056-SA7-SB-4.0-5.0 SL -057-SA7-SB-3.0-4.0 SL -061-SA7-SS-0.0-0.5 SL -078-SA7-SB-4.0-5.0 SL -078-SA7-SB-7.0-8.0 SL -119-SA7-SS-0.0-0.5 SL -120-SA7-SS-0.0-0.5 SL -121-SA7-SS-0.0-0.5 SL -123-SA7-SS-0.0-0.5 SL -124-SA7-SS-0.0-0.5 SL -156-SA7-SB-4.0-5.0 SL -156-SA7-SB-7.5-8.5 SL -158-SA7-SB-4.0-5.0 SL -175-SA7-SS-0.0-0.5)	SELENIUM	-	134	75.00-125.00	-	SELENIUM	J(all detects)
SL-120-SA7-SS-0.0-0.5MSD (DUP04 -SA7-QC-092111 SL -001-SA7-SS-0.0-0.5 SL -056-SA7-SB-4.0-5.0 SL -057-SA7-SB-3.0-4.0 SL -061-SA7-SS-0.0-0.5 SL -078-SA7-SB-4.0-5.0 SL -078-SA7-SB-7.0-8.0 SL -119-SA7-SS-0.0-0.5 SL -120-SA7-SS-0.0-0.5 SL -121-SA7-SS-0.0-0.5 SL -123-SA7-SS-0.0-0.5 SL -124-SA7-SS-0.0-0.5 SL -156-SA7-SB-4.0-5.0 SL -156-SA7-SB-7.5-8.5 SL -158-SA7-SB-4.0-5.0 SL -175-SA7-SS-0.0-0.5)	MOLYBDENUM	-	141	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-120-SA7-SS-0.0-0.5MS SL-120-SA7-SS-0.0-0.5MSD (DUP04 -SA7-QC-092111 SL -001-SA7-SS-0.0-0.5 SL -056-SA7-SB-4.0-5.0 SL -057-SA7-SB-3.0-4.0 SL -061-SA7-SS-0.0-0.5 SL -078-SA7-SB-4.0-5.0 SL -078-SA7-SB-7.0-8.0 SL -119-SA7-SS-0.0-0.5 SL -120-SA7-SS-0.0-0.5 SL -121-SA7-SS-0.0-0.5 SL -123-SA7-SS-0.0-0.5 SL -124-SA7-SS-0.0-0.5 SL -156-SA7-SB-4.0-5.0 SL -156-SA7-SB-7.5-8.5 SL -158-SA7-SB-4.0-5.0 SL -175-SA7-SS-0.0-0.5)	BARIUM	146	320	75.00-125.00	-	BARIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_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-SA7-SS-0.0-0.5MS SL-120-SA7-SS-0.0-0.5MSD (DUP04 -SA7-QC-092111 SL -001 -SA7-SS-0.0-0.5 SL -056 -SA7-SB-4.0-5.0 SL -057 -SA7-SB-3.0-4.0 SL -061 -SA7-SS-0.0-0.5 SL -078 -SA7-SB-4.0-5.0 SL -078 -SA7-SB-7.0-8.0 SL -119 -SA7-SS-0.0-0.5 SL -120 -SA7-SS-0.0-0.5 SL -121 -SA7-SS-0.0-0.5 SL -123 -SA7-SS-0.0-0.5 SL -124 -SA7-SS-0.0-0.5 SL -156 -SA7-SB-4.0-5.0 SL -156 -SA7-SB-7.5-8.5 SL -158 -SA7-SB-4.0-5.0 SL -175 -SA7-SS-0.0-0.5)	ALUMINUM MAGNESIUM POTASSIUM TITANIUM	1509 155 132 285	1681 213 138 248	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINUM MAGNESIUM POTASSIUM TITANIUM	J(all detects)  Al, Mg, Ti, No Qual, >4x
SL-120-SA7-SS-0.0-0.5MS (DUP04 -SA7-QC-092111 SL -001 -SA7-SS-0.0-0.5 SL -056 -SA7-SB-4.0-5.0 SL -057 -SA7-SB-3.0-4.0 SL -061 -SA7-SS-0.0-0.5 SL -078 -SA7-SB-4.0-5.0 SL -078 -SA7-SB-7.0-8.0 SL -119 -SA7-SS-0.0-0.5 SL -120 -SA7-SS-0.0-0.5 SL -121 -SA7-SS-0.0-0.5 SL -123 -SA7-SS-0.0-0.5 SL -124 -SA7-SS-0.0-0.5 SL -156 -SA7-SB-4.0-5.0 SL -156 -SA7-SB-7.5-8.5 SL -158 -SA7-SB-4.0-5.0 SL -175 -SA7-SS-0.0-0.5)	MANGANESE PHOSPHORUS	53 73	- -	75.00-125.00 75.00-125.00	- -	MANGANESE PHOSPHORUS	No Qual, >4x

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-120-SA7-SS-0.0-0.5MS SL-120-SA7-SS-0.0-0.5MSD (SL-120-SA7-SS-0.0-0.5)	2-METHYLNAPHTHALENE ACENAPHTHENE ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(K)FLUORANTHENE CHRYSENE Di-n-octylphthalate FLUORANTHENE NAPHTHALENE PHENANTHRENE PYRENE	107 113 127 168 402 215 219 407 350 106 264 322	- - 122 143 248 197 - 420 - - 130 146	64.00-103.00 63.00-105.00 73.00-115.00 58.00-142.00 54.00-163.00 57.00-153.00 67.00-123.00 40.00-192.00 51.00-149.00 61.00-102.00 62.00-122.00 51.00-131.00	- - - - - - - - 42 (30.00) - - 37 (30.00) 38 (30.00)	2-METHYLNAPHTHALENE ACENAPHTHENE ANTHRACENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(K)FLUORANTHENE CHRYSENE Di-n-octylphthalate FLUORANTHENE NAPHTHALENE PHENANTHRENE PYRENE	No Qual, Diluted Out
SL-120-SA7-SS-0.0-0.5MS SL-120-SA7-SS-0.0-0.5MSD (SL-120-SA7-SS-0.0-0.5)	BIS(2-ETHYLHEXYL)PHTHALAT Butylbenzylphthalate Diethylphthalate Dimethylphthalate Di-n-butylphthalate	508 0 0 0 0	-433 881 0 0 0	39.00-167.00 57.00-173.00 70.00-136.00 74.00-118.00 65.00-148.00	90 (30.00) 200 (30.00) - - -	BIS(2-ETHYLHEXYL)PHTHALA Butylbenzylphthalate Diethylphthalate Dimethylphthalate Di-n-butylphthalate	No Qual, Diluted Out
SL-120-SA7-SS-0.0-0.5MSD (SL-120-SA7-SS-0.0-0.5)	BENZO(G,H,I)PERYLENE	-	9	33.00-141.00	36 (30.00)	BENZO(G,H,I)PERYLENE	No Qual, Diluted Out

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_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-057-SA7-SB-3.0-4.0MS (SL-057-SA7-SB-3.0-4.0 SL-078-SA7-SB-4.0-5.0 SL-078-SA7-SB-7.0-8.0 SL-156-SA7-SB-4.0-5.0 SL-156-SA7-SB-7.5-8.5 SL-158-SA7-SB-4.0-5.0)	FLUORIDE	54	-	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-120-SA7-SS-0.0-0.5MS SL-120-SA7-SS-0.0-0.5MSD (SL-120-SA7-SS-0.0-0.5)	4,6-DINITRO-2-METHYLPHENOL ACENAPHTHYLENE Butylbenzylphthalate	293 - 291	286 111 -	11.00-126.00 81.00-110.00 73.00-134.00	- - 84 (30.00)	4,6-DINITRO-2-METHYLPHEN ACENAPHTHYLENE Butylbenzylphthalate	No Qual, Diluted Out
SL-120-SA7-SS-0.0-0.5MS SL-120-SA7-SS-0.0-0.5MSD (SL-120-SA7-SS-0.0-0.5)	2,4-DINITROPHENOL 3,3'-DICHLOROBENZIDINE 4-CHLOROANILINE 4-NITROANILINE 4-NITROPHENOL ANILINE BENZIDINE BENZOIC ACID BENZYL ALCOHOL HEXACHLOROBUTADIENE HEXACHLOROCYCLOPENTADI PENTACHLOROPHENOL	0 0 0 0 0 0 0 0 0 0 0 0	276 0 0 0 0 0 0 0 0 0 0 0	20.00-143.00 28.00-109.00 23.00-95.00 52.00-112.00 37.00-113.00 18.00-116.00 35.00-141.00 10.00-173.00 67.00-115.00 62.00-120.00 10.00-153.00 28.00-127.00	- - - - - - - - - - - -	2,4-DINITROPHENOL 3,3'-DICHLOROBENZIDINE 4-CHLOROANILINE 4-NITROANILINE 4-NITROPHENOL ANILINE BENZIDINE BENZOIC ACID BENZYL ALCOHOL HEXACHLOROBUTADIENE HEXACHLOROCYCLOPENTAD PENTACHLOROPHENOL	No Qual, Diluted Out

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-120-SA7-SS-0.0-0.5MS SL-120-SA7-SS-0.0-0.5MSD (DUPO4-SA7-QC-092111 SL-001-SA7-SS-0.0-0.5 SL-056-SA7-SB-4.0-5.0 SL-057-SA7-SB-3.0-4.0 SL-061-SA7-SS-0.0-0.5 SL-078-SA7-SB-4.0-5.0 SL-078-SA7-SB-7.0-8.0 SL-119-SA7-SS-0.0-0.5 SL-120-SA7-SS-0.0-0.5 SL-121-SA7-SS-0.0-0.5 SL-123-SA7-SS-0.0-0.5 SL-124-SA7-SS-0.0-0.5 SL-156-SA7-SB-4.0-5.0 SL-156-SA7-SB-7.5-8.5 SL-158-SA7-SB-4.0-5.0 SL-175-SA7-SS-0.0-0.5)	IRON	-913	431	75.00-125.00	-	IRON	No Qual, >4x

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 300.0**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-120-SA7-SS-0.0-0.5DUP (DUP04-SA7-QC-092111 SL-001-SA7-SS-0.0-0.5 SL-056-SA7-SB-4.0-5.0 SL-061-SA7-SS-0.0-0.5 SL-119-SA7-SS-0.0-0.5 SL-120-SA7-SS-0.0-0.5 SL-121-SA7-SS-0.0-0.5 SL-123-SA7-SS-0.0-0.5 SL-124-SA7-SS-0.0-0.5 SL-175-SA7-SS-0.0-0.5)	FLUORIDE	2.8 mg/kg	2.0 mg/kg	J (all detects) UJ (all non-detects)

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-120-SA7-SS-0.0-0.5DUP (DUP04-SA7-QC-092111 SL-001-SA7-SS-0.0-0.5 SL-056-SA7-SB-4.0-5.0 SL-057-SA7-SB-3.0-4.0 SL-061-SA7-SS-0.0-0.5 SL-078-SA7-SB-4.0-5.0 SL-078-SA7-SB-7.0-8.0 SL-119-SA7-SS-0.0-0.5 SL-120-SA7-SS-0.0-0.5 SL-121-SA7-SS-0.0-0.5 SL-123-SA7-SS-0.0-0.5 SL-124-SA7-SS-0.0-0.5 SL-156-SA7-SB-4.0-5.0 SL-156-SA7-SB-7.5-8.5 SL-158-SA7-SB-4.0-5.0 SL-175-SA7-SS-0.0-0.5)	LEAD	71	20.00	J(all detects) UJ(all non-detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_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
P12675AY240243A (EB-SA7-SS-092111)	ENDRIN	-	-	52.00-132.00	43 (30.00)	ENDRIN	J (all detects) UJ (all non-detects)

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

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P7WHLCSY262257 (EB-SA7-SS-092111)	NITROBENZENE	-	111	75.00-109.00	-	NITROBENZENE	J(all detects)
P7WHLCSY262257 (EB-SA7-SS-092111)	BENZOIC ACID	-	-	10.00-69.00	31 (30.00)	BENZOIC ACID	J(all detects) UJ(all non-detects)

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12691AQ242037A (DUP04 -SA7-QC-092111 SL -001-SA7-SS-0.0-0.5 SL -061-SA7-SS-0.0-0.5 SL -119-SA7-SS-0.0-0.5 SL -120-SA7-SS-0.0-0.5 SL -121-SA7-SS-0.0-0.5 SL -123-SA7-SS-0.0-0.5 SL -124-SA7-SS-0.0-0.5 SL -175-SA7-SS-0.0-0.5)	DINOSEB	8	-	10.00-36.00	-	DINOSEB	J(all detects) R(all non-detects)

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

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P26608BQ222106 (DUP04 -SA7-QC-092111 SL -001-SA7-SS-0.0-0.5 SL -056-SA7-SB-4.0-5.0 SL -057-SA7-SB-3.0-4.0 SL -061-SA7-SS-0.0-0.5 SL -078-SA7-SB-4.0-5.0 SL -078-SA7-SB-7.0-8.0 SL -119-SA7-SS-0.0-0.5 SL -120-SA7-SS-0.0-0.5 SL -121-SA7-SS-0.0-0.5 SL -123-SA7-SS-0.0-0.5 SL -124-SA7-SS-0.0-0.5 SL -156-SA7-SB-4.0-5.0 SL -156-SA7-SB-7.5-8.5 SL -158-SA7-SB-4.0-5.0 SL -175-SA7-SS-0.0-0.5)	ALUMINIUM MAGNESIUM	147 125	- -	80.00-120.00 80.00-120.00	- -	ALUMINIUM MAGNESIUM	No Qual, SRM within QC Limits

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_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
P7LDLCSQ260623 (DUP04-SA7-QC-092111 SL -001-SA7-SS-0.0-0.5 SL -056-SA7-SB-4.0-5.0 SL -057-SA7-SB-3.0-4.0 SL -061-SA7-SS-0.0-0.5 SL -078-SA7-SB-4.0-5.0 SL -078-SA7-SB-7.0-8.0 SL -119-SA7-SS-0.0-0.5 SL -120-SA7-SS-0.0-0.5 SL -121-SA7-SS-0.0-0.5 SL -123-SA7-SS-0.0-0.5 SL -124-SA7-SS-0.0-0.5 SL -156-SA7-SB-4.0-5.0 SL -156-SA7-SB-7.5-8.5 SL -158-SA7-SB-4.0-5.0 SL -175-SA7-SS-0.0-0.5)	2,4,5-TRICHLOROPHENOL 2,4,6-TRICHLOROPHENOL ANTHRACENE	108 112 114	- - -	76.00-107.00 78.00-111.00 76.00-112.00	- - -	2,4,5-TRICHLOROPHENOL 2,4,6-TRICHLOROPHENOL ANTHRACENE	J(all detects)

# Surrogate Outlier Report

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 1625C  
**Matrix:** AQ

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
EB-SA7-SS-092111	N-Nitrosodimethylamine-d6	264	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-056-SA7-SB-4.0-5.0	N-Nitrosodimethylamine-d6	351	50.00-150.00	All Target Analytes	J(all detects)
SL-057-SA7-SB-3.0-4.0	N-Nitrosodimethylamine-d6	373	50.00-150.00	All Target Analytes	J(all detects)

**Method:** 8015B  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DUP04-SA7-QC-092111	n-Triacontane-d62	2080	19.00-152.00	All Target Analytes	J (all detects)
SL-061-SA7-SS-0.0-0.5	n-Triacontane-d62	223	19.00-152.00	All Target Analytes	J(all detects)
SL-119-SA7-SS-0.0-0.5	n-Triacontane-d62	226	19.00-152.00	All Target Analytes	J(all detects)
SL-120-SA7-SS-0.0-0.5	n-Triacontane-d62	279	19.00-152.00	All Target Analytes	J(all detects)

**Method:** 8081A  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DUP04-SA7-QC-092111	DECACHLOROBIPHENYL	372	20.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-119-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	176	20.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-120-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	400	20.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-121-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	287	20.00-120.00	All Target Analytes	No Qual, Diluted Out
SL-121-SA7-SS-0.0-0.5	TETRACHLORO-M-XYLENE	45	50.00-130.00	All Target Analytes	No Qual, Diluted Out
SL-124-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	249	20.00-120.00	All Target Analytes	J(all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Surrogate Outlier Report

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8082  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-121-SA7-SS-0.0-0.5	TETRACHLORO-M-XYLENE	35	53.00-139.00	All Target Analytes	No Qual, Diluted Out

**Method:** 8151A  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
DUP04-SA7-QC-092111	2,4-Dichlorophenylacetic acid	31	36.00-156.00	All Target Analytes	J(all detects) UJ(all non-detects)

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

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
EB-SA7-SS-092111	Nitrobenzene-d5	169	40.00-130.00	No Affected Compounds	J(all detects)

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_y1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 160.3M  
**Matrix:** SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA7-SS-0.0-0.5	DUP04-SA7-QC-092111			
MOISTURE	2.5	2.4	4		No Qualifiers Applied

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

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA7-SS-0.0-0.5	DUP04-SA7-QC-092111			
ALUMINUM	15300	14700	4	50.00	No Qualifiers Applied
BORON	4.77	3.78	23	50.00	
CALCIUM	4560	3990	13	50.00	
IRON	19300	20300	5	50.00	
LITHIUM	19.4	18.8	3	50.00	
MAGNESIUM	4020	3780	6	50.00	
MANGANESE	289	259	11	50.00	
PHOSPHORUS	445	441	1	50.00	
POTASSIUM	3920	3810	3	50.00	
SODIUM	84.3	80.4	5	50.00	
STRONTIUM	23.2	20.8	11	50.00	
TITANIUM	1090	1130	4	50.00	
Zirconium	3.08	3.13	2	50.00	
TIN	3.30	6.59	67	50.00	

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

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA7-SS-0.0-0.5	DUP04-SA7-QC-092111			
ANTIMONY	0.261	0.264	1	50.00	No Qualifiers Applied
ARSENIC	4.05	4.81	17	50.00	
BARIUM	101	107	6	50.00	
BERYLLIUM	0.550	0.578	5	50.00	
CADMIUM	0.466	0.499	7	50.00	
CHROMIUM	20.4	21.0	3	50.00	
COBALT	6.02	6.80	12	50.00	
COPPER	13.2	14.4	9	50.00	
LEAD	24.9	30.1	19	50.00	
MOLYBDENUM	0.810	0.947	16	50.00	
NICKEL	16.4	16.6	1	50.00	
SELENIUM	0.194	0.161	19	50.00	
SILVER	0.0531	0.0652	20	50.00	
THALLIUM	0.282	0.257	9	50.00	
VANADIUM	36.9	40.1	8	50.00	
ZINC	172	176	2	50.00	

**Method:** 7199  
**Matrix:** SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA7-SS-0.0-0.5	DUP04-SA7-QC-092111			
HEXAVALENT CHROMIUM	1.0 U	0.37	200	50.00	J(all detects) UJ(all non-detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Field Duplicate RPD Report

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 7471A

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA7-SS-0.0-0.5	DUP04-SA7-QC-092111			
MERCURY	0.0266	0.0233	13	50.00	No Qualifiers Applied

Method: 8015M

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA7-SS-0.0-0.5	DUP04-SA7-QC-092111			
EFH (C21-C30)	1200	1000	18	50.00	No Qualifiers Applied
EFH (C30-C40)	3700	3300	11	50.00	

Method: 8081A

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA7-SS-0.0-0.5	DUP04-SA7-QC-092111			
4,4'-DDE	2.1	1.3	47	50.00	No Qualifiers Applied
4,4'-DDT	10	4.0	86	50.00	J(all detects) UJ(all non-detects)
Chlordane	11	17 U	200	50.00	
HEPTACHLOR EPOXIDE	0.85 U	0.30	200	50.00	

Method: 8082

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA7-SS-0.0-0.5	DUP04-SA7-QC-092111			
AROCLOR 1254	2.8	14	133	50.00	J(all detects) UJ(all non-detects)
AROCLOR 1260	1.3	9.3	151	50.00	
Aroclor 5460	6.1	3.4 U	200	50.00	

Method: 8151A

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA7-SS-0.0-0.5	DUP04-SA7-QC-092111			
2,4,5-T	0.69	0.14	133	50.00	J(all detects) UJ(all non-detects)
2,4,5-TP (Silvex)	0.087	0.17 U	200	50.00	

## Field Duplicate RPD Report

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_v1.

eQAPP Name: CDM SSFL 110509

Method: 8270C SIM

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA7-SS-0.0-0.5	DUP04-SA7-QC-092111			
BENZO(A)ANTHRACENE	23	20	14	50.00	No Qualifiers Applied
BENZO(A)PYRENE	34	29	16	50.00	
BENZO(B)FLUORANTHENE	110	89	21	50.00	
BENZO(G,H,I)PERYLENE	24	35	37	50.00	
BENZO(K)FLUORANTHENE	25	19	27	50.00	
CHRYSENE	110	110	0	50.00	
FLUORANTHENE	98	75	27	50.00	
INDENO(1,2,3-CD)PYRENE	14	17	19	50.00	
PYRENE	78	49	46	50.00	
BIS(2-ETHYLHEXYL)PHTHALATE	340	160	72	50.00	J(all detects) UJ(all non-detects)
DIBENZO(A,H)ANTHRACENE	34 U	17	200	50.00	

Method: 8270C

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA7-SS-0.0-0.5	DUP04-SA7-QC-092111			
BENZOIC ACID	13000 U	7300	200	50.00	J(all detects) UJ(all non-detects)

Method: 9012B

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA7-SS-0.0-0.5	DUP04-SA7-QC-092111			
CYANIDE	0.23	0.51 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 9045M

Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-120-SA7-SS-0.0-0.5	DUP04-SA7-QC-092111			
PH	5.91	5.91	0	50.00	No Qualifiers Applied

# Reporting Limit Outliers

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6020  
**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SS-092111	LEAD	J	0.00021	0.0010	PQL	mg/L	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SS-092111	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.16	1.1	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.35	1.1	PQL	ug/L	
	Di-n-butylphthalate	J	0.83	1.1	PQL	ug/L	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA7-QC-092111	BORON	J	3.78	4.97	PQL	mg/Kg	J (all detects)
	SODIUM	J	80.4	99.5	PQL	mg/Kg	
	TIN	J	6.59	9.95	PQL	mg/Kg	
	Zirconium	J	3.13	4.97	PQL	mg/Kg	
SL-001-SA7-SS-0.0-0.5	SODIUM	J	79.8	98.0	PQL	mg/Kg	J (all detects)
	TIN	J	3.11	9.80	PQL	mg/Kg	
	Zirconium	J	2.83	4.90	PQL	mg/Kg	
SL-056-SA7-SB-4.0-5.0	TIN	J	3.12	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.54	5.47	PQL	mg/Kg	
SL-057-SA7-SB-3.0-4.0	TIN	J	3.09	10.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.46	5.24	PQL	mg/Kg	
SL-061-SA7-SS-0.0-0.5	BORON	J	0.737	5.10	PQL	mg/Kg	J (all detects)
	SODIUM	J	91.0	102	PQL	mg/Kg	
	TIN	J	3.09	10.2	PQL	mg/Kg	
	Zirconium	J	2.63	5.10	PQL	mg/Kg	
SL-078-SA7-SB-4.0-5.0	TIN	J	3.29	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.02	5.46	PQL	mg/Kg	
SL-078-SA7-SB-7.0-8.0	TIN	J	3.42	10.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.69	5.35	PQL	mg/Kg	
SL-119-SA7-SS-0.0-0.5	SODIUM	J	82.9	97.4	PQL	mg/Kg	J (all detects)
	TIN	J	3.04	9.74	PQL	mg/Kg	
	Zirconium	J	2.96	4.87	PQL	mg/Kg	
SL-120-SA7-SS-0.0-0.5	BORON	J	4.77	5.13	PQL	mg/Kg	J (all detects)
	SODIUM	J	84.3	103	PQL	mg/Kg	
	TIN	J	3.30	10.3	PQL	mg/Kg	
	Zirconium	J	3.08	5.13	PQL	mg/Kg	
SL-121-SA7-SS-0.0-0.5	SODIUM	J	76.0	100	PQL	mg/Kg	J (all detects)
	TIN	J	2.94	10.0	PQL	mg/Kg	
	Zirconium	J	2.97	5.02	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-123-SA7-SS-0.0-0.5	BORON	J	0.695	4.97	PQL	mg/Kg	J (all detects)
	SODIUM	J	85.5	99.4	PQL	mg/Kg	
	TIN	J	2.93	9.94	PQL	mg/Kg	
	Zirconium	J	3.54	4.97	PQL	mg/Kg	
SL-124-SA7-SS-0.0-0.5	SODIUM	J	91.7	102	PQL	mg/Kg	J (all detects)
	TIN	J	3.23	10.2	PQL	mg/Kg	
	Zirconium	J	2.64	5.10	PQL	mg/Kg	
SL-156-SA7-SB-4.0-5.0	BORON	J	0.877	5.18	PQL	mg/Kg	J (all detects)
	TIN	J	3.23	10.4	PQL	mg/Kg	
	Zirconium	J	2.94	5.18	PQL	mg/Kg	
SL-156-SA7-SB-7.5-8.5	TIN	J	2.96	10.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.94	5.33	PQL	mg/Kg	
SL-158-SA7-SB-4.0-5.0	BORON	J	1.57	5.03	PQL	mg/Kg	J (all detects)
	TIN	J	2.97	10.1	PQL	mg/Kg	
	Zirconium	J	2.74	5.03	PQL	mg/Kg	
SL-175-SA7-SS-0.0-0.5	SODIUM	J	90.4	100	PQL	mg/Kg	J (all detects)
	TIN	J	3.10	10.0	PQL	mg/Kg	
	Zirconium	J	3.44	5.02	PQL	mg/Kg	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA7-QC-092111	SELENIUM	J	0.161	0.406	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0652	0.101	PQL	mg/Kg	
SL-001-SA7-SS-0.0-0.5	SELENIUM	J	0.215	0.400	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0609	0.0999	PQL	mg/Kg	
SL-056-SA7-SB-4.0-5.0	ANTIMONY	J	0.0994	0.217	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0809	0.108	PQL	mg/Kg	
	SELENIUM	J	0.107	0.433	PQL	mg/Kg	
	SILVER	J	0.0187	0.108	PQL	mg/Kg	
SL-057-SA7-SB-3.0-4.0	ANTIMONY	J	0.0955	0.209	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0781	0.105	PQL	mg/Kg	
	SELENIUM	J	0.175	0.419	PQL	mg/Kg	
	SILVER	J	0.0183	0.105	PQL	mg/Kg	
SL-061-SA7-SS-0.0-0.5	SELENIUM	J	0.178	0.408	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0671	0.102	PQL	mg/Kg	
SL-078-SA7-SB-4.0-5.0	ANTIMONY	J	0.108	0.214	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.159	0.429	PQL	mg/Kg	
	SILVER	J	0.0523	0.107	PQL	mg/Kg	
SL-078-SA7-SB-7.0-8.0	SELENIUM	J	0.110	0.432	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0176	0.108	PQL	mg/Kg	
SL-119-SA7-SS-0.0-0.5	SELENIUM	J	0.160	0.393	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0461	0.0984	PQL	mg/Kg	
SL-120-SA7-SS-0.0-0.5	SELENIUM	J	0.194	0.410	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0531	0.103	PQL	mg/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-121-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.125	0.405	PQL	mg/Kg	J (all detects)
		J	0.0571	0.101	PQL	mg/Kg	
SL-123-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.198	0.201	PQL	mg/Kg	J (all detects)
		J	0.140	0.401	PQL	mg/Kg	
		J	0.0489	0.100	PQL	mg/Kg	
SL-124-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.259	0.404	PQL	mg/Kg	J (all detects)
		J	0.0571	0.101	PQL	mg/Kg	
SL-156-SA7-SB-4.0-5.0	CADMIUM SELENIUM SILVER	J	0.0818	0.106	PQL	mg/Kg	J (all detects)
		J	0.150	0.422	PQL	mg/Kg	
		J	0.0219	0.106	PQL	mg/Kg	
SL-156-SA7-SB-7.5-8.5	CADMIUM SELENIUM	J	0.0582	0.106	PQL	mg/Kg	J (all detects)
		J	0.0762	0.422	PQL	mg/Kg	
SL-158-SA7-SB-4.0-5.0	CADMIUM SELENIUM SILVER	J	0.0829	0.101	PQL	mg/Kg	J (all detects)
		J	0.149	0.402	PQL	mg/Kg	
		J	0.0235	0.101	PQL	mg/Kg	
SL-175-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.111	0.401	PQL	mg/Kg	J (all detects)
		J	0.0381	0.100	PQL	mg/Kg	

**Method:** 7199  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA7-QC-092111	HEXAVALENT CHROMIUM	J	0.37	1.0	PQL	mg/Kg	J (all detects)
SL-001-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.48	1.0	PQL	mg/Kg	J (all detects)
SL-056-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.38	1.1	PQL	mg/Kg	J (all detects)
SL-057-SA7-SB-3.0-4.0	HEXAVALENT CHROMIUM	J	0.34	1.1	PQL	mg/Kg	J (all detects)
SL-078-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.60	1.1	PQL	mg/Kg	J (all detects)
SL-078-SA7-SB-7.0-8.0	HEXAVALENT CHROMIUM	J	0.57	1.1	PQL	mg/Kg	J (all detects)
SL-123-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.56	1.0	PQL	mg/Kg	J (all detects)
SL-175-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.46	1.0	PQL	mg/Kg	J (all detects)

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA7-QC-092111	MERCURY	J	0.0233	0.101	PQL	mg/Kg	J (all detects)
SL-057-SA7-SB-3.0-4.0	MERCURY	J	0.0099	0.106	PQL	mg/Kg	J (all detects)
SL-061-SA7-SS-0.0-0.5	MERCURY	J	0.0320	0.102	PQL	mg/Kg	J (all detects)
SL-078-SA7-SB-4.0-5.0	MERCURY	J	0.0169	0.104	PQL	mg/Kg	J (all detects)
SL-078-SA7-SB-7.0-8.0	MERCURY	J	0.0078	0.104	PQL	mg/Kg	J (all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

## Reporting Limit Outliers

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-119-SA7-SS-0.0-0.5	MERCURY	J	0.0215	0.0984	PQL	mg/Kg	J (all detects)
SL-120-SA7-SS-0.0-0.5	MERCURY	J	0.0266	0.0967	PQL	mg/Kg	J (all detects)
SL-121-SA7-SS-0.0-0.5	MERCURY	J	0.0193	0.0976	PQL	mg/Kg	J (all detects)
SL-123-SA7-SS-0.0-0.5	MERCURY	J	0.0280	0.0955	PQL	mg/Kg	J (all detects)
SL-124-SA7-SS-0.0-0.5	MERCURY	J	0.0286	0.0999	PQL	mg/Kg	J (all detects)
SL-156-SA7-SB-4.0-5.0	MERCURY	J	0.0078	0.106	PQL	mg/Kg	J (all detects)
SL-158-SA7-SB-4.0-5.0	MERCURY	J	0.0094	0.0989	PQL	mg/Kg	J (all detects)
SL-175-SA7-SS-0.0-0.5	MERCURY	J	0.0159	0.0942	PQL	mg/Kg	J (all detects)

**Method:** 8015B  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-175-SA7-SS-0.0-0.5	Isopropanol	J	220	510	PQL	ug/Kg	J (all detects)

**Method:** 8015M  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-123-SA7-SS-0.0-0.5	EFH (C15-C20)	J	2.1	2.5	PQL	mg/Kg	J (all detects)
SL-175-SA7-SS-0.0-0.5	EFH (C15-C20)	J	0.96	2.4	PQL	mg/Kg	J (all detects)

**Method:** 8081A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA7-QC-092111	4,4'-DDE	J	1.3	1.7	PQL	ug/Kg	J (all detects)
	HEPTACHLOR EPOXIDE	J	0.30	0.85	PQL	ug/Kg	
SL-001-SA7-SS-0.0-0.5	Chlordane	J	2.4	3.5	PQL	ug/Kg	J (all detects)
SL-061-SA7-SS-0.0-0.5	ALPHA-BHC	J	0.040	0.17	PQL	ug/Kg	J (all detects)
	BETA-BHC	J	0.078	0.17	PQL	ug/Kg	
SL-120-SA7-SS-0.0-0.5	Chlordane	J	11	17	PQL	ug/Kg	J (all detects)
SL-121-SA7-SS-0.0-0.5	Chlordane	J	6.7	17	PQL	ug/Kg	J (all detects)
SL-123-SA7-SS-0.0-0.5	ALPHA-BHC	J	0.047	0.17	PQL	ug/Kg	J (all detects)
	Chlordane	J	1.4	3.5	PQL	ug/Kg	
	gamma-BHC (Lindane)	J	0.088	0.17	PQL	ug/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8081A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-175-SA7-SS-0.0-0.5	Chlordane gamma-BHC (Lindane)	J	3.1	3.4	PQL	ug/Kg	J (all detects)
		J	0.052	0.17	PQL	ug/Kg	

**Method:** 8082  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA7-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J	1.6	1.7	PQL	ug/Kg	J (all detects)
		J	2.0	3.4	PQL	ug/Kg	
SL-119-SA7-SS-0.0-0.5	Aroclor 5460	J	1.9	3.3	PQL	ug/Kg	J (all detects)
SL-120-SA7-SS-0.0-0.5	AROCLOR 1260	J	1.3	1.7	PQL	ug/Kg	J (all detects)
SL-120-SA7-SS-0.0-0.5RLLCS	AROCLOR 1260	J	1.6	1.7	PQL	ug/Kg	J (all detects)
SL-123-SA7-SS-0.0-0.5	AROCLOR 1260	J	1.4	1.7	PQL	ug/Kg	J (all detects)
SL-158-SA7-SB-4.0-5.0	AROCLOR 1260	J	0.52	1.8	PQL	ug/Kg	J (all detects)

**Method:** 8151A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA7-QC-092111	2,4,5-T	J	0.14	0.17	PQL	ug/Kg	J (all detects)
SL-061-SA7-SS-0.0-0.5	DICAMBA	J	0.74	1.2	PQL	ug/Kg	J (all detects)
SL-119-SA7-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.11	0.17	PQL	ug/Kg	J (all detects)
SL-120-SA7-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.087	0.17	PQL	ug/Kg	J (all detects)
SL-121-SA7-SS-0.0-0.5	2,4,5-T	J	0.13	0.17	PQL	ug/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA7-QC-092111	BENZOIC ACID PHENANTHRENE	J	7300	13000	PQL	ug/Kg	J (all detects)
		J	470	4300	PQL	ug/Kg	
SL-001-SA7-SS-0.0-0.5	PHENOL	J	19	170	PQL	ug/Kg	J (all detects)
SL-119-SA7-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	190	840	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	85	1700	PQL	ug/Kg	
	CHRYSENE	J	100	840	PQL	ug/Kg	
	FLUORANTHENE	J	140	840	PQL	ug/Kg	
SL-121-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	1400	8300	PQL	ug/Kg	J (all detects)

## Reporting Limit Outliers

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method:</b> 8270C
<b>Matrix:</b> SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-124-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	32	340	PQL	ug/Kg	J (all detects)
	Di-n-butylphthalate	J	24	170	PQL	ug/Kg	
	FLUORANTHENE	J	18	170	PQL	ug/Kg	
	PHENOL	J	19	170	PQL	ug/Kg	
SL-158-SA7-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	28	350	PQL	ug/Kg	J (all detects)
SL-175-SA7-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	72	170	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	24	170	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	23	170	PQL	ug/Kg	

<b>Method:</b> 8270C SIM
<b>Matrix:</b> SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP04-SA7-QC-092111	BENZO(A)ANTHRACENE	J	20	34	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	29	34	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	19	34	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	160	360	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	17	34	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	17	34	PQL	ug/Kg	
SL-001-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.95	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.4	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.99	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	12	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.7	PQL	ug/Kg	
SL-057-SA7-SB-3.0-4.0	BENZO(B)FLUORANTHENE	J	0.91	1.8	PQL	ug/Kg	J (all detects)
SL-061-SA7-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	13	17	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	100	180	PQL	ug/Kg	
	CHRYSENE	J	6.0	17	PQL	ug/Kg	
	FLUORANTHENE	J	7.5	17	PQL	ug/Kg	
SL-078-SA7-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	14	20	PQL	ug/Kg	J (all detects)
SL-119-SA7-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	24	33	PQL	ug/Kg	J (all detects)
	PYRENE	J	15	33	PQL	ug/Kg	
SL-120-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	23	34	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	24	34	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	25	34	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	340	370	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	14	34	PQL	ug/Kg	
SL-121-SA7-SS-0.0-0.5	BENZO(A)PYRENE	J	20	33	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	26	33	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	17	33	PQL	ug/Kg	
	FLUORANTHENE	J	20	33	PQL	ug/Kg	
	PYRENE	J	14	33	PQL	ug/Kg	
SL-123-SA7-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	11	17	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	9.6	17	PQL	ug/Kg	
	PHENANTHRENE	J	16	17	PQL	ug/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE250

Laboratory: LL

EDD Filename: DE250\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-124-SA7-SS-0.0-0.5	ANTHRACENE	J	0.64	1.7	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	9.9	19	PQL	ug/Kg	
	NAPHTHALENE	J	1.2	1.7	PQL	ug/Kg	
SL-156-SA7-SB-4.0-5.0	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.7	19	PQL	ug/Kg	J (all detects)
SL-175-SA7-SS-0.0-0.5	ANTHRACENE	J	9.5	17	PQL	ug/Kg	J (all detects)

**Method:** 9012B  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-061-SA7-SS-0.0-0.5	CYANIDE	J	0.32	0.51	PQL	mg/Kg	J (all detects)
SL-120-SA7-SS-0.0-0.5	CYANIDE	J	0.23	0.49	PQL	mg/Kg	J (all detects)

LDC #: 26859T4

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12/30/17

SDG #: DE250

ADR

Page: 1 of 1

Laboratory: Lancaster Laboratories

Reviewer: *W*

2nd Reviewer: *A*

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

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

	Validation Area		Comments
I.	Technical holding times	N	Sampling dates:
II.	ICP/MS Tune	<i>N</i>	
III.	Calibration	<i>N</i>	
IV.	Blanks	A	<i>No find by 20B / 40B</i>
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	<i>N SW</i>	<i>Al, Ba, Fe, Pb, Mg, Mn, P, Ti, Zn 74X</i>
VII.	Duplicate Sample Analysis	<i>SW</i>	<i>Pb J/u J</i>
VIII.	Laboratory Control Samples (LCS)	N	
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	<i>SW</i>	<i>Cr, Co, Ni, V J/u J</i>
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	<i>-</i>	
XV.	Field Blanks	<i>SW</i>	<i>2B=17, Pb ~0.1 ug/L. (No samples were qualified)</i>

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

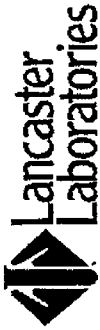
D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

*qualified*

Validated Samples:

1	SL-001-SA7-SS-0.0-0.5	11	SL-057-SA7-SB-3.0-4.0	21		31	
2	SL-061-SA7-SS-0.0-0.5	12	SL-078-SA7-SB-4.0-5.0	22		32	
3	SL-119-SA7-SS-0.0-0.5	13	SL-078-SA7-SB-7.0-8.0	23		33	
4	SL-120-SA7-SS-0.0-0.5	14	SL-156-SA7-SB-4.0-5.0	24		34	
5	SL-121-SA7-SS-0.0-0.5	15	SL-156-SA7-SB-7.5-8.5	25		35	
6	SL-123-SA7-SS-0.0-0.5	16	SL-158-SA7-SB-4.0-5.0	26		36	
7	SL-124-SA7-SS-0.0-0.5	17	EB-SA7-SS-092111	27		37	
8	SL-175-SA7-SS-0.0-0.5	18	SL-120-SA7-SS-0.0-0.5MS	28		38	
9	DUP04-SA7-QC-092111	19	SL-120-SA7-SS-0.0-0.5MSD	29		39	
10	SL-056-SA7-SB-4.0-5.0	20	SL-120-SA7-SS-0.0-0.5DUP	30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



QUALITY ASSURANCE SUMMARY  
 FORM 5A(MS/MSD)  
 MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
 SDG No.: DE250  
 Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6415779BKG Matrix Spike Lab Sample ID: 6415780MS Matrix Spike Duplicate Lab Sample ID: 6415781MSD  
 & Solids for Sample: 97.5  
 Batch Id(s): P26608B, P26626A, P27808A, P26611E

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				Q	%R	Q	%R	Q	%R
Aluminum	121	15305.8379		18402.0995		18720.1615		205.1282	203.0972	MG/KG	1509	1681	2	74X	20P	
Antimony	75	0.2605		0.7940		0.9156		1.2066	1.2186	MG/KG	44 N	54 N	14	75 - 125	20MS	
Arsenic	137	4.0492		6.7471		8.1137		2.0111	2.0310	MG/KG	134 N	200 N	18	75 - 125	20MS	
Barium	137	100.6974		115.3746		133.2115		10.0553	10.1549	MG/KG	146	320	14	74X	20MS	
Beryllium	9	0.5497		1.3760		1.6784		0.8044	0.8124	MG/KG	103	139 N	20	75 - 125	20MS	
Boron	111	4.7744	B	209.1897		209.4694		205.1282	203.0972	MG/KG	100	101	0	84 - 115	20P	
Calcium	111	0.4665		1.6191		1.9386		1.0055	1.0155	MG/KG	115	145 N	18	75 - 125	20MS	
Chromium	52	4557.2010		4885.5446		5035.6507		410.2564	406.1945	MG/KG	80	118	3	75 - 125	20P	
Chromium	52	20.3877		39.0146		39.2384		10.0553	10.1549	MG/KG	185 N	186 N	1	75 - 125	20MS	
Cobalt	59	6.0164		65.1785		77.4613		50.2765	50.7743	MG/KG	118	141 N	17	75 - 125	20MS	
Copper	63	13.1528		24.7763		29.7131		10.0553	10.1549	MG/KG	116	163 N	18	75 - 125	20MS	
Iron	208	19303.6051		18375.1571		19741.4917		101.5486	101.5486	MG/KG	-914	431	7	74X	20P	
Lead	208	24.9436		29.7436		34.8515		3.0166	3.0465	MG/KG	159	325	16	75 - 125	20MS	
Lithium	78	19.3887		121.9579		122.5113		102.5641	101.5486	MG/KG	100	102	0	82 - 114	20P	
Magnesium	107	4018.9456		4337.2738		4451.6141		205.1282	203.0972	MG/KG	155	213	3	74X	20P	
Manganese	98	289.3251		316.3528		336.8093		51.2821	50.7743	MG/KG	53	94	6	75 - 125	20P	
Mercury	98	0.0266	B	0.2016		0.2054		0.1694	0.1698	MG/KG	103	105	2	65 - 135	20CV	
Molybdenum	60	0.8096		12.5792		15.1754		10.0553	10.1549	MG/KG	117	141 N	19	75 - 125	20MS	
Nickel	60	16.4021		29.2810		34.9327		10.0553	10.1549	MG/KG	128 N	182 N	18	75 - 125	20MS	
Phosphorus	78	445.1487		520.2882		536.1544		102.5641	101.5486	MG/KG	73	90	3	74X	20P	
Potassium	78	3915.5867		5268.6492		5319.7847		1025.6410	1015.4862	MG/KG	132 N	138 N	1	75 - 125	20P	
Selenium	107	0.1942	B	2.4957		2.9165		2.0111	2.0310	MG/KG	114	134 N	16	75 - 125	20MS	
Silver	107	0.0531	B	11.8813		14.2107		10.0553	10.1549	MG/KG	118	139 N	18	75 - 125	20MS	
Sodium	203	84.3241	B	1118.5015		1116.5220		1025.6410	1015.4862	MG/KG	101	102	0	75 - 125	20P	
Strontium	88	23.2072		123.6595		125.0805		102.5641	101.5486	MG/KG	98	100	1	75 - 115	20P	
Thallium	203	0.2823		0.7109		0.8762		0.4022	0.4062	MG/KG	107	146 N	21*	75 - 125	20MS	
Tin	119	3.2954	B	381.5374		379.5725		410.2564	406.1945	MG/KG	92	93	1	80 - 110	20P	
Titanium	78	1090.6246		1382.7426		1342.2645		102.5641	101.5486	MG/KG	285	248	3	74X	20P	
Vanadium	51	36.8615		46.0332		54.9581		10.0553	10.1549	MG/KG	91	178 N	18	75 - 125	20MS	
Zinc	66	172.1538		195.0729		178.4209		10.0553	10.1549	MG/KG	228	62	9	74X	20MS	
Zirconium	90	3.0790	B	99.7056		95.4049		102.5641	101.5486	MG/KG	94	91	4	75 - 125	20P	

METHODS: P = ICP Atomic Emission Spectrometer CV = Cold Vapor AF = Cold Vapor Atomic Fluorescence  
 MS = ICP Mass Spectrometry  
 CONCENTRATION QUALIFIERS:  
 U = Below MDL, B = Below LOQ  
 FLAGS:  
 N = Matrix Spike OOS, \* = Duplicate OOS

# **SAMPLE DELIVERY GROUP**

**DE251**

# **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-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	3550B	8270C SIM	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	METHOD	300.0	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	METHOD	314.0	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	METHOD	6850	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	METHOD	7471A	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	METHOD	8015B	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	METHOD	8015M	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5	6417436	N	METHOD	9012B	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5DUP	P417436D270647B	DUP	METHOD	300.0	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5DUP	P417436D272102B	DUP	METHOD	314.0	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5MS	P417436R270702B	MS	METHOD	300.0	III
21-Sep-2011	SL-142-SA7-SS-0.0-0.5MS	P417436R272148B	MS	METHOD	314.0	III
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	3050B	6010B	III
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	3050B	6020	III
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	3060A	7199	III
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	3550B	8015B	III
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	3550B	8015M	III
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	3550B	8081A	III
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	3550B	8082	III
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	3550B	8151A	III
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	3550B	8270C	III
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	3550B	8270C SIM	III
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	METHOD	300.0	III
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	METHOD	314.0	III
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	METHOD	6850	III
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	METHOD	7471A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	METHOD	8015B	III
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	METHOD	8015M	III
21-Sep-2011	SL-023-SA7-SS-0.0-0.5	6417434	N	METHOD	9012B	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	3050B	6010B	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	3050B	6020	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	3060A	7199	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	3550B	8015B	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	3550B	8015M	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	3550B	8081A	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	3550B	8082	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	3550B	8151A	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	3550B	8270C	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	3550B	8270C SIM	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	METHOD	300.0	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	METHOD	314.0	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	METHOD	6850	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	METHOD	7471A	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	METHOD	8015B	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	METHOD	8015M	III
21-Sep-2011	SL-141-SA7-SS-0.0-0.5	6417435	N	METHOD	9012B	III
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	3050B	6010B	III
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	3050B	6020	III
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	3060A	7199	III
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	3550B	8015B	III
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	3550B	8015M	III
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	3550B	8081A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	3550B	8082	III
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	3550B	8151A	III
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	3550B	8270C	III
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	3550B	8270C SIM	III
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	METHOD	300.0	III
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	METHOD	314.0	III
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	METHOD	6850	III
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	METHOD	7471A	III
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	METHOD	8015B	III
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	METHOD	8015M	III
22-Sep-2011	SL-151-SA7-SS-0.0-0.5	6417433	N	METHOD	9012B	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	3050B	6010B	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	3050B	6020	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	3060A	7199	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	3546	1625C	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	3550B	8015B	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	3550B	8015M	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	3550B	8081A	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	3550B	8082	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	3550B	8151A	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	3550B	8270C	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	3550B	8270C SIM	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	8330	8330A	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	METHOD	300.0	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	METHOD	314.0	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	METHOD	6850	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	METHOD	7471A	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	METHOD	8015B	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	METHOD	8015M	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	METHOD	8315A	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5	6417430	N	METHOD	9012B	III
22-Sep-2011	TB-092211	6417445	TB	5030B	8015M	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5DUP	P417430D221923	DUP	METHOD	7471A	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5MSD	P417430M221926	MSD	METHOD	7471A	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5MSD	P417430M322131A	MSD	METHOD	8015M	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5MS	P417430R221925	MS	METHOD	7471A	III
22-Sep-2011	SL-055-SA7-SS-0.0-0.5MS	P417430R322118A	MS	METHOD	8015M	III
22-Sep-2011	SL-075-SA7-SB-4.0-5.0	6417442	N	3050B	6010B	III
22-Sep-2011	SL-075-SA7-SB-4.0-5.0	6417442	N	3050B	6020	III
22-Sep-2011	SL-075-SA7-SB-4.0-5.0	6417442	N	3060A	7199	III
22-Sep-2011	SL-075-SA7-SB-4.0-5.0	6417442	N	3550B	8015B	III
22-Sep-2011	SL-075-SA7-SB-4.0-5.0	6417442	N	3550B	8015M	III
22-Sep-2011	SL-075-SA7-SB-4.0-5.0	6417442	N	3550B	8082	III
22-Sep-2011	SL-075-SA7-SB-4.0-5.0	6417442	N	3550B	8270C	III
22-Sep-2011	SL-075-SA7-SB-4.0-5.0	6417442	N	3550B	8270C SIM	III
22-Sep-2011	SL-075-SA7-SB-4.0-5.0	6417442	N	5035	8015M	III
22-Sep-2011	SL-075-SA7-SB-4.0-5.0	6417442	N	METHOD	300.0	III
22-Sep-2011	SL-075-SA7-SB-4.0-5.0	6417442	N	METHOD	314.0	III
22-Sep-2011	SL-075-SA7-SB-4.0-5.0	6417442	N	METHOD	7471A	III
22-Sep-2011	SL-075-SA7-SB-4.0-5.0	6417442	N	METHOD	8015B	III
22-Sep-2011	SL-075-SA7-SB-4.0-5.0	6417442	N	METHOD	8015M	III
22-Sep-2011	SL-075-SA7-SB-9.0-10.0	6417443	N	3050B	6010B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Sep-2011	SL-075-SA7-SB-9.0-10.0	6417443	N	3050B	6020	III
22-Sep-2011	SL-075-SA7-SB-9.0-10.0	6417443	N	3060A	7199	III
22-Sep-2011	SL-075-SA7-SB-9.0-10.0	6417443	N	3550B	8015B	III
22-Sep-2011	SL-075-SA7-SB-9.0-10.0	6417443	N	3550B	8015M	III
22-Sep-2011	SL-075-SA7-SB-9.0-10.0	6417443	N	3550B	8082	III
22-Sep-2011	SL-075-SA7-SB-9.0-10.0	6417443	N	3550B	8270C	III
22-Sep-2011	SL-075-SA7-SB-9.0-10.0	6417443	N	3550B	8270C SIM	III
22-Sep-2011	SL-075-SA7-SB-9.0-10.0	6417443	N	5035	8015M	III
22-Sep-2011	SL-075-SA7-SB-9.0-10.0	6417443	N	METHOD	300.0	III
22-Sep-2011	SL-075-SA7-SB-9.0-10.0	6417443	N	METHOD	314.0	III
22-Sep-2011	SL-075-SA7-SB-9.0-10.0	6417443	N	METHOD	7471A	III
22-Sep-2011	SL-075-SA7-SB-9.0-10.0	6417443	N	METHOD	8015B	III
22-Sep-2011	SL-075-SA7-SB-9.0-10.0	6417443	N	METHOD	8015M	III
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	3050B	6010B	III
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	3050B	6020	III
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	3060A	7199	III
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	3550B	8015B	III
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	3550B	8015M	III
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	3550B	8081A	III
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	3550B	8082	III
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	3550B	8151A	III
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	3550B	8270C	III
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	3550B	8270C SIM	III
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	METHOD	300.0	III
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	METHOD	314.0	III
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	METHOD	6850	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	METHOD	7471A	III
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	METHOD	8015B	III
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	METHOD	8015M	III
22-Sep-2011	SL-088-SA7-SS-0.0-0.5	6417431	N	METHOD	9012B	III
22-Sep-2011	SL-101-SA7-SS-0.0-0.5	6417432	N	3050B	6010B	III
22-Sep-2011	SL-101-SA7-SS-0.0-0.5	6417432	N	3050B	6020	III
22-Sep-2011	SL-101-SA7-SS-0.0-0.5	6417432	N	3060A	7199	III
22-Sep-2011	SL-101-SA7-SS-0.0-0.5	6417432	N	3550B	8081A	III
22-Sep-2011	SL-101-SA7-SS-0.0-0.5	6417432	N	3550B	8082	III
22-Sep-2011	SL-101-SA7-SS-0.0-0.5	6417432	N	3550B	8151A	III
22-Sep-2011	SL-101-SA7-SS-0.0-0.5	6417432	N	3550B	8270C	III
22-Sep-2011	SL-101-SA7-SS-0.0-0.5	6417432	N	3550B	8270C SIM	III
22-Sep-2011	SL-101-SA7-SS-0.0-0.5	6417432	N	METHOD	300.0	III
22-Sep-2011	SL-101-SA7-SS-0.0-0.5	6417432	N	METHOD	314.0	III
22-Sep-2011	SL-101-SA7-SS-0.0-0.5	6417432	N	METHOD	7471A	III
22-Sep-2011	SL-077-SA7-SB-4.0-5.0	6417444	N	3050B	6010B	III
22-Sep-2011	SL-077-SA7-SB-4.0-5.0	6417444	N	3050B	6020	III
22-Sep-2011	SL-077-SA7-SB-4.0-5.0	6417444	N	3060A	7199	III
22-Sep-2011	SL-077-SA7-SB-4.0-5.0	6417444	N	3550B	8015B	III
22-Sep-2011	SL-077-SA7-SB-4.0-5.0	6417444	N	3550B	8015M	III
22-Sep-2011	SL-077-SA7-SB-4.0-5.0	6417444	N	3550B	8082	III
22-Sep-2011	SL-077-SA7-SB-4.0-5.0	6417444	N	3550B	8270C	III
22-Sep-2011	SL-077-SA7-SB-4.0-5.0	6417444	N	3550B	8270C SIM	III
22-Sep-2011	SL-077-SA7-SB-4.0-5.0	6417444	N	5035	8015M	III
22-Sep-2011	SL-077-SA7-SB-4.0-5.0	6417444	N	METHOD	300.0	III
22-Sep-2011	SL-077-SA7-SB-4.0-5.0	6417444	N	METHOD	314.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Sep-2011	SL-077-SA7-SB-4.0-5.0	6417444	N	METHOD	7471A	III
22-Sep-2011	SL-077-SA7-SB-4.0-5.0	6417444	N	METHOD	8015B	III
22-Sep-2011	SL-077-SA7-SB-4.0-5.0	6417444	N	METHOD	8015M	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	3050B	6010B	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	3050B	6020	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	3060A	7199	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	3550B	8015B	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	3550B	8015M	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	3550B	8081A	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	3550B	8082	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	3550B	8151A	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	3550B	8270C	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	3550B	8270C SIM	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	METHOD	300.0	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	METHOD	314.0	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	METHOD	6850	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	METHOD	7471A	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	METHOD	8015B	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	METHOD	8015M	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5	6417429	N	METHOD	9012B	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5MSD	P417429M322303A	MSD	3550B	8015B	III
22-Sep-2011	SL-020-SA7-SS-0.0-0.5MS	P417429R322236A	MS	3550B	8015B	III
22-Sep-2011	SL-072-SA7-SB-4.0-5.0	6417439	N	3050B	6010B	III
22-Sep-2011	SL-072-SA7-SB-4.0-5.0	6417439	N	3050B	6020	III
22-Sep-2011	SL-072-SA7-SB-4.0-5.0	6417439	N	3060A	7199	III
22-Sep-2011	SL-072-SA7-SB-4.0-5.0	6417439	N	3550B	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Sep-2011	SL-072-SA7-SB-4.0-5.0	6417439	N	3550B	8015M	III
22-Sep-2011	SL-072-SA7-SB-4.0-5.0	6417439	N	3550B	8082	III
22-Sep-2011	SL-072-SA7-SB-4.0-5.0	6417439	N	3550B	8270C	III
22-Sep-2011	SL-072-SA7-SB-4.0-5.0	6417439	N	3550B	8270C SIM	III
22-Sep-2011	SL-072-SA7-SB-4.0-5.0	6417439	N	5035	8015M	III
22-Sep-2011	SL-072-SA7-SB-4.0-5.0	6417439	N	METHOD	300.0	III
22-Sep-2011	SL-072-SA7-SB-4.0-5.0	6417439	N	METHOD	314.0	III
22-Sep-2011	SL-072-SA7-SB-4.0-5.0	6417439	N	METHOD	7471A	III
22-Sep-2011	SL-072-SA7-SB-4.0-5.0	6417439	N	METHOD	8015B	III
22-Sep-2011	SL-072-SA7-SB-4.0-5.0	6417439	N	METHOD	8015M	III
22-Sep-2011	SL-072-SA7-SB-7.5-8.5	6417440	N	3050B	6010B	III
22-Sep-2011	SL-072-SA7-SB-7.5-8.5	6417440	N	3050B	6020	III
22-Sep-2011	SL-072-SA7-SB-7.5-8.5	6417440	N	3060A	7199	III
22-Sep-2011	SL-072-SA7-SB-7.5-8.5	6417440	N	3550B	8015B	III
22-Sep-2011	SL-072-SA7-SB-7.5-8.5	6417440	N	3550B	8015M	III
22-Sep-2011	SL-072-SA7-SB-7.5-8.5	6417440	N	3550B	8082	III
22-Sep-2011	SL-072-SA7-SB-7.5-8.5	6417440	N	3550B	8270C	III
22-Sep-2011	SL-072-SA7-SB-7.5-8.5	6417440	N	3550B	8270C SIM	III
22-Sep-2011	SL-072-SA7-SB-7.5-8.5	6417440	N	5035	8015M	III
22-Sep-2011	SL-072-SA7-SB-7.5-8.5	6417440	N	METHOD	300.0	III
22-Sep-2011	SL-072-SA7-SB-7.5-8.5	6417440	N	METHOD	314.0	III
22-Sep-2011	SL-072-SA7-SB-7.5-8.5	6417440	N	METHOD	7471A	III
22-Sep-2011	SL-072-SA7-SB-7.5-8.5	6417440	N	METHOD	8015B	III
22-Sep-2011	SL-072-SA7-SB-7.5-8.5	6417440	N	METHOD	8015M	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5	6417426	N	3050B	6010B	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5	6417426	N	3050B	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Sep-2011	SL-011-SA7-SS-0.0-0.5	6417426	N	3060A	7199	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5	6417426	N	3550B	8081A	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5	6417426	N	3550B	8082	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5	6417426	N	3550B	8151A	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5	6417426	N	3550B	8270C	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5	6417426	N	3550B	8270C SIM	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5	6417426	N	METHOD	300.0	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5	6417426	N	METHOD	314.0	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5	6417426	N	METHOD	7471A	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5DUP	P417426D220456A	DUP	3050B	6020	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5DUP	P417426D220723	DUP	3050B	6010B	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5DUP	P417426D220757	DUP	3050B	6010B	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5DUP	P417426D222039B	DUP	3050B	6020	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5DUP	P417426D222039C	DUP	3050B	6020	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5DUP	P417426D222039D	DUP	3050B	6020	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5DUP	P417426D270314A	DUP	METHOD	300.0	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5DUP	P417426D271603A	DUP	METHOD	314.0	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MSD	P417426M220459A	MSD	3050B	6020	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MSD	P417426M220732	MSD	3050B	6010B	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MSD	P417426M220805	MSD	3050B	6010B	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MSD	P417426M222045B	MSD	3050B	6020	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MSD	P417426M222045C	MSD	3050B	6020	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MSD	P417426M222045D	MSD	3050B	6020	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MSD	P417426M240823A	MSD	3550B	8082	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MSD	P417426M242221A	MSD	3550B	8081A	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MSD	P417426M260743	MSD	3550B	8270C	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MS	P417426R220457A	MS	3050B	6020	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MS	P417426R220727	MS	3050B	6010B	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MS	P417426R220801	MS	3050B	6010B	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MS	P417426R222042B	MS	3050B	6020	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MS	P417426R222042C	MS	3050B	6020	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MS	P417426R222042D	MS	3050B	6020	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MS	P417426R240805A	MS	3550B	8082	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MS	P417426R242206A	MS	3550B	8081A	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MS	P417426R260717	MS	3550B	8270C	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MS	P417426R270329A	MS	METHOD	300.0	III
22-Sep-2011	SL-011-SA7-SS-0.0-0.5MS	P417426R271626A	MS	METHOD	314.0	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	3050B	6010B	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	3050B	6020	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	3060A	7199	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	3550B	8015B	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	3550B	8015M	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	3550B	8081A	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	3550B	8082	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	3550B	8151A	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	3550B	8270C	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	3550B	8270C SIM	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	METHOD	300.0	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	METHOD	314.0	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	METHOD	6850	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	METHOD	7471A	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	METHOD	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	METHOD	8015M	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5	6417427	N	METHOD	9012B	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5DUP	P417427D271417A	DUP	3060A	7199	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5DUP	P417427D271949A	DUP	METHOD	9012B	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5MSD	P417427M241707A	MSD	METHOD	6850	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5MSD	P417427M261014	MSD	3550B	8270C SIM	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5MSD	P417427M321329A	MSD	METHOD	8015B	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5MSD	P417427M321635A	MSD	3550B	8015M	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5MS	P417427R241655A	MS	METHOD	6850	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5MS	P417427R260941	MS	3550B	8270C SIM	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5MS	P417427R271343A	MS	3060A	7199	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5MS	P417427R271951A	MS	METHOD	9012B	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5MS	P417427R321312A	MS	METHOD	8015B	III
22-Sep-2011	SL-012-SA7-SS-0.0-0.5MS	P417427R321611A	MS	3550B	8015M	III
22-Sep-2011	SL-039-SA7-SB-4.0-5.0	6417438	N	3050B	6010B	III
22-Sep-2011	SL-039-SA7-SB-4.0-5.0	6417438	N	3050B	6020	III
22-Sep-2011	SL-039-SA7-SB-4.0-5.0	6417438	N	3060A	7199	III
22-Sep-2011	SL-039-SA7-SB-4.0-5.0	6417438	N	3550B	8015B	III
22-Sep-2011	SL-039-SA7-SB-4.0-5.0	6417438	N	3550B	8015M	III
22-Sep-2011	SL-039-SA7-SB-4.0-5.0	6417438	N	3550B	8082	III
22-Sep-2011	SL-039-SA7-SB-4.0-5.0	6417438	N	3550B	8270C	III
22-Sep-2011	SL-039-SA7-SB-4.0-5.0	6417438	N	3550B	8270C SIM	III
22-Sep-2011	SL-039-SA7-SB-4.0-5.0	6417438	N	5035	8015M	III
22-Sep-2011	SL-039-SA7-SB-4.0-5.0	6417438	N	METHOD	300.0	III
22-Sep-2011	SL-039-SA7-SB-4.0-5.0	6417438	N	METHOD	314.0	III
22-Sep-2011	SL-039-SA7-SB-4.0-5.0	6417438	N	METHOD	7471A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Sep-2011	SL-039-SA7-SB-4.0-5.0	6417438	N	METHOD	8015B	III
22-Sep-2011	SL-039-SA7-SB-4.0-5.0	6417438	N	METHOD	8015M	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	3050B	6010B	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	3050B	6020	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	3060A	7199	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	3550B	8015B	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	3550B	8015M	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	3550B	8081A	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	3550B	8082	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	3550B	8151A	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	3550B	8270C	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	3550B	8270C SIM	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	METHOD	300.0	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	METHOD	314.0	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	METHOD	6850	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	METHOD	7471A	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	METHOD	8015B	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	METHOD	8015M	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5	6417428	N	METHOD	9012B	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5MSD	P417428M241338A	MSD	3550B	8151A	III
22-Sep-2011	SL-013-SA7-SS-0.0-0.5MS	P417428R241310A	MS	3550B	8151A	III
22-Sep-2011	SL-074-SA7-SB-4.0-5.0	6417441	N	3050B	6010B	III
22-Sep-2011	SL-074-SA7-SB-4.0-5.0	6417441	N	3050B	6020	III
22-Sep-2011	SL-074-SA7-SB-4.0-5.0	6417441	N	3060A	7199	III
22-Sep-2011	SL-074-SA7-SB-4.0-5.0	6417441	N	3550B	8015B	III
22-Sep-2011	SL-074-SA7-SB-4.0-5.0	6417441	N	3550B	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

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Sep-2011	SL-074-SA7-SB-4.0-5.0	6417441	N	3550B	8082	III
22-Sep-2011	SL-074-SA7-SB-4.0-5.0	6417441	N	3550B	8270C	III
22-Sep-2011	SL-074-SA7-SB-4.0-5.0	6417441	N	3550B	8270C SIM	III
22-Sep-2011	SL-074-SA7-SB-4.0-5.0	6417441	N	5035	8015M	III
22-Sep-2011	SL-074-SA7-SB-4.0-5.0	6417441	N	METHOD	300.0	III
22-Sep-2011	SL-074-SA7-SB-4.0-5.0	6417441	N	METHOD	314.0	III
22-Sep-2011	SL-074-SA7-SB-4.0-5.0	6417441	N	METHOD	7471A	III
22-Sep-2011	SL-074-SA7-SB-4.0-5.0	6417441	N	METHOD	8015B	III
22-Sep-2011	SL-074-SA7-SB-4.0-5.0	6417441	N	METHOD	8015M	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	3005A	6010B	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	3020A	6020	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	3510C	8015B	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	3510C	8015M	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	3510C	8082	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	3510C	8270C	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	3510C	8270C SIM	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	3520C	1625C	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	5030B	8015M	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	5030B	8260B	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	5030B	8260B SIM	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	8330	8330A	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	Gen Prep	300.0	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	Gen Prep	314.0	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	Gen Prep	7199	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	Gen Prep	8015B	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	Gen Prep	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	METHOD	7470A	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	METHOD	8315A	III
22-Sep-2011	EB-SA7-SB-092211	6417446	EB	METHOD	9012B	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	GENCHEM	
<b>Method:</b>	300.0	<b>Matrix:</b> SO

Sample ID: SL-011-SA7-SS-0.0-0.5      Collected: 9/22/2011 10:35:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.80	U	0.80	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-012-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-013-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	0.83	U	0.83	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-020-SA7-SS-0.0-0.5      Collected: 9/22/2011 10:00:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.7		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-023-SA7-SS-0.0-0.5      Collected: 9/21/2011 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	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-055-SA7-SS-0.0-0.5      Collected: 9/22/2011 8:00:00      Analysis Type: REA      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-NO3	20.3		0.84	MDL	1.6	PQL	mg/Kg	J	Q

Sample ID: SL-055-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
FLUORIDE	0.84	U	0.84	MDL	1.1	PQL	mg/Kg	UJ	Q

Sample ID: SL-088-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
FLUORIDE	0.097	U	0.097	MDL	0.12	PQL	mg/Kg	UJ	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

1/15/2012 12:43:44 PM

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# Data Qualifier Summary

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	GENCHEN	
<b>Method:</b>	300.0	<b>Matrix:</b> SO

Sample ID: SL-101-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	0.83	U	0.83	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-141-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:45:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.80	U	0.80	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-151-SA7-SS-0.0-0.5      Collected: 9/22/2011 7:40:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q

<b>Method Category:</b>	METALS	
<b>Method:</b>	6010B	<b>Matrix:</b> AQ

Sample ID: EB-SA7-SB-092211      Collected: 9/22/2011 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
BORON	0.0033	J	0.0022	MDL	0.0500	PQL	mg/L	J	Z

<b>Method Category:</b>	METALS	
<b>Method:</b>	6010B	<b>Matrix:</b> SO

Sample ID: SL-011-SA7-SS-0.0-0.5      Collected: 9/22/2011 10:35:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	3.42	J	0.360	MDL	5.00	PQL	mg/Kg	J	Z
SODIUM	49.8	J	5.95	MDL	100	PQL	mg/Kg	J	Z
TIN	2.37	J	0.320	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	0.932	J	0.460	MDL	5.00	PQL	mg/Kg	U	B

Sample ID: SL-012-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
SODIUM	56.4	J	5.87	MDL	98.7	PQL	mg/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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Method:</b>	6010B
		<b>Matrix:</b>	SO

Sample ID: SL-012-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
TIN	2.46	J	0.316	MDL	9.87	PQL	mg/Kg	U	B
Zirconium	0.815	J	0.454	MDL	4.93	PQL	mg/Kg	U	B

Sample ID: SL-013-SA7-SS-0.0-0.5      Collected: 9/22/2011 11:35:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	59.8	J	5.82	MDL	97.8	PQL	mg/Kg	J	Z
TIN	2.34	J	0.313	MDL	9.78	PQL	mg/Kg	U	B
Zirconium	0.700	J	0.450	MDL	4.89	PQL	mg/Kg	U	B

Sample ID: SL-020-SA7-SS-0.0-0.5      Collected: 9/22/2011 10:00:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	65.0	J	6.08	MDL	102	PQL	mg/Kg	J	Z
TIN	2.60	J	0.327	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	0.778	J	0.470	MDL	5.11	PQL	mg/Kg	U	B

Sample ID: SL-023-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:15:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	67.3	J	6.00	MDL	101	PQL	mg/Kg	J	Z
TIN	2.57	J	0.323	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	0.995	J	0.464	MDL	5.04	PQL	mg/Kg	U	B

Sample ID: SL-039-SA7-SB-4.0-5.0      Collected: 9/22/2011 11:32:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	100	J	6.49	MDL	109	PQL	mg/Kg	J	Z
TIN	2.81	J	0.349	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.51	J	0.502	MDL	5.45	PQL	mg/Kg	U	B

Sample ID: SL-055-SA7-SS-0.0-0.5      Collected: 9/22/2011 8:00:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	79.7	J	6.19	MDL	104	PQL	mg/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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6010E	Matrix: SO

Sample ID: SL-055-SA7-SS-0.0-0.5      Collected: 9/22/2011 8:00:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.45	J	0.333	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	1.01	J	0.479	MDL	5.20	PQL	mg/Kg	U	B

Sample ID: SL-072-SA7-SB-4.0-5.0      Collected: 9/22/2011 10:24:00      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	0.354	MDL	11.1	PQL	mg/Kg	U	B
Zirconium	1.88	J	0.509	MDL	5.54	PQL	mg/Kg	U	B

Sample ID: SL-072-SA7-SB-7.5-8.5      Collected: 9/22/2011 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
BORON	4.94	J	0.384	MDL	5.33	PQL	mg/Kg	J	Z
SODIUM	86.1	J	6.34	MDL	107	PQL	mg/Kg	J	Z
TIN	2.74	J	0.341	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	1.60	J	0.490	MDL	5.33	PQL	mg/Kg	U	B

Sample ID: SL-074-SA7-SB-4.0-5.0      Collected: 9/22/2011 12:25:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	64.4	J	5.93	MDL	99.7	PQL	mg/Kg	J	Z
TIN	2.71	J	0.319	MDL	9.97	PQL	mg/Kg	U	B
Zirconium	1.43	J	0.459	MDL	4.99	PQL	mg/Kg	U	B

Sample ID: SL-075-SA7-SB-4.0-5.0      Collected: 9/22/2011 8:20:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	88.5	J	6.16	MDL	104	PQL	mg/Kg	J	Z
TIN	2.61	J	0.331	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	1.12	J	0.476	MDL	5.18	PQL	mg/Kg	U	B

Sample ID: SL-075-SA7-SB-9.0-10.0      Collected: 9/22/2011 8:26:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.32	J	0.338	MDL	10.6	PQL	mg/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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6010B	<b>Matrix:</b> SO

Sample ID: SL-075-SA7-SB-9.0-10.0      Collected: 9/22/2011 8:26:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	0.966	J	0.486	MDL	5.28	PQL	mg/Kg	U	B

Sample ID: SL-077-SA7-SB-4.0-5.0      Collected: 9/22/2011 9:31:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	89.4	J	6.23	MDL	105	PQL	mg/Kg	J	Z
TIN	2.77	J	0.335	MDL	10.5	PQL	mg/Kg	U	B

Sample ID: SL-088-SA7-SS-0.0-0.5      Collected: 9/22/2011 8:55:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	64.1	J	6.01	MDL	101	PQL	mg/Kg	J	Z
TIN	2.44	J	0.323	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	1.14	J	0.464	MDL	5.05	PQL	mg/Kg	U	B

Sample ID: SL-101-SA7-SS-0.0-0.5      Collected: 9/22/2011 9:25:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	64.0	J	5.99	MDL	101	PQL	mg/Kg	J	Z
TIN	2.74	J	0.322	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: SL-141-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:45:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	5.04	J	0.363	MDL	5.05	PQL	mg/Kg	J	Z
SODIUM	54.9	J	6.01	MDL	101	PQL	mg/Kg	J	Z
TIN	2.28	J	0.323	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	0.910	J	0.464	MDL	5.05	PQL	mg/Kg	U	B

Sample ID: SL-142-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:00:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	69.9	J	5.91	MDL	99.3	PQL	mg/Kg	J	Z
TIN	2.21	J	0.318	MDL	9.93	PQL	mg/Kg	U	B
Zirconium	1.04	J	0.457	MDL	4.97	PQL	mg/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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: SL-143-SA7-SS-0.0-0.5      Collected: 9/21/2011 1:40:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	75.9	J	6.08	MDL	102	PQL	mg/Kg	J	Z
TIN	2.64	J	0.327	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	0.834	J	0.470	MDL	5.11	PQL	mg/Kg	U	B

Sample ID: SL-151-SA7-SS-0.0-0.5      Collected: 9/22/2011 7:40:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	72.7	J	6.10	MDL	102	PQL	mg/Kg	J	Z
TIN	2.73	J	0.328	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	1.32	J	0.471	MDL	5.12	PQL	mg/Kg	U	B

Method Category:	METALS	
Method:	6020	Matrix: AQ

Sample ID: EB-SA7-SB-092211      Collected: 9/22/2011 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	0.00042	J	0.00008 0	MDL	0.0010	PQL	mg/L	J	Z

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-011-SA7-SS-0.0-0.5      Collected: 9/22/2011 10:35:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.130	J	0.0575	MDL	0.396	PQL	mg/Kg	J	Z

Sample ID: SL-011-SA7-SS-0.0-0.5      Collected: 9/22/2011 10:35:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.828		0.0495	MDL	0.0991	PQL	mg/Kg	J	E

\* 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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS									
<b>Method:</b>	6020			Matrix: SO						

Sample ID: SL-011-SA7-SS-0.0-0.5			Collected: 9/22/2011 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	
ARSENIC	4.10		0.0793	MDL	0.396	PQL	mg/Kg	J	Q, E	
CADMIUM	0.0893	J	0.0436	MDL	0.0991	PQL	mg/Kg	J	Z	
CHROMIUM	13.7		0.119	MDL	0.396	PQL	mg/Kg	J	Q, E	
COBALT	3.95		0.0198	MDL	0.0991	PQL	mg/Kg	J	E	
COPPER	10.9		0.0793	MDL	0.396	PQL	mg/Kg	J	Q, E	
VANADIUM	23.1		0.0218	MDL	0.0991	PQL	mg/Kg	J	Q, E	

Sample ID: SL-011-SA7-SS-0.0-0.5			Collected: 9/22/2011 10:35:00			Analysis Type: REA5		Dilution: 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.141	J	0.0733	MDL	0.198	PQL	mg/Kg	J	Z, Q	
LEAD	9.72		0.0101	MDL	0.198	PQL	mg/Kg	J	Q	
NICKEL	16.3		0.0991	MDL	0.396	PQL	mg/Kg	J	E, Q	

Sample ID: SL-012-SA7-SS-0.0-0.5			Collected: 9/22/2011 11:10:00			Analysis Type: REA10		Dilution: 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.0717	J	0.0584	MDL	0.402	PQL	mg/Kg	J	Z	

Sample ID: SL-012-SA7-SS-0.0-0.5			Collected: 9/22/2011 11:10:00			Analysis Type: REA11		Dilution: 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	0.284		0.0503	MDL	0.101	PQL	mg/Kg	J	E	

Sample ID: SL-012-SA7-SS-0.0-0.5			Collected: 9/22/2011 11:10:00			Analysis Type: REA4		Dilution: 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.0745	U	0.0745	MDL	0.201	PQL	mg/Kg	UJ	Q	
ARSENIC	2.75		0.0805	MDL	0.402	PQL	mg/Kg	J	Q, E	
CHROMIUM	9.40		0.121	MDL	0.402	PQL	mg/Kg	J	Q, E	
COBALT	3.25		0.0201	MDL	0.101	PQL	mg/Kg	J	E	
COPPER	5.14		0.0805	MDL	0.402	PQL	mg/Kg	J	Q, E	
SILVER	0.0287	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z	
VANADIUM	18.8		0.0221	MDL	0.101	PQL	mg/Kg	J	Q, E	

\* 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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-012-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
LEAD	22.6		0.0103	MDL	0.201	PQL	mg/Kg	J	Q
NICKEL	5.41		0.101	MDL	0.402	PQL	mg/Kg	J	E, Q

Sample ID: SL-013-SA7-SS-0.0-0.5      Collected: 9/22/2011 11:35:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.137	J	0.0584	MDL	0.403	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA7-SS-0.0-0.5      Collected: 9/22/2011 11:35:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.423		0.0504	MDL	0.101	PQL	mg/Kg	J	E

Sample ID: SL-013-SA7-SS-0.0-0.5      Collected: 9/22/2011 11:35:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	13.5		0.121	MDL	0.403	PQL	mg/Kg	J	Q, E
COBALT	4.15		0.0201	MDL	0.101	PQL	mg/Kg	J	E
COPPER	14.1		0.0806	MDL	0.403	PQL	mg/Kg	J	Q, E
VANADIUM	27.6		0.0222	MDL	0.101	PQL	mg/Kg	J	Q, E

Sample ID: SL-013-SA7-SS-0.0-0.5      Collected: 9/22/2011 11:35:00      Analysis Type: REA5      Dilution: 2500

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	30200		12.8	MDL	252	PQL	mg/Kg	J	Q

Sample ID: SL-013-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
NICKEL	7.79		0.101	MDL	0.403	PQL	mg/Kg	J	E, Q

Sample ID: SL-013-SA7-SS-0.0-0.5      Collected: 9/22/2011 11:35:00      Analysis Type: REA7      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	428		0.201	MDL	1.01	PQL	mg/Kg	J	Q, E

\* 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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-013-SA7-SS-0.0-0.5      Collected: 9/22/2011 11:35:00      Analysis Type: REA8      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.313	J	0.151	MDL	0.504	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA7-SS-0.0-0.5      Collected: 9/22/2011 11:35:00      Analysis Type: REA9      Dilution: 50

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1010		1.86	MDL	5.04	PQL	mg/Kg	J	Q

Sample ID: SL-020-SA7-SS-0.0-0.5      Collected: 9/22/2011 10:00:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.152	J	0.0576	MDL	0.397	PQL	mg/Kg	J	Z

Sample ID: SL-020-SA7-SS-0.0-0.5      Collected: 9/22/2011 10:00:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.416		0.0496	MDL	0.0993	PQL	mg/Kg	J	E

Sample ID: SL-020-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
ARSENIC	3.97		0.0794	MDL	0.397	PQL	mg/Kg	J	Q, E
CHROMIUM	16.9		0.119	MDL	0.397	PQL	mg/Kg	J	Q, E
COBALT	6.14		0.0199	MDL	0.0993	PQL	mg/Kg	J	E
COPPER	6.11		0.0794	MDL	0.397	PQL	mg/Kg	J	Q, E
SILVER	0.0274	J	0.0141	MDL	0.0993	PQL	mg/Kg	J	Z
VANADIUM	35.4		0.0218	MDL	0.0993	PQL	mg/Kg	J	Q, E

Sample ID: SL-020-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	0.0735	U	0.0735	MDL	0.199	PQL	mg/Kg	UJ	Q
LEAD	6.99		0.0101	MDL	0.199	PQL	mg/Kg	J	Q
NICKEL	9.73		0.0993	MDL	0.397	PQL	mg/Kg	J	E, Q

\* 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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-023-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:15:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.100	J	0.0563	MDL	0.388	PQL	mg/Kg	J	Z

Sample ID: SL-023-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:15:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.410		0.0485	MDL	0.0970	PQL	mg/Kg	J	E

Sample ID: SL-023-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:15:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.49		0.0776	MDL	0.388	PQL	mg/Kg	J	Q, E
CHROMIUM	13.3		0.116	MDL	0.388	PQL	mg/Kg	J	Q, E
COBALT	4.44		0.0194	MDL	0.0970	PQL	mg/Kg	J	E
COPPER	7.20		0.0776	MDL	0.388	PQL	mg/Kg	J	Q, E
SILVER	0.0276	J	0.0138	MDL	0.0970	PQL	mg/Kg	J	Z
VANADIUM	26.6		0.0213	MDL	0.0970	PQL	mg/Kg	J	Q, E

Sample ID: SL-023-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:15:00      Analysis Type: REA5      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0718	U	0.0718	MDL	0.194	PQL	mg/Kg	UJ	Q
LEAD	12.1		0.0099	MDL	0.194	PQL	mg/Kg	J	Q
NICKEL	8.08		0.0970	MDL	0.388	PQL	mg/Kg	J	E, Q

Sample ID: SL-039-SA7-SB-4.0-5.0      Collected: 9/22/2011 11:32:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.192	J	0.0645	MDL	0.445	PQL	mg/Kg	J	Z

Sample ID: SL-039-SA7-SB-4.0-5.0      Collected: 9/22/2011 11:32:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.739		0.0556	MDL	0.111	PQL	mg/Kg	J	E

\* 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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-039-SA7-SB-4.0-5.0      Collected: 9/22/2011 11:32:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0823	U	0.0823	MDL	0.222	PQL	mg/Kg	UJ	Q
ARSENIC	4.59		0.0890	MDL	0.445	PQL	mg/Kg	J	Q, E
CHROMIUM	16.7		0.133	MDL	0.445	PQL	mg/Kg	J	Q, E
COBALT	3.40		0.0222	MDL	0.111	PQL	mg/Kg	J	E
COPPER	3.43		0.0890	MDL	0.445	PQL	mg/Kg	J	Q, E
SILVER	0.0380	J	0.0158	MDL	0.111	PQL	mg/Kg	J	Z
VANADIUM	35.6		0.0245	MDL	0.111	PQL	mg/Kg	J	Q, E

Sample ID: SL-039-SA7-SB-4.0-5.0      Collected: 9/22/2011 11:32:00      Analysis Type: REA5      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	6.42		0.0113	MDL	0.222	PQL	mg/Kg	J	Q
NICKEL	6.91		0.111	MDL	0.445	PQL	mg/Kg	J	E, Q

Sample ID: SL-055-SA7-SS-0.0-0.5      Collected: 9/22/2011 8:00:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.127	J	0.0598	MDL	0.412	PQL	mg/Kg	J	Z

Sample ID: SL-055-SA7-SS-0.0-0.5      Collected: 9/22/2011 8:00:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.484		0.0515	MDL	0.103	PQL	mg/Kg	J	E

Sample ID: SL-055-SA7-SS-0.0-0.5      Collected: 9/22/2011 8:00:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.10		0.0824	MDL	0.412	PQL	mg/Kg	J	Q, E
CHROMIUM	11.3		0.124	MDL	0.412	PQL	mg/Kg	J	Q, E
COBALT	3.38		0.0206	MDL	0.103	PQL	mg/Kg	J	E
COPPER	7.31		0.0824	MDL	0.412	PQL	mg/Kg	J	Q, E
SILVER	0.0297	J	0.0146	MDL	0.103	PQL	mg/Kg	J	Z
VANADIUM	21.4		0.0227	MDL	0.103	PQL	mg/Kg	J	Q, E

\* 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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS									
<b>Method:</b>	6020				<b>Matrix:</b> SO					

Sample ID: SL-055-SA7-SS-0.0-0.5      Collected: 9/22/2011 8:00:00      Analysis Type: REA5      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0789	J	0.0762	MDL	0.206	PQL	mg/Kg	J	Z, Q
LEAD	15.9		0.0105	MDL	0.206	PQL	mg/Kg	J	Q
NICKEL	7.13		0.103	MDL	0.412	PQL	mg/Kg	J	E, Q

Sample ID: SL-072-SA7-SB-4.0-5.0      Collected: 9/22/2011 10:24:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.215	J	0.0636	MDL	0.439	PQL	mg/Kg	J	Z

Sample ID: SL-072-SA7-SB-4.0-5.0      Collected: 9/22/2011 10:24:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	1.09		0.0548	MDL	0.110	PQL	mg/Kg	J	E

Sample ID: SL-072-SA7-SB-4.0-5.0      Collected: 9/22/2011 10:24:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0909	J	0.0812	MDL	0.219	PQL	mg/Kg	J	Z, Q
ARSENIC	5.09		0.0877	MDL	0.439	PQL	mg/Kg	J	Q, E
CHROMIUM	19.7		0.132	MDL	0.439	PQL	mg/Kg	J	Q, E
COBALT	3.74		0.0219	MDL	0.110	PQL	mg/Kg	J	E
COPPER	4.44		0.0877	MDL	0.439	PQL	mg/Kg	J	Q, E
LEAD	6.90		0.0112	MDL	0.219	PQL	mg/Kg	J	Q
NICKEL	8.43		0.110	MDL	0.439	PQL	mg/Kg	J	E, Q
SILVER	0.0302	J	0.0156	MDL	0.110	PQL	mg/Kg	J	Z
VANADIUM	41.7		0.0241	MDL	0.110	PQL	mg/Kg	J	Q, E

Sample ID: SL-072-SA7-SB-7.5-8.5      Collected: 9/22/2011 10:30:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.143	J	0.0624	MDL	0.431	PQL	mg/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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-072-SA7-SB-7.5-8.5      Collected: 9/22/2011 10:30:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.398		0.0538	MDL	0.108	PQL	mg/Kg	J	E

Sample ID: SL-072-SA7-SB-7.5-8.5      Collected: 9/22/2011 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	0.0797	U	0.0797	MDL	0.215	PQL	mg/Kg	UJ	Q
ARSENIC	3.71		0.0861	MDL	0.431	PQL	mg/Kg	J	Q, E
CHROMIUM	11.6		0.129	MDL	0.431	PQL	mg/Kg	J	Q, E
COBALT	2.57		0.0215	MDL	0.108	PQL	mg/Kg	J	E
COPPER	3.52		0.0861	MDL	0.431	PQL	mg/Kg	J	Q, E
LEAD	4.88		0.0110	MDL	0.215	PQL	mg/Kg	J	Q
NICKEL	5.05		0.108	MDL	0.431	PQL	mg/Kg	J	E, Q
SILVER	0.0183	J	0.0153	MDL	0.108	PQL	mg/Kg	J	Z
VANADIUM	24.2		0.0237	MDL	0.108	PQL	mg/Kg	J	Q, E

Sample ID: SL-074-SA7-SB-4.0-5.0      Collected: 9/22/2011 12:25:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.181	J	0.0607	MDL	0.419	PQL	mg/Kg	J	Z

Sample ID: SL-074-SA7-SB-4.0-5.0      Collected: 9/22/2011 12:25:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.461		0.0524	MDL	0.105	PQL	mg/Kg	J	E

Sample ID: SL-074-SA7-SB-4.0-5.0      Collected: 9/22/2011 12:25:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0775	U	0.0775	MDL	0.209	PQL	mg/Kg	UJ	Q
ARSENIC	4.64		0.0838	MDL	0.419	PQL	mg/Kg	J	Q, E
CHROMIUM	14.2		0.126	MDL	0.419	PQL	mg/Kg	J	Q, E
COBALT	4.59		0.0209	MDL	0.105	PQL	mg/Kg	J	E
COPPER	4.90		0.0838	MDL	0.419	PQL	mg/Kg	J	Q, E
LEAD	5.23		0.0107	MDL	0.209	PQL	mg/Kg	J	Q
NICKEL	8.39		0.105	MDL	0.419	PQL	mg/Kg	J	E, Q

\* 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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-074-SA7-SB-4.0-5.0      Collected: 9/22/2011 12:25:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0298	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z
VANADIUM	30.5		0.0230	MDL	0.105	PQL	mg/Kg	J	Q, E

Sample ID: SL-075-SA7-SB-4.0-5.0      Collected: 9/22/2011 8:20:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.292	J	0.0607	MDL	0.418	PQL	mg/Kg	J	Z

Sample ID: SL-075-SA7-SB-4.0-5.0      Collected: 9/22/2011 8:20:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.827		0.0523	MDL	0.105	PQL	mg/Kg	J	E

Sample ID: SL-075-SA7-SB-4.0-5.0      Collected: 9/22/2011 8:20:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0774	U	0.0774	MDL	0.209	PQL	mg/Kg	UJ	Q
ARSENIC	4.71		0.0837	MDL	0.418	PQL	mg/Kg	J	Q, E
CADMIUM	0.0860	J	0.0460	MDL	0.105	PQL	mg/Kg	J	Z
CHROMIUM	16.1		0.126	MDL	0.418	PQL	mg/Kg	J	Q, E
COBALT	4.83		0.0209	MDL	0.105	PQL	mg/Kg	J	E
COPPER	6.38		0.0837	MDL	0.418	PQL	mg/Kg	J	Q, E
LEAD	5.44		0.0107	MDL	0.209	PQL	mg/Kg	J	Q
NICKEL	9.50		0.105	MDL	0.418	PQL	mg/Kg	J	E, Q
SILVER	0.0285	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z
VANADIUM	34.6		0.0230	MDL	0.105	PQL	mg/Kg	J	Q, E

Sample ID: SL-075-SA7-SB-9.0-10.0      Collected: 9/22/2011 8:26:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.195	J	0.0618	MDL	0.426	PQL	mg/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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Method:</b>	6020	<b>Matrix:</b>	SO
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Sample ID: SL-075-SA7-SB-9.0-10.0      Collected: 9/22/2011 8:26:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.469		0.0533	MDL	0.107	PQL	mg/Kg	J	E

Sample ID: SL-075-SA7-SB-9.0-10.0      Collected: 9/22/2011 8:26:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0789	U	0.0789	MDL	0.213	PQL	mg/Kg	UJ	Q
ARSENIC	3.85		0.0853	MDL	0.426	PQL	mg/Kg	J	Q, E
CHROMIUM	13.8		0.128	MDL	0.426	PQL	mg/Kg	J	Q, E
COBALT	4.51		0.0213	MDL	0.107	PQL	mg/Kg	J	E
COPPER	6.13		0.0853	MDL	0.426	PQL	mg/Kg	J	Q, E
LEAD	6.44		0.0109	MDL	0.213	PQL	mg/Kg	J	Q
NICKEL	9.10		0.107	MDL	0.426	PQL	mg/Kg	J	E, Q
SILVER	0.0231	J	0.0151	MDL	0.107	PQL	mg/Kg	J	Z
VANADIUM	27.4		0.0235	MDL	0.107	PQL	mg/Kg	J	Q, E

Sample ID: SL-077-SA7-SB-4.0-5.0      Collected: 9/22/2011 9:31:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0815	J	0.0607	MDL	0.419	PQL	mg/Kg	J	Z

Sample ID: SL-077-SA7-SB-4.0-5.0      Collected: 9/22/2011 9:31:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.469		0.0523	MDL	0.105	PQL	mg/Kg	J	E

Sample ID: SL-077-SA7-SB-4.0-5.0      Collected: 9/22/2011 9:31:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0774	U	0.0774	MDL	0.209	PQL	mg/Kg	UJ	Q
ARSENIC	3.94		0.0837	MDL	0.419	PQL	mg/Kg	J	Q, E
CADMIUM	0.0681	J	0.0461	MDL	0.105	PQL	mg/Kg	J	Z
CHROMIUM	11.9		0.126	MDL	0.419	PQL	mg/Kg	J	Q, E
COBALT	5.13		0.0209	MDL	0.105	PQL	mg/Kg	J	E
COPPER	5.15		0.0837	MDL	0.419	PQL	mg/Kg	J	Q, E
LEAD	3.99		0.0107	MDL	0.209	PQL	mg/Kg	J	Q

\* 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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Method:</b>	6020	<b>Matrix:</b>	SO
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Sample ID: SL-077-SA7-SB-4.0-5.0      Collected: 9/22/2011 9:31:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	8.22		0.105	MDL	0.419	PQL	mg/Kg	J	E, Q
SILVER	0.0219	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z
VANADIUM	23.4		0.0230	MDL	0.105	PQL	mg/Kg	J	Q, E

Sample ID: SL-088-SA7-SS-0.0-0.5      Collected: 9/22/2011 8:55:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.190	J	0.0563	MDL	0.388	PQL	mg/Kg	J	Z

Sample ID: SL-088-SA7-SS-0.0-0.5      Collected: 9/22/2011 8:55:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.449		0.0485	MDL	0.0971	PQL	mg/Kg	J	E

Sample ID: SL-088-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
ARSENIC	4.01		0.0777	MDL	0.388	PQL	mg/Kg	J	Q, E
CHROMIUM	21.5		0.116	MDL	0.388	PQL	mg/Kg	J	Q, E
COBALT	5.73		0.0194	MDL	0.0971	PQL	mg/Kg	J	E
COPPER	8.94		0.0777	MDL	0.388	PQL	mg/Kg	J	Q, E
SILVER	0.0431	J	0.0138	MDL	0.0971	PQL	mg/Kg	J	Z
VANADIUM	42.1		0.0214	MDL	0.0971	PQL	mg/Kg	J	Q, E

Sample ID: SL-088-SA7-SS-0.0-0.5      Collected: 9/22/2011 8:55:00      Analysis Type: REA5      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.108	J	0.0718	MDL	0.194	PQL	mg/Kg	J	Z, Q
LEAD	14.2		0.0099	MDL	0.194	PQL	mg/Kg	J	Q
NICKEL	13.6		0.0971	MDL	0.388	PQL	mg/Kg	J	E, Q

Sample ID: SL-101-SA7-SS-0.0-0.5      Collected: 9/22/2011 9:25:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.140	J	0.0584	MDL	0.403	PQL	mg/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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-101-SA7-SS-0.0-0.5      Collected: 9/22/2011 9:25:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.534		0.0504	MDL	0.101	PQL	mg/Kg	J	E

Sample ID: SL-101-SA7-SS-0.0-0.5      Collected: 9/22/2011 9:25:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.23		0.0806	MDL	0.403	PQL	mg/Kg	J	Q, E
CHROMIUM	21.0		0.121	MDL	0.403	PQL	mg/Kg	J	Q, E
COBALT	4.53		0.0201	MDL	0.101	PQL	mg/Kg	J	E
COPPER	22.1		0.0806	MDL	0.403	PQL	mg/Kg	J	Q, E
VANADIUM	24.0		0.0222	MDL	0.101	PQL	mg/Kg	J	Q, E

Sample ID: SL-101-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	0.119	J	0.0745	MDL	0.201	PQL	mg/Kg	J	Z, Q
LEAD	47.1		0.0103	MDL	0.201	PQL	mg/Kg	J	Q
NICKEL	13.2		0.101	MDL	0.403	PQL	mg/Kg	J	E, Q

Sample ID: SL-141-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:45:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.133	J	0.0580	MDL	0.400	PQL	mg/Kg	J	Z

Sample ID: SL-141-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:45:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.327		0.0500	MDL	0.0999	PQL	mg/Kg	J	E

Sample ID: SL-141-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:45:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	4.02		0.0799	MDL	0.400	PQL	mg/Kg	J	Q, E
CHROMIUM	17.2		0.120	MDL	0.400	PQL	mg/Kg	J	Q, E
COBALT	5.38		0.0200	MDL	0.0999	PQL	mg/Kg	J	E
COPPER	8.63		0.0799	MDL	0.400	PQL	mg/Kg	J	Q, E

\* 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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-141-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:45:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0270	J	0.0142	MDL	0.0999	PQL	mg/Kg	J	Z
VANADIUM	32.2		0.0220	MDL	0.0999	PQL	mg/Kg	J	Q, E

Sample ID: SL-141-SA7-SS-0.0-0.5      Collected: 9/21/2011 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	0.0807	J	0.0739	MDL	0.200	PQL	mg/Kg	J	Z, Q
LEAD	8.83		0.0102	MDL	0.200	PQL	mg/Kg	J	Q
NICKEL	9.53		0.0999	MDL	0.400	PQL	mg/Kg	J	E, Q

Sample ID: SL-142-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:00:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.104	J	0.0565	MDL	0.390	PQL	mg/Kg	J	Z

Sample ID: SL-142-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:00:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.370		0.0487	MDL	0.0974	PQL	mg/Kg	J	E

Sample ID: SL-142-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:00:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.12		0.0779	MDL	0.390	PQL	mg/Kg	J	Q, E
CHROMIUM	13.0		0.117	MDL	0.390	PQL	mg/Kg	J	Q, E
COBALT	4.32		0.0195	MDL	0.0974	PQL	mg/Kg	J	E
COPPER	7.09		0.0779	MDL	0.390	PQL	mg/Kg	J	Q, E
SILVER	0.0273	J	0.0138	MDL	0.0974	PQL	mg/Kg	J	Z
VANADIUM	25.8		0.0214	MDL	0.0974	PQL	mg/Kg	J	Q, E

Sample ID: SL-142-SA7-SS-0.0-0.5      Collected: 9/21/2011 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	0.0776	J	0.0721	MDL	0.195	PQL	mg/Kg	J	Z, Q
LEAD	10.6		0.0099	MDL	0.195	PQL	mg/Kg	J	Q

\* 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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-142-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
NICKEL	7.89		0.0974	MDL	0.390	PQL	mg/Kg	J	E, Q

Sample ID: SL-143-SA7-SS-0.0-0.5      Collected: 9/21/2011 1:40:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.113	J	0.0581	MDL	0.401	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA7-SS-0.0-0.5      Collected: 9/21/2011 1:40:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.422		0.0501	MDL	0.100	PQL	mg/Kg	J	E

Sample ID: SL-143-SA7-SS-0.0-0.5      Collected: 9/21/2011 1:40:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.80		0.0802	MDL	0.401	PQL	mg/Kg	J	Q, E
CHROMIUM	17.0		0.120	MDL	0.401	PQL	mg/Kg	J	Q, E
COBALT	4.69		0.0200	MDL	0.100	PQL	mg/Kg	J	E
COPPER	6.53		0.0802	MDL	0.401	PQL	mg/Kg	J	Q, E
SILVER	0.0397	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z
VANADIUM	33.1		0.0220	MDL	0.100	PQL	mg/Kg	J	Q, E

Sample ID: SL-143-SA7-SS-0.0-0.5      Collected: 9/21/2011 1:40:00      Analysis Type: REA5      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0741	U	0.0741	MDL	0.200	PQL	mg/Kg	UJ	Q
LEAD	8.42		0.0102	MDL	0.200	PQL	mg/Kg	J	Q
NICKEL	8.20		0.100	MDL	0.401	PQL	mg/Kg	J	E, Q

Sample ID: SL-151-SA7-SS-0.0-0.5      Collected: 9/22/2011 7:40:00      Analysis Type: REA10      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.118	J	0.0577	MDL	0.398	PQL	mg/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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-151-SA7-SS-0.0-0.5      Collected: 9/22/2011 7:40:00      Analysis Type: REA11      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.464		0.0497	MDL	0.0995	PQL	mg/Kg	J	E

Sample ID: SL-151-SA7-SS-0.0-0.5      Collected: 9/22/2011 7:40:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.60		0.0796	MDL	0.398	PQL	mg/Kg	J	Q, E
CHROMIUM	16.7		0.119	MDL	0.398	PQL	mg/Kg	J	Q, E
COBALT	4.25		0.0199	MDL	0.0995	PQL	mg/Kg	J	E
COPPER	8.53		0.0796	MDL	0.398	PQL	mg/Kg	J	Q, E
VANADIUM	27.1		0.0219	MDL	0.0995	PQL	mg/Kg	J	Q, E

Sample ID: SL-151-SA7-SS-0.0-0.5      Collected: 9/22/2011 7:40:00      Analysis Type: REA5      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.104	J	0.0736	MDL	0.199	PQL	mg/Kg	J	Z, Q
LEAD	33.1		0.0101	MDL	0.199	PQL	mg/Kg	J	Q
NICKEL	8.70		0.0995	MDL	0.398	PQL	mg/Kg	J	E, Q

Method Category:	METALS	
Method:	7199	Matrix: SO

Sample ID: SL-012-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	0.36	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-039-SA7-SB-4.0-5.0      Collected: 9/22/2011 11:32:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.64	J	0.23	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-072-SA7-SB-4.0-5.0      Collected: 9/22/2011 10:24:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.93	J	0.23	MDL	1.2	PQL	mg/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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	7199	Matrix: SO

Sample ID: SL-072-SA7-SB-7.5-8.5      Collected: 9/22/2011 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	0.85	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-074-SA7-SB-4.0-5.0      Collected: 9/22/2011 12:25:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.25	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-075-SA7-SB-4.0-5.0      Collected: 9/22/2011 8:20:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.29	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-075-SA7-SB-9.0-10.0      Collected: 9/22/2011 8:26:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.26	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-077-SA7-SB-4.0-5.0      Collected: 9/22/2011 9:31:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.27	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Sample ID: SL-101-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	0.23	J	0.20	MDL	1.0	PQL	mg/Kg	U	F

Sample ID: SL-141-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:45:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.42	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-151-SA7-SS-0.0-0.5      Collected: 9/22/2011 7:40:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.60	J	0.20	MDL	1.0	PQL	mg/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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	7199	Matrix: SO

Method Category:	METALS	
Method:	7470A	Matrix: AQ

Sample ID: EB-SA7-SB-092211	Collected: 9/22/2011 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	0.000041	J	0.000026	MDL	0.00020	PQL	mg/L	U	B, B

Method Category:	METALS	
Method:	7471A	Matrix: SO

Sample ID: SL-012-SA7-SS-0.0-0.5	Collected: 9/22/2011 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	0.0145	J	0.0070	MDL	0.0988	PQL	mg/Kg	U	F

Sample ID: SL-013-SA7-SS-0.0-0.5	Collected: 9/22/2011 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	0.0096	J	0.0069	MDL	0.0978	PQL	mg/Kg	U	F

Sample ID: SL-020-SA7-SS-0.0-0.5	Collected: 9/22/2011 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	0.0113	J	0.0069	MDL	0.0980	PQL	mg/Kg	U	F

Sample ID: SL-023-SA7-SS-0.0-0.5	Collected: 9/21/2011 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
MERCURY	0.0513	J	0.0068	MDL	0.0974	PQL	mg/Kg	J	Z

Sample ID: SL-039-SA7-SB-4.0-5.0	Collected: 9/22/2011 11:32:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0165	J	0.0075	MDL	0.106	PQL	mg/Kg	U	F

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>									
<b>Method:</b>	<b>7471A</b>			<b>Matrix: SO</b>						

Sample ID: SL-055-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
MERCURY	0.0409	J	0.0071	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-072-SA7-SB-4.0-5.0      Collected: 9/22/2011 10:24:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0139	J	0.0073	MDL	0.104	PQL	mg/Kg	U	F

Sample ID: SL-075-SA7-SB-4.0-5.0      Collected: 9/22/2011 8:20:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0073	J	0.0070	MDL	0.100	PQL	mg/Kg	U	F

Sample ID: SL-075-SA7-SB-9.0-10.0      Collected: 9/22/2011 8:26:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0137	J	0.0075	MDL	0.107	PQL	mg/Kg	U	F

Sample ID: SL-088-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	0.0195	J	0.0069	MDL	0.0977	PQL	mg/Kg	U	F

Sample ID: SL-101-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	0.0242	J	0.0068	MDL	0.0962	PQL	mg/Kg	J	Z

Sample ID: SL-141-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:45:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0688	J	0.0069	MDL	0.0988	PQL	mg/Kg	J	Z

Sample ID: SL-142-SA7-SS-0.0-0.5      Collected: 9/21/2011 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	0.0433	J	0.0070	MDL	0.0989	PQL	mg/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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	7471A	Matrix: SO

Sample ID: SL-143-SA7-SS-0.0-0.5      Collected: 9/21/2011 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	0.0253	J	0.0070	MDL	0.0999	PQL	mg/Kg	U	F

Sample ID: SL-151-SA7-SS-0.0-0.5      Collected: 9/22/2011 7:40:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0600	J	0.0070	MDL	0.0995	PQL	mg/Kg	J	Z

Method Category:	SVOA	
Method:	1625C	Matrix: AQ

Sample ID: EB-SA7-SB-092211      Collected: 9/22/2011 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	3.19		0.525	MDL	1.05	PQL	ng/L	UJ	B, S

Method Category:	SVOA	
Method:	8015M	Matrix: SO

Sample ID: SL-012-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
EFH (C15-C20)	2.0		0.41	MDL	1.2	PQL	mg/Kg	J	Q
EFH (C21-C30)	14		0.41	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-013-SA7-SS-0.0-0.5      Collected: 9/22/2011 11:35:00      Analysis Type: REA      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	2.7	J	2.0	MDL	6.1	PQL	mg/Kg	J	Z

Sample ID: SL-055-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
DIETHYLENE GLYCOL	5.2	U	5.2	MDL	10	PQL	mg/Kg	UJ	Q
ETHYLENE GLYCOL	5.2	U	5.2	MDL	10	PQL	mg/Kg	UJ	Q
Propylene glycol	5.2	U	5.2	MDL	10	PQL	mg/Kg	UJ	Q

\* 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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8015M	Matrix: SO

Sample ID: SL-072-SA7-SB-4.0-5.0      Collected: 9/22/2011 10:24:00      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)	1.1	J	0.45	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-074-SA7-SB-4.0-5.0      Collected: 9/22/2011 12:25:00      Analysis Type: REA      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	0.83	J	0.42	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-075-SA7-SB-9.0-10.0      Collected: 9/22/2011 8:26:00      Analysis Type: REA      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.68	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-142-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:00:00      Analysis Type: REA      Dilution: 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	12	J	8.1	MDL	24	PQL	mg/Kg	J	Z

Sample ID: SL-143-SA7-SS-0.0-0.5      Collected: 9/21/2011 1:40:00      Analysis Type: REA      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	4.3	J	2.1	MDL	6.2	PQL	mg/Kg	J	Z

Sample ID: SL-151-SA7-SS-0.0-0.5      Collected: 9/22/2011 7:40:00      Analysis Type: REA      Dilution: 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	9.2	J	8.2	MDL	25	PQL	mg/Kg	J	Z

Method Category:	SVOA	
Method:	8081A	Matrix: SO

Sample ID: SL-011-SA7-SS-0.0-0.5      Collected: 9/22/2011 10:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	2.9		0.067	MDL	0.35	PQL	ug/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8081A
		<b>Matrix:</b>	SO

Sample ID: SL-012-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
gamma-BHC (Lindane)	0.14	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-013-SA7-SS-0.0-0.5      Collected: 9/22/2011 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'-DDE	1.6		0.067	MDL	0.35	PQL	ug/Kg	J	S
Chlordane	8.0		0.81	MDL	3.5	PQL	ug/Kg	J	S
HEPTACHLOR	0.081	J	0.061	MDL	0.17	PQL	ug/Kg	J	Z, S

Sample ID: SL-023-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
ALDRIN	0.12	J	0.067	MDL	0.17	PQL	ug/Kg	J	Z, S
ALPHA-BHC	0.059	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z, S

Sample ID: SL-055-SA7-SS-0.0-0.5      Collected: 9/22/2011 8:00:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DELTA-BHC	0.072	J	0.037	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-088-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
4,4'-DDE	1.1		0.067	MDL	0.35	PQL	ug/Kg	J	S
4,4'-DDT	2.8		0.067	MDL	0.35	PQL	ug/Kg	J	S
Chlordane	6.5		0.82	MDL	3.5	PQL	ug/Kg	J	S
HEPTACHLOR	0.11	J	0.061	MDL	0.17	PQL	ug/Kg	J	Z, S

Sample ID: SL-101-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
Chlordane	10		0.81	MDL	3.5	PQL	ug/Kg	J	S
ENDOSULFAN II	1.5		0.067	MDL	0.35	PQL	ug/Kg	J	S
gamma-BHC (Lindane)	0.064	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z, S
HEPTACHLOR	0.072	J	0.061	MDL	0.17	PQL	ug/Kg	J	Z, S

\* 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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8081A	<b>Matrix:</b>	SO
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Sample ID: SL-141-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:45:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN ALDEHYDE	0.46		0.067	MDL	0.34	PQL	ug/Kg	J	S
ENDRIN KETONE	0.23	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z, S
TOXAPHENE	9.1		2.2	MDL	6.7	PQL	ug/Kg	J	S

Sample ID: SL-142-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
HEPTACHLOR	0.098	J	0.061	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-143-SA7-SS-0.0-0.5      Collected: 9/21/2011 1:40:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	1.1		0.068	MDL	0.35	PQL	ug/Kg	J	S
4,4'-DDT	0.94		0.068	MDL	0.35	PQL	ug/Kg	J	S
HEPTACHLOR	0.095	J	0.062	MDL	0.17	PQL	ug/Kg	J	Z, S
HEPTACHLOR EPOXIDE	0.12	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z, S

Sample ID: SL-151-SA7-SS-0.0-0.5      Collected: 9/22/2011 7:40:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.64	U	0.64	MDL	0.64	PQL	ug/Kg	R	S
4,4'-DDE	2.6	U	2.6	MDL	2.6	PQL	ug/Kg	R	S
ALDRIN	0.067	U	0.067	MDL	0.17	PQL	ug/Kg	R	S
ALPHA-BHC	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	R	S
BETA-BHC	0.067	J	0.061	MDL	0.17	PQL	ug/Kg	J	Z, S
Chlordane	4.9		0.81	MDL	3.5	PQL	ug/Kg	J	S
DELTA-BHC	0.037	U	0.037	MDL	0.17	PQL	ug/Kg	R	S
DIELDRIN	0.49	U	0.49	MDL	0.49	PQL	ug/Kg	R	S
ENDOSULFAN I	0.045	U	0.045	MDL	0.17	PQL	ug/Kg	R	S
ENDOSULFAN II	0.37	U	0.37	MDL	0.37	PQL	ug/Kg	R	S
ENDOSULFAN SULFATE	0.42	U	0.42	MDL	0.42	PQL	ug/Kg	R	S
ENDRIN	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	R	S
ENDRIN ALDEHYDE	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	R	S
ENDRIN KETONE	0.88	U	0.88	MDL	0.88	PQL	ug/Kg	R	S
gamma-BHC (Lindane)	0.070	U	0.070	MDL	0.17	PQL	ug/Kg	R	S

\* 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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8061A	Matrix:	SO

Sample ID: SL-151-SA7-SS-0.0-0.5      Collected: 9/22/2011 7:40:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEPTACHLOR	0.064	J	0.061	MDL	0.17	PQL	ug/Kg	J	Z, S
HEPTACHLOR EPOXIDE	0.22	U	0.22	MDL	0.22	PQL	ug/Kg	R	S
METHOXYCHLOR	0.74	U	0.74	MDL	1.7	PQL	ug/Kg	R	S
MIREX	1.5	U	1.5	MDL	1.5	PQL	ug/Kg	R	S
TOXAPHENE	37	U	37	MDL	37	PQL	ug/Kg	R	S

Method Category:	SVOA		
Method:	8082	Matrix:	SO

Sample ID: SL-011-SA7-SS-0.0-0.5      Collected: 9/22/2011 10:35:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	1.5	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-012-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
Aroclor 5460	2.9	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-013-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
Aroclor 5460	3.2	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-020-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	1.5	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	1.9	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-072-SA7-SB-4.0-5.0      Collected: 9/22/2011 10:24:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.46	J	0.37	MDL	1.9	PQL	ug/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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVQA		
Method:	8082	Matrix:	SO

Sample ID: SL-075-SA7-SB-4.0-5.0      Collected: 9/22/2011 8:20:00      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	0.67	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	2.2	J	1.0	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-075-SA7-SB-9.0-10.0      Collected: 9/22/2011 8:26:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1242	0.74	J	0.37	MDL	1.9	PQL	ug/Kg	J	Z

Method Category:	SVQA		
Method:	8151A	Matrix:	SO

Sample ID: SL-013-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
2,4-DB	17		0.63	MDL	1.7	PQL	ug/Kg	J	Q

Sample ID: SL-020-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
DICAMBA	0.43	J	0.41	MDL	1.2	PQL	ug/Kg	J	Z

Sample ID: SL-151-SA7-SS-0.0-0.5      Collected: 9/22/2011 7:40:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.81	J	0.41	MDL	1.2	PQL	ug/Kg	J	Z

Method Category:	SVQA		
Method:	8270C	Matrix:	AQ

Sample ID: EB-SA7-SB-092211      Collected: 9/22/2011 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	7	U	7	MDL	17	PQL	ug/L	UJ	E

\* 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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVQA	<b>Method:</b>	8270C	<b>Matrix:</b>	SO
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Sample ID: SL-011-SA7-SS-0.0-0.5      Collected: 9/22/2011 10:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZIDINE	1200	U	1200	MDL	3400	PQL	ug/Kg	R	Q

Sample ID: SL-020-SA7-SS-0.0-0.5      Collected: 9/22/2011 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(B)FLUORANTHENE	21	J	17	MDL	170	PQL	ug/Kg	J	Z
FLUORANTHENE	29	J	17	MDL	170	PQL	ug/Kg	J	Z, L
PYRENE	26	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-072-SA7-SB-7.5-8.5      Collected: 9/22/2011 10:30:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	180	U	180	MDL	550	PQL	ug/Kg	UJ	L

Sample ID: SL-088-SA7-SS-0.0-0.5      Collected: 9/22/2011 8:55:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	210	J	170	MDL	500	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	84	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-101-SA7-SS-0.0-0.5      Collected: 9/22/2011 9:25:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	33	J	17	MDL	170	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	24	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-142-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
Di-n-octylphthalate	20	J	17	MDL	170	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	Method:	8270C SIM	Matrix:	AQ
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Sample ID: EB-SA7-SB-092211      Collected: 9/22/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	0.15	J	0.051	MDL	1.0	PQL	ug/L	U	B
Diethylphthalate	0.34	J	0.051	MDL	1.0	PQL	ug/L	J	Z
Di-n-butylphthalate	0.82	J	0.051	MDL	1.0	PQL	ug/L	J	Z

Method Category:	SVOA	Method:	8270C SIM	Matrix:	SO
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Sample ID: SL-011-SA7-SS-0.0-0.5      Collected: 9/22/2011 10:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.93	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.96	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.95	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	17	J	6.1	MDL	18	PQL	ug/Kg	J	Z
Butylbenzylphthalate	11	J	6.1	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.95	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.88	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-012-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
2-METHYLNAPHTHALENE	0.89	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.62	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.73	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
Di-n-butylphthalate	14	J	6.1	MDL	18	PQL	ug/Kg	J	Z
NAPHTHALENE	1.4	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-013-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
ANTHRACENE	0.79	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
Di-n-butylphthalate	11	J	6.1	MDL	18	PQL	ug/Kg	J	Z
NAPHTHALENE	1.0	J	0.68	MDL	1.7	PQL	ug/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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C SIM
		<b>Matrix:</b>	SO

Sample ID: SL-020-SA7-SS-0.0-0.5      Collected: 9/22/2011 10:00:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.3	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.6	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.83	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	7.4	J	6.1	MDL	18	PQL	ug/Kg	J	Z
Butylbenzylphthalate	15	J	6.1	MDL	18	PQL	ug/Kg	J	Z
PHENANTHRENE	1.3	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-023-SA7-SS-0.0-0.5      Collected: 9/21/2011 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-METHYLNAPHTHALENE	0.96	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	1.2	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.68	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	8.7	J	6.1	MDL	18	PQL	ug/Kg	J	Z

Sample ID: SL-055-SA7-SS-0.0-0.5      Collected: 9/22/2011 8:00:00      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	1.3	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
ACENAPHTHENE	0.82	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	1.1	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	14	J	6.1	MDL	18	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.77	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-072-SA7-SB-4.0-5.0      Collected: 9/22/2011 10:24:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.82	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	0.97	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-072-SA7-SB-7.5-8.5      Collected: 9/22/2011 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
2-METHYLNAPHTHALENE	1.1	J	0.74	MDL	1.8	PQL	ug/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: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVQA	Method:	8270C SIM	Matrix:	SO
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Sample ID: SL-072-SA7-SB-7.5-8.5      Collected: 9/22/2011 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
ACENAPHTHENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
NAPHTHALENE	1.1	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	0.87	J	0.74	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-074-SA7-SB-4.0-5.0      Collected: 9/22/2011 12:25:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.2	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	0.71	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.81	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-075-SA7-SB-4.0-5.0      Collected: 9/22/2011 8:20:00      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	0.96	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.4	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-075-SA7-SB-9.0-10.0      Collected: 9/22/2011 8:26:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.0	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	11	J	6.6	MDL	20	PQL	ug/Kg	J	Z
NAPHTHALENE	1.1	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-077-SA7-SB-4.0-5.0      Collected: 9/22/2011 9:31:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.86	J	0.70	MDL	1.8	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.7	J	0.70	MDL	1.8	PQL	ug/Kg	J	Z
ACENAPHTHENE	1.3	J	0.70	MDL	1.8	PQL	ug/Kg	J	Z
FLUORENE	0.77	J	0.70	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	1.0	J	0.70	MDL	1.8	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVCA	
<b>Method:</b>	8270C SIM	<b>Matrix:</b> SO

Sample ID: SL-088-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
2-METHYLNAPHTHALENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.75	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.3	J	6.1	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.95	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-101-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
Di-n-octylphthalate	8.2	J	6.1	MDL	18	PQL	ug/Kg	J	Z

Sample ID: SL-141-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:45:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.76	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
ACENAPHTHENE	0.77	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	1.3	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.51	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-142-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
1-METHYLNAPHTHALENE	0.90	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.57	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.42	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.3	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.3	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-143-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
1-METHYLNAPHTHALENE	0.91	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.53	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVDA	
Method:	8270C SIM	Matrix: SO

Sample ID: SL-143-SA7-SS-0.0-0.5      Collected: 9/21/2011 1:40:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(G,H,I)PERYLENE	0.72	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.4	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	1.5	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.70	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-151-SA7-SS-0.0-0.5      Collected: 9/22/2011 7:40:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.70	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.47	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	14	J	6.1	MDL	18	PQL	ug/Kg	J	Z
Di-n-butylphthalate	13	J	6.1	MDL	18	PQL	ug/Kg	J	Z
Di-n-octylphthalate	7.4	J	6.1	MDL	18	PQL	ug/Kg	J	Z

Method Category:	VCA	
Method:	8015B	Matrix: SO

Sample ID: SL-072-SA7-SB-7.5-8.5      Collected: 9/22/2011 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
METHANOL	140	J	110	MDL	550	PQL	ug/Kg	J	Z

Sample ID: SL-141-SA7-SS-0.0-0.5      Collected: 9/21/2011 2:45:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	180	J	100	MDL	500	PQL	ug/Kg	J	Z

Sample ID: SL-143-SA7-SS-0.0-0.5      Collected: 9/21/2011 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
METHANOL	160	J	100	MDL	520	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	VOA	
<b>Method:</b>	8260B	<b>Matrix:</b> AQ

Sample ID: EB-SA7-SB-092211

Collected: 9/22/2011 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
METHYLENE CHLORIDE	3	J	2	MDL	5	PQL	ug/L	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_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	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: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_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

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE251

# Method Blank Outlier Report

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 1625C  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWA26B261601	10/3/2011 4:01:00 PM	N-NITROSODIMETHYLAMINE	1.47 ng/L	EB-SA7-SB-092211

*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
EB-SA7-SB-092211(RES)	N-NITROSODIMETHYLAMINE	3.19 ng/L	3.19U ng/L

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P26908EB220703	10/3/2011 7:03:00 AM	CALCIUM IRON PHOSPHORUS TIN	3.28 mg/Kg 3.68 mg/Kg 1.15 mg/Kg 1.39 mg/Kg	SL-011-SA7-SS-0.0-0.5 SL-012-SA7-SS-0.0-0.5 SL-013-SA7-SS-0.0-0.5 SL-020-SA7-SS-0.0-0.5 SL-023-SA7-SS-0.0-0.5 SL-039-SA7-SB-4.0-5.0 SL-055-SA7-SS-0.0-0.5 SL-072-SA7-SB-4.0-5.0 SL-072-SA7-SB-7.5-8.5 SL-074-SA7-SB-4.0-5.0 SL-075-SA7-SB-4.0-5.0 SL-075-SA7-SB-9.0-10.0 SL-077-SA7-SB-4.0-5.0 SL-088-SA7-SS-0.0-0.5 SL-101-SA7-SS-0.0-0.5 SL-141-SA7-SS-0.0-0.5 SL-142-SA7-SS-0.0-0.5 SL-143-SA7-SS-0.0-0.5 SL-151-SA7-SS-0.0-0.5
P27708BB220741	10/5/2011 7:41:00 AM	TITANIUM	0.0840 mg/Kg	SL-011-SA7-SS-0.0-0.5 SL-012-SA7-SS-0.0-0.5 SL-013-SA7-SS-0.0-0.5 SL-020-SA7-SS-0.0-0.5 SL-023-SA7-SS-0.0-0.5 SL-039-SA7-SB-4.0-5.0 SL-055-SA7-SS-0.0-0.5 SL-072-SA7-SB-4.0-5.0 SL-072-SA7-SB-7.5-8.5 SL-074-SA7-SB-4.0-5.0 SL-075-SA7-SB-4.0-5.0 SL-075-SA7-SB-9.0-10.0 SL-077-SA7-SB-4.0-5.0 SL-088-SA7-SS-0.0-0.5 SL-101-SA7-SS-0.0-0.5 SL-141-SA7-SS-0.0-0.5 SL-142-SA7-SS-0.0-0.5 SL-143-SA7-SS-0.0-0.5 SL-151-SA7-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-011-SA7-SS-0.0-0.5(REA2)	TIN	2.37 mg/Kg	2.37U mg/Kg
SL-012-SA7-SS-0.0-0.5(REA2)	TIN	2.46 mg/Kg	2.46U mg/Kg
SL-013-SA7-SS-0.0-0.5(REA2)	TIN	2.34 mg/Kg	2.34U mg/Kg
SL-020-SA7-SS-0.0-0.5(REA2)	TIN	2.60 mg/Kg	2.60U mg/Kg

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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*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-023-SA7-SS-0.0-0.5(REA2)	TIN	2.57 mg/Kg	2.57U mg/Kg
SL-039-SA7-SB-4.0-5.0(REA2)	TIN	2.81 mg/Kg	2.81U mg/Kg
SL-055-SA7-SS-0.0-0.5(REA2)	TIN	2.45 mg/Kg	2.45U mg/Kg
SL-072-SA7-SB-4.0-5.0(REA2)	TIN	3.09 mg/Kg	3.09U mg/Kg
SL-072-SA7-SB-7.5-8.5(REA2)	TIN	2.74 mg/Kg	2.74U mg/Kg
SL-074-SA7-SB-4.0-5.0(REA2)	TIN	2.71 mg/Kg	2.71U mg/Kg
SL-075-SA7-SB-4.0-5.0(REA2)	TIN	2.61 mg/Kg	2.61U mg/Kg
SL-075-SA7-SB-9.0-10.0(REA2)	TIN	2.32 mg/Kg	2.32U mg/Kg
SL-077-SA7-SB-4.0-5.0(REA2)	TIN	2.77 mg/Kg	2.77U mg/Kg
SL-088-SA7-SS-0.0-0.5(REA2)	TIN	2.44 mg/Kg	2.44U mg/Kg
SL-101-SA7-SS-0.0-0.5(REA2)	TIN	2.74 mg/Kg	2.74U mg/Kg
SL-141-SA7-SS-0.0-0.5(REA2)	TIN	2.28 mg/Kg	2.28U mg/Kg
SL-142-SA7-SS-0.0-0.5(REA2)	TIN	2.21 mg/Kg	2.21U mg/Kg
SL-143-SA7-SS-0.0-0.5(REA2)	TIN	2.64 mg/Kg	2.64U mg/Kg
SL-151-SA7-SS-0.0-0.5(REA2)	TIN	2.73 mg/Kg	2.73U mg/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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P26926AB220448A	10/4/2011 4:48:00 AM	LEAD	0.0329 mg/Kg	SL-011-SA7-SS-0.0-0.5 SL-012-SA7-SS-0.0-0.5 SL-013-SA7-SS-0.0-0.5 SL-020-SA7-SS-0.0-0.5 SL-023-SA7-SS-0.0-0.5 SL-039-SA7-SB-4.0-5.0 SL-055-SA7-SS-0.0-0.5 SL-072-SA7-SB-4.0-5.0 SL-072-SA7-SB-7.5-8.5 SL-074-SA7-SB-4.0-5.0 SL-075-SA7-SB-4.0-5.0 SL-075-SA7-SB-9.0-10.0 SL-077-SA7-SB-4.0-5.0 SL-088-SA7-SS-0.0-0.5 SL-101-SA7-SS-0.0-0.5 SL-141-SA7-SS-0.0-0.5 SL-142-SA7-SS-0.0-0.5 SL-143-SA7-SS-0.0-0.5 SL-151-SA7-SS-0.0-0.5
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**Method:** 7470A  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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P26913GB221018	9/28/2011 10:18:00 AM	MERCURY	0.000051 mg/L	EB-SA7-SB-092211
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# Method Blank Outlier Report

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7470A  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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*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
EB-SA7-SB-092211(RES)	MERCURY	0.000041 mg/L	0.000041U mg/L

**Method:** 8015B  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P70706AB320238A	9/29/2011 2:38:00 AM	METHANOL	240 ug/L	EB-SA7-SB-092211

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWI26B262107	10/1/2011 9:07:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	0.13 ug/L	EB-SA7-SB-092211

*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
EB-SA7-SB-092211(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.15 ug/L	1.0U ug/L

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8081A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-011-SA7-SS-0.0-0.5MS SL-011-SA7-SS-0.0-0.5MSD (SL-011-SA7-SS-0.0-0.5)	HEPTACHLOR EPOXIDE	285	-	13.00-157.00	67 (50.00)	HEPTACHLOR EPOXIDE	J (all detects)
SL-011-SA7-SS-0.0-0.5MSD (SL-011-SA7-SS-0.0-0.5)	4,4'-DDT	-	-45	10.00-176.00	-	4,4'-DDT	J(all detects) R(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-012-SA7-SS-0.0-0.5MSD (SL-012-SA7-SS-0.0-0.5)	ETHANOL	-	-	48.00-130.00	21 (20.00)	ETHANOL	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-012-SA7-SS-0.0-0.5MS SL-012-SA7-SS-0.0-0.5MSD (SL-012-SA7-SS-0.0-0.5)	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	140 168 140 504	143 190 346 390	49.00-123.00 49.00-123.00 49.00-123.00 49.00-123.00	- - 23 (20.00) -	EFH (C12-C14) EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	J(all detects) EFH (C21-C30) and (C30-C40), No Qual, >4x

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-013-SA7-SS-0.0-0.5MSD (SL-013-SA7-SS-0.0-0.5)	DICHLOROPROP MCPA	- -	- 315	33.00-178.00 10.00-213.00	56 (50.00) 182 (50.00)	DICHLOROPROP MCPA	J(all detects)
SL-013-SA7-SS-0.0-0.5MS SL-013-SA7-SS-0.0-0.5MSD (SL-013-SA7-SS-0.0-0.5)	2,4-DB	-134	-143	10.00-201.00	-	2,4-DB	J(all detects) R(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-055-SA7-SS-0.0-0.5MS SL-055-SA7-SS-0.0-0.5MSD (SL-055-SA7-SS-0.0-0.5)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	13 31 44	13 32 44	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)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_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-011-SA7-SS-0.0-0.5MS SL-011-SA7-SS-0.0-0.5MSD (SL-011-SA7-SS-0.0-0.5 SL-012-SA7-SS-0.0-0.5 SL-013-SA7-SS-0.0-0.5 SL-020-SA7-SS-0.0-0.5 SL-023-SA7-SS-0.0-0.5 SL-039-SA7-SB-4.0-5.0 SL-055-SA7-SS-0.0-0.5 SL-072-SA7-SB-4.0-5.0 SL-072-SA7-SB-7.5-8.5 SL-074-SA7-SB-4.0-5.0 SL-075-SA7-SB-4.0-5.0 SL-075-SA7-SB-9.0-10.0 SL-077-SA7-SB-4.0-5.0 SL-088-SA7-SS-0.0-0.5 SL-101-SA7-SS-0.0-0.5 SL-141-SA7-SS-0.0-0.5 SL-142-SA7-SS-0.0-0.5 SL-143-SA7-SS-0.0-0.5 SL-151-SA7-SS-0.0-0.5)	ARSENIC COPPER NICKEL	13 28 -25	23 37 -16	75.00-125.00 75.00-125.00 75.00-125.00	- - -	ARSENIC COPPER NICKEL	As, J(all detects) R(all non-detects)  As Post Spike = 129%  Cu, Ni, J(all detects) UJ(all non-detects)  Cu Post Spike = 93% Ni Post Spike = 82%
SL-011-SA7-SS-0.0-0.5MS SL-011-SA7-SS-0.0-0.5MSD (SL-011-SA7-SS-0.0-0.5 SL-012-SA7-SS-0.0-0.5 SL-013-SA7-SS-0.0-0.5 SL-020-SA7-SS-0.0-0.5 SL-023-SA7-SS-0.0-0.5 SL-039-SA7-SB-4.0-5.0 SL-055-SA7-SS-0.0-0.5 SL-072-SA7-SB-4.0-5.0 SL-072-SA7-SB-7.5-8.5 SL-074-SA7-SB-4.0-5.0 SL-075-SA7-SB-4.0-5.0 SL-075-SA7-SB-9.0-10.0 SL-077-SA7-SB-4.0-5.0 SL-088-SA7-SS-0.0-0.5 SL-101-SA7-SS-0.0-0.5 SL-141-SA7-SS-0.0-0.5 SL-142-SA7-SS-0.0-0.5 SL-143-SA7-SS-0.0-0.5 SL-151-SA7-SS-0.0-0.5)	ANTIMONY CHROMIUM LEAD VANADIUM ZINC	39 46 56 49 40	34 56 - 65 -	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	ANTIMONY CHROMIUM LEAD VANADIUM ZINC	J(all detects) UJ(all non-detects)  Zn, No Qual, >4x
SL-011-SA7-SS-0.0-0.5MS (SL-011-SA7-SS-0.0-0.5 SL-012-SA7-SS-0.0-0.5 SL-013-SA7-SS-0.0-0.5 SL-020-SA7-SS-0.0-0.5 SL-023-SA7-SS-0.0-0.5 SL-039-SA7-SB-4.0-5.0 SL-055-SA7-SS-0.0-0.5 SL-072-SA7-SB-4.0-5.0 SL-072-SA7-SB-7.5-8.5 SL-074-SA7-SB-4.0-5.0 SL-075-SA7-SB-4.0-5.0 SL-075-SA7-SB-9.0-10.0 SL-077-SA7-SB-4.0-5.0 SL-088-SA7-SS-0.0-0.5 SL-101-SA7-SS-0.0-0.5 SL-141-SA7-SS-0.0-0.5 SL-142-SA7-SS-0.0-0.5 SL-143-SA7-SS-0.0-0.5 SL-151-SA7-SS-0.0-0.5)	BARIUM	59	-	75.00-125.00	-	BARIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_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-011-SA7-SS-0.0-0.5MS SL-011-SA7-SS-0.0-0.5MSD (SL-011-SA7-SS-0.0-0.5 SL-012-SA7-SS-0.0-0.5 SL-013-SA7-SS-0.0-0.5 SL-020-SA7-SS-0.0-0.5 SL-023-SA7-SS-0.0-0.5 SL-039-SA7-SB-4.0-5.0 SL-055-SA7-SS-0.0-0.5 SL-072-SA7-SB-4.0-5.0 SL-072-SA7-SB-7.5-8.5 SL-074-SA7-SB-4.0-5.0 SL-075-SA7-SB-4.0-5.0 SL-075-SA7-SB-9.0-10.0 SL-077-SA7-SB-4.0-5.0 SL-088-SA7-SS-0.0-0.5 SL-101-SA7-SS-0.0-0.5 SL-141-SA7-SS-0.0-0.5 SL-142-SA7-SS-0.0-0.5 SL-143-SA7-SS-0.0-0.5 SL-151-SA7-SS-0.0-0.5)	ALUMINUM CALCIUM IRON MAGNESIUM	1039 136 2103 195	1101 185 450 182	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINUM CALCIUM IRON MAGNESIUM	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-011-SA7-SS-0.0-0.5MS (SL-011-SA7-SS-0.0-0.5 SL-012-SA7-SS-0.0-0.5 SL-013-SA7-SS-0.0-0.5 SL-020-SA7-SS-0.0-0.5 SL-023-SA7-SS-0.0-0.5 SL-055-SA7-SS-0.0-0.5 SL-088-SA7-SS-0.0-0.5 SL-101-SA7-SS-0.0-0.5 SL-141-SA7-SS-0.0-0.5 SL-151-SA7-SS-0.0-0.5)	Nitrate-NO3	125	-	80.00-120.00	-	Nitrate-NO3	J(all detects)
SL-011-SA7-SS-0.0-0.5MS (SL-011-SA7-SS-0.0-0.5 SL-012-SA7-SS-0.0-0.5 SL-013-SA7-SS-0.0-0.5 SL-020-SA7-SS-0.0-0.5 SL-023-SA7-SS-0.0-0.5 SL-055-SA7-SS-0.0-0.5 SL-088-SA7-SS-0.0-0.5 SL-101-SA7-SS-0.0-0.5 SL-141-SA7-SS-0.0-0.5 SL-151-SA7-SS-0.0-0.5)	FLUORIDE	79	-	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-011-SA7-SS-0.0-0.5MS SL-011-SA7-SS-0.0-0.5MSD (SL-011-SA7-SS-0.0-0.5)	BENZIDINE	15	0	35.00-141.00	200 (30.00)	BENZIDINE	J(all detects) R(all non-detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_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
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**Method: 8010B**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-011-SA7-SS-0.0-0.5MSD (SL-011-SA7-SS-0.0-0.5 SL-012-SA7-SS-0.0-0.5 SL-013-SA7-SS-0.0-0.5 SL-020-SA7-SS-0.0-0.5 SL-023-SA7-SS-0.0-0.5 SL-039-SA7-SB-4.0-5.0 SL-055-SA7-SS-0.0-0.5 SL-072-SA7-SB-4.0-5.0 SL-072-SA7-SB-7.5-8.5 SL-074-SA7-SB-4.0-5.0 SL-075-SA7-SB-4.0-5.0 SL-075-SA7-SB-9.0-10.0 SL-077-SA7-SB-4.0-5.0 SL-088-SA7-SS-0.0-0.5 SL-101-SA7-SS-0.0-0.5 SL-141-SA7-SS-0.0-0.5 SL-142-SA7-SS-0.0-0.5 SL-143-SA7-SS-0.0-0.5 SL-151-SA7-SS-0.0-0.5)	TITANIUM	-	176	75.00-125.00	-	TITANIUM	No Qual, >4x

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-011-SA7-SS-0.0-0.5DUP (SL-011-SA7-SS-0.0-0.5 SL-012-SA7-SS-0.0-0.5 SL-013-SA7-SS-0.0-0.5 SL-020-SA7-SS-0.0-0.5 SL-023-SA7-SS-0.0-0.5 SL-039-SA7-SB-4.0-5.0 SL-055-SA7-SS-0.0-0.5 SL-072-SA7-SB-4.0-5.0 SL-072-SA7-SB-7.5-8.5 SL-074-SA7-SB-4.0-5.0 SL-075-SA7-SB-4.0-5.0 SL-075-SA7-SB-9.0-10.0 SL-077-SA7-SB-4.0-5.0 SL-088-SA7-SS-0.0-0.5 SL-101-SA7-SS-0.0-0.5 SL-141-SA7-SS-0.0-0.5 SL-142-SA7-SS-0.0-0.5 SL-143-SA7-SS-0.0-0.5 SL-151-SA7-SS-0.0-0.5)	Zirconium	44	20.00	No Qual, OK by Difference

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-011-SA7-SS-0.0-0.5DUP (SL-011-SA7-SS-0.0-0.5 SL-012-SA7-SS-0.0-0.5 SL-013-SA7-SS-0.0-0.5 SL-020-SA7-SS-0.0-0.5 SL-023-SA7-SS-0.0-0.5 SL-039-SA7-SB-4.0-5.0 SL-055-SA7-SS-0.0-0.5 SL-072-SA7-SB-4.0-5.0 SL-072-SA7-SB-7.5-8.5 SL-074-SA7-SB-4.0-5.0 SL-075-SA7-SB-4.0-5.0 SL-075-SA7-SB-9.0-10.0 SL-077-SA7-SB-4.0-5.0 SL-088-SA7-SS-0.0-0.5 SL-101-SA7-SS-0.0-0.5 SL-141-SA7-SS-0.0-0.5 SL-142-SA7-SS-0.0-0.5 SL-143-SA7-SS-0.0-0.5 SL-151-SA7-SS-0.0-0.5)	ANTIMONY ARSENIC CHROMIUM COBALT COPPER MOLYBDENUM NICKEL SELENIUM VANADIUM	200 38 38 30 77 0.6121 mg/Kg 108 74 22	20.00 20.00 20.00 20.00 20.00 0.1982 mg/Kg 20.00 20.00 20.00	J(all detects) UJ(all non-detects)  Sb, Se, No Qual, OK by Difference

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 7199  
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-012-SA7-SS-0.0-0.5DUP (SL-011-SA7-SS-0.0-0.5 SL-012-SA7-SS-0.0-0.5 SL-013-SA7-SS-0.0-0.5 SL-020-SA7-SS-0.0-0.5 SL-023-SA7-SS-0.0-0.5 SL-039-SA7-SB-4.0-5.0 SL-055-SA7-SS-0.0-0.5 SL-072-SA7-SB-4.0-5.0 SL-072-SA7-SB-7.5-8.5 SL-074-SA7-SB-4.0-5.0 SL-075-SA7-SB-4.0-5.0 SL-075-SA7-SB-9.0-10.0 SL-077-SA7-SB-4.0-5.0 SL-088-SA7-SS-0.0-0.5 SL-101-SA7-SS-0.0-0.5 SL-141-SA7-SS-0.0-0.5 SL-142-SA7-SS-0.0-0.5 SL-143-SA7-SS-0.0-0.5 SL-151-SA7-SS-0.0-0.5)	HEXAVALENT CHROMIUM	200	20.00	No Qual, OK by Difference

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_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
P7WHLCSY262257 (EB-SA7-SB-092211)	NITROBENZENE	-	111	75.00-109.00	-	NITROBENZENE	J (all detects)
P7WHLCSY262257 (EB-SA7-SB-092211)	BENZOIC ACID	-	-	10.00-69.00	31 (30.00)	BENZOIC ACID	J(all detects) UJ(all non-detects)

**Method: 8020**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P26926AQ220450A (SL-011-SA7-SS-0.0-0.5 SL-012-SA7-SS-0.0-0.5 SL-013-SA7-SS-0.0-0.5 SL-020-SA7-SS-0.0-0.5 SL-023-SA7-SS-0.0-0.5 SL-039-SA7-SB-4.0-5.0 SL-055-SA7-SS-0.0-0.5 SL-072-SA7-SB-4.0-5.0 SL-072-SA7-SB-7.5-8.5 SL-074-SA7-SB-4.0-5.0 SL-075-SA7-SB-4.0-5.0 SL-075-SA7-SB-9.0-10.0 SL-077-SA7-SB-4.0-5.0 SL-088-SA7-SS-0.0-0.5 SL-101-SA7-SS-0.0-0.5 SL-141-SA7-SS-0.0-0.5 SL-142-SA7-SS-0.0-0.5 SL-143-SA7-SS-0.0-0.5 SL-151-SA7-SS-0.0-0.5)	ANTIMONY	65	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC Limits

**Method: 8010B**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P26908EQ220707 (SL-011-SA7-SS-0.0-0.5 SL-012-SA7-SS-0.0-0.5 SL-013-SA7-SS-0.0-0.5 SL-020-SA7-SS-0.0-0.5 SL-023-SA7-SS-0.0-0.5 SL-039-SA7-SB-4.0-5.0 SL-055-SA7-SS-0.0-0.5 SL-072-SA7-SB-4.0-5.0 SL-072-SA7-SB-7.5-8.5 SL-074-SA7-SB-4.0-5.0 SL-075-SA7-SB-4.0-5.0 SL-075-SA7-SB-9.0-10.0 SL-077-SA7-SB-4.0-5.0 SL-088-SA7-SS-0.0-0.5 SL-101-SA7-SS-0.0-0.5 SL-141-SA7-SS-0.0-0.5 SL-142-SA7-SS-0.0-0.5 SL-143-SA7-SS-0.0-0.5 SL-151-SA7-SS-0.0-0.5)	ALUMINUM	138	-	80.00-120.00	-	ALUMINUM	No Qual, SRM within QC Limits

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_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
<b>P4LALCSQ260627</b> (SL-011-SA7-SS-0.0-0.5 SL-012-SA7-SS-0.0-0.5 SL-013-SA7-SS-0.0-0.5 SL-020-SA7-SS-0.0-0.5 SL-023-SA7-SS-0.0-0.5 SL-039-SA7-SB-4.0-5.0 SL-055-SA7-SS-0.0-0.5 SL-072-SA7-SB-4.0-5.0 SL-074-SA7-SB-4.0-5.0 SL-075-SA7-SB-4.0-5.0 SL-075-SA7-SB-8.0-10.0 SL-077-SA7-SB-4.0-5.0 SL-088-SA7-SS-0.0-0.5 SL-101-SA7-SS-0.0-0.5 SL-141-SA7-SS-0.0-0.5 SL-142-SA7-SS-0.0-0.5 SL-143-SA7-SS-0.0-0.5 SL-151-SA7-SS-0.0-0.5)	FLUORANTHENE	120	-	78.00-116.00	-	FLUORANTHENE	J(all detects)
<b>P7LCLCSQ262217</b> (SL-072-SA7-SB-7.5-8.5)	4,6-DINITRO-2-METHYLPHENOL	43	-	46.00-120.00	-	4,6-DINITRO-2-METHYLPHEN	J(all detects) UJ(all non-detects)

# Surrogate Outlier Report

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 1625C  
Matrix: AQ

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
EB-SA7-SB-092211	N-Nitrosodimethylamine-d6	320	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-055-SA7-SS-0.0-0.5	N-Nitrosodimethylamine-d6	168	50.00-150.00	All Target Analytes	No Qual, Diluted Out

Method: 8015B  
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-012-SA7-SS-0.0-0.5	n-Triacontane-d62	164	19.00-152.00	All Target Analytes	J(all detects)
SL-013-SA7-SS-0.0-0.5	n-Triacontane-d62	232	19.00-152.00	All Target Analytes	J(all detects)
SL-088-SA7-SS-0.0-0.5	n-Triacontane-d62	1396	19.00-152.00	All Target Analytes	J(all detects)
SL-151-SA7-SS-0.0-0.5	ACETONE	146	42.00-138.00	All Target Analytes	J(all detects)

Method: 8081A  
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-013-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	124	20.00-120.00	All Target Analytes	J(all detects)
SL-023-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	136	20.00-120.00	All Target Analytes	J(all detects)
SL-088-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	121	20.00-120.00	All Target Analytes	J(all detects)
SL-101-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	190	20.00-120.00	All Target Analytes	J(all detects)
SL-141-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	129	20.00-120.00	All Target Analytes	J(all detects)
SL-143-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	121	20.00-120.00	All Target Analytes	J(all detects)
SL-151-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	0	20.00-120.00	All Target Analytes	J(all detects) R(all non-detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Surrogate Outlier Report

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 8270C SIM  
Matrix: AQ

<i>Sample ID</i>	<i>Surrogate</i>	<i>Sample % Recovery</i>	<i>% Recovery Limits</i>	<i>Affected Compounds</i>	<i>Flag</i>
EB-SA7-SB-092211	Nitrobenzene-d5	177	40.00-130.00	No Affected Compounds	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6010B  
**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-092211	BORON	J	0.0033	0.0500	PQL	mg/L	J (all detects)

**Method:** 6020  
**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-092211	LEAD	J	0.00042	0.0010	PQL	mg/L	J (all detects)

**Method:** 7470A  
**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-092211	MERCURY	J	0.000041	0.00020	PQL	mg/L	J (all detects)

**Method:** 8260B  
**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-092211	METHYLENE CHLORIDE	J	3	5	PQL	ug/L	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-092211	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.15	1.0	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.34	1.0	PQL	ug/L	
	Di-n-butylphthalate	J	0.82	1.0	PQL	ug/L	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-011-SA7-SS-0.0-0.5	BORON	J	3.42	5.00	PQL	mg/Kg	J (all detects)
	SODIUM	J	49.8	100	PQL	mg/Kg	
	TIN	J	2.37	10.0	PQL	mg/Kg	
	Zirconium	J	0.932	5.00	PQL	mg/Kg	
SL-012-SA7-SS-0.0-0.5	SODIUM	J	56.4	98.7	PQL	mg/Kg	J (all detects)
	TIN	J	2.46	9.87	PQL	mg/Kg	
	Zirconium	J	0.815	4.93	PQL	mg/Kg	
SL-013-SA7-SS-0.0-0.5	SODIUM	J	59.8	97.8	PQL	mg/Kg	J (all detects)
	TIN	J	2.34	9.78	PQL	mg/Kg	
	Zirconium	J	0.700	4.89	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA7-SS-0.0-0.5	SODIUM	J	65.0	102	PQL	mg/Kg	J (all detects)
	TIN	J	2.60	10.2	PQL	mg/Kg	
	Zirconium	J	0.778	5.11	PQL	mg/Kg	
SL-023-SA7-SS-0.0-0.5	SODIUM	J	67.3	101	PQL	mg/Kg	J (all detects)
	TIN	J	2.57	10.1	PQL	mg/Kg	
	Zirconium	J	0.995	5.04	PQL	mg/Kg	
SL-039-SA7-SB-4.0-5.0	SODIUM	J	100	109	PQL	mg/Kg	J (all detects)
	TIN	J	2.81	10.9	PQL	mg/Kg	
	Zirconium	J	1.51	5.45	PQL	mg/Kg	
SL-055-SA7-SS-0.0-0.5	SODIUM	J	79.7	104	PQL	mg/Kg	J (all detects)
	TIN	J	2.45	10.4	PQL	mg/Kg	
	Zirconium	J	1.01	5.20	PQL	mg/Kg	
SL-072-SA7-SB-4.0-5.0	TIN	J	3.09	11.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.88	5.54	PQL	mg/Kg	
SL-072-SA7-SB-7.5-8.5	BORON	J	4.94	5.33	PQL	mg/Kg	J (all detects)
	SODIUM	J	86.1	107	PQL	mg/Kg	
	TIN	J	2.74	10.7	PQL	mg/Kg	
	Zirconium	J	1.60	5.33	PQL	mg/Kg	
SL-074-SA7-SB-4.0-5.0	SODIUM	J	64.4	99.7	PQL	mg/Kg	J (all detects)
	TIN	J	2.71	9.97	PQL	mg/Kg	
	Zirconium	J	1.43	4.99	PQL	mg/Kg	
SL-075-SA7-SB-4.0-5.0	SODIUM	J	88.5	104	PQL	mg/Kg	J (all detects)
	TIN	J	2.61	10.4	PQL	mg/Kg	
	Zirconium	J	1.12	5.18	PQL	mg/Kg	
SL-075-SA7-SB-9.0-10.0	TIN	J	2.32	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	0.966	5.28	PQL	mg/Kg	
SL-077-SA7-SB-4.0-5.0	SODIUM	J	89.4	105	PQL	mg/Kg	J (all detects)
	TIN	J	2.77	10.5	PQL	mg/Kg	
SL-088-SA7-SS-0.0-0.5	SODIUM	J	64.1	101	PQL	mg/Kg	J (all detects)
	TIN	J	2.44	10.1	PQL	mg/Kg	
	Zirconium	J	1.14	5.05	PQL	mg/Kg	
SL-101-SA7-SS-0.0-0.5	SODIUM	J	64.0	101	PQL	mg/Kg	J (all detects)
	TIN	J	2.74	10.1	PQL	mg/Kg	
SL-141-SA7-SS-0.0-0.5	BORON	J	5.04	5.05	PQL	mg/Kg	J (all detects)
	SODIUM	J	54.9	101	PQL	mg/Kg	
	TIN	J	2.28	10.1	PQL	mg/Kg	
	Zirconium	J	0.910	5.05	PQL	mg/Kg	
SL-142-SA7-SS-0.0-0.5	SODIUM	J	69.9	99.3	PQL	mg/Kg	J (all detects)
	TIN	J	2.21	9.93	PQL	mg/Kg	
	Zirconium	J	1.04	4.97	PQL	mg/Kg	
SL-143-SA7-SS-0.0-0.5	SODIUM	J	75.9	102	PQL	mg/Kg	J (all detects)
	TIN	J	2.64	10.2	PQL	mg/Kg	
	Zirconium	J	0.834	5.11	PQL	mg/Kg	
SL-151-SA7-SS-0.0-0.5	SODIUM	J	72.7	102	PQL	mg/Kg	J (all detects)
	TIN	J	2.73	10.2	PQL	mg/Kg	
	Zirconium	J	1.32	5.12	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-011-SA7-SS-0.0-0.5	ANTIMONY CADMIUM SELENIUM	J	0.141	0.198	PQL	mg/Kg	J (all detects)
		J	0.0893	0.0991	PQL	mg/Kg	
		J	0.130	0.396	PQL	mg/Kg	
SL-012-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.0717	0.402	PQL	mg/Kg	J (all detects)
		J	0.0287	0.101	PQL	mg/Kg	
SL-013-SA7-SS-0.0-0.5	SELENIUM THALLIUM	J	0.137	0.403	PQL	mg/Kg	J (all detects)
		J	0.313	0.504	PQL	mg/Kg	
SL-020-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.152	0.397	PQL	mg/Kg	J (all detects)
		J	0.0274	0.0993	PQL	mg/Kg	
SL-023-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.100	0.388	PQL	mg/Kg	J (all detects)
		J	0.0276	0.0970	PQL	mg/Kg	
SL-039-SA7-SB-4.0-5.0	SELENIUM SILVER	J	0.192	0.445	PQL	mg/Kg	J (all detects)
		J	0.0380	0.111	PQL	mg/Kg	
SL-055-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.0789	0.206	PQL	mg/Kg	J (all detects)
		J	0.127	0.412	PQL	mg/Kg	
		J	0.0297	0.103	PQL	mg/Kg	
SL-072-SA7-SB-4.0-5.0	ANTIMONY SELENIUM SILVER	J	0.0909	0.219	PQL	mg/Kg	J (all detects)
		J	0.215	0.439	PQL	mg/Kg	
		J	0.0302	0.110	PQL	mg/Kg	
SL-072-SA7-SB-7.5-8.5	SELENIUM SILVER	J	0.143	0.431	PQL	mg/Kg	J (all detects)
		J	0.0183	0.108	PQL	mg/Kg	
SL-074-SA7-SB-4.0-5.0	SELENIUM SILVER	J	0.181	0.419	PQL	mg/Kg	J (all detects)
		J	0.0298	0.105	PQL	mg/Kg	
SL-075-SA7-SB-4.0-5.0	CADMIUM SELENIUM SILVER	J	0.0860	0.105	PQL	mg/Kg	J (all detects)
		J	0.292	0.418	PQL	mg/Kg	
		J	0.0285	0.105	PQL	mg/Kg	
SL-075-SA7-SB-9.0-10.0	SELENIUM SILVER	J	0.195	0.426	PQL	mg/Kg	J (all detects)
		J	0.0231	0.107	PQL	mg/Kg	
SL-077-SA7-SB-4.0-5.0	CADMIUM SELENIUM SILVER	J	0.0681	0.105	PQL	mg/Kg	J (all detects)
		J	0.0815	0.419	PQL	mg/Kg	
		J	0.0219	0.105	PQL	mg/Kg	
SL-088-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.108	0.194	PQL	mg/Kg	J (all detects)
		J	0.190	0.388	PQL	mg/Kg	
		J	0.0431	0.0971	PQL	mg/Kg	
SL-101-SA7-SS-0.0-0.5	ANTIMONY SELENIUM	J	0.119	0.201	PQL	mg/Kg	J (all detects)
		J	0.140	0.403	PQL	mg/Kg	
SL-141-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.0807	0.200	PQL	mg/Kg	J (all detects)
		J	0.133	0.400	PQL	mg/Kg	
		J	0.0270	0.0999	PQL	mg/Kg	
SL-142-SA7-SS-0.0-0.5	ANTIMONY SELENIUM SILVER	J	0.0776	0.195	PQL	mg/Kg	J (all detects)
		J	0.104	0.390	PQL	mg/Kg	
		J	0.0273	0.0974	PQL	mg/Kg	
SL-143-SA7-SS-0.0-0.5	SELENIUM SILVER	J	0.113	0.401	PQL	mg/Kg	J (all detects)
		J	0.0397	0.100	PQL	mg/Kg	
SL-151-SA7-SS-0.0-0.5	ANTIMONY SELENIUM	J	0.104	0.199	PQL	mg/Kg	J (all detects)
		J	0.118	0.398	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7199  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.36	1.0	PQL	mg/Kg	J (all detects)
SL-039-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.64	1.2	PQL	mg/Kg	J (all detects)
SL-072-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.93	1.2	PQL	mg/Kg	J (all detects)
SL-072-SA7-SB-7.5-8.5	HEXAVALENT CHROMIUM	J	0.85	1.1	PQL	mg/Kg	J (all detects)
SL-074-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.25	1.1	PQL	mg/Kg	J (all detects)
SL-075-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.29	1.1	PQL	mg/Kg	J (all detects)
SL-075-SA7-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.26	1.1	PQL	mg/Kg	J (all detects)
SL-077-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.27	1.1	PQL	mg/Kg	J (all detects)
SL-101-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.23	1.0	PQL	mg/Kg	J (all detects)
SL-141-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.42	1.0	PQL	mg/Kg	J (all detects)
SL-151-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.60	1.0	PQL	mg/Kg	J (all detects)

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA7-SS-0.0-0.5	MERCURY	J	0.0145	0.0988	PQL	mg/Kg	J (all detects)
SL-013-SA7-SS-0.0-0.5	MERCURY	J	0.0096	0.0978	PQL	mg/Kg	J (all detects)
SL-020-SA7-SS-0.0-0.5	MERCURY	J	0.0113	0.0980	PQL	mg/Kg	J (all detects)
SL-023-SA7-SS-0.0-0.5	MERCURY	J	0.0513	0.0974	PQL	mg/Kg	J (all detects)
SL-039-SA7-SB-4.0-5.0	MERCURY	J	0.0165	0.106	PQL	mg/Kg	J (all detects)
SL-055-SA7-SS-0.0-0.5	MERCURY	J	0.0409	0.101	PQL	mg/Kg	J (all detects)
SL-072-SA7-SB-4.0-5.0	MERCURY	J	0.0139	0.104	PQL	mg/Kg	J (all detects)
SL-075-SA7-SB-4.0-5.0	MERCURY	J	0.0073	0.100	PQL	mg/Kg	J (all detects)
SL-075-SA7-SB-9.0-10.0	MERCURY	J	0.0137	0.107	PQL	mg/Kg	J (all detects)
SL-088-SA7-SS-0.0-0.5	MERCURY	J	0.0195	0.0977	PQL	mg/Kg	J (all detects)
SL-101-SA7-SS-0.0-0.5	MERCURY	J	0.0242	0.0962	PQL	mg/Kg	J (all detects)
SL-141-SA7-SS-0.0-0.5	MERCURY	J	0.0688	0.0988	PQL	mg/Kg	J (all detects)
SL-142-SA7-SS-0.0-0.5	MERCURY	J	0.0433	0.0989	PQL	mg/Kg	J (all detects)
SL-143-SA7-SS-0.0-0.5	MERCURY	J	0.0253	0.0999	PQL	mg/Kg	J (all detects)
SL-151-SA7-SS-0.0-0.5	MERCURY	J	0.0600	0.0995	PQL	mg/Kg	J (all detects)

**Method:** 8015B  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-072-SA7-SB-7.5-8.5	METHANOL	J	140	550	PQL	ug/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8015B  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-141-SA7-SS-0.0-0.5	METHANOL	J	180	500	PQL	ug/Kg	J (all detects)
SL-143-SA7-SS-0.0-0.5	METHANOL	J	160	520	PQL	ug/Kg	J (all detects)

**Method:** 8015M  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-013-SA7-SS-0.0-0.5	EFH (C15-C20)	J	2.7	6.1	PQL	mg/Kg	J (all detects)
SL-072-SA7-SB-4.0-5.0	EFH (C30-C40)	J	1.1	1.3	PQL	mg/Kg	J (all detects)
SL-074-SA7-SB-4.0-5.0	EFH (C21-C30)	J	0.83	1.3	PQL	mg/Kg	J (all detects)
SL-075-SA7-SB-9.0-10.0	EFH (C15-C20)	J	0.68	1.3	PQL	mg/Kg	J (all detects)
SL-142-SA7-SS-0.0-0.5	EFH (C15-C20)	J	12	24	PQL	mg/Kg	J (all detects)
SL-143-SA7-SS-0.0-0.5	EFH (C15-C20)	J	4.3	6.2	PQL	mg/Kg	J (all detects)
SL-151-SA7-SS-0.0-0.5	EFH (C15-C20)	J	9.2	25	PQL	mg/Kg	J (all detects)

**Method:** 8081A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA7-SS-0.0-0.5	gamma-BHC (Lindane)	J	0.14	0.17	PQL	ug/Kg	J (all detects)
SL-013-SA7-SS-0.0-0.5	HEPTACHLOR	J	0.081	0.17	PQL	ug/Kg	J (all detects)
SL-023-SA7-SS-0.0-0.5	ALDRIN ALPHA-BHC	J J	0.12 0.059	0.17 0.17	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-055-SA7-SS-0.0-0.5	DELTA-BHC	J	0.072	0.17	PQL	ug/Kg	J (all detects)
SL-088-SA7-SS-0.0-0.5	HEPTACHLOR	J	0.11	0.17	PQL	ug/Kg	J (all detects)
SL-101-SA7-SS-0.0-0.5	gamma-BHC (Lindane) HEPTACHLOR	J J	0.064 0.072	0.17 0.17	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-141-SA7-SS-0.0-0.5	ENDRIN KETONE	J	0.23	0.34	PQL	ug/Kg	J (all detects)
SL-142-SA7-SS-0.0-0.5	HEPTACHLOR	J	0.098	0.17	PQL	ug/Kg	J (all detects)
SL-143-SA7-SS-0.0-0.5	HEPTACHLOR HEPTACHLOR EPOXIDE	J J	0.095 0.12	0.17 0.17	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-151-SA7-SS-0.0-0.5	BETA-BHC HEPTACHLOR	J J	0.067 0.064	0.17 0.17	PQL PQL	ug/Kg ug/Kg	J (all detects)

**Method:** 8082  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-011-SA7-SS-0.0-0.5	Aroclor 5460	J	1.5	3.4	PQL	ug/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8082  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA7-SS-0.0-0.5	Aroclor 5460	J	2.9	3.4	PQL	ug/Kg	J (all detects)
SL-013-SA7-SS-0.0-0.5	Aroclor 5460	J	3.2	3.4	PQL	ug/Kg	J (all detects)
SL-020-SA7-SS-0.0-0.5	AROCLOR 1254 Aroclor 5460	J J	1.5 1.9	1.7 3.4	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-072-SA7-SB-4.0-5.0	AROCLOR 1254	J	0.46	1.9	PQL	ug/Kg	J (all detects)
SL-075-SA7-SB-4.0-5.0	AROCLOR 1254 Aroclor 5460	J J	0.67 2.2	1.8 3.5	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-075-SA7-SB-9.0-10.0	AROCLOR 1242	J	0.74	1.9	PQL	ug/Kg	J (all detects)

**Method:** 8151A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA7-SS-0.0-0.5	DICAMBA	J	0.43	1.2	PQL	ug/Kg	J (all detects)
SL-151-SA7-SS-0.0-0.5	DICAMBA	J	0.81	1.2	PQL	ug/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA7-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	21	170	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	29	170	PQL	ug/Kg	
	PYRENE	J	26	170	PQL	ug/Kg	
SL-088-SA7-SS-0.0-0.5	BENZOIC ACID	J	210	500	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	84	340	PQL	ug/Kg	
SL-101-SA7-SS-0.0-0.5	BENZO(G,H,I)PERYLENE	J	33	170	PQL	ug/Kg	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	24	170	PQL	ug/Kg	
SL-142-SA7-SS-0.0-0.5	Di-n-octylphthalate	J	20	170	PQL	ug/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-011-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.93	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.96	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.95	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	17	18	PQL	ug/Kg	
	Butylbenzylphthalate	J	11	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.95	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.88	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	1.7	PQL	ug/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-012-SA7-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.89	1.7	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.62	1.7	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.73	1.7	PQL	ug/Kg	
	Di-n-butylphthalate	J	14	18	PQL	ug/Kg	
	NAPHTHALENE	J	1.4	1.7	PQL	ug/Kg	
SL-013-SA7-SS-0.0-0.5	ANTHRACENE	J	0.79	1.7	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	1.0	1.7	PQL	ug/Kg	
	Di-n-butylphthalate	J	11	18	PQL	ug/Kg	
	NAPHTHALENE	J	1.0	1.7	PQL	ug/Kg	
SL-020-SA7-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	1.3	1.7	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.6	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.83	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.4	18	PQL	ug/Kg	
	Butylbenzylphthalate	J	15	18	PQL	ug/Kg	
PHENANTHRENE	J	1.3	1.7	PQL	ug/Kg		
SL-023-SA7-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.96	1.7	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	1.2	1.7	PQL	ug/Kg	
	ANTHRACENE	J	0.68	1.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	8.7	18	PQL	ug/Kg	
SL-055-SA7-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	1.3	1.7	PQL	ug/Kg	J (all detects)
	ACENAPHTHENE	J	0.82	1.7	PQL	ug/Kg	
	ANTHRACENE	J	1.1	1.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	14	18	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.77	1.7	PQL	ug/Kg	
SL-072-SA7-SB-4.0-5.0	2-METHYLNAPHTHALENE	J	0.82	1.8	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	0.97	1.8	PQL	ug/Kg	
SL-072-SA7-SB-7.5-8.5	2-METHYLNAPHTHALENE	J	1.1	1.8	PQL	ug/Kg	J (all detects)
	ACENAPHTHENE	J	1.1	1.8	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	0.87	1.8	PQL	ug/Kg	
SL-074-SA7-SB-4.0-5.0	1-METHYLNAPHTHALENE	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	FLUORENE	J	0.71	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.81	1.7	PQL	ug/Kg	
SL-075-SA7-SB-4.0-5.0	2-METHYLNAPHTHALENE	J	0.96	1.7	PQL	ug/Kg	J (all detects)
	NAPHTHALENE	J	1.4	1.7	PQL	ug/Kg	
SL-075-SA7-SB-9.0-10.0	BENZO(B)FLUORANTHENE	J	1.0	1.8	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	11	20	PQL	ug/Kg	
	NAPHTHALENE	J	1.1	1.8	PQL	ug/Kg	
SL-077-SA7-SB-4.0-5.0	1-METHYLNAPHTHALENE	J	0.86	1.8	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.7	1.8	PQL	ug/Kg	
	ACENAPHTHENE	J	1.3	1.8	PQL	ug/Kg	
	FLUORENE	J	0.77	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	1.0	1.8	PQL	ug/Kg	
SL-088-SA7-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	1.2	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.75	1.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	6.3	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.95	1.7	PQL	ug/Kg	
SL-101-SA7-SS-0.0-0.5	Di-n-octylphthalate	J	8.2	18	PQL	ug/Kg	J (all detects)

## Reporting Limit Outliers

Lab Reporting Batch ID: DE251

Laboratory: LL

EDD Filename: DE251\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 8270C SIM  
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-141-SA7-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.76	1.7	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.4	1.7	PQL	ug/Kg	
	ACENAPHTHENE	J	0.77	1.7	PQL	ug/Kg	
	ACENAPHTHYLENE	J	1.3	1.7	PQL	ug/Kg	
	ANTHRACENE	J	0.51	1.7	PQL	ug/Kg	
SL-142-SA7-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.90	1.7	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	0.57	1.7	PQL	ug/Kg	
	ANTHRACENE	J	0.42	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.3	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.3	1.7	PQL	ug/Kg	
SL-143-SA7-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.91	1.7	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.53	1.7	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.1	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.72	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.4	1.7	PQL	ug/Kg	
	FLUORENE	J	1.5	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.70	1.7	PQL	ug/Kg	
SL-151-SA7-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.70	1.7	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.1	1.7	PQL	ug/Kg	
	ACENAPHTHYLENE	J	0.47	1.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	14	18	PQL	ug/Kg	
	Di-n-butylphthalate	J	13	18	PQL	ug/Kg	
	Di-n-octylphthalate	J	7.4	18	PQL	ug/Kg	

LDC #: 26859U4  
 SDG #: DE251  
 Laboratory: Lancaster Laboratories

**VALIDATION COMPLETENESS WORKSHEET**  
 ADR

Date: 12/30/11  
 Page: (of )  
 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	N	
III.	Calibration	N	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ba, Cu, Fe, Mg, Ti, Zn > 4x
VII.	Duplicate Sample Analysis	SW	Sb, Se, Sr, CsX, Mo by difference
VIII.	Laboratory Control Samples (LCS)	N	
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	SW	FB=20

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-011-SA7-SS-0.0-0.5	11	SL-142-SA7-SS-0.0-0.5	21	#1 MS (dup, trip)	31
2	SL-012-SA7-SS-0.0-0.5	12	SL-143-SA7-SS-0.0-0.5	22	↓ MS ↓	32
3	SL-013-SA7-SS-0.0-0.5	13	SL-039-SA7-SB-4.0-5.0	23	↓ dup ↓	33
4	SL-020-SA7-SS-0.0-0.5	14	SL-072-SA7-SB-4.0-5.0	24	#5 MS (Hg)	34
5	SL-055-SA7-SS-0.0-0.5	15	SL-072-SA7-SB-7.5-8.5	25	↓ MS ↓	35
6	SL-088-SA7-SS-0.0-0.5	16	SL-074-SA7-SB-4.0-5.0	26	↓ dup ↓	36
7	SL-101-SA7-SS-0.0-0.5	17	SL-075-SA7-SB-4.0-5.0	27		37
8	SL-151-SA7-SS-0.0-0.5	18	SL-075-SA7-SB-9.0-10.0	28		38
9	SL-023-SA7-SS-0.0-0.5	19	SL-077-SA7-SB-4.0-5.0	29		39
10	SL-141-SA7-SS-0.0-0.5	20	EB-SA7-SB-092211	30		40

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

PB/ICB/CCB QUALIFIED SAMPLES

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)

Soil preparation factor applied: ICP:100X, ICP/MS: 200X

Reviewer: [Signature]

Sample Concentration units, unless otherwise noted: ug/L

2nd Reviewer: [Signature]

Associated Samples: All AQ

Reason: B

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit
Hg			0.041	0.205
				20
				0.041

Sample Concentration units, unless otherwise noted: mg/Kg

Associated Samples: All Soil

Reason: B

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit
Zr			7.5	3.75
				0.93
				0.81
				0.70
				0.78
				1.0
				1.1
				1.3
				1.0
				0.91
				1.0
				1.1
				1.3
				1.0
				0.91
				1.0

Sample Concentration units, unless otherwise noted: mg/Kg

Associated Samples: 2,13 (ND)

Reason: B

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit
Zr			7.5	3.75
				0.83
				1.5
				1.9
				1.6
				1.4
				1.1
				0.97

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.

**VALIDATION FINDINGS WORKSHEET**  
**Field Blanks**

**METHOD:** Trace Metals (EPA SW846 6010B/6020/7000)

**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:** 9/22/11 **Soil factor applied:** 100X, Hg:167X

**Field blank type:** (circle one) Field Blank / Rinsate / Other:

**Associated Samples:** All Soil **Reason Code:** F

Analyte	Blank ID	Sample Identification															
		20	2	3	4	6	7	12	13	14	17	18					
B	3.3																
Pb	0.42																
Hg	0.041	0.034235	0.014	0.0096	0.011	0.020	0.024	0.025	0.017	0.014	0.0073	0.014					

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".



QUALITY ASSURANCE SUMMARY  
 FORM 5A (MS/MSD)  
 MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
 SDG No.: DE251  
 Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6417426BKG Matrix Spike Lab Sample ID: 6417426MS Matrix Spike Duplicate Lab Sample ID: 6417426MSD  
 & Solids for Sample: 98.0  
 Batch ID(s): P26908E, P26926A, P27708B

Analyte	Mass	BKG Sample		MS Sample		MSD Sample	C	MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C						\$R	Q	\$R	Q	\$R	Q
Aluminum	121	7757.0128		9856.6569		9982.2459		202.0610	202.0610	MG/KG	1039	1101	1	74X	75 - 125	20P
Antimony	75	0.1411	B	0.5998		0.5539		1.1888	1.2245	MG/KG	39N	34N	8	75 - 125	20MS	J/K
Arsenic	137	4.0995		4.3630		4.5653		1.9814	2.0408	MG/KG	13N	23N	5	75 - 125	20MS	
Barium	9	64.1371		69.9822		74.5306		9.9069	10.2041	MG/KG	59	102	6	74X	75 - 125	20MS
Beryllium	111	0.3937		1.0676		1.1290		0.7926	0.8163	MG/KG	85	90	6	75 - 125	20MS	
Boron	3.4224	B		195.2788		201.8984		202.0610	202.0610	MG/KG	95	98	3	84 - 115	20P	
Cadmium	1726.0064			1.0466		1.1273		0.9907	1.0204	MG/KG	97	102	7	75 - 125	20MS	
Calcium	13.6715			2277.2873		2472.7632		404.1220	404.1220	MG/KG	136	185	8	74X	75 - 125	20P
Chromium	52	13.6715		18.2168		19.3898		9.9069	10.2041	MG/KG	46N	56N	6	75 - 125	20MS	
Cobalt	59	3.9469		50.8421		53.6531		49.5344	51.0204	MG/KG	95	97	5	75 - 125	20MS	
Copper	63	10.9491		13.7052		14.7673		9.9069	10.2041	MG/KG	28N	37N	7	75 - 125	20MS	
Iron	12872.3880			14997.1691		13326.5367		101.0305	101.0305	MG/KG	2103	450	12	74X	75 - 125	20P
Lead	9.7226			11.3969		12.4429		2.9721	3.0612	MG/KG	56N	89	9	75 - 125	20MS	
Lithium	17.1799			113.3724		117.4470		101.0305	101.0305	MG/KG	95	99	4	82 - 114	20P	J/K
Magnesium	2499.1236			2892.3197		2867.0782		202.0610	202.0610	MG/KG	195	182	1	74X	75 - 125	20P
Manganese	185.0800			240.4748		236.5791		50.5153	50.5153	MG/KG	110	102	2	75 - 125	20P	
Molybdenum	98	0.8284		9.8435		10.5102		9.9069	10.2041	MG/KG	91	95	7	75 - 125	20MS	
Nickel	60	16.3107		13.8538		14.6612		9.9069	10.2041	MG/KG	-25N	-16N	6	75 - 125	20MS	J/K
Phosphorus	305.9294			429.1231		430.5223		101.0305	101.0305	MG/KG	122	123	0	75 - 125	20P	
Potassium	2702.5130			3824.8151		3931.3083		1010.3051	1010.3051	MG/KG	111	122	3	75 - 125	20P	
Selenium	78	0.1298	B	2.0765		2.1755		1.9814	2.0408	MG/KG	98	100	5	75 - 125	20MS	
Silver	107	0.0141	U	10.0634		10.4959		9.9069	10.2041	MG/KG	102	103	4	75 - 125	20MS	
Sodium	49.8189	B		1002.1944		1026.9640		1010.3051	1010.3051	MG/KG	94	97	2	75 - 125	20P	
Strontium	7.8031			104.4029		108.0430		101.0305	101.0305	MG/KG	96	99	3	75 - 115	20P	
Thallium	203	0.2225		0.5849		0.5994		0.3963	0.4082	MG/KG	91	92	2	75 - 125	20MS	
Tin	2.3709	B		359.5979		367.2045		404.1220	404.1220	MG/KG	88	90	2	80 - 110	20P	
Titanium	991.0042			1068.7196		1166.8207		98.1162	100.0400	MG/KG	79	176	9	74X	75 - 125	20P
Vanadium	51	23.0830		27.9770		29.6735		9.9069	10.2041	MG/KG	49N	65N	6	75 - 125	20MS	
Zinc	66	55.9738		59.9564		66.3878		9.9069	10.2041	MG/KG	40	102	10	74X	75 - 125	20MS
Zirconium	0.9324	B		95.0101		98.7210		101.0305	101.0305	MG/KG	93	97	4	75 - 125	20P	

As = post spike = 12970, Cu = 9370, Ni = 8270

METHODS: 14  
 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



QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: DE251

Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6417426BKG

Duplicate Lab Sample ID: 6417426DUP

% Solids for Duplicate: 98.0

% Solids for Sample: 98.0

Batch ID(s): P26908E, P26926A, P27708B

Concentration Units: MG/KG

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			7757.0128		7853.9077			1	P
Antimony	121		0.1411	B	0.0740	U		<del>200</del>	MS
Arsenic	75		4.0995		2.7771			38 *	MS
Barium	137		64.1371		59.7639			7	MS
Beryllium	9	0.1	0.3937		0.3547			10	MS
Boron			3.4224	B	3.7211	B		8	P
Cadmium	111		0.0893	B	0.0777	B		14	MS
Calcium			1726.0064		1815.5743			5	P
Chromium	52		13.6715		9.3517			38 *	MS
Cobalt	59		3.9469		2.9232			30 *	MS
Copper	63		10.9491		4.8699			77 *	MS
Iron			12872.3880		13629.1827			6	P
Lead	208		9.7226		8.8535			9	MS
Lithium			17.1799		16.9281			1	P
Magnesium			2499.1236		2508.4752			0	P
Manganese			185.0800		187.4218			1	P
Molybdenum	98	0.1	0.8284		0.2163			<del>117</del> *	MS
Nickel	60		16.3107		4.8980			108 *	MS
Phosphorus			305.9294		333.8270			9	P
Potassium			2702.5130		2685.0019			1	P
Selenium	78		0.1298	B	0.0598	B		<del>74</del>	MS
Silver	107		0.0141	U	0.0142	U			MS
Sodium			49.8189	B	51.2303	B		3	P
Strontium			7.8031		8.4820			8	P
Thallium	203	0.1	0.2225		0.1951			13	MS
Tin			2.3709	B	2.3440	B		1	P
Titanium			991.0042		960.4319			3	P
Vanadium	51		23.0830		18.4634			22 *	MS
Zinc	66		55.9738		53.3613			5	MS
Zirconium			0.9324	B	1.4519	B		<del>44</del>	P

*differs*

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.

*Mo by Difference*

*Mo = 0.6121 (≤ 0.1982)*

DE251 5943

<p>METHODS:</p> <p>P = ICP Atomic Emission Spectrometer</p> <p>MS = ICP Mass Spectrometry</p> <p>CV = Cold Vapor</p> <p>AF = Cold Vapor Atomic Fluorescence</p>	<p>CONCENTRATION QUALIFIERS:</p> <p>U= Below MDL</p> <p>B= Below LOQ</p> <p>FLAGS:</p> <p>* = Duplicate Out of Spec</p>
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# **SAMPLE DELIVERY GROUP**

**DE252**

## **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-Sep-2011	SL-140-SA7-SS-0.0-0.5	6418453	N	3050B	6010B	III
22-Sep-2011	SL-140-SA7-SS-0.0-0.5	6418453	N	3050B	6020	III
22-Sep-2011	SL-140-SA7-SS-0.0-0.5	6418453	N	3060A	7199	III
22-Sep-2011	SL-140-SA7-SS-0.0-0.5	6418453	N	3550B	8015B	III
22-Sep-2011	SL-140-SA7-SS-0.0-0.5	6418453	N	3550B	8015M	III
22-Sep-2011	SL-140-SA7-SS-0.0-0.5	6418453	N	3550B	8081A	III
22-Sep-2011	SL-140-SA7-SS-0.0-0.5	6418453	N	3550B	8082	III
22-Sep-2011	SL-140-SA7-SS-0.0-0.5	6418453	N	3550B	8151A	III
22-Sep-2011	SL-140-SA7-SS-0.0-0.5	6418453	N	3550B	8270C	III
22-Sep-2011	SL-140-SA7-SS-0.0-0.5	6418453	N	3550B	8270C SIM	III
22-Sep-2011	SL-140-SA7-SS-0.0-0.5	6418453	N	METHOD	300.0	III
22-Sep-2011	SL-140-SA7-SS-0.0-0.5	6418453	N	METHOD	314.0	III
22-Sep-2011	SL-140-SA7-SS-0.0-0.5	6418453	N	METHOD	7471A	III
22-Sep-2011	SL-140-SA7-SS-0.0-0.5	6418453	N	METHOD	8015B	III
22-Sep-2011	SL-140-SA7-SS-0.0-0.5	6418453	N	METHOD	8015M	III
22-Sep-2011	SL-140-SA7-SS-0.0-0.5	6418453	N	METHOD	9012B	III
22-Sep-2011	SL-139-SA7-SS-0.0-0.5	6418452	N	3050B	6010B	III
22-Sep-2011	SL-139-SA7-SS-0.0-0.5	6418452	N	3050B	6020	III
22-Sep-2011	SL-139-SA7-SS-0.0-0.5	6418452	N	3060A	7199	III
22-Sep-2011	SL-139-SA7-SS-0.0-0.5	6418452	N	3550B	8015B	III
22-Sep-2011	SL-139-SA7-SS-0.0-0.5	6418452	N	3550B	8015M	III
22-Sep-2011	SL-139-SA7-SS-0.0-0.5	6418452	N	3550B	8081A	III
22-Sep-2011	SL-139-SA7-SS-0.0-0.5	6418452	N	3550B	8082	III
22-Sep-2011	SL-139-SA7-SS-0.0-0.5	6418452	N	3550B	8151A	III
22-Sep-2011	SL-139-SA7-SS-0.0-0.5	6418452	N	3550B	8270C	III
22-Sep-2011	SL-139-SA7-SS-0.0-0.5	6418452	N	3550B	8270C SIM	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Sep-2011	SL-139-SA7-SS-0.0-0.5	6418452	N	METHOD	300.0	III
22-Sep-2011	SL-139-SA7-SS-0.0-0.5	6418452	N	METHOD	314.0	III
22-Sep-2011	SL-139-SA7-SS-0.0-0.5	6418452	N	METHOD	7471A	III
22-Sep-2011	SL-139-SA7-SS-0.0-0.5	6418452	N	METHOD	8015B	III
22-Sep-2011	SL-139-SA7-SS-0.0-0.5	6418452	N	METHOD	8015M	III
22-Sep-2011	SL-139-SA7-SS-0.0-0.5	6418452	N	METHOD	9012B	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5	6418446	N	3050B	6010B	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5	6418446	N	3050B	6020	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5	6418446	N	3060A	7199	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5	6418446	N	3550B	8015B	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5	6418446	N	3550B	8015M	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5	6418446	N	3550B	8081A	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5	6418446	N	3550B	8082	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5	6418446	N	3550B	8151A	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5	6418446	N	3550B	8270C	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5	6418446	N	3550B	8270C SIM	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5	6418446	N	METHOD	300.0	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5	6418446	N	METHOD	314.0	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5	6418446	N	METHOD	7471A	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5	6418446	N	METHOD	8015B	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5	6418446	N	METHOD	8015M	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5	6418446	N	METHOD	9012B	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MS	6418447	MS	3050B	6010B	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MS	6418447	MS	3050B	6020	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MS	6418447	MS	3060A	7199	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MS	6418447	MS	3550B	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MS	6418447	MS	3550B	8015M	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MS	6418447	MS	3550B	8081A	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MS	6418447	MS	3550B	8082	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MS	6418447	MS	3550B	8151A	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MS	6418447	MS	3550B	8270C	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MS	6418447	MS	3550B	8270C SIM	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MS	6418447	MS	METHOD	300.0	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MS	6418447	MS	METHOD	314.0	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MS	6418447	MS	METHOD	7471A	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MS	6418447	MS	METHOD	8015B	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MS	6418447	MS	METHOD	8015M	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MS	6418447	MS	METHOD	9012B	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MSD	6418448	MSD	3050B	6010B	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MSD	6418448	MSD	3050B	6020	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MSD	6418448	MSD	3550B	8015B	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MSD	6418448	MSD	3550B	8015M	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MSD	6418448	MSD	3550B	8081A	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MSD	6418448	MSD	3550B	8082	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MSD	6418448	MSD	3550B	8151A	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MSD	6418448	MSD	3550B	8270C	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MSD	6418448	MSD	3550B	8270C SIM	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MSD	6418448	MSD	METHOD	7471A	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MSD	6418448	MSD	METHOD	8015B	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5MSD	6418448	MSD	METHOD	8015M	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5DUP	6418449	DUP	3050B	6010B	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5DUP	6418449	DUP	3050B	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
22-Sep-2011	SL-015-SA7-SS-0.0-0.5DUP	6418449	DUP	3060A	7199	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5DUP	6418449	DUP	METHOD	300.0	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5DUP	6418449	DUP	METHOD	314.0	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5DUP	6418449	DUP	METHOD	7471A	III
22-Sep-2011	SL-015-SA7-SS-0.0-0.5DUP	6418449	DUP	METHOD	9012B	III
22-Sep-2011	DUP05-SA7-QC-092211	6418454	FD	3050B	6010B	III
22-Sep-2011	DUP05-SA7-QC-092211	6418454	FD	3050B	6020	III
22-Sep-2011	DUP05-SA7-QC-092211	6418454	FD	3060A	7199	III
22-Sep-2011	DUP05-SA7-QC-092211	6418454	FD	3550B	8015B	III
22-Sep-2011	DUP05-SA7-QC-092211	6418454	FD	3550B	8015M	III
22-Sep-2011	DUP05-SA7-QC-092211	6418454	FD	3550B	8081A	III
22-Sep-2011	DUP05-SA7-QC-092211	6418454	FD	3550B	8082	III
22-Sep-2011	DUP05-SA7-QC-092211	6418454	FD	3550B	8151A	III
22-Sep-2011	DUP05-SA7-QC-092211	6418454	FD	3550B	8270C	III
22-Sep-2011	DUP05-SA7-QC-092211	6418454	FD	3550B	8270C SIM	III
22-Sep-2011	DUP05-SA7-QC-092211	6418454	FD	METHOD	300.0	III
22-Sep-2011	DUP05-SA7-QC-092211	6418454	FD	METHOD	314.0	III
22-Sep-2011	DUP05-SA7-QC-092211	6418454	FD	METHOD	7471A	III
22-Sep-2011	DUP05-SA7-QC-092211	6418454	FD	METHOD	8015B	III
22-Sep-2011	DUP05-SA7-QC-092211	6418454	FD	METHOD	8015M	III
22-Sep-2011	DUP05-SA7-QC-092211	6418454	FD	METHOD	9012B	III
23-Sep-2011	SL-027-SA7-SS-0.0-0.5	6418457	N	3050B	6010B	III
23-Sep-2011	SL-027-SA7-SS-0.0-0.5	6418457	N	3050B	6020	III
23-Sep-2011	SL-027-SA7-SS-0.0-0.5	6418457	N	3060A	7199	III
23-Sep-2011	SL-027-SA7-SS-0.0-0.5	6418457	N	3550B	8081A	III
23-Sep-2011	SL-027-SA7-SS-0.0-0.5	6418457	N	3550B	8082	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Sep-2011	SL-027-SA7-SS-0.0-0.5	6418457	N	3550B	8151A	III
23-Sep-2011	SL-027-SA7-SS-0.0-0.5	6418457	N	3550B	8270C	III
23-Sep-2011	SL-027-SA7-SS-0.0-0.5	6418457	N	3550B	8270C SIM	III
23-Sep-2011	SL-027-SA7-SS-0.0-0.5	6418457	N	METHOD	300.0	III
23-Sep-2011	SL-027-SA7-SS-0.0-0.5	6418457	N	METHOD	314.0	III
23-Sep-2011	SL-027-SA7-SS-0.0-0.5	6418457	N	METHOD	7471A	III
23-Sep-2011	TB-092311	6418472	TB	5030B	8015M	III
23-Sep-2011	SL-025-SA7-SS-0.0-0.5	6418456	N	3050B	6010B	III
23-Sep-2011	SL-025-SA7-SS-0.0-0.5	6418456	N	3050B	6020	III
23-Sep-2011	SL-025-SA7-SS-0.0-0.5	6418456	N	3060A	7199	III
23-Sep-2011	SL-025-SA7-SS-0.0-0.5	6418456	N	3550B	8081A	III
23-Sep-2011	SL-025-SA7-SS-0.0-0.5	6418456	N	3550B	8082	III
23-Sep-2011	SL-025-SA7-SS-0.0-0.5	6418456	N	3550B	8151A	III
23-Sep-2011	SL-025-SA7-SS-0.0-0.5	6418456	N	3550B	8270C	III
23-Sep-2011	SL-025-SA7-SS-0.0-0.5	6418456	N	3550B	8270C SIM	III
23-Sep-2011	SL-025-SA7-SS-0.0-0.5	6418456	N	METHOD	300.0	III
23-Sep-2011	SL-025-SA7-SS-0.0-0.5	6418456	N	METHOD	314.0	III
23-Sep-2011	SL-025-SA7-SS-0.0-0.5	6418456	N	METHOD	7471A	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	3050B	6010B	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	3050B	6020	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	3060A	7199	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	3546	1625C	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	3550B	8015B	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	3550B	8015M	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	3550B	8081A	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	3550B	8082	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	3550B	8151A	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	3550B	8270C	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	3550B	8270C SIM	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	8330	8330A	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	METHOD	300.0	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	METHOD	314.0	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	METHOD	7471A	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	METHOD	8015B	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	METHOD	8015M	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	METHOD	8315A	III
23-Sep-2011	SL-062-SA7-SS-0.0-0.5	6418458	N	METHOD	9012B	III
23-Sep-2011	SL-030-SA7-SB-4.0-5.0	6418467	N	3050B	6010B	III
23-Sep-2011	SL-030-SA7-SB-4.0-5.0	6418467	N	3050B	6020	III
23-Sep-2011	SL-030-SA7-SB-4.0-5.0	6418467	N	3060A	7199	III
23-Sep-2011	SL-030-SA7-SB-4.0-5.0	6418467	N	3550B	8082	III
23-Sep-2011	SL-030-SA7-SB-4.0-5.0	6418467	N	3550B	8270C	III
23-Sep-2011	SL-030-SA7-SB-4.0-5.0	6418467	N	3550B	8270C SIM	III
23-Sep-2011	SL-030-SA7-SB-4.0-5.0	6418467	N	METHOD	300.0	III
23-Sep-2011	SL-030-SA7-SB-4.0-5.0	6418467	N	METHOD	314.0	III
23-Sep-2011	SL-030-SA7-SB-4.0-5.0	6418467	N	METHOD	7471A	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	3050B	6010B	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	3050B	6020	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	3060A	7199	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	3546	1625C	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	3550B	8015B	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	3550B	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	3550B	8081A	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	3550B	8082	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	3550B	8151A	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	3550B	8270C	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	3550B	8270C SIM	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	8330	8330A	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	METHOD	300.0	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	METHOD	314.0	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	METHOD	7471A	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	METHOD	8015B	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	METHOD	8015M	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	METHOD	8315A	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5	6418463	N	METHOD	9012B	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5DUP	P418463D272032B	DUP	METHOD	9012B	III
23-Sep-2011	SL-089-SA7-SS-0.0-0.5MS	P418463R272033B	MS	METHOD	9012B	III
23-Sep-2011	SL-073-SA7-SB-4.0-5.0	6418468	N	3050B	6010B	III
23-Sep-2011	SL-073-SA7-SB-4.0-5.0	6418468	N	3050B	6020	III
23-Sep-2011	SL-073-SA7-SB-4.0-5.0	6418468	N	3060A	7199	III
23-Sep-2011	SL-073-SA7-SB-4.0-5.0	6418468	N	3550B	8015B	III
23-Sep-2011	SL-073-SA7-SB-4.0-5.0	6418468	N	3550B	8015M	III
23-Sep-2011	SL-073-SA7-SB-4.0-5.0	6418468	N	3550B	8082	III
23-Sep-2011	SL-073-SA7-SB-4.0-5.0	6418468	N	3550B	8270C	III
23-Sep-2011	SL-073-SA7-SB-4.0-5.0	6418468	N	3550B	8270C SIM	III
23-Sep-2011	SL-073-SA7-SB-4.0-5.0	6418468	N	5035	8015M	III
23-Sep-2011	SL-073-SA7-SB-4.0-5.0	6418468	N	METHOD	300.0	III
23-Sep-2011	SL-073-SA7-SB-4.0-5.0	6418468	N	METHOD	314.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Sep-2011	SL-073-SA7-SB-4.0-5.0	6418468	N	METHOD	7471A	III
23-Sep-2011	SL-073-SA7-SB-4.0-5.0	6418468	N	METHOD	8015B	III
23-Sep-2011	SL-073-SA7-SB-4.0-5.0	6418468	N	METHOD	8015M	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	3050B	6010B	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	3050B	6020	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	3060A	7199	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	3546	1625C	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	3550B	8015B	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	3550B	8015M	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	3550B	8081A	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	3550B	8082	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	3550B	8151A	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	3550B	8270C	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	3550B	8270C SIM	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	8330	8330A	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	METHOD	300.0	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	METHOD	314.0	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	METHOD	7471A	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	METHOD	8015B	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	METHOD	8015M	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	METHOD	8315A	III
23-Sep-2011	SL-181-SA7-SS-0.0-0.5	6418466	N	METHOD	9012B	III
23-Sep-2011	SL-076-SA7-SB-2.5-3.5	6418469	N	3050B	6010B	III
23-Sep-2011	SL-076-SA7-SB-2.5-3.5	6418469	N	3050B	6020	III
23-Sep-2011	SL-076-SA7-SB-2.5-3.5	6418469	N	3060A	7199	III
23-Sep-2011	SL-076-SA7-SB-2.5-3.5	6418469	N	3550B	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Sep-2011	SL-076-SA7-SB-2.5-3.5	6418469	N	3550B	8015M	III
23-Sep-2011	SL-076-SA7-SB-2.5-3.5	6418469	N	3550B	8082	III
23-Sep-2011	SL-076-SA7-SB-2.5-3.5	6418469	N	3550B	8270C	III
23-Sep-2011	SL-076-SA7-SB-2.5-3.5	6418469	N	3550B	8270C SIM	III
23-Sep-2011	SL-076-SA7-SB-2.5-3.5	6418469	N	5035	8015M	III
23-Sep-2011	SL-076-SA7-SB-2.5-3.5	6418469	N	METHOD	300.0	III
23-Sep-2011	SL-076-SA7-SB-2.5-3.5	6418469	N	METHOD	314.0	III
23-Sep-2011	SL-076-SA7-SB-2.5-3.5	6418469	N	METHOD	7471A	III
23-Sep-2011	SL-076-SA7-SB-2.5-3.5	6418469	N	METHOD	8015B	III
23-Sep-2011	SL-076-SA7-SB-2.5-3.5	6418469	N	METHOD	8015M	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	3050B	6010B	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	3050B	6020	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	3060A	7199	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	3546	1625C	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	3550B	8015B	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	3550B	8015M	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	3550B	8081A	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	3550B	8082	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	3550B	8151A	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	3550B	8270C	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	3550B	8270C SIM	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	8330	8330A	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	METHOD	300.0	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	METHOD	314.0	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	METHOD	7471A	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	METHOD	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	METHOD	8015M	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	METHOD	8315A	III
23-Sep-2011	SL-152-SA7-SS-0.0-0.5	6418464	N	METHOD	9012B	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	3050B	6010B	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	3050B	6020	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	3060A	7199	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	3546	1625C	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	3550B	8015B	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	3550B	8015M	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	3550B	8081A	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	3550B	8082	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	3550B	8151A	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	3550B	8270C	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	3550B	8270C SIM	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	8330	8330A	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	METHOD	300.0	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	METHOD	314.0	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	METHOD	7471A	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	METHOD	8015B	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	METHOD	8015M	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	METHOD	8315A	III
23-Sep-2011	SL-153-SA7-SS-0.0-0.5	6418465	N	METHOD	9012B	III
23-Sep-2011	SL-019-SA7-SS-0.0-0.5	6418455	N	3050B	6010B	III
23-Sep-2011	SL-019-SA7-SS-0.0-0.5	6418455	N	3050B	6020	III
23-Sep-2011	SL-019-SA7-SS-0.0-0.5	6418455	N	3060A	7199	III
23-Sep-2011	SL-019-SA7-SS-0.0-0.5	6418455	N	3550B	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Sep-2011	SL-019-SA7-SS-0.0-0.5	6418455	N	3550B	8015M	III
23-Sep-2011	SL-019-SA7-SS-0.0-0.5	6418455	N	3550B	8081A	III
23-Sep-2011	SL-019-SA7-SS-0.0-0.5	6418455	N	3550B	8082	III
23-Sep-2011	SL-019-SA7-SS-0.0-0.5	6418455	N	3550B	8151A	III
23-Sep-2011	SL-019-SA7-SS-0.0-0.5	6418455	N	3550B	8270C	III
23-Sep-2011	SL-019-SA7-SS-0.0-0.5	6418455	N	3550B	8270C SIM	III
23-Sep-2011	SL-019-SA7-SS-0.0-0.5	6418455	N	METHOD	300.0	III
23-Sep-2011	SL-019-SA7-SS-0.0-0.5	6418455	N	METHOD	314.0	III
23-Sep-2011	SL-019-SA7-SS-0.0-0.5	6418455	N	METHOD	7471A	III
23-Sep-2011	SL-019-SA7-SS-0.0-0.5	6418455	N	METHOD	8015B	III
23-Sep-2011	SL-019-SA7-SS-0.0-0.5	6418455	N	METHOD	8015M	III
23-Sep-2011	SL-019-SA7-SS-0.0-0.5	6418455	N	METHOD	9012B	III
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418462	N	3050B	6010B	III
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418462	N	3050B	6020	III
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418462	N	3060A	7199	III
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418462	N	3550B	8015B	III
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418462	N	3550B	8015M	III
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418462	N	3550B	8081A	III
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418462	N	3550B	8082	III
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418462	N	3550B	8151A	III
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418462	N	3550B	8270C	III
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418462	N	3550B	8270C SIM	III
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418462	N	METHOD	300.0	III
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418462	N	METHOD	314.0	III
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418462	N	METHOD	7471A	III
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418462	N	METHOD	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418462	N	METHOD	8015M	III
23-Sep-2011	SL-069-SA7-SS-0.0-0.5	6418462	N	METHOD	9012B	III
23-Sep-2011	SL-066-SA7-SS-0.0-0.5	6418459	N	3050B	6010B	III
23-Sep-2011	SL-066-SA7-SS-0.0-0.5	6418459	N	3050B	6020	III
23-Sep-2011	SL-066-SA7-SS-0.0-0.5	6418459	N	3060A	7199	III
23-Sep-2011	SL-066-SA7-SS-0.0-0.5	6418459	N	3550B	8015B	III
23-Sep-2011	SL-066-SA7-SS-0.0-0.5	6418459	N	3550B	8015M	III
23-Sep-2011	SL-066-SA7-SS-0.0-0.5	6418459	N	3550B	8081A	III
23-Sep-2011	SL-066-SA7-SS-0.0-0.5	6418459	N	3550B	8082	III
23-Sep-2011	SL-066-SA7-SS-0.0-0.5	6418459	N	3550B	8151A	III
23-Sep-2011	SL-066-SA7-SS-0.0-0.5	6418459	N	3550B	8270C	III
23-Sep-2011	SL-066-SA7-SS-0.0-0.5	6418459	N	3550B	8270C SIM	III
23-Sep-2011	SL-066-SA7-SS-0.0-0.5	6418459	N	METHOD	300.0	III
23-Sep-2011	SL-066-SA7-SS-0.0-0.5	6418459	N	METHOD	314.0	III
23-Sep-2011	SL-066-SA7-SS-0.0-0.5	6418459	N	METHOD	7471A	III
23-Sep-2011	SL-066-SA7-SS-0.0-0.5	6418459	N	METHOD	8015B	III
23-Sep-2011	SL-066-SA7-SS-0.0-0.5	6418459	N	METHOD	8015M	III
23-Sep-2011	SL-066-SA7-SS-0.0-0.5	6418459	N	METHOD	9012B	III
23-Sep-2011	SL-028-SA7-SB-4.0-5.0	6418470	N	3050B	6010B	III
23-Sep-2011	SL-028-SA7-SB-4.0-5.0	6418470	N	3050B	6020	III
23-Sep-2011	SL-028-SA7-SB-4.0-5.0	6418470	N	3060A	7199	III
23-Sep-2011	SL-028-SA7-SB-4.0-5.0	6418470	N	3550B	8082	III
23-Sep-2011	SL-028-SA7-SB-4.0-5.0	6418470	N	3550B	8270C	III
23-Sep-2011	SL-028-SA7-SB-4.0-5.0	6418470	N	3550B	8270C SIM	III
23-Sep-2011	SL-028-SA7-SB-4.0-5.0	6418470	N	METHOD	300.0	III
23-Sep-2011	SL-028-SA7-SB-4.0-5.0	6418470	N	METHOD	314.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Sep-2011	SL-028-SA7-SB-4.0-5.0	6418470	N	METHOD	7471A	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5	6418461	N	3050B	6010B	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5	6418461	N	3050B	6020	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5	6418461	N	3060A	7199	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5	6418461	N	3550B	8015B	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5	6418461	N	3550B	8015M	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5	6418461	N	3550B	8081A	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5	6418461	N	3550B	8082	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5	6418461	N	3550B	8151A	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5	6418461	N	3550B	8270C	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5	6418461	N	3550B	8270C SIM	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5	6418461	N	METHOD	300.0	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5	6418461	N	METHOD	314.0	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5	6418461	N	METHOD	7471A	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5	6418461	N	METHOD	8015B	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5	6418461	N	METHOD	8015M	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5	6418461	N	METHOD	9012B	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5DUP	P418461D271048B	DUP	METHOD	300.0	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5DUP	P418461D271735B	DUP	METHOD	314.0	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5MS	P418461R271103B	MS	METHOD	300.0	III
23-Sep-2011	SL-068-SA7-SS-0.0-0.5MS	P418461R271821B	MS	METHOD	314.0	III
23-Sep-2011	SL-067-SA7-SS-0.0-0.5	6418460	N	3050B	6010B	III
23-Sep-2011	SL-067-SA7-SS-0.0-0.5	6418460	N	3050B	6020	III
23-Sep-2011	SL-067-SA7-SS-0.0-0.5	6418460	N	3060A	7199	III
23-Sep-2011	SL-067-SA7-SS-0.0-0.5	6418460	N	3550B	8015B	III
23-Sep-2011	SL-067-SA7-SS-0.0-0.5	6418460	N	3550B	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Sep-2011	SL-067-SA7-SS-0.0-0.5	6418460	N	3550B	8081A	III
23-Sep-2011	SL-067-SA7-SS-0.0-0.5	6418460	N	3550B	8082	III
23-Sep-2011	SL-067-SA7-SS-0.0-0.5	6418460	N	3550B	8151A	III
23-Sep-2011	SL-067-SA7-SS-0.0-0.5	6418460	N	3550B	8270C	III
23-Sep-2011	SL-067-SA7-SS-0.0-0.5	6418460	N	3550B	8270C SIM	III
23-Sep-2011	SL-067-SA7-SS-0.0-0.5	6418460	N	METHOD	300.0	III
23-Sep-2011	SL-067-SA7-SS-0.0-0.5	6418460	N	METHOD	314.0	III
23-Sep-2011	SL-067-SA7-SS-0.0-0.5	6418460	N	METHOD	7471A	III
23-Sep-2011	SL-067-SA7-SS-0.0-0.5	6418460	N	METHOD	8015B	III
23-Sep-2011	SL-067-SA7-SS-0.0-0.5	6418460	N	METHOD	8015M	III
23-Sep-2011	SL-067-SA7-SS-0.0-0.5	6418460	N	METHOD	9012B	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	GENCHEM	
Method:	300.0	Matrix: SO

Sample ID: DUP05-SA7-QC-092211		Collected: 9/22/2011 3:10:00			Analysis Type: RES			Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	4.0		0.79	MDL	0.99	PQL	mg/Kg	J	Q	

Sample ID: SL-015-SA7-SS-0.0-0.5		Collected: 9/22/2011 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	4.0		0.80	MDL	1.0	PQL	mg/Kg	J	Q	

Sample ID: SL-019-SA7-SS-0.0-0.5		Collected: 9/23/2011 12:08:00			Analysis Type: RES			Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	0.82	U	0.82	MDL	1.0	PQL	mg/Kg	UJ	Q	

Sample ID: SL-025-SA7-SS-0.0-0.5		Collected: 9/23/2011 8:10:00			Analysis Type: RES			Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	0.83	U	0.83	MDL	1.0	PQL	mg/Kg	UJ	Q	

Sample ID: SL-027-SA7-SS-0.0-0.5		Collected: 9/23/2011 7:45:00			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		0.81	MDL	1.0	PQL	mg/Kg	J	Q	

Sample ID: SL-062-SA7-SS-0.0-0.5		Collected: 9/23/2011 8:35:00			Analysis Type: RES			Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	0.83	U	0.83	MDL	1.0	PQL	mg/Kg	UJ	Q	

Sample ID: SL-066-SA7-SS-0.0-0.5		Collected: 9/23/2011 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	
FLUORIDE	0.80	U	0.80	MDL	1.0	PQL	mg/Kg	UJ	Q	

Sample ID: SL-067-SA7-SS-0.0-0.5		Collected: 9/23/2011 2:59:00			Analysis Type: RES			Dilution: 1		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	0.85	U	0.85	MDL	1.1	PQL	mg/Kg	UJ	Q	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

1/16/2012 12:12:40 PM

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# Data Qualifier Summary

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	GENCHEM	
<b>Method:</b>	300.0	<b>Matrix:</b> SO

Sample ID: SL-139-SA7-SS-0.0-0.5      Collected: 9/22/2011 2:40:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q

Sample ID: SL-140-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	0.80	U	0.80	MDL	1.0	PQL	mg/Kg	UJ	Q

<b>Method Category:</b>	METALS	
<b>Method:</b>	6010B	<b>Matrix:</b> SO

Sample ID: DUP05-SA7-QC-092211      Collected: 9/22/2011 3:10:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2700		11.2	MDL	49.6	PQL	mg/Kg	J	Q
SODIUM	96.1	J	5.90	MDL	99.1	PQL	mg/Kg	J	Z
TIN	2.99	J	0.317	MDL	9.91	PQL	mg/Kg	U	B
Zirconium	3.01	J	0.456	MDL	4.96	PQL	mg/Kg	J	Z

Sample ID: SL-015-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	2460		11.4	MDL	50.7	PQL	mg/Kg	J	Q
SODIUM	88.2	J	6.03	MDL	101	PQL	mg/Kg	J	Z
TIN	2.90	J	0.324	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	2.73	J	0.466	MDL	5.07	PQL	mg/Kg	J	Z

Sample ID: SL-019-SA7-SS-0.0-0.5      Collected: 9/23/2011 12:08:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	4350		11.3	MDL	50.0	PQL	mg/Kg	J	Q
SODIUM	66.4	J	5.95	MDL	100	PQL	mg/Kg	J	Z
TIN	2.87	J	0.320	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	4.19	J	0.460	MDL	5.00	PQL	mg/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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

<b>Sample ID: SL-025-SA7-SS-0.0-0.5</b>		<b>Collected: 9/23/2011 8:10:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3730		11.4	MDL	50.3	PQL	mg/Kg	J	Q
SODIUM	85.1	J	5.99	MDL	101	PQL	mg/Kg	J	Z
TIN	2.91	J	0.322	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	3.10	J	0.463	MDL	5.03	PQL	mg/Kg	J	Z

<b>Sample ID: SL-027-SA7-SS-0.0-0.5</b>		<b>Collected: 9/23/2011 7:45:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3860		11.2	MDL	49.4	PQL	mg/Kg	J	Q
SODIUM	74.2	J	5.88	MDL	98.8	PQL	mg/Kg	J	Z
TIN	3.07	J	0.316	MDL	9.88	PQL	mg/Kg	U	B

<b>Sample ID: SL-028-SA7-SB-4.0-5.0</b>		<b>Collected: 9/23/2011 2:18:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2410		12.0	MDL	53.2	PQL	mg/Kg	J	Q
SODIUM	96.4	J	6.33	MDL	106	PQL	mg/Kg	J	Z
TIN	3.06	J	0.340	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	3.48	J	0.489	MDL	5.32	PQL	mg/Kg	J	Z

<b>Sample ID: SL-030-SA7-SB-4.0-5.0</b>		<b>Collected: 9/23/2011 9:00:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3350		11.8	MDL	52.4	PQL	mg/Kg	J	Q
SODIUM	70.5	J	6.23	MDL	105	PQL	mg/Kg	J	Z
TIN	2.83	J	0.335	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	1.71	J	0.482	MDL	5.24	PQL	mg/Kg	J	Z

<b>Sample ID: SL-062-SA7-SS-0.0-0.5</b>		<b>Collected: 9/23/2011 8:35:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3530		11.3	MDL	50.1	PQL	mg/Kg	J	Q
SODIUM	69.3	J	5.96	MDL	100	PQL	mg/Kg	J	Z
TIN	3.10	J	0.321	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	2.49	J	0.461	MDL	5.01	PQL	mg/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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

Sample ID: SL-066-SA7-SS-0.0-0.5      Collected: 9/23/2011 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
POTASSIUM	3890		11.2	MDL	49.5	PQL	mg/Kg	J	Q
SODIUM	69.4	J	5.89	MDL	99.0	PQL	mg/Kg	J	Z
TIN	2.88	J	0.317	MDL	9.90	PQL	mg/Kg	U	B
Zirconium	3.07	J	0.456	MDL	4.95	PQL	mg/Kg	J	Z

Sample ID: SL-067-SA7-SS-0.0-0.5      Collected: 9/23/2011 2:59:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	4010		12.0	MDL	53.2	PQL	mg/Kg	J	Q
TIN	3.11	J	0.340	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	3.17	J	0.489	MDL	5.32	PQL	mg/Kg	J	Z

Sample ID: SL-068-SA7-SS-0.0-0.5      Collected: 9/23/2011 2:32:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3770		11.4	MDL	50.6	PQL	mg/Kg	J	Q
SODIUM	85.4	J	6.02	MDL	101	PQL	mg/Kg	J	Z
TIN	3.02	J	0.324	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	3.17	J	0.465	MDL	5.06	PQL	mg/Kg	J	Z

Sample ID: SL-069-SA7-SS-0.0-0.5      Collected: 9/23/2011 12:31:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3400		11.0	MDL	48.7	PQL	mg/Kg	J	Q
SODIUM	74.2	J	5.79	MDL	97.3	PQL	mg/Kg	J	Z
TIN	2.80	J	0.311	MDL	9.73	PQL	mg/Kg	U	B
Zirconium	2.86	J	0.448	MDL	4.87	PQL	mg/Kg	J	Z

Sample ID: SL-073-SA7-SB-4.0-5.0      Collected: 9/23/2011 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
POTASSIUM	3050		11.7	MDL	51.7	PQL	mg/Kg	J	Q
SODIUM	68.9	J	6.15	MDL	103	PQL	mg/Kg	J	Z
TIN	2.85	J	0.331	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	2.18	J	0.475	MDL	5.17	PQL	mg/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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: SL-076-SA7-SB-2.5-3.5      Collected: 9/23/2011 11:00:00      Analysis Type: REA      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	25.6	J	1.89	MDL	26.2	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA7-SB-2.5-3.5      Collected: 9/23/2011 11:00:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2790		11.9	MDL	52.4	PQL	mg/Kg	J	Q
SODIUM	72.8	J	6.24	MDL	105	PQL	mg/Kg	J	Z
TIN	3.19	J	0.336	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	3.86	J	0.482	MDL	5.24	PQL	mg/Kg	J	Z

Sample ID: SL-089-SA7-SS-0.0-0.5      Collected: 9/23/2011 9:58:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2770		11.8	MDL	52.2	PQL	mg/Kg	J	Q
TIN	2.59	J	0.334	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	2.87	J	0.480	MDL	5.22	PQL	mg/Kg	J	Z

Sample ID: SL-139-SA7-SS-0.0-0.5      Collected: 9/22/2011 2:40:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3980		11.3	MDL	50.2	PQL	mg/Kg	J	Q
SODIUM	74.9	J	5.97	MDL	100	PQL	mg/Kg	J	Z
TIN	3.02	J	0.321	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	3.30	J	0.461	MDL	5.02	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	3710		11.2	MDL	49.8	PQL	mg/Kg	J	Q
SODIUM	66.8	J	5.92	MDL	99.5	PQL	mg/Kg	J	Z
TIN	2.85	J	0.319	MDL	9.95	PQL	mg/Kg	U	B
Zirconium	2.85	J	0.458	MDL	4.98	PQL	mg/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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6010B	<b>Matrix:</b> SO

Sample ID: SL-152-SA7-SS-0.0-0.5      Collected: 9/23/2011 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	3280		11.5	MDL	50.9	PQL	mg/Kg	J	Q
TIN	3.05	J	0.326	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	2.99	J	0.468	MDL	5.09	PQL	mg/Kg	J	Z

Sample ID: SL-153-SA7-SS-0.0-0.5      Collected: 9/23/2011 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
POTASSIUM	2510		11.0	MDL	48.9	PQL	mg/Kg	J	Q
TIN	2.58	J	0.313	MDL	9.78	PQL	mg/Kg	U	B
Zirconium	2.32	J	0.450	MDL	4.89	PQL	mg/Kg	J	Z

Sample ID: SL-181-SA7-SS-0.0-0.5      Collected: 9/23/2011 10:35:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	3830		11.4	MDL	50.2	PQL	mg/Kg	J	Q
TIN	2.74	J	0.321	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	3.05	J	0.462	MDL	5.02	PQL	mg/Kg	J	Z

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: DUP05-SA7-QC-092211      Collected: 9/22/2011 3:10:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.172	J	0.0575	MDL	0.397	PQL	mg/Kg	J	Z, Q

Sample ID: DUP05-SA7-QC-092211      Collected: 9/22/2011 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
MOLYBDENUM	0.529		0.0496	MDL	0.0991	PQL	mg/Kg	J	Q

Sample ID: DUP05-SA7-QC-092211      Collected: 9/22/2011 3:10:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.106	J	0.0734	MDL	0.198	PQL	mg/Kg	J	Z, Q

\* 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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: DUP05-SA7-QC-092211      Collected: 9/22/2011 3:10:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	4.97		0.0793	MDL	0.397	PQL	mg/Kg	J	Q
BERYLLIUM	0.590		0.0159	MDL	0.0991	PQL	mg/Kg	J	Q
CADMIUM	0.191		0.0436	MDL	0.0991	PQL	mg/Kg	J	Q
CHROMIUM	19.6		0.119	MDL	0.397	PQL	mg/Kg	J	Q, A
COBALT	6.15		0.0198	MDL	0.0991	PQL	mg/Kg	J	Q, E
COPPER	8.30		0.0793	MDL	0.397	PQL	mg/Kg	J	Q
LEAD	8.16		0.0101	MDL	0.198	PQL	mg/Kg	J	Q
NICKEL	11.3		0.0991	MDL	0.397	PQL	mg/Kg	J	Q
SILVER	0.0407	J	0.0141	MDL	0.0991	PQL	mg/Kg	J	Z, Q, FD
THALLIUM	0.281		0.0297	MDL	0.0991	PQL	mg/Kg	J	Q
VANADIUM	38.5		0.0218	MDL	0.0991	PQL	mg/Kg	J	Q, E
ZINC	60.2		0.555	MDL	2.97	PQL	mg/Kg	J	E

Sample ID: SL-015-SA7-SS-0.0-0.5      Collected: 9/22/2011 3:05:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.169	J	0.0576	MDL	0.397	PQL	mg/Kg	J	Z, Q

Sample ID: SL-015-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
MOLYBDENUM	0.540		0.0497	MDL	0.0993	PQL	mg/Kg	J	Q

Sample ID: SL-015-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	0.146	J	0.0735	MDL	0.199	PQL	mg/Kg	J	Z, Q
ARSENIC	4.72		0.0795	MDL	0.397	PQL	mg/Kg	J	Q
BERYLLIUM	0.644		0.0159	MDL	0.0993	PQL	mg/Kg	J	Q
CADMIUM	0.233		0.0437	MDL	0.0993	PQL	mg/Kg	J	Q
CHROMIUM	21.5		0.119	MDL	0.397	PQL	mg/Kg	J	Q, A
COBALT	5.90		0.0199	MDL	0.0993	PQL	mg/Kg	J	Q, E
COPPER	8.45		0.0795	MDL	0.397	PQL	mg/Kg	J	Q
LEAD	9.31		0.0101	MDL	0.199	PQL	mg/Kg	J	Q
NICKEL	11.6		0.0993	MDL	0.397	PQL	mg/Kg	J	Q

\* 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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	Method:	6020
		Matrix:	SO

Sample ID: SL-015-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
SILVER	0.0743	J	0.0141	MDL	0.0993	PQL	mg/Kg	J	Z, Q, FD
THALLIUM	0.270		0.0298	MDL	0.0993	PQL	mg/Kg	J	Q
VANADIUM	39.2		0.0219	MDL	0.0993	PQL	mg/Kg	J	Q, E
ZINC	59.8		0.556	MDL	2.98	PQL	mg/Kg	J	E

Sample ID: SL-019-SA7-SS-0.0-0.5      Collected: 9/23/2011 12:08:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.212	J	0.0569	MDL	0.392	PQL	mg/Kg	J	Z, Q

Sample ID: SL-019-SA7-SS-0.0-0.5      Collected: 9/23/2011 12:08:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.798		0.0490	MDL	0.0981	PQL	mg/Kg	J	Q

Sample ID: SL-019-SA7-SS-0.0-0.5      Collected: 9/23/2011 12:08:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.159	J	0.0726	MDL	0.196	PQL	mg/Kg	J	Z, Q
ARSENIC	7.57		0.0785	MDL	0.392	PQL	mg/Kg	J	Q
BERYLLIUM	0.768		0.0157	MDL	0.0981	PQL	mg/Kg	J	Q
CADMIUM	0.228		0.0431	MDL	0.0981	PQL	mg/Kg	J	Q
CHROMIUM	25.9		0.118	MDL	0.392	PQL	mg/Kg	J	Q, A
COBALT	8.78		0.0196	MDL	0.0981	PQL	mg/Kg	J	Q, E
COPPER	13.6		0.0785	MDL	0.392	PQL	mg/Kg	J	Q
LEAD	13.1		0.0100	MDL	0.196	PQL	mg/Kg	J	Q
NICKEL	20.3		0.0981	MDL	0.392	PQL	mg/Kg	J	Q
SILVER	0.0543	J	0.0139	MDL	0.0981	PQL	mg/Kg	J	Z, Q
THALLIUM	0.365		0.0294	MDL	0.0981	PQL	mg/Kg	J	Q
VANADIUM	56.2		0.0216	MDL	0.0981	PQL	mg/Kg	J	Q, E
ZINC	82.6		0.549	MDL	2.94	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-025-SA7-SS-0.0-0.5      Collected: 9/23/2011 8:10:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.138	J	0.0589	MDL	0.407	PQL	mg/Kg	J	Z, Q

Sample ID: SL-025-SA7-SS-0.0-0.5      Collected: 9/23/2011 8:10:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.565		0.0508	MDL	0.102	PQL	mg/Kg	J	Q

Sample ID: SL-025-SA7-SS-0.0-0.5      Collected: 9/23/2011 8:10:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0972	J	0.0752	MDL	0.203	PQL	mg/Kg	J	Z, Q
ARSENIC	5.26		0.0813	MDL	0.407	PQL	mg/Kg	J	Q
BERYLLIUM	0.550		0.0163	MDL	0.102	PQL	mg/Kg	J	Q
CADMIUM	0.286		0.0447	MDL	0.102	PQL	mg/Kg	J	Q
CHROMIUM	19.4		0.122	MDL	0.407	PQL	mg/Kg	J	Q, A
COBALT	6.37		0.0203	MDL	0.102	PQL	mg/Kg	J	Q, E
COPPER	12.0		0.0813	MDL	0.407	PQL	mg/Kg	J	Q
LEAD	24.1		0.0104	MDL	0.203	PQL	mg/Kg	J	Q
NICKEL	12.7		0.102	MDL	0.407	PQL	mg/Kg	J	Q
SILVER	0.0455	J	0.0144	MDL	0.102	PQL	mg/Kg	J	Z, Q
THALLIUM	0.263		0.0305	MDL	0.102	PQL	mg/Kg	J	Q
VANADIUM	37.8		0.0224	MDL	0.102	PQL	mg/Kg	J	Q, E
ZINC	102		0.569	MDL	3.05	PQL	mg/Kg	J	E

Sample ID: SL-027-SA7-SS-0.0-0.5      Collected: 9/23/2011 7:45:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.138	J	0.0579	MDL	0.399	PQL	mg/Kg	J	Z, Q

Sample ID: SL-027-SA7-SS-0.0-0.5      Collected: 9/23/2011 7:45:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.911		0.0499	MDL	0.0998	PQL	mg/Kg	J	Q

\* 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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-027-SA7-SS-0.0-0.5      Collected: 9/23/2011 7:45:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.142	J	0.0738	MDL	0.200	PQL	mg/Kg	J	Z, Q
ARSENIC	4.79		0.0798	MDL	0.399	PQL	mg/Kg	J	Q
BERYLLIUM	0.628		0.0160	MDL	0.0998	PQL	mg/Kg	J	Q
CADMIUM	0.246		0.0439	MDL	0.0998	PQL	mg/Kg	J	Q
CHROMIUM	18.9		0.120	MDL	0.399	PQL	mg/Kg	J	Q, A
COBALT	6.60		0.0200	MDL	0.0998	PQL	mg/Kg	J	Q, E
COPPER	10.3		0.0798	MDL	0.399	PQL	mg/Kg	J	Q
LEAD	19.0		0.0102	MDL	0.200	PQL	mg/Kg	J	Q
NICKEL	12.8		0.0998	MDL	0.399	PQL	mg/Kg	J	Q
SILVER	0.0562	J	0.0142	MDL	0.0998	PQL	mg/Kg	J	Z, Q
THALLIUM	0.299		0.0299	MDL	0.0998	PQL	mg/Kg	J	Q
VANADIUM	38.6		0.0220	MDL	0.0998	PQL	mg/Kg	J	Q, E
ZINC	85.5		0.559	MDL	2.99	PQL	mg/Kg	J	E

Sample ID: SL-028-SA7-SB-4.0-5.0      Collected: 9/23/2011 2:18:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0983	J	0.0629	MDL	0.434	PQL	mg/Kg	J	Z, Q

Sample ID: SL-028-SA7-SB-4.0-5.0      Collected: 9/23/2011 2:18:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.760		0.0542	MDL	0.108	PQL	mg/Kg	J	Q

Sample ID: SL-028-SA7-SB-4.0-5.0      Collected: 9/23/2011 2:18:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.109	J	0.0802	MDL	0.217	PQL	mg/Kg	J	Z, Q
ARSENIC	5.62		0.0868	MDL	0.434	PQL	mg/Kg	J	Q
BERYLLIUM	0.745		0.0174	MDL	0.108	PQL	mg/Kg	J	Q
CADMIUM	0.0786	J	0.0477	MDL	0.108	PQL	mg/Kg	J	Z, Q
CHROMIUM	23.6		0.130	MDL	0.434	PQL	mg/Kg	J	Q, A
COBALT	7.44		0.0217	MDL	0.108	PQL	mg/Kg	J	Q, E
COPPER	9.88		0.0868	MDL	0.434	PQL	mg/Kg	J	Q
LEAD	6.19		0.0111	MDL	0.217	PQL	mg/Kg	J	Q

\* 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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-028-SA7-SB-4.0-5.0      Collected: 9/23/2011 2:18:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	14.6		0.108	MDL	0.434	PQL	mg/Kg	J	Q
SILVER	0.0478	J	0.0154	MDL	0.108	PQL	mg/Kg	J	Z, Q
THALLIUM	0.340		0.0325	MDL	0.108	PQL	mg/Kg	J	Q
VANADIUM	48.4		0.0239	MDL	0.108	PQL	mg/Kg	J	Q, E
ZINC	60.5		0.607	MDL	3.25	PQL	mg/Kg	J	E

Sample ID: SL-030-SA7-SB-4.0-5.0      Collected: 9/23/2011 9:00:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.186	J	0.0608	MDL	0.419	PQL	mg/Kg	J	Z, Q

Sample ID: SL-030-SA7-SB-4.0-5.0      Collected: 9/23/2011 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
MOLYBDENUM	0.769		0.0524	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-030-SA7-SB-4.0-5.0      Collected: 9/23/2011 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	0.0880	J	0.0775	MDL	0.210	PQL	mg/Kg	J	Z, Q
ARSENIC	5.92		0.0838	MDL	0.419	PQL	mg/Kg	J	Q
BERYLLIUM	0.726		0.0168	MDL	0.105	PQL	mg/Kg	J	Q
CADMIUM	0.200		0.0461	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	20.3		0.126	MDL	0.419	PQL	mg/Kg	J	Q, A
COBALT	7.49		0.0210	MDL	0.105	PQL	mg/Kg	J	Q, E
COPPER	10.3		0.0838	MDL	0.419	PQL	mg/Kg	J	Q
LEAD	6.43		0.0107	MDL	0.210	PQL	mg/Kg	J	Q
NICKEL	13.8		0.105	MDL	0.419	PQL	mg/Kg	J	Q
SILVER	0.0350	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z, Q
THALLIUM	0.372		0.0314	MDL	0.105	PQL	mg/Kg	J	Q
VANADIUM	40.8		0.0230	MDL	0.105	PQL	mg/Kg	J	Q, E
ZINC	77.4		0.587	MDL	3.14	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-062-SA7-SS-0.0-0.5	Collected: 9/23/2011 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	0.112	J	0.0587	MDL	0.405	PQL	mg/Kg	J	Z, Q

Sample ID: SL-062-SA7-SS-0.0-0.5	Collected: 9/23/2011 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	0.984		0.0506	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-062-SA7-SS-0.0-0.5	Collected: 9/23/2011 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	0.314		0.0749	MDL	0.202	PQL	mg/Kg	J	Q
ARSENIC	5.56		0.0810	MDL	0.405	PQL	mg/Kg	J	Q
BERYLLIUM	0.484		0.0162	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.388		0.0445	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	19.6		0.121	MDL	0.405	PQL	mg/Kg	J	Q, A
COBALT	7.96		0.0202	MDL	0.101	PQL	mg/Kg	J	Q, E
COPPER	21.1		0.0810	MDL	0.405	PQL	mg/Kg	J	Q
LEAD	19.6		0.0103	MDL	0.202	PQL	mg/Kg	J	Q
NICKEL	15.6		0.101	MDL	0.405	PQL	mg/Kg	J	Q
SILVER	0.0674	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.256		0.0304	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	40.1		0.0223	MDL	0.101	PQL	mg/Kg	J	Q, E
ZINC	109		0.567	MDL	3.04	PQL	mg/Kg	J	E

Sample ID: SL-066-SA7-SS-0.0-0.5	Collected: 9/23/2011 2:12:00	Analysis Type: REA	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.220	J	0.0586	MDL	0.404	PQL	mg/Kg	J	Z, Q

Sample ID: SL-066-SA7-SS-0.0-0.5	Collected: 9/23/2011 2:12:00	Analysis Type: REA2	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.741		0.0505	MDL	0.101	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-066-SA7-SS-0.0-0.5	Collected: 9/23/2011 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	0.188	J	0.0747	MDL	0.202	PQL	mg/Kg	J	Z, Q
ARSENIC	5.53		0.0808	MDL	0.404	PQL	mg/Kg	J	Q
BERYLLIUM	0.651		0.0162	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.234		0.0444	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	25.8		0.121	MDL	0.404	PQL	mg/Kg	J	Q, A
COBALT	8.15		0.0202	MDL	0.101	PQL	mg/Kg	J	Q, E
COPPER	12.6		0.0808	MDL	0.404	PQL	mg/Kg	J	Q
LEAD	19.0		0.0103	MDL	0.202	PQL	mg/Kg	J	Q
NICKEL	17.1		0.101	MDL	0.404	PQL	mg/Kg	J	Q
SILVER	0.0505	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.323		0.0303	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	52.8		0.0222	MDL	0.101	PQL	mg/Kg	J	Q, E
ZINC	81.3		0.566	MDL	3.03	PQL	mg/Kg	J	E

Sample ID: SL-067-SA7-SS-0.0-0.5	Collected: 9/23/2011 2:59:00	Analysis Type: REA	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.150	J	0.0617	MDL	0.426	PQL	mg/Kg	J	Z, Q

Sample ID: SL-067-SA7-SS-0.0-0.5	Collected: 9/23/2011 2:59:00	Analysis Type: REA2	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.689		0.0532	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-067-SA7-SS-0.0-0.5	Collected: 9/23/2011 2:59:00	Analysis Type: RES	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.211	J	0.0787	MDL	0.213	PQL	mg/Kg	J	Z, Q
ARSENIC	4.77		0.0851	MDL	0.426	PQL	mg/Kg	J	Q
BERYLLIUM	0.493		0.0170	MDL	0.106	PQL	mg/Kg	J	Q
CADMIUM	0.288		0.0468	MDL	0.106	PQL	mg/Kg	J	Q
CHROMIUM	20.2		0.128	MDL	0.426	PQL	mg/Kg	J	Q, A
COBALT	6.60		0.0213	MDL	0.106	PQL	mg/Kg	J	Q, E
COPPER	13.8		0.0851	MDL	0.426	PQL	mg/Kg	J	Q
LEAD	18.7		0.0109	MDL	0.213	PQL	mg/Kg	J	Q

\* 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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-067-SA7-SS-0.0-0.5		Collected: 9/23/2011 2:59:00		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		0.106	MDL	0.426	PQL	mg/Kg	J	Q
SILVER	0.0546	J	0.0151	MDL	0.106	PQL	mg/Kg	J	Z, Q
THALLIUM	0.263		0.0319	MDL	0.106	PQL	mg/Kg	J	Q
VANADIUM	40.4		0.0234	MDL	0.106	PQL	mg/Kg	J	Q, E
ZINC	88.2		0.596	MDL	3.19	PQL	mg/Kg	J	E

Sample ID: SL-068-SA7-SS-0.0-0.5		Collected: 9/23/2011 2:32:00		Analysis Type: REA				Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.142	J	0.0581	MDL	0.400	PQL	mg/Kg	J	Z, Q

Sample ID: SL-068-SA7-SS-0.0-0.5		Collected: 9/23/2011 2:32:00		Analysis Type: REA2				Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.679		0.0501	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: SL-068-SA7-SS-0.0-0.5		Collected: 9/23/2011 2:32:00		Analysis Type: RES				Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.151	J	0.0741	MDL	0.200	PQL	mg/Kg	J	Z, Q
ARSENIC	5.61		0.0801	MDL	0.400	PQL	mg/Kg	J	Q
BERYLLIUM	0.553		0.0160	MDL	0.100	PQL	mg/Kg	J	Q
CADMIUM	0.219		0.0440	MDL	0.100	PQL	mg/Kg	J	Q
CHROMIUM	23.1		0.120	MDL	0.400	PQL	mg/Kg	J	Q, A
COBALT	7.65		0.0200	MDL	0.100	PQL	mg/Kg	J	Q, E
COPPER	11.8		0.0801	MDL	0.400	PQL	mg/Kg	J	Q
LEAD	17.3		0.0102	MDL	0.200	PQL	mg/Kg	J	Q
NICKEL	15.4		0.100	MDL	0.400	PQL	mg/Kg	J	Q
SILVER	0.0464	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z, Q
THALLIUM	0.300		0.0300	MDL	0.100	PQL	mg/Kg	J	Q
VANADIUM	51.5		0.0220	MDL	0.100	PQL	mg/Kg	J	Q, E
ZINC	79.3		0.561	MDL	3.00	PQL	mg/Kg	J	E

\* 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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-069-SA7-SS-0.0-0.5      Collected: 9/23/2011 12:31:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.205	J	0.0570	MDL	0.393	PQL	mg/Kg	J	Z, Q

Sample ID: SL-069-SA7-SS-0.0-0.5      Collected: 9/23/2011 12:31:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.689		0.0491	MDL	0.0983	PQL	mg/Kg	J	Q

Sample ID: SL-069-SA7-SS-0.0-0.5      Collected: 9/23/2011 12:31:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.189	J	0.0727	MDL	0.197	PQL	mg/Kg	J	Z, Q
ARSENIC	7.10		0.0786	MDL	0.393	PQL	mg/Kg	J	Q
BERYLLIUM	0.647		0.0157	MDL	0.0983	PQL	mg/Kg	J	Q
CADMIUM	0.182		0.0432	MDL	0.0983	PQL	mg/Kg	J	Q
CHROMIUM	25.2		0.118	MDL	0.393	PQL	mg/Kg	J	Q, A
COBALT	9.10		0.0197	MDL	0.0983	PQL	mg/Kg	J	Q, E
COPPER	13.9		0.0786	MDL	0.393	PQL	mg/Kg	J	Q
LEAD	10.6		0.0100	MDL	0.197	PQL	mg/Kg	J	Q
NICKEL	17.3		0.0983	MDL	0.393	PQL	mg/Kg	J	Q
SILVER	0.0410	J	0.0140	MDL	0.0983	PQL	mg/Kg	J	Z, Q
THALLIUM	0.349		0.0295	MDL	0.0983	PQL	mg/Kg	J	Q
VANADIUM	53.5		0.0216	MDL	0.0983	PQL	mg/Kg	J	Q, E
ZINC	84.3		0.550	MDL	2.95	PQL	mg/Kg	J	E

Sample ID: SL-073-SA7-SB-4.0-5.0      Collected: 9/23/2011 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
SELENIUM	0.131	J	0.0599	MDL	0.413	PQL	mg/Kg	J	Z, Q

Sample ID: SL-073-SA7-SB-4.0-5.0      Collected: 9/23/2011 10:00:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.543		0.0517	MDL	0.103	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-073-SA7-SB-4.0-5.0      Collected: 9/23/2011 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	0.0765	U	0.0765	MDL	0.207	PQL	mg/Kg	UJ	Q
ARSENIC	4.77		0.0827	MDL	0.413	PQL	mg/Kg	J	Q
BERYLLIUM	0.570		0.0165	MDL	0.103	PQL	mg/Kg	J	Q
CADMIUM	0.142		0.0455	MDL	0.103	PQL	mg/Kg	J	Q
CHROMIUM	16.6		0.124	MDL	0.413	PQL	mg/Kg	J	Q, A
COBALT	5.98		0.0207	MDL	0.103	PQL	mg/Kg	J	Q, E
COPPER	7.89		0.0827	MDL	0.413	PQL	mg/Kg	J	Q
LEAD	6.40		0.0105	MDL	0.207	PQL	mg/Kg	J	Q
NICKEL	11.0		0.103	MDL	0.413	PQL	mg/Kg	J	Q
SILVER	0.0217	J	0.0147	MDL	0.103	PQL	mg/Kg	J	Z, Q
THALLIUM	0.294		0.0310	MDL	0.103	PQL	mg/Kg	J	Q
VANADIUM	34.4		0.0227	MDL	0.103	PQL	mg/Kg	J	Q, E
ZINC	66.1		0.579	MDL	3.10	PQL	mg/Kg	J	E

Sample ID: SL-076-SA7-SB-2.5-3.5      Collected: 9/23/2011 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
SELENIUM	0.198	J	0.0608	MDL	0.420	PQL	mg/Kg	J	Z, Q

Sample ID: SL-076-SA7-SB-2.5-3.5      Collected: 9/23/2011 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
MOLYBDENUM	0.876		0.0524	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-076-SA7-SB-2.5-3.5      Collected: 9/23/2011 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	0.243		0.0776	MDL	0.210	PQL	mg/Kg	J	Q
ARSENIC	12.1		0.0839	MDL	0.420	PQL	mg/Kg	J	Q
BERYLLIUM	0.591		0.0168	MDL	0.105	PQL	mg/Kg	J	Q
CADMIUM	0.204		0.0461	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	19.9		0.126	MDL	0.420	PQL	mg/Kg	J	Q, A
COBALT	14.0		0.0210	MDL	0.105	PQL	mg/Kg	J	Q, E
COPPER	16.1		0.0839	MDL	0.420	PQL	mg/Kg	J	Q
LEAD	11.4		0.0107	MDL	0.210	PQL	mg/Kg	J	Q

\* 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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-076-SA7-SB-2.5-3.5      Collected: 9/23/2011 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
NICKEL	14.5		0.105	MDL	0.420	PQL	mg/Kg	J	Q
SILVER	0.0529	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z, Q
THALLIUM	0.307		0.0315	MDL	0.105	PQL	mg/Kg	J	Q
VANADIUM	37.9		0.0231	MDL	0.105	PQL	mg/Kg	J	Q, E
ZINC	102		0.587	MDL	3.15	PQL	mg/Kg	J	E

Sample ID: SL-089-SA7-SS-0.0-0.5      Collected: 9/23/2011 9:58:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.166	J	0.0605	MDL	0.417	PQL	mg/Kg	J	Z, Q

Sample ID: SL-089-SA7-SS-0.0-0.5      Collected: 9/23/2011 9:58:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.552		0.0522	MDL	0.104	PQL	mg/Kg	J	Q

Sample ID: SL-089-SA7-SS-0.0-0.5      Collected: 9/23/2011 9:58:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.266		0.0772	MDL	0.209	PQL	mg/Kg	J	Q
ARSENIC	7.84		0.0835	MDL	0.417	PQL	mg/Kg	J	Q
BERYLLIUM	0.421		0.0167	MDL	0.104	PQL	mg/Kg	J	Q
CADMIUM	0.196		0.0459	MDL	0.104	PQL	mg/Kg	J	Q
CHROMIUM	18.2		0.125	MDL	0.417	PQL	mg/Kg	J	Q, A
COBALT	6.47		0.0209	MDL	0.104	PQL	mg/Kg	J	Q, E
COPPER	10.5		0.0835	MDL	0.417	PQL	mg/Kg	J	Q
LEAD	11.3		0.0106	MDL	0.209	PQL	mg/Kg	J	Q
NICKEL	12.0		0.104	MDL	0.417	PQL	mg/Kg	J	Q
SILVER	0.0331	J	0.0148	MDL	0.104	PQL	mg/Kg	J	Z, Q
THALLIUM	0.268		0.0313	MDL	0.104	PQL	mg/Kg	J	Q
VANADIUM	38.2		0.0230	MDL	0.104	PQL	mg/Kg	J	Q, E
ZINC	60.0		0.584	MDL	3.13	PQL	mg/Kg	J	E

\* 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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-139-SA7-SS-0.0-0.5	Collected: 9/22/2011 2:40:00	Analysis Type: REA	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.165	J	0.0571	MDL	0.393	PQL	mg/Kg	J	Z, Q

Sample ID: SL-139-SA7-SS-0.0-0.5	Collected: 9/22/2011 2:40:00	Analysis Type: REA2	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.595		0.0492	MDL	0.0984	PQL	mg/Kg	J	Q

Sample ID: SL-139-SA7-SS-0.0-0.5	Collected: 9/22/2011 2:40:00	Analysis Type: RES	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.130	J	0.0728	MDL	0.197	PQL	mg/Kg	J	Z, Q
ARSENIC	5.42		0.0787	MDL	0.393	PQL	mg/Kg	J	Q
BERYLLIUM	0.671		0.0157	MDL	0.0984	PQL	mg/Kg	J	Q
CADMIUM	0.178		0.0433	MDL	0.0984	PQL	mg/Kg	J	Q
CHROMIUM	21.7		0.118	MDL	0.393	PQL	mg/Kg	J	Q, A
COBALT	7.24		0.0197	MDL	0.0984	PQL	mg/Kg	J	Q, E
COPPER	9.98		0.0787	MDL	0.393	PQL	mg/Kg	J	Q
LEAD	8.53		0.0100	MDL	0.197	PQL	mg/Kg	J	Q
NICKEL	14.0		0.0984	MDL	0.393	PQL	mg/Kg	J	Q
SILVER	0.0304	J	0.0140	MDL	0.0984	PQL	mg/Kg	J	Z, Q
THALLIUM	0.338		0.0295	MDL	0.0984	PQL	mg/Kg	J	Q
VANADIUM	45.4		0.0216	MDL	0.0984	PQL	mg/Kg	J	Q, E
ZINC	131		0.551	MDL	2.95	PQL	mg/Kg	J	E

Sample ID: SL-140-SA7-SS-0.0-0.5	Collected: 9/22/2011 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	0.180	J	0.0583	MDL	0.402	PQL	mg/Kg	J	Z, Q

Sample ID: SL-140-SA7-SS-0.0-0.5	Collected: 9/22/2011 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	0.722		0.0503	MDL	0.101	PQL	mg/Kg	J	Q

\* 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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-140-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	0.197	J	0.0744	MDL	0.201	PQL	mg/Kg	J	Z, Q
ARSENIC	5.38		0.0804	MDL	0.402	PQL	mg/Kg	J	Q
BERYLLIUM	0.671		0.0161	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.163		0.0442	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	22.6		0.121	MDL	0.402	PQL	mg/Kg	J	Q, A
COBALT	7.11		0.0201	MDL	0.101	PQL	mg/Kg	J	Q, E
COPPER	9.90		0.0804	MDL	0.402	PQL	mg/Kg	J	Q
LEAD	10.3		0.0103	MDL	0.201	PQL	mg/Kg	J	Q
NICKEL	13.9		0.101	MDL	0.402	PQL	mg/Kg	J	Q
SILVER	0.0373	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.315		0.0302	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	45.6		0.0221	MDL	0.101	PQL	mg/Kg	J	Q, E
ZINC	80.3		0.563	MDL	3.02	PQL	mg/Kg	J	E

Sample ID: SL-152-SA7-SS-0.0-0.5      Collected: 9/23/2011 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	0.174	J	0.0579	MDL	0.399	PQL	mg/Kg	J	Z, Q

Sample ID: SL-152-SA7-SS-0.0-0.5      Collected: 9/23/2011 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	0.450		0.0499	MDL	0.0998	PQL	mg/Kg	J	Q

Sample ID: SL-152-SA7-SS-0.0-0.5      Collected: 9/23/2011 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	0.190	J	0.0739	MDL	0.200	PQL	mg/Kg	J	Z, Q
ARSENIC	5.67		0.0799	MDL	0.399	PQL	mg/Kg	J	Q
BERYLLIUM	0.466		0.0160	MDL	0.0998	PQL	mg/Kg	J	Q
CADMIUM	0.167		0.0439	MDL	0.0998	PQL	mg/Kg	J	Q
CHROMIUM	18.6		0.120	MDL	0.399	PQL	mg/Kg	J	Q, A
COBALT	6.88		0.0200	MDL	0.0998	PQL	mg/Kg	J	Q, E
COPPER	10.6		0.0799	MDL	0.399	PQL	mg/Kg	J	Q
LEAD	9.45		0.0102	MDL	0.200	PQL	mg/Kg	J	Q

\* 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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-152-SA7-SS-0.0-0.5      Collected: 9/23/2011 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
NICKEL	12.8		0.0998	MDL	0.399	PQL	mg/Kg	J	Q
SILVER	0.0376	J	0.0142	MDL	0.0998	PQL	mg/Kg	J	Z, Q
THALLIUM	0.296		0.0300	MDL	0.0998	PQL	mg/Kg	J	Q
VANADIUM	40.9		0.0220	MDL	0.0998	PQL	mg/Kg	J	Q, E
ZINC	73.8		0.559	MDL	3.00	PQL	mg/Kg	J	E

Sample ID: SL-153-SA7-SS-0.0-0.5      Collected: 9/23/2011 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	0.108	J	0.0567	MDL	0.391	PQL	mg/Kg	J	Z, Q

Sample ID: SL-153-SA7-SS-0.0-0.5      Collected: 9/23/2011 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
MOLYBDENUM	0.350		0.0489	MDL	0.0978	PQL	mg/Kg	J	Q

Sample ID: SL-153-SA7-SS-0.0-0.5      Collected: 9/23/2011 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	0.137	J	0.0723	MDL	0.196	PQL	mg/Kg	J	Z, Q
ARSENIC	5.09		0.0782	MDL	0.391	PQL	mg/Kg	J	Q
BERYLLIUM	0.376		0.0156	MDL	0.0978	PQL	mg/Kg	J	Q
CADMIUM	0.0883	J	0.0430	MDL	0.0978	PQL	mg/Kg	J	Z, Q
CHROMIUM	15.5		0.117	MDL	0.391	PQL	mg/Kg	J	Q, A
COBALT	5.58		0.0196	MDL	0.0978	PQL	mg/Kg	J	Q, E
COPPER	8.10		0.0782	MDL	0.391	PQL	mg/Kg	J	Q
LEAD	5.29		0.010	MDL	0.196	PQL	mg/Kg	J	Q
NICKEL	10.1		0.0978	MDL	0.391	PQL	mg/Kg	J	Q
SILVER	0.0214	J	0.0139	MDL	0.0978	PQL	mg/Kg	J	Z, Q
THALLIUM	0.223		0.0293	MDL	0.0978	PQL	mg/Kg	J	Q
VANADIUM	35.2		0.0215	MDL	0.0978	PQL	mg/Kg	J	Q, E
ZINC	51.4		0.547	MDL	2.93	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-181-SA7-SS-0.0-0.5      Collected: 9/23/2011 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	0.206	J	0.0588	MDL	0.406	PQL	mg/Kg	J	Z, Q

Sample ID: SL-181-SA7-SS-0.0-0.5      Collected: 9/23/2011 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	0.584		0.0507	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-181-SA7-SS-0.0-0.5      Collected: 9/23/2011 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	0.208		0.0751	MDL	0.203	PQL	mg/Kg	J	Q
ARSENIC	5.36		0.0812	MDL	0.406	PQL	mg/Kg	J	Q
BERYLLIUM	0.566		0.0162	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.207		0.0446	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	23.2		0.122	MDL	0.406	PQL	mg/Kg	J	Q, A
COBALT	7.68		0.0203	MDL	0.101	PQL	mg/Kg	J	Q, E
COPPER	12.3		0.0812	MDL	0.406	PQL	mg/Kg	J	Q
LEAD	7.82		0.0103	MDL	0.203	PQL	mg/Kg	J	Q
NICKEL	14.9		0.101	MDL	0.406	PQL	mg/Kg	J	Q
SILVER	0.0380	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.352		0.0304	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	46.7		0.0223	MDL	0.101	PQL	mg/Kg	J	Q, E
ZINC	87.9		0.568	MDL	3.04	PQL	mg/Kg	J	E

Method Category:	METALS	
Method:	7199	Matrix: SO

Sample ID: DUP05-SA7-QC-092211      Collected: 9/22/2011 3:10:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.22	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z, FD

\* 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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7199</b>	<b>Matrix: SO</b>

<b>Sample ID: SL-015-SA7-SS-0.0-0.5</b>		<b>Collected: 9/22/2011 3:05:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.20	U	0.20	MDL	0.98	PQL	mg/Kg	UJ	FD

<b>Sample ID: SL-027-SA7-SS-0.0-0.5</b>		<b>Collected: 9/23/2011 7:45:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.35	J	0.20	MDL	0.98	PQL	mg/Kg	J	Z

<b>Sample ID: SL-030-SA7-SB-4.0-5.0</b>		<b>Collected: 9/23/2011 9:00:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.26	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

<b>Sample ID: SL-068-SA7-SS-0.0-0.5</b>		<b>Collected: 9/23/2011 2:32:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.52	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

<b>Sample ID: SL-069-SA7-SS-0.0-0.5</b>		<b>Collected: 9/23/2011 12:31:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.20	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

<b>Sample ID: SL-140-SA7-SS-0.0-0.5</b>		<b>Collected: 9/22/2011 1:45:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
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	1.0	PQL	mg/Kg	J	Z

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7471A</b>	<b>Matrix: SO</b>

<b>Sample ID: DUP05-SA7-QC-092211</b>		<b>Collected: 9/22/2011 3:10:00</b>		<b>Analysis Type: RES</b>		<b>Dilution: 1</b>			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0144	J	0.0071	MDL	0.100	PQL	mg/Kg	J	Z, FD

\* 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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	7471A	Matrix: SO

Sample ID: SL-015-SA7-SS-0.0-0.5			Collected: 9/22/2011 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	0.0071	J	0.0068	MDL	0.0973	PQL	mg/Kg	J	Z, FD	

Sample ID: SL-019-SA7-SS-0.0-0.5			Collected: 9/23/2011 12:08:00			Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MERCURY	0.0110	J	0.0070	MDL	0.0999	PQL	mg/Kg	J	Z	

Sample ID: SL-025-SA7-SS-0.0-0.5			Collected: 9/23/2011 8:10:00			Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MERCURY	0.0224	J	0.0069	MDL	0.0976	PQL	mg/Kg	J	Z	

Sample ID: SL-027-SA7-SS-0.0-0.5			Collected: 9/23/2011 7:45:00			Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MERCURY	0.0130	J	0.0070	MDL	0.0991	PQL	mg/Kg	J	Z	

Sample ID: SL-062-SA7-SS-0.0-0.5			Collected: 9/23/2011 8:35:00			Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MERCURY	0.0268	J	0.0070	MDL	0.100	PQL	mg/Kg	J	Z	

Sample ID: SL-066-SA7-SS-0.0-0.5			Collected: 9/23/2011 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	
MERCURY	0.0124	J	0.0069	MDL	0.0976	PQL	mg/Kg	J	Z	

Sample ID: SL-067-SA7-SS-0.0-0.5			Collected: 9/23/2011 2:59:00			Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MERCURY	0.0159	J	0.0073	MDL	0.104	PQL	mg/Kg	J	Z	

Sample ID: SL-068-SA7-SS-0.0-0.5			Collected: 9/23/2011 2:32:00			Analysis Type: RES			Dilution: 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MERCURY	0.0227	J	0.0070	MDL	0.100	PQL	mg/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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	7471A	Matrix: SO

Sample ID: SL-069-SA7-SS-0.0-0.5      Collected: 9/23/2011 12:31:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0080	J	0.0071	MDL	0.100	PQL	mg/Kg	J	Z

Sample ID: SL-076-SA7-SB-2.5-3.5      Collected: 9/23/2011 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	0.0074	J	0.0073	MDL	0.104	PQL	mg/Kg	J	Z

Sample ID: SL-089-SA7-SS-0.0-0.5      Collected: 9/23/2011 9:58:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0115	J	0.0069	MDL	0.0984	PQL	mg/Kg	J	Z

Sample ID: SL-139-SA7-SS-0.0-0.5      Collected: 9/22/2011 2:40:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0089	J	0.0070	MDL	0.0992	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	0.0297	J	0.0070	MDL	0.0995	PQL	mg/Kg	J	Z

Sample ID: SL-152-SA7-SS-0.0-0.5      Collected: 9/23/2011 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	0.0088	J	0.0070	MDL	0.0997	PQL	mg/Kg	J	Z

Sample ID: SL-181-SA7-SS-0.0-0.5      Collected: 9/23/2011 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	0.0147	J	0.0069	MDL	0.0978	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8015M	Matrix: SO

Sample ID: DUP05-SA7-QC-092211	Collected: 9/22/2011 3:10:00	Analysis Type: REA	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.40	U	0.40	MDL	1.2	PQL	mg/Kg	UJ	FD
EFH (C21-C30)	3.5		0.40	MDL	1.2	PQL	mg/Kg	J	FD

Sample ID: SL-015-SA7-SS-0.0-0.5	Collected: 9/22/2011 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
EFH (C15-C20)	0.79	J	0.41	MDL	1.2	PQL	mg/Kg	J	Z, FD
EFH (C21-C30)	6.8		0.41	MDL	1.2	PQL	mg/Kg	J	Q, FD

Sample ID: SL-015-SA7-SS-0.0-0.5	Collected: 9/22/2011 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
DIETHYLENE GLYCOL	5.1	U	5.1	MDL	10	PQL	mg/Kg	R	Q
ETHYLENE GLYCOL	5.1	U	5.1	MDL	10	PQL	mg/Kg	UJ	Q
Propylene glycol	5.1	U	5.1	MDL	10	PQL	mg/Kg	UJ	Q

Sample ID: SL-019-SA7-SS-0.0-0.5	Collected: 9/23/2011 12:08:00	Analysis Type: REA	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.48	J	0.40	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-066-SA7-SS-0.0-0.5	Collected: 9/23/2011 2:12:00	Analysis Type: REA	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	0.51	J	0.40	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-067-SA7-SS-0.0-0.5	Collected: 9/23/2011 2:59:00	Analysis Type: REA	Dilution: 25						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	16	J	11	MDL	32	PQL	mg/Kg	J	Z

Sample ID: SL-069-SA7-SS-0.0-0.5	Collected: 9/23/2011 12:31:00	Analysis Type: REA	Dilution: 5						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	5.2	J	2.0	MDL	6.1	PQL	mg/Kg	J	Z
EFH (C8-C11)	2.1	J	2.0	MDL	6.1	PQL	mg/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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8015M	Matrix:	SO

Sample ID: SL-073-SA7-SB-4.0-5.0	Collected: 9/23/2011 10:00:00	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)	0.43	J	0.42	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-139-SA7-SS-0.0-0.5	Collected: 9/22/2011 2:40:00	Analysis Type: REA	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.81	J	0.41	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-140-SA7-SS-0.0-0.5	Collected: 9/22/2011 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
EFH (C15-C20)	0.93	J	0.41	MDL	1.2	PQL	mg/Kg	J	Z

Sample ID: SL-152-SA7-SS-0.0-0.5	Collected: 9/23/2011 11:15:00	Analysis Type: REA	Dilution: 5						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	2.3	J	2.0	MDL	6.1	PQL	mg/Kg	J	Z
EFH (C8-C11)	3.5	J	2.0	MDL	6.1	PQL	mg/Kg	J	Z

Sample ID: SL-153-SA7-SS-0.0-0.5	Collected: 9/23/2011 11:45:00	Analysis Type: REA	Dilution: 5						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	2.0	J	2.0	MDL	6.0	PQL	mg/Kg	J	Z

Sample ID: SL-181-SA7-SS-0.0-0.5	Collected: 9/23/2011 10:35:00	Analysis Type: REA	Dilution: 5						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	3.9	J	2.0	MDL	6.1	PQL	mg/Kg	J	Z

Method Category:	SVOA		
Method:	8081A	Matrix:	SO

Sample ID: SL-015-SA7-SS-0.0-0.5	Collected: 9/22/2011 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'-DDD	0.067	U	0.067	MDL	0.34	PQL	ug/Kg	R	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8051A	Matrix: SO

Sample ID: SL-025-SA7-SS-0.0-0.5      Collected: 9/23/2011 8:10:00      Analysis Type: DL-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	21	J	11	MDL	34	PQL	ug/Kg	J	Z

Sample ID: SL-027-SA7-SS-0.0-0.5      Collected: 9/23/2011 7:45:00      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	1.2	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-062-SA7-SS-0.0-0.5      Collected: 9/23/2011 8:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALPHA-BHC	0.14	J	0.070	MDL	0.34	PQL	ug/Kg	J	Z
Chlordane	3.1	J	1.6	MDL	7.0	PQL	ug/Kg	J	Z

Sample ID: SL-066-SA7-SS-0.0-0.5      Collected: 9/23/2011 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
Chlordane	2.1	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z
DELTA-BHC	0.096	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-067-SA7-SS-0.0-0.5      Collected: 9/23/2011 2:59:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	3.0	J	0.85	MDL	3.6	PQL	ug/Kg	J	Z
HEPTACHLOR	0.14	J	0.064	MDL	0.18	PQL	ug/Kg	J	Z

Sample ID: SL-068-SA7-SS-0.0-0.5      Collected: 9/23/2011 2:32:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
gamma-BHC (Lindane)	0.043	J	0.034	MDL	0.17	PQL	ug/Kg	J	Z
METHOXYCHLOR	1.1	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-069-SA7-SS-0.0-0.5      Collected: 9/23/2011 12:31:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN ALDEHYDE	0.18	J	0.067	MDL	0.34	PQL	ug/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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	Matrix:	SO
Method:	8081A		

Sample ID: SL-140-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
4,4'-DDE	0.32	J	0.067	MDL	0.35	PQL	ug/Kg	J	Z

Sample ID: SL-152-SA7-SS-0.0-0.5      Collected: 9/23/2011 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
DELTA-BHC	0.15	J	0.037	MDL	0.17	PQL	ug/Kg	J	Z
METHOXYCHLOR	0.53	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
TOXAPHENE	6.4	J	2.2	MDL	6.7	PQL	ug/Kg	J	Z

Sample ID: SL-153-SA7-SS-0.0-0.5      Collected: 9/23/2011 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	0.15	J	0.066	MDL	0.34	PQL	ug/Kg	J	Z
4,4'-DDT	0.12	J	0.066	MDL	0.34	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.18	J	0.066	MDL	0.34	PQL	ug/Kg	J	Z

Sample ID: SL-181-SA7-SS-0.0-0.5      Collected: 9/23/2011 10:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	0.24	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z

Method Category:	SVOA	Matrix:	SO
Method:	8082		

Sample ID: DUP05-SA7-QC-092211      Collected: 9/22/2011 3:10:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.6	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	2.6	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-015-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
AROCLOR 1254	2.0		0.33	MDL	1.7	PQL	ug/Kg	J	S
AROCLOR 1260	1.9		0.40	MDL	1.7	PQL	ug/Kg	J	S

\* 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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8082
		<b>Matrix:</b>	SO

<b>Sample ID:</b> SL-015-SA7-SS-0.0-0.5		<b>Collected:</b> 9/22/2011 3:05:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	3.7		1.0	MDL	3.3	PQL	ug/Kg	J	S

<b>Sample ID:</b> SL-019-SA7-SS-0.0-0.5		<b>Collected:</b> 9/23/2011 12:08:00		<b>Analysis Type:</b> RES-BASE/NEUTRAL		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.0	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	1.4	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-025-SA7-SS-0.0-0.5		<b>Collected:</b> 9/23/2011 8:10:00		<b>Analysis Type:</b> RES-BASE/NEUTRAL		<b>Dilution:</b> 10			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1242	4.2	J	3.4	MDL	17	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-066-SA7-SS-0.0-0.5		<b>Collected:</b> 9/23/2011 2:12:00		<b>Analysis Type:</b> RES-BASE/NEUTRAL		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.90	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z, S
AROCLOR 1260	3.2		0.39	MDL	1.7	PQL	ug/Kg	J	S
Aroclor 5460	2.6	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z, S

<b>Sample ID:</b> SL-067-SA7-SS-0.0-0.5		<b>Collected:</b> 9/23/2011 2:59:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	3.1	J	1.1	MDL	3.5	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-069-SA7-SS-0.0-0.5		<b>Collected:</b> 9/23/2011 12:31:00		<b>Analysis Type:</b> RES-BASE/NEUTRAL		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.58	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-073-SA7-SB-4.0-5.0		<b>Collected:</b> 9/23/2011 10:00:00		<b>Analysis Type:</b> RES-BASE/NEUTRAL		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.86	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8062	Matrix:	SO

Sample ID: SL-139-SA7-SS-0.0-0.5      Collected: 9/22/2011 2:40:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.5	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	1.6	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-140-SA7-SS-0.0-0.5      Collected: 9/22/2011 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 1260	0.82	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	2.0	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-181-SA7-SS-0.0-0.5      Collected: 9/23/2011 10:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.6	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	1.6	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Method Category:	SVOA		
Method:	8151A	Matrix:	SO

Sample ID: DUP05-SA7-QC-092211      Collected: 9/22/2011 3:10:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICAMBA	0.40	U	0.40	MDL	1.2	PQL	ug/Kg	UJ	FD
MCPA	650		77	MDL	250	PQL	ug/Kg	J	L, FD

Sample ID: SL-015-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
DICAMBA	0.69	J	0.40	MDL	1.2	PQL	ug/Kg	J	Z, FD
MCPA	1900		77	MDL	250	PQL	ug/Kg	J	Q, L, FD

Sample ID: SL-025-SA7-SS-0.0-0.5      Collected: 9/23/2011 8:10:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MCPA	1100		77	MDL	250	PQL	ug/Kg	J	L

\* 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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8151A	Matrix: SO

Sample ID: SL-089-SA7-SS-0.0-0.5      Collected: 9/23/2011 9:58:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-D	1.8	J	1.3	MDL	3.8	PQL	ug/Kg	J	Z
DICAMBA	0.75	J	0.42	MDL	1.3	PQL	ug/Kg	J	Z

Sample ID: SL-140-SA7-SS-0.0-0.5      Collected: 9/22/2011 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
DICAMBA	0.68	J	0.40	MDL	1.2	PQL	ug/Kg	J	Z

Sample ID: SL-153-SA7-SS-0.0-0.5      Collected: 9/23/2011 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
DICAMBA	0.41	J	0.40	MDL	1.2	PQL	ug/Kg	J	Z

Sample ID: SL-181-SA7-SS-0.0-0.5      Collected: 9/23/2011 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
DICAMBA	0.80	J	0.41	MDL	1.2	PQL	ug/Kg	J	Z

Method Category:	SVOA	
Method:	8270C	Matrix: SO

Sample ID: DUP05-SA7-QC-092211      Collected: 9/22/2011 3:10:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	21	J	17	MDL	330	PQL	ug/Kg	J	Z

Sample ID: SL-015-SA7-SS-0.0-0.5      Collected: 9/22/2011 3:05:00      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	330	U	330	MDL	1000	PQL	ug/Kg	UJ	Q
BENZIDINE	1200	U	1200	MDL	3300	PQL	ug/Kg	R	Q

\* 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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8270C	Matrix: SO

Sample ID: SL-140-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	18	J	17	MDL	330	PQL	ug/Kg	J	Z

Method Category:	SVOA	
Method:	8270C SIM	Matrix: SO

Sample ID: DUP05-SA7-QC-092211      Collected: 9/22/2011 3:10:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.77	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z, FD
Butylbenzylphthalate	29		6.0	MDL	18	PQL	ug/Kg	J	FD
CHRYSENE	0.35	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z, FD

Sample ID: SL-015-SA7-SS-0.0-0.5      Collected: 9/22/2011 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	0.67	U	0.67	MDL	1.7	PQL	ug/Kg	UJ	FD
BIS(2-ETHYLHEXYL)PHTHALATE	8.9	J	6.0	MDL	18	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.0	U	6.0	MDL	18	PQL	ug/Kg	UJ	FD
CHRYSENE	0.34	U	0.34	MDL	1.7	PQL	ug/Kg	UJ	FD

Sample ID: SL-019-SA7-SS-0.0-0.5      Collected: 9/23/2011 12:08:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.75	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.1	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.5	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	9.9	J	6.0	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	0.89	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.1	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.1	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-025-SA7-SS-0.0-0.5      Collected: 9/23/2011 8:10:00      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(A)PYRENE	4.6	J	3.3	MDL	8.4	PQL	ug/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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8270C SIM	Matrix: SO

Sample ID: SL-025-SA7-SS-0.0-0.5      Collected: 9/23/2011 8:10:00      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	3.9	J	3.3	MDL	8.4	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	30	J	30	MDL	90	PQL	ug/Kg	J	Z
CHRYSENE	8.0	J	1.7	MDL	8.4	PQL	ug/Kg	J	Z
FLUORANTHENE	7.4	J	3.3	MDL	8.4	PQL	ug/Kg	J	Z
PYRENE	7.0	J	3.3	MDL	8.4	PQL	ug/Kg	J	Z

Sample ID: SL-027-SA7-SS-0.0-0.5      Collected: 9/23/2011 7:45:00      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	0.97	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.69	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.3	J	6.0	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	1.4	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.2	J	6.0	MDL	18	PQL	ug/Kg	J	Z
PHENANTHRENE	1.2	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-030-SA7-SB-4.0-5.0      Collected: 9/23/2011 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
Di-n-octylphthalate	9.7	J	6.3	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-062-SA7-SS-0.0-0.5      Collected: 9/23/2011 8:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(K)FLUORANTHENE	6.4	J	3.4	MDL	8.5	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	47	J	31	MDL	92	PQL	ug/Kg	J	Z
CHRYSENE	4.7	J	1.7	MDL	8.5	PQL	ug/Kg	J	Z
FLUORANTHENE	5.6	J	3.4	MDL	8.5	PQL	ug/Kg	J	Z
NAPHTHALENE	4.3	J	3.4	MDL	8.5	PQL	ug/Kg	J	Z
PHENANTHRENE	4.3	J	3.4	MDL	8.5	PQL	ug/Kg	J	Z
PYRENE	5.3	J	3.4	MDL	8.5	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	Method:	8270C SIM	Matrix:	SO
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Sample ID: SL-066-SA7-SS-0.0-0.5      Collected: 9/23/2011 2:12:00      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	2.7	J	1.7	MDL	8.3	PQL	ug/Kg	J	Z

Sample ID: SL-067-SA7-SS-0.0-0.5      Collected: 9/23/2011 2:59:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(K)FLUORANTHENE	1.2	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
Butylbenzylphthalate	7.0	J	6.4	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	0.92	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	0.98	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	1.0	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-068-SA7-SS-0.0-0.5      Collected: 9/23/2011 2:32:00      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	3.7	J	3.3	MDL	8.4	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	7.4	J	3.3	MDL	8.4	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	56	J	30	MDL	90	PQL	ug/Kg	J	Z
Butylbenzylphthalate	60	J	30	MDL	90	PQL	ug/Kg	J	Z
CHRYSENE	7.1	J	1.7	MDL	8.4	PQL	ug/Kg	J	Z
FLUORANTHENE	7.7	J	3.3	MDL	8.4	PQL	ug/Kg	J	Z
PHENANTHRENE	3.4	J	3.3	MDL	8.4	PQL	ug/Kg	J	Z
PYRENE	5.2	J	3.3	MDL	8.4	PQL	ug/Kg	J	Z

Sample ID: SL-069-SA7-SS-0.0-0.5      Collected: 9/23/2011 12:31:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.84	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	8.4	J	6.0	MDL	18	PQL	ug/Kg	J	Z
Butylbenzylphthalate	7.4	J	6.0	MDL	18	PQL	ug/Kg	J	Z

Sample ID: SL-073-SA7-SB-4.0-5.0      Collected: 9/23/2011 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
Di-n-octylphthalate	16	J	6.2	MDL	19	PQL	ug/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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	Matrix:	SO
Method:	\$270C SIM		

Sample ID: SL-076-SA7-SB-2.5-3.5      Collected: 9/23/2011 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	10	J	6.3	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-089-SA7-SS-0.0-0.5      Collected: 9/23/2011 9:58:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.3	J	0.70	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	0.50	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-139-SA7-SS-0.0-0.5      Collected: 9/22/2011 2:40:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.6	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-140-SA7-SS-0.0-0.5      Collected: 9/22/2011 1:45:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.81	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.6	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.71	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.6	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-152-SA7-SS-0.0-0.5      Collected: 9/23/2011 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
ANTHRACENE	0.60	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	6.7	J	6.1	MDL	18	PQL	ug/Kg	J	Z
FLUORENE	0.74	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C SIM	<b>Matrix:</b> SO

Sample ID: SL-153-SA7-SS-0.0-0.5      Collected: 9/23/2011 11:45:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	6.0	MDL	18	PQL	ug/Kg	J	Z

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8315A	<b>Matrix:</b> SO

Sample ID: SL-089-SA7-SS-0.0-0.5      Collected: 9/23/2011 9:58:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	790	J	630	MDL	1600	PQL	ug/Kg	J	Z

Sample ID: SL-152-SA7-SS-0.0-0.5      Collected: 9/23/2011 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
FORMALDEHYDE	710	J	610	MDL	1500	PQL	ug/Kg	J	Z

Sample ID: SL-153-SA7-SS-0.0-0.5      Collected: 9/23/2011 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
FORMALDEHYDE	1100	J	600	MDL	1500	PQL	ug/Kg	J	Z

Sample ID: SL-181-SA7-SS-0.0-0.5      Collected: 9/23/2011 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
FORMALDEHYDE	940	J	610	MDL	1500	PQL	ug/Kg	J	Z

<b>Method Category:</b>	VOA	
<b>Method:</b>	8015B	<b>Matrix:</b> SO

Sample ID: DUP05-SA7-QC-092211      Collected: 9/22/2011 3:10:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	250	J	100	MDL	510	PQL	ug/Kg	J	Z, FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	VOA								
Method:	8015B	Matrix:	SO						

Sample ID: SL-015-SA7-SS-0.0-0.5	Collected: 9/22/2011 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
METHANOL	100	U	100	MDL	510	PQL	ug/Kg	UJ	FD

Sample ID: SL-019-SA7-SS-0.0-0.5	Collected: 9/23/2011 12:08:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	440	J	100	MDL	510	PQL	ug/Kg	J	Z

Sample ID: SL-066-SA7-SS-0.0-0.5	Collected: 9/23/2011 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
METHANOL	150	J	100	MDL	510	PQL	ug/Kg	J	Z

Sample ID: SL-067-SA7-SS-0.0-0.5	Collected: 9/23/2011 2:59:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	380	J	210	MDL	1100	PQL	ug/Kg	J	Z

Sample ID: SL-152-SA7-SS-0.0-0.5	Collected: 9/23/2011 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
METHANOL	210	J	100	MDL	510	PQL	ug/Kg	J	Z

Sample ID: SL-153-SA7-SS-0.0-0.5	Collected: 9/23/2011 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
ETHANOL	170	J	100	MDL	500	PQL	ug/Kg	J	Z
METHANOL	220	J	100	MDL	500	PQL	ug/Kg	J	Z

Sample ID: SL-181-SA7-SS-0.0-0.5	Collected: 9/23/2011 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
METHANOL	110	J	100	MDL	510	PQL	ug/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: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_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	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: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_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

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE252

# Method Blank Outlier Report

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P26908HB220028	10/4/2011 12:28:00 AM	CALCIUM PHOSPHORUS STRONTIUM TIN	5.95 mg/Kg 1.28 mg/Kg 0.0380 mg/Kg 1.52 mg/Kg	DUP05-SA7-QC-092211 SL-015-SA7-SS-0.0-0.5 SL-019-SA7-SS-0.0-0.5 SL-025-SA7-SS-0.0-0.5 SL-027-SA7-SS-0.0-0.5 SL-028-SA7-SB-4.0-5.0 SL-030-SA7-SB-4.0-5.0 SL-062-SA7-SS-0.0-0.5 SL-066-SA7-SS-0.0-0.5 SL-067-SA7-SS-0.0-0.5 SL-068-SA7-SS-0.0-0.5 SL-069-SA7-SS-0.0-0.5 SL-073-SA7-SB-4.0-5.0 SL-076-SA7-SB-2.5-3.5 SL-089-SA7-SS-0.0-0.5 SL-139-SA7-SS-0.0-0.5 SL-140-SA7-SS-0.0-0.5 SL-152-SA7-SS-0.0-0.5 SL-153-SA7-SS-0.0-0.5 SL-181-SA7-SS-0.0-0.5
P27808BB221958	10/6/2011 7:58:00 PM	IRON	2.98 mg/Kg	DUP05-SA7-QC-092211 SL-015-SA7-SS-0.0-0.5 SL-019-SA7-SS-0.0-0.5 SL-025-SA7-SS-0.0-0.5 SL-027-SA7-SS-0.0-0.5 SL-028-SA7-SB-4.0-5.0 SL-030-SA7-SB-4.0-5.0 SL-062-SA7-SS-0.0-0.5 SL-066-SA7-SS-0.0-0.5 SL-067-SA7-SS-0.0-0.5 SL-068-SA7-SS-0.0-0.5 SL-069-SA7-SS-0.0-0.5 SL-073-SA7-SB-4.0-5.0 SL-076-SA7-SB-2.5-3.5 SL-089-SA7-SS-0.0-0.5 SL-139-SA7-SS-0.0-0.5 SL-140-SA7-SS-0.0-0.5 SL-152-SA7-SS-0.0-0.5 SL-153-SA7-SS-0.0-0.5 SL-181-SA7-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-SA7-QC-092211(RES)	TIN	2.99 mg/Kg	2.99U mg/Kg
SL-015-SA7-SS-0.0-0.5(RES)	TIN	2.90 mg/Kg	2.90U mg/Kg
SL-019-SA7-SS-0.0-0.5(RES)	TIN	2.87 mg/Kg	2.87U mg/Kg
SL-025-SA7-SS-0.0-0.5(RES)	TIN	2.91 mg/Kg	2.91U mg/Kg
SL-027-SA7-SS-0.0-0.5(RES)	TIN	3.07 mg/Kg	3.07U mg/Kg
SL-028-SA7-SB-4.0-5.0(RES)	TIN	3.06 mg/Kg	3.06U mg/Kg
SL-030-SA7-SB-4.0-5.0(RES)	TIN	2.83 mg/Kg	2.83U mg/Kg
SL-062-SA7-SS-0.0-0.5(RES)	TIN	3.10 mg/Kg	3.10U mg/Kg
SL-066-SA7-SS-0.0-0.5(RES)	TIN	2.88 mg/Kg	2.88U mg/Kg
SL-067-SA7-SS-0.0-0.5(RES)	TIN	3.11 mg/Kg	3.11U mg/Kg
SL-068-SA7-SS-0.0-0.5(RES)	TIN	3.02 mg/Kg	3.02U mg/Kg

**Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling**

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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*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-069-SA7-SS-0.0-0.5(RES)	TIN	2.80 mg/Kg	2.80U mg/Kg
SL-073-SA7-SB-4.0-5.0(RES)	TIN	2.85 mg/Kg	2.85U mg/Kg
SL-076-SA7-SB-2.5-3.5(RES)	TIN	3.19 mg/Kg	3.19U mg/Kg
SL-089-SA7-SS-0.0-0.5(RES)	TIN	2.59 mg/Kg	2.59U mg/Kg
SL-139-SA7-SS-0.0-0.5(RES)	TIN	3.02 mg/Kg	3.02U mg/Kg
SL-140-SA7-SS-0.0-0.5(RES)	TIN	2.85 mg/Kg	2.85U mg/Kg
SL-152-SA7-SS-0.0-0.5(RES)	TIN	3.05 mg/Kg	3.05U mg/Kg
SL-153-SA7-SS-0.0-0.5(RES)	TIN	2.58 mg/Kg	2.58U mg/Kg
SL-181-SA7-SS-0.0-0.5(RES)	TIN	2.74 mg/Kg	2.74U mg/Kg

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-015-SA7-SS-0.0-0.5MS SL-015-SA7-SS-0.0-0.5MSD (SL-015-SA7-SS-0.0-0.5)	2,4-DB	274	288	10.00-201.00	-	2,4-DB	J (all detects)
SL-015-SA7-SS-0.0-0.5MS SL-015-SA7-SS-0.0-0.5MSD (SL-015-SA7-SS-0.0-0.5)	MCPA	-155	-131	10.00-213.00	-	MCPA	J(all detects) R(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-015-SA7-SS-0.0-0.5MSD (SL-015-SA7-SS-0.0-0.5)	ETHANOL Isopropanol METHANOL	- - -	- - -	48.00-130.00 12.00-149.00 43.00-138.00	43 (20.00) 44 (20.00) 37 (20.00)	ETHANOL Isopropanol METHANOL	J(all detects)

**Method: 8081A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-015-SA7-SS-0.0-0.5MS SL-015-SA7-SS-0.0-0.5MSD (SL-015-SA7-SS-0.0-0.5)	4,4'-DDE BETA-BHC	269 747	468 -	18.00-161.00 14.00-147.00	- 154 (50.00)	4,4'-DDE BETA-BHC	J(all detects)
SL-015-SA7-SS-0.0-0.5MSD (SL-015-SA7-SS-0.0-0.5)	4,4'-DDD	-	0	16.00-163.00	200 (50.00)	4,4'-DDD	J(all detects) R(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-SA7-SS-0.0-0.5MS SL-015-SA7-SS-0.0-0.5MSD (SL-015-SA7-SS-0.0-0.5)	DIETHYLENE GLYCOL	0	0	59.00-109.00	-	DIETHYLENE GLYCOL	J(all detects) R(all non-detects)
SL-015-SA7-SS-0.0-0.5MS SL-015-SA7-SS-0.0-0.5MSD (SL-015-SA7-SS-0.0-0.5)	ETHYLENE GLYCOL Propylene glycol	15 25	14 24	63.00-107.00 63.00-107.00	- -	ETHYLENE GLYCOL Propylene glycol	J(all detects) UJ(all non-detects)
SL-015-SA7-SS-0.0-0.5MS SL-015-SA7-SS-0.0-0.5MSD (SL-015-SA7-SS-0.0-0.5)	EFH (C21-C30) EFH (C30-C40)	-6 -211	-12 -41	49.00-123.00 49.00-123.00	- 33 (20.00)	EFH (C21-C30) EFH (C30-C40)	J(all detects) R(all non-detects) EFH (C30-C40), No Qual >4x



# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_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-SA7-SS-0.0-0.5MS SL-015-SA7-SS-0.0-0.5MSD (DUP05 -SA7-QC-092211 SL -015-SA7-SS-0.0-0.5 SL -019-SA7-SS-0.0-0.5 SL -025-SA7-SS-0.0-0.5 SL -027-SA7-SS-0.0-0.5 SL -028-SA7-SB-4.0-5.0 SL -030-SA7-SB-4.0-5.0 SL -062-SA7-SS-0.0-0.5 SL -066-SA7-SS-0.0-0.5 SL -067-SA7-SS-0.0-0.5 SL -068-SA7-SS-0.0-0.5 SL -069-SA7-SS-0.0-0.5 SL -073-SA7-SB-4.0-5.0 SL -076-SA7-SB-2.5-3.5 SL -089-SA7-SS-0.0-0.5 SL -139-SA7-SS-0.0-0.5 SL -140-SA7-SS-0.0-0.5 SL -152-SA7-SS-0.0-0.5 SL -153-SA7-SS-0.0-0.5 SL -181-SA7-SS-0.0-0.5)	MOLYBDENUM	141	134	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-015-SA7-SS-0.0-0.5MS SL-015-SA7-SS-0.0-0.5MSD (DUP05 -SA7-QC-092211 SL -015-SA7-SS-0.0-0.5 SL -019-SA7-SS-0.0-0.5 SL -025-SA7-SS-0.0-0.5 SL -027-SA7-SS-0.0-0.5 SL -028-SA7-SB-4.0-5.0 SL -030-SA7-SB-4.0-5.0 SL -062-SA7-SS-0.0-0.5 SL -066-SA7-SS-0.0-0.5 SL -067-SA7-SS-0.0-0.5 SL -068-SA7-SS-0.0-0.5 SL -069-SA7-SS-0.0-0.5 SL -073-SA7-SB-4.0-5.0 SL -076-SA7-SB-2.5-3.5 SL -089-SA7-SS-0.0-0.5 SL -139-SA7-SS-0.0-0.5 SL -140-SA7-SS-0.0-0.5 SL -152-SA7-SS-0.0-0.5 SL -153-SA7-SS-0.0-0.5 SL -181-SA7-SS-0.0-0.5)	BARIUM	285	259	75.00-125.00	-	BARIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_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-015-SA7-SS-0.0-0.5MS SL-015-SA7-SS-0.0-0.5MSD (DUP05 -SA7-QC-092211 SL -015-SA7-SS-0.0-0.5 SL -019-SA7-SS-0.0-0.5 SL -025-SA7-SS-0.0-0.5 SL -027-SA7-SS-0.0-0.5 SL -028-SA7-SB-4.0-5.0 SL -030-SA7-SB-4.0-5.0 SL -062-SA7-SS-0.0-0.5 SL -066-SA7-SS-0.0-0.5 SL -067-SA7-SS-0.0-0.5 SL -068-SA7-SS-0.0-0.5 SL -069-SA7-SS-0.0-0.5 SL -073-SA7-SB-4.0-5.0 SL -076-SA7-SB-2.5-3.5 SL -089-SA7-SS-0.0-0.5 SL -139-SA7-SS-0.0-0.5 SL -140-SA7-SS-0.0-0.5 SL -152-SA7-SS-0.0-0.5 SL -153-SA7-SS-0.0-0.5 SL -181-SA7-SS-0.0-0.5)	ALUMINUM CALCIUM MAGNESIUM POTASSIUM TITANIUM	1613 - 208 126 212	1745 144 265 136 253	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - -	ALUMINUM CALCIUM MAGNESIUM POTASSIUM TITANIUM	J(all detects)  Al, Ca, Mg, Ti No Qual, >4x

**Method: 300.0**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-015-SA7-SS-0.0-0.5MS (DUP05 -SA7-QC-092211 SL -015-SA7-SS-0.0-0.5 SL -019-SA7-SS-0.0-0.5 SL -025-SA7-SS-0.0-0.5 SL -027-SA7-SS-0.0-0.5 SL -062-SA7-SS-0.0-0.5 SL -066-SA7-SS-0.0-0.5 SL -067-SA7-SS-0.0-0.5 SL -139-SA7-SS-0.0-0.5 SL -140-SA7-SS-0.0-0.5)	FLUORIDE	51	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

**Method: 3270C**

**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-015-SA7-SS-0.0-0.5MS SL-015-SA7-SS-0.0-0.5MSD (SL-015-SA7-SS-0.0-0.5)	BENZIDINE	0	0	35.00-141.00	-	BENZIDINE	J(all detects) R(all non-detects)
SL-015-SA7-SS-0.0-0.5MSD (SL-015-SA7-SS-0.0-0.5)	2,4-DINITROPHENOL	-	17	20.00-143.00	-	2,4-DINITROPHENOL	J(all detects) UJ(all non-detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_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-015-SA7-SS-0.0-0.5MS SL-015-SA7-SS-0.0-0.5MSD (DUP05 -SA7-QC-092211 SL -015-SA7-SS-0.0-0.5 SL -019-SA7-SS-0.0-0.5 SL -025-SA7-SS-0.0-0.5 SL -027-SA7-SS-0.0-0.5 SL -028-SA7-SB-4.0-5.0 SL -030-SA7-SB-4.0-5.0 SL -062-SA7-SS-0.0-0.5 SL -066-SA7-SS-0.0-0.5 SL -067-SA7-SS-0.0-0.5 SL -068-SA7-SS-0.0-0.5 SL -069-SA7-SS-0.0-0.5 SL -073-SA7-SB-4.0-5.0 SL -076-SA7-SB-2.5-3.5 SL -089-SA7-SS-0.0-0.5 SL -139-SA7-SS-0.0-0.5 SL -140-SA7-SS-0.0-0.5 SL -152-SA7-SS-0.0-0.5 SL -153-SA7-SS-0.0-0.5 SL -181-SA7-SS-0.0-0.5)	IRON	-74	-192	75.00-125.00	-	IRON	No Qual, >4x

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-015-SA7-SS-0.0-0.5DUP (DUP05-SA7-QC-092211 SL -015-SA7-SS-0.0-0.5 SL -019-SA7-SS-0.0-0.5 SL -025-SA7-SS-0.0-0.5 SL -027-SA7-SS-0.0-0.5 SL -028-SA7-SB-4.0-5.0 SL -030-SA7-SB-4.0-5.0 SL -062-SA7-SS-0.0-0.5 SL -066-SA7-SS-0.0-0.5 SL -067-SA7-SS-0.0-0.5 SL -068-SA7-SS-0.0-0.5 SL -069-SA7-SS-0.0-0.5 SL -073-SA7-SB-4.0-5.0 SL -076-SA7-SB-2.5-3.5 SL -089-SA7-SS-0.0-0.5 SL -139-SA7-SS-0.0-0.5 SL -140-SA7-SS-0.0-0.5 SL -152-SA7-SS-0.0-0.5 SL -153-SA7-SS-0.0-0.5 SL -181-SA7-SS-0.0-0.5)	Zirconium	22	20.00	No Qual, OK by Difference

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-015-SA7-SS-0.0-0.5DUP (DUP05-SA7-QC-092211 SL -015-SA7-SS-0.0-0.5 SL -019-SA7-SS-0.0-0.5 SL -025-SA7-SS-0.0-0.5 SL -027-SA7-SS-0.0-0.5 SL -028-SA7-SB-4.0-5.0 SL -030-SA7-SB-4.0-5.0 SL -062-SA7-SS-0.0-0.5 SL -066-SA7-SS-0.0-0.5 SL -067-SA7-SS-0.0-0.5 SL -068-SA7-SS-0.0-0.5 SL -069-SA7-SS-0.0-0.5 SL -073-SA7-SB-4.0-5.0 SL -076-SA7-SB-2.5-3.5 SL -089-SA7-SS-0.0-0.5 SL -139-SA7-SS-0.0-0.5 SL -140-SA7-SS-0.0-0.5 SL -152-SA7-SS-0.0-0.5 SL -153-SA7-SS-0.0-0.5 SL -181-SA7-SS-0.0-0.5)	COBALT SELENIUM VANADIUM ZINC	28 28 22 23	20.00 20.00 20.00 20.00	J(all detects) UJ(all non-detects)  Se, No Qual, OK by Difference

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 7139  
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-015-SA7-SS-0.0-0.5DUP (DUP05-SA7-QC-092211 SL -015-SA7-SS-0.0-0.5 SL -019-SA7-SS-0.0-0.5 SL -025-SA7-SS-0.0-0.5 SL -027-SA7-SS-0.0-0.5 SL -028-SA7-SB-4.0-5.0 SL -030-SA7-SB-4.0-5.0 SL -062-SA7-SS-0.0-0.5 SL -066-SA7-SS-0.0-0.5 SL -067-SA7-SS-0.0-0.5 SL -068-SA7-SS-0.0-0.5 SL -069-SA7-SS-0.0-0.5 SL -073-SA7-SB-4.0-5.0 SL -076-SA7-SB-2.5-3.5 SL -089-SA7-SS-0.0-0.5 SL -139-SA7-SS-0.0-0.5 SL -140-SA7-SS-0.0-0.5 SL -152-SA7-SS-0.0-0.5 SL -153-SA7-SS-0.0-0.5 SL -181-SA7-SS-0.0-0.5)	HEXAVALENT CHROMIUM	200	20.00	No Qual, OK by Difference

Method: 7471A  
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-015-SA7-SS-0.0-0.5DUP (DUP05-SA7-QC-092211 SL -015-SA7-SS-0.0-0.5 SL -019-SA7-SS-0.0-0.5 SL -025-SA7-SS-0.0-0.5 SL -027-SA7-SS-0.0-0.5 SL -028-SA7-SB-4.0-5.0 SL -030-SA7-SB-4.0-5.0 SL -062-SA7-SS-0.0-0.5 SL -066-SA7-SS-0.0-0.5 SL -067-SA7-SS-0.0-0.5 SL -068-SA7-SS-0.0-0.5 SL -069-SA7-SS-0.0-0.5 SL -073-SA7-SB-4.0-5.0 SL -076-SA7-SB-2.5-3.5 SL -089-SA7-SS-0.0-0.5 SL -139-SA7-SS-0.0-0.5 SL -140-SA7-SS-0.0-0.5 SL -152-SA7-SS-0.0-0.5 SL -153-SA7-SS-0.0-0.5 SL -181-SA7-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: DE252

Laboratory: LL

EDD Filename: DE252\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12703AQ240452A (DUP05 -SA7-QC-092211 SL -015-SA7-SS-0.0-0.5 SL -019-SA7-SS-0.0-0.5 SL -025-SA7-SS-0.0-0.5 SL -027-SA7-SS-0.0-0.5 SL -062-SA7-SS-0.0-0.5 SL -066-SA7-SS-0.0-0.5 SL -067-SA7-SS-0.0-0.5 SL -068-SA7-SS-0.0-0.5 SL -069-SA7-SS-0.0-0.5 SL -089-SA7-SS-0.0-0.5 SL -139-SA7-SS-0.0-0.5 SL -140-SA7-SS-0.0-0.5 SL -152-SA7-SS-0.0-0.5 SL -153-SA7-SS-0.0-0.5 SL -181-SA7-SS-0.0-0.5)	MCPA	138	-	60.00-130.00	-	MCPA	J (all detects)

**Method: 8081A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12847AQ241845A ( )	METHOXYCHLOR	143	-	59.00-125.00	-	METHOXYCHLOR	No Associated Samples

**Method: 8020**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P26926CQ220954A (DUP05 -SA7-QC-092211 SL -015-SA7-SS-0.0-0.5 SL -019-SA7-SS-0.0-0.5 SL -025-SA7-SS-0.0-0.5 SL -027-SA7-SS-0.0-0.5 SL -028-SA7-SB-4.0-5.0 SL -030-SA7-SB-4.0-5.0 SL -062-SA7-SS-0.0-0.5 SL -066-SA7-SS-0.0-0.5 SL -067-SA7-SS-0.0-0.5 SL -068-SA7-SS-0.0-0.5 SL -069-SA7-SS-0.0-0.5 SL -073-SA7-SB-4.0-5.0 SL -076-SA7-SB-2.5-3.5 SL -089-SA7-SS-0.0-0.5 SL -139-SA7-SS-0.0-0.5 SL -140-SA7-SS-0.0-0.5 SL -152-SA7-SS-0.0-0.5 SL -153-SA7-SS-0.0-0.5 SL -181-SA7-SS-0.0-0.5)	VANADIUM	124	-	80.00-120.00	-	VANADIUM	No Qual, SRM Within QC Limits

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_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
P26908HQ220031 (DUP05-SA7-QC-092211 SL -015-SA7-SS-0.0-0.5 SL -019-SA7-SS-0.0-0.5 SL -025-SA7-SS-0.0-0.5 SL -027-SA7-SS-0.0-0.5 SL -028-SA7-SB-4.0-5.0 SL -030-SA7-SB-4.0-5.0 SL -062-SA7-SS-0.0-0.5 SL -066-SA7-SS-0.0-0.5 SL -067-SA7-SS-0.0-0.5 SL -068-SA7-SS-0.0-0.5 SL -069-SA7-SS-0.0-0.5 SL -073-SA7-SB-4.0-5.0 SL -076-SA7-SB-2.5-3.5 SL -089-SA7-SS-0.0-0.5 SL -139-SA7-SS-0.0-0.5 SL -140-SA7-SS-0.0-0.5 SL -152-SA7-SS-0.0-0.5 SL -153-SA7-SS-0.0-0.5 SL -181-SA7-SS-0.0-0.5)	ALUMINUM MAGNESIUM POTASSIUM	157 132 128	- - -	80.00-120.00 80.00-120.00 80.00-120.00	- - -	ALUMINUM MAGNESIUM POTASSIUM	No Qual, SRM Within QC Limits

# Surrogate Outlier Report

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 8082  
Matrix: SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-015-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	122	45.00-120.00	All Target Analytes	J (all detects)
SL-066-SA7-SS-0.0-0.5	DECACHLOROBIPHENYL	123	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-015-SA7-SS-0.0-0.5	Nitrobenzene-d5	147	40.00-130.00	No Affected Compounds	J(all detects)
SL-068-SA7-SS-0.0-0.5	Nitrobenzene-d5	188	40.00-130.00	No Affected Compounds	J(all detects)

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252 v1

eQAPP Name: CDM\_SSFL\_110509

Method: 160.3M  
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-015-SA7-SS-0.0-0.5	DUP05-SA7-QC-092211			
MOISTURE	1.3	1.1	17		No Qualifiers Applied

Method: 300.0  
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-015-SA7-SS-0.0-0.5	DUP05-SA7-QC-092211			
FLUORIDE	4.0	4.0	0	50.00	No Qualifiers Applied

Method: 6010B  
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-015-SA7-SS-0.0-0.5	DUP05-SA7-QC-092211			
ALUMINUM	14600	16400	12	50.00	No Qualifiers Applied
BORON	8.65	7.36	16	50.00	
CALCIUM	2810	2950	5	50.00	
IRON	20900	20300	3	50.00	
LITHIUM	23.1	25.1	8	50.00	
MAGNESIUM	4660	5030	8	50.00	
MANGANESE	267	273	2	50.00	
PHOSPHORUS	303	297	2	50.00	
POTASSIUM	2460	2700	9	50.00	
SODIUM	88.2	96.1	9	50.00	
STRONTIUM	15.4	16.4	6	50.00	
TIN	2.90	2.99	3	50.00	
TITANIUM	1250	1300	4	50.00	
Zirconium	2.73	3.01	10	50.00	

Method: 6020  
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag	
	SL-015-SA7-SS-0.0-0.5	DUP05-SA7-QC-092211				
ANTIMONY	0.146	0.106	32	50.00	No Qualifiers Applied	
ARSENIC	4.72	4.97	5	50.00		
BARIUM	87.7	103	16	50.00		
BERYLLIUM	0.644	0.590	9	50.00		
CADMIUM	0.233	0.191	20	50.00		
CHROMIUM	21.5	19.6	9	50.00		
COBALT	5.90	6.15	4	50.00		
COPPER	8.45	8.30	2	50.00		
LEAD	9.31	8.16	13	50.00		
MOLYBDENUM	0.540	0.529	2	50.00		
NICKEL	11.6	11.3	3	50.00		
SELENIUM	0.169	0.172	2	50.00		
THALLIUM	0.270	0.281	4	50.00		
VANADIUM	39.2	38.5	2	50.00		
ZINC	59.8	60.2	1	50.00		
SILVER	0.0743	0.0407	58	50.00		J(all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Field Duplicate RPD Report

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM\_SSFL\_110509

Method: 7199  
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-015-SA7-SS-0.0-0.5	DUP05-SA7-QC-092211			
HEXAVALENT CHROMIUM	0.98 U	0.22	200	50.00	J(all detects) UJ(all non-detects)

Method: 7471A  
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-015-SA7-SS-0.0-0.5	DUP05-SA7-QC-092211			
MERCURY	0.0071	0.0144	68	50.00	J(all detects)

Method: 8015B  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-015-SA7-SS-0.0-0.5	DUP05-SA7-QC-092211			
METHANOL	510 U	250	200	50.00	J(all detects) UJ(all non-detects)

Method: 8015M  
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-015-SA7-SS-0.0-0.5	DUP05-SA7-QC-092211			
EFH (C30-C40)	17	11	43	50.00	No Qualifiers Applied
EFH (C15-C20)	0.79	1.2 U	200	50.00	J(all detects)
EFH (C21-C30)	6.8	3.5	64	50.00	UJ(all non-detects)

Method: 8081A  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-015-SA7-SS-0.0-0.5	DUP05-SA7-QC-092211			
4,4'-DDE	7.5	7.0	7	50.00	No Qualifiers Applied
4,4'-DDT	0.93	0.90	3	50.00	

Method: 8082  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-015-SA7-SS-0.0-0.5	DUP05-SA7-QC-092211			
AROCLOR 1254	2.0	1.6	22	50.00	No Qualifiers Applied
AROCLOR 1260	1.9	1.7	11	50.00	
Aroclor 5460	3.7	2.6	35	50.00	

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: PrepDE252\_v1

eQAPP Name: CDM SSFL\_110509

Method: 8151A  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-015-SA7-SS-0.0-0.5	DUP05-SA7-QC-092211			
DICAMBA	0.69	1.2 U	200	50.00	J(all detects)
MCPA	1900	650	98	50.00	UJ(all non-detects)

Method: 8270C SIM  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-015-SA7-SS-0.0-0.5	DUP05-SA7-QC-092211			
BENZO(B)FLUORANTHENE	1.7 U	0.77	200	50.00	J(all detects) UJ(all non-detects)
Butylbenzylphthalate	18 U	29	200	50.00	
CHRYSENE	1.7 U	0.35	200	50.00	

Method: 9045M  
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-015-SA7-SS-0.0-0.5	DUP05-SA7-QC-092211			
PH	7.00	6.99	0	50.00	No Qualifiers Applied

# Reporting Limit Outliers

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP05-SA7-QC-092211	SODIUM	J	96.1	99.1	PQL	mg/Kg	J (all detects)
	TIN	J	2.99	9.91	PQL	mg/Kg	
	Zirconium	J	3.01	4.96	PQL	mg/Kg	
SL-015-SA7-SS-0.0-0.5	SODIUM	J	88.2	101	PQL	mg/Kg	J (all detects)
	TIN	J	2.90	10.1	PQL	mg/Kg	
	Zirconium	J	2.73	5.07	PQL	mg/Kg	
SL-019-SA7-SS-0.0-0.5	SODIUM	J	66.4	100	PQL	mg/Kg	J (all detects)
	TIN	J	2.87	10.0	PQL	mg/Kg	
	Zirconium	J	4.19	5.00	PQL	mg/Kg	
SL-025-SA7-SS-0.0-0.5	SODIUM	J	85.1	101	PQL	mg/Kg	J (all detects)
	TIN	J	2.91	10.1	PQL	mg/Kg	
	Zirconium	J	3.10	5.03	PQL	mg/Kg	
SL-027-SA7-SS-0.0-0.5	SODIUM	J	74.2	98.8	PQL	mg/Kg	J (all detects)
	TIN	J	3.07	9.88	PQL	mg/Kg	
SL-028-SA7-SB-4.0-5.0	SODIUM	J	96.4	106	PQL	mg/Kg	J (all detects)
	TIN	J	3.06	10.6	PQL	mg/Kg	
	Zirconium	J	3.48	5.32	PQL	mg/Kg	
SL-030-SA7-SB-4.0-5.0	SODIUM	J	70.5	105	PQL	mg/Kg	J (all detects)
	TIN	J	2.83	10.5	PQL	mg/Kg	
	Zirconium	J	1.71	5.24	PQL	mg/Kg	
SL-062-SA7-SS-0.0-0.5	SODIUM	J	69.3	100	PQL	mg/Kg	J (all detects)
	TIN	J	3.10	10.0	PQL	mg/Kg	
	Zirconium	J	2.49	5.01	PQL	mg/Kg	
SL-066-SA7-SS-0.0-0.5	SODIUM	J	69.4	99.0	PQL	mg/Kg	J (all detects)
	TIN	J	2.88	9.90	PQL	mg/Kg	
	Zirconium	J	3.07	4.95	PQL	mg/Kg	
SL-067-SA7-SS-0.0-0.5	TIN	J	3.11	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.17	5.32	PQL	mg/Kg	
SL-068-SA7-SS-0.0-0.5	SODIUM	J	85.4	101	PQL	mg/Kg	J (all detects)
	TIN	J	3.02	10.1	PQL	mg/Kg	
	Zirconium	J	3.17	5.06	PQL	mg/Kg	
SL-069-SA7-SS-0.0-0.5	SODIUM	J	74.2	97.3	PQL	mg/Kg	J (all detects)
	TIN	J	2.80	9.73	PQL	mg/Kg	
	Zirconium	J	2.86	4.87	PQL	mg/Kg	
SL-073-SA7-SB-4.0-5.0	SODIUM	J	68.9	103	PQL	mg/Kg	J (all detects)
	TIN	J	2.85	10.3	PQL	mg/Kg	
	Zirconium	J	2.18	5.17	PQL	mg/Kg	
SL-076-SA7-SB-2.5-3.5	BORON	J	25.6	26.2	PQL	mg/Kg	J (all detects)
	SODIUM	J	72.8	105	PQL	mg/Kg	
	TIN	J	3.19	10.5	PQL	mg/Kg	
	Zirconium	J	3.86	5.24	PQL	mg/Kg	
SL-089-SA7-SS-0.0-0.5	TIN	J	2.59	10.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.87	5.22	PQL	mg/Kg	
SL-139-SA7-SS-0.0-0.5	SODIUM	J	74.9	100	PQL	mg/Kg	J (all detects)
	TIN	J	3.02	10.0	PQL	mg/Kg	
	Zirconium	J	3.30	5.02	PQL	mg/Kg	
SL-140-SA7-SS-0.0-0.5	SODIUM	J	66.8	99.5	PQL	mg/Kg	J (all detects)
	TIN	J	2.85	9.95	PQL	mg/Kg	
	Zirconium	J	2.85	4.98	PQL	mg/Kg	

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-152-SA7-SS-0.0-0.5	TIN	J	3.05	10.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.99	5.09	PQL	mg/Kg	
SL-153-SA7-SS-0.0-0.5	TIN	J	2.58	9.78	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.32	4.89	PQL	mg/Kg	
SL-181-SA7-SS-0.0-0.5	TIN	J	2.74	10.0	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.05	5.02	PQL	mg/Kg	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP05-SA7-QC-092211	ANTIMONY	J	0.106	0.198	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.172	0.397	PQL	mg/Kg	
	SILVER	J	0.0407	0.0991	PQL	mg/Kg	
SL-015-SA7-SS-0.0-0.5	ANTIMONY	J	0.146	0.199	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.169	0.397	PQL	mg/Kg	
	SILVER	J	0.0743	0.0993	PQL	mg/Kg	
SL-019-SA7-SS-0.0-0.5	ANTIMONY	J	0.159	0.196	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.212	0.392	PQL	mg/Kg	
	SILVER	J	0.0543	0.0981	PQL	mg/Kg	
SL-025-SA7-SS-0.0-0.5	ANTIMONY	J	0.0972	0.203	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.138	0.407	PQL	mg/Kg	
	SILVER	J	0.0455	0.102	PQL	mg/Kg	
SL-027-SA7-SS-0.0-0.5	ANTIMONY	J	0.142	0.200	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.138	0.399	PQL	mg/Kg	
	SILVER	J	0.0562	0.0998	PQL	mg/Kg	
SL-028-SA7-SB-4.0-5.0	ANTIMONY	J	0.109	0.217	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0786	0.108	PQL	mg/Kg	
	SELENIUM	J	0.0983	0.434	PQL	mg/Kg	
	SILVER	J	0.0478	0.108	PQL	mg/Kg	
SL-030-SA7-SB-4.0-5.0	ANTIMONY	J	0.0880	0.210	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.186	0.419	PQL	mg/Kg	
	SILVER	J	0.0350	0.105	PQL	mg/Kg	
SL-062-SA7-SS-0.0-0.5	SELENIUM	J	0.112	0.405	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0674	0.101	PQL	mg/Kg	
SL-066-SA7-SS-0.0-0.5	ANTIMONY	J	0.188	0.202	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.220	0.404	PQL	mg/Kg	
	SILVER	J	0.0505	0.101	PQL	mg/Kg	
SL-067-SA7-SS-0.0-0.5	ANTIMONY	J	0.211	0.213	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.150	0.426	PQL	mg/Kg	
	SILVER	J	0.0546	0.106	PQL	mg/Kg	
SL-068-SA7-SS-0.0-0.5	ANTIMONY	J	0.151	0.200	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.142	0.400	PQL	mg/Kg	
	SILVER	J	0.0464	0.100	PQL	mg/Kg	
SL-069-SA7-SS-0.0-0.5	ANTIMONY	J	0.189	0.197	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.205	0.393	PQL	mg/Kg	
	SILVER	J	0.0410	0.0983	PQL	mg/Kg	

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-073-SA7-SB-4.0-5.0	SELENIUM	J	0.131	0.413	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0217	0.103	PQL	mg/Kg	
SL-076-SA7-SB-2.5-3.5	SELENIUM	J	0.198	0.420	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0529	0.105	PQL	mg/Kg	
SL-089-SA7-SS-0.0-0.5	SELENIUM	J	0.166	0.417	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0331	0.104	PQL	mg/Kg	
SL-139-SA7-SS-0.0-0.5	ANTIMONY	J	0.130	0.197	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.165	0.393	PQL	mg/Kg	
	SILVER	J	0.0304	0.0984	PQL	mg/Kg	
SL-140-SA7-SS-0.0-0.5	ANTIMONY	J	0.197	0.201	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.180	0.402	PQL	mg/Kg	
	SILVER	J	0.0373	0.101	PQL	mg/Kg	
SL-152-SA7-SS-0.0-0.5	ANTIMONY	J	0.190	0.200	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.174	0.399	PQL	mg/Kg	
	SILVER	J	0.0376	0.0998	PQL	mg/Kg	
SL-153-SA7-SS-0.0-0.5	ANTIMONY	J	0.137	0.196	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0883	0.0978	PQL	mg/Kg	
	SELENIUM	J	0.108	0.391	PQL	mg/Kg	
	SILVER	J	0.0214	0.0978	PQL	mg/Kg	
SL-181-SA7-SS-0.0-0.5	SELENIUM	J	0.206	0.406	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0380	0.101	PQL	mg/Kg	

**Method:** 7199  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP05-SA7-QC-092211	HEXAVALENT CHROMIUM	J	0.22	1.0	PQL	mg/Kg	J (all detects)
SL-027-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.35	0.98	PQL	mg/Kg	J (all detects)
SL-030-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.26	1.0	PQL	mg/Kg	J (all detects)
SL-068-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.52	1.0	PQL	mg/Kg	J (all detects)
SL-069-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.20	1.0	PQL	mg/Kg	J (all detects)
SL-140-SA7-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.29	1.0	PQL	mg/Kg	J (all detects)

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP05-SA7-QC-092211	MERCURY	J	0.0144	0.100	PQL	mg/Kg	J (all detects)
SL-015-SA7-SS-0.0-0.5	MERCURY	J	0.0071	0.0973	PQL	mg/Kg	J (all detects)
SL-019-SA7-SS-0.0-0.5	MERCURY	J	0.0110	0.0999	PQL	mg/Kg	J (all detects)
SL-025-SA7-SS-0.0-0.5	MERCURY	J	0.0224	0.0976	PQL	mg/Kg	J (all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-027-SA7-SS-0.0-0.5	MERCURY	J	0.0130	0.0991	PQL	mg/Kg	J (all detects)
SL-062-SA7-SS-0.0-0.5	MERCURY	J	0.0268	0.100	PQL	mg/Kg	J (all detects)
SL-066-SA7-SS-0.0-0.5	MERCURY	J	0.0124	0.0976	PQL	mg/Kg	J (all detects)
SL-067-SA7-SS-0.0-0.5	MERCURY	J	0.0159	0.104	PQL	mg/Kg	J (all detects)
SL-068-SA7-SS-0.0-0.5	MERCURY	J	0.0227	0.100	PQL	mg/Kg	J (all detects)
SL-069-SA7-SS-0.0-0.5	MERCURY	J	0.0080	0.100	PQL	mg/Kg	J (all detects)
SL-076-SA7-SB-2.5-3.5	MERCURY	J	0.0074	0.104	PQL	mg/Kg	J (all detects)
SL-089-SA7-SS-0.0-0.5	MERCURY	J	0.0115	0.0984	PQL	mg/Kg	J (all detects)
SL-139-SA7-SS-0.0-0.5	MERCURY	J	0.0089	0.0992	PQL	mg/Kg	J (all detects)
SL-140-SA7-SS-0.0-0.5	MERCURY	J	0.0297	0.0995	PQL	mg/Kg	J (all detects)
SL-152-SA7-SS-0.0-0.5	MERCURY	J	0.0088	0.0997	PQL	mg/Kg	J (all detects)
SL-181-SA7-SS-0.0-0.5	MERCURY	J	0.0147	0.0978	PQL	mg/Kg	J (all detects)

**Method:** 8015B  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP05-SA7-QC-092211	METHANOL	J	250	510	PQL	ug/Kg	J (all detects)
SL-019-SA7-SS-0.0-0.5	METHANOL	J	440	510	PQL	ug/Kg	J (all detects)
SL-066-SA7-SS-0.0-0.5	METHANOL	J	150	510	PQL	ug/Kg	J (all detects)
SL-067-SA7-SS-0.0-0.5	METHANOL	J	380	1100	PQL	ug/Kg	J (all detects)
SL-152-SA7-SS-0.0-0.5	METHANOL	J	210	510	PQL	ug/Kg	J (all detects)
SL-153-SA7-SS-0.0-0.5	ETHANOL	J	170	500	PQL	ug/Kg	J (all detects)
	METHANOL	J	220	500	PQL	ug/Kg	
SL-181-SA7-SS-0.0-0.5	METHANOL	J	110	510	PQL	ug/Kg	J (all detects)

**Method:** 8015M  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-015-SA7-SS-0.0-0.5	EFH (C15-C20)	J	0.79	1.2	PQL	mg/Kg	J (all detects)
SL-019-SA7-SS-0.0-0.5	EFH (C15-C20)	J	0.48	1.2	PQL	mg/Kg	J (all detects)
SL-066-SA7-SS-0.0-0.5	EFH (C8-C11)	J	0.51	1.2	PQL	mg/Kg	J (all detects)
SL-067-SA7-SS-0.0-0.5	EFH (C15-C20)	J	16	32	PQL	mg/Kg	J (all detects)
SL-069-SA7-SS-0.0-0.5	EFH (C15-C20)	J	5.2	6.1	PQL	mg/Kg	J (all detects)
	EFH (C8-C11)	J	2.1	6.1	PQL	mg/Kg	

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

## Reporting Limit Outliers

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8015M  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-073-SA7-SB-4.0-5.0	EFH (C15-C20)	J	0.43	1.3	PQL	mg/Kg	J (all detects)
SL-139-SA7-SS-0.0-0.5	EFH (C15-C20)	J	0.81	1.2	PQL	mg/Kg	J (all detects)
SL-140-SA7-SS-0.0-0.5	EFH (C15-C20)	J	0.93	1.2	PQL	mg/Kg	J (all detects)
SL-152-SA7-SS-0.0-0.5	EFH (C15-C20) EFH (C8-C11)	J J	2.3 3.5	6.1 6.1	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-153-SA7-SS-0.0-0.5	EFH (C8-C11)	J	2.0	6.0	PQL	mg/Kg	J (all detects)
SL-181-SA7-SS-0.0-0.5	EFH (C15-C20)	J	3.9	6.1	PQL	mg/Kg	J (all detects)

**Method:** 8081A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-025-SA7-SS-0.0-0.5	TOXAPHENE	J	21	34	PQL	ug/Kg	J (all detects)
SL-027-SA7-SS-0.0-0.5	Chlordane	J	1.2	3.4	PQL	ug/Kg	J (all detects)
SL-062-SA7-SS-0.0-0.5	ALPHA-BHC Chlordane	J J	0.14 3.1	0.34 7.0	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-066-SA7-SS-0.0-0.5	Chlordane DELTA-BHC	J J	2.1 0.096	3.4 0.17	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-067-SA7-SS-0.0-0.5	Chlordane HEPTACHLOR	J J	3.0 0.14	3.6 0.18	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-068-SA7-SS-0.0-0.5	gamma-BHC (Lindane) METHOXYCHLOR	J J	0.043 1.1	0.17 1.7	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-069-SA7-SS-0.0-0.5	ENDRIN ALDEHYDE	J	0.18	0.34	PQL	ug/Kg	J (all detects)
SL-140-SA7-SS-0.0-0.5	4,4'-DDE	J	0.32	0.35	PQL	ug/Kg	J (all detects)
SL-152-SA7-SS-0.0-0.5	DELTA-BHC METHOXYCHLOR TOXAPHENE	J J J	0.15 0.53 6.4	0.17 1.7 6.7	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-153-SA7-SS-0.0-0.5	4,4'-DDE 4,4'-DDT ENDRIN ALDEHYDE	J J J	0.15 0.12 0.18	0.34 0.34 0.34	PQL PQL PQL	ug/Kg ug/Kg ug/Kg	J (all detects)
SL-181-SA7-SS-0.0-0.5	4,4'-DDT	J	0.24	0.35	PQL	ug/Kg	J (all detects)

**Method:** 8082  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP05-SA7-QC-092211	AROCLOR 1254 Aroclor 5460	J J	1.6 2.6	1.7 3.3	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-019-SA7-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J J	1.0 1.4	1.7 3.3	PQL PQL	ug/Kg ug/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8082**  
**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-025-SA7-SS-0.0-0.5	AROCLOR 1242	J	4.2	17	PQL	ug/Kg	J (all detects)
SL-066-SA7-SS-0.0-0.5	AROCLOR 1254 Aroclor 5460	J	0.90	1.7	PQL	ug/Kg	J (all detects)
		J	2.6	3.3	PQL	ug/Kg	
SL-067-SA7-SS-0.0-0.5	Aroclor 5460	J	3.1	3.5	PQL	ug/Kg	J (all detects)
SL-069-SA7-SS-0.0-0.5	AROCLOR 1254	J	0.58	1.7	PQL	ug/Kg	J (all detects)
SL-073-SA7-SB-4.0-5.0	AROCLOR 1260	J	0.86	1.8	PQL	ug/Kg	J (all detects)
SL-139-SA7-SS-0.0-0.5	AROCLOR 1254 Aroclor 5460	J	1.5	1.7	PQL	ug/Kg	J (all detects)
		J	1.6	3.3	PQL	ug/Kg	
SL-140-SA7-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J	0.82	1.7	PQL	ug/Kg	J (all detects)
		J	2.0	3.4	PQL	ug/Kg	
SL-181-SA7-SS-0.0-0.5	AROCLOR 1260 Aroclor 5460	J	1.6	1.7	PQL	ug/Kg	J (all detects)
		J	1.6	3.4	PQL	ug/Kg	

**Method: 8151A**  
**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-015-SA7-SS-0.0-0.5	DICAMBA	J	0.69	1.2	PQL	ug/Kg	J (all detects)
SL-089-SA7-SS-0.0-0.5	2,4-D DICAMBA	J	1.8	3.8	PQL	ug/Kg	J (all detects)
		J	0.75	1.3	PQL	ug/Kg	
SL-140-SA7-SS-0.0-0.5	DICAMBA	J	0.68	1.2	PQL	ug/Kg	J (all detects)
SL-153-SA7-SS-0.0-0.5	DICAMBA	J	0.41	1.2	PQL	ug/Kg	J (all detects)
SL-181-SA7-SS-0.0-0.5	DICAMBA	J	0.80	1.2	PQL	ug/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP05-SA7-QC-092211	BIS(2-ETHYLHEXYL)PHTHALATE	J	21	330	PQL	ug/Kg	J (all detects)
SL-140-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	18	330	PQL	ug/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP05-SA7-QC-092211	BENZO(B)FLUORANTHENE CHRYSENE	J	0.77	1.7	PQL	ug/Kg	J (all detects)
		J	0.35	1.7	PQL	ug/Kg	
SL-015-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.9	18	PQL	ug/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-019-SA7-SS-0.0-0.5	BENZO(A)PYRENE	J	0.75	1.7	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.1	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.9	18	PQL	ug/Kg	
	CHRYSENE	J	0.89	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.1	1.7	PQL	ug/Kg	
SL-025-SA7-SS-0.0-0.5	BENZO(A)PYRENE	J	4.6	8.4	PQL	ug/Kg	J (all detects)
BENZO(G,H,I)PERYLENE	J	3.9	8.4	PQL	ug/Kg		
BIS(2-ETHYLHEXYL)PHTHALATE	J	30	90	PQL	ug/Kg		
CHRYSENE	J	8.0	8.4	PQL	ug/Kg		
FLUORANTHENE	J	7.4	8.4	PQL	ug/Kg		
PYRENE	J	7.0	8.4	PQL	ug/Kg		
SL-027-SA7-SS-0.0-0.5	BENZO(A)PYRENE	J	0.97	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.69	1.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	6.3	18	PQL	ug/Kg	
	CHRYSENE	J	1.4	1.7	PQL	ug/Kg	
	Di-n-octylphthalate	J	9.2	18	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	1.7	PQL	ug/Kg	
SL-030-SA7-SB-4.0-5.0	Di-n-octylphthalate	J	9.7	19	PQL	ug/Kg	J (all detects)
SL-062-SA7-SS-0.0-0.5	BENZO(K)FLUORANTHENE	J	6.4	8.5	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	47	92	PQL	ug/Kg	
	CHRYSENE	J	4.7	8.5	PQL	ug/Kg	
	FLUORANTHENE	J	5.6	8.5	PQL	ug/Kg	
	NAPHTHALENE	J	4.3	8.5	PQL	ug/Kg	
	PHENANTHRENE	J	4.3	8.5	PQL	ug/Kg	
SL-066-SA7-SS-0.0-0.5	CHRYSENE	J	2.7	8.3	PQL	ug/Kg	J (all detects)
SL-067-SA7-SS-0.0-0.5	BENZO(K)FLUORANTHENE	J	1.2	1.8	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	7.0	19	PQL	ug/Kg	
	CHRYSENE	J	0.92	1.8	PQL	ug/Kg	
	FLUORANTHENE	J	0.98	1.8	PQL	ug/Kg	
	PYRENE	J	1.0	1.8	PQL	ug/Kg	
SL-068-SA7-SS-0.0-0.5	BENZO(A)PYRENE	J	3.7	8.4	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	7.4	8.4	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	56	90	PQL	ug/Kg	
	Butylbenzylphthalate	J	60	90	PQL	ug/Kg	
	CHRYSENE	J	7.1	8.4	PQL	ug/Kg	
	FLUORANTHENE	J	7.7	8.4	PQL	ug/Kg	
	PHENANTHRENE	J	3.4	8.4	PQL	ug/Kg	
	PYRENE	J	5.2	8.4	PQL	ug/Kg	
SL-069-SA7-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	0.84	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.4	18	PQL	ug/Kg	
	Butylbenzylphthalate	J	7.4	18	PQL	ug/Kg	
SL-073-SA7-SB-4.0-5.0	Di-n-octylphthalate	J	16	19	PQL	ug/Kg	J (all detects)
SL-076-SA7-SB-2.5-3.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	10	19	PQL	ug/Kg	J (all detects)
SL-089-SA7-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.3	1.8	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.50	1.8	PQL	ug/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE252

Laboratory: LL

EDD Filename: DE252\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-139-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.4	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.6	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.7	PQL	ug/Kg	
SL-140-SA7-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.81	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.5	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.0	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.6	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.71	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.6	1.7	PQL	ug/Kg	
SL-152-SA7-SS-0.0-0.5	ANTHRACENE	J	0.60	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	6.7	18	PQL	ug/Kg	
	FLUORENE	J	0.74	1.7	PQL	ug/Kg	
SL-153-SA7-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	18	PQL	ug/Kg	J (all detects)

**Method:** 8315A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-089-SA7-SS-0.0-0.5	FORMALDEHYDE	J	790	1600	PQL	ug/Kg	J (all detects)
SL-152-SA7-SS-0.0-0.5	FORMALDEHYDE	J	710	1500	PQL	ug/Kg	J (all detects)
SL-153-SA7-SS-0.0-0.5	FORMALDEHYDE	J	1100	1500	PQL	ug/Kg	J (all detects)
SL-181-SA7-SS-0.0-0.5	FORMALDEHYDE	J	940	1500	PQL	ug/Kg	J (all detects)

LDC #: 26859V4

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE252

ADR

Laboratory: Lancaster Laboratories

Date: 12/30/11

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

**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 found by 2UB/CEB
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Fe, Mg, Ti, Zn 74X
VII.	Duplicate Sample Analysis	SW	Hg, Se, Zr 45X
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 J/WJ
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-015-SA7-SS-0.0-0.5	11	SL-068-SA7-SS-0.0-0.5	21	SL-015-SA7-SS-0.0-0.5MS	31	
2	SL-139-SA7-SS-0.0-0.5	12	SL-069-SA7-SS-0.0-0.5	22	SL-015-SA7-SS-0.0-0.5MSD	32	
3	SL-140-SA7-SS-0.0-0.5	13	SL-089-SA7-SS-0.0-0.5	23	SL-015-SA7-SS-0.0-0.5DUP	33	
4	DUP05-SA7-QC-092211	14	SL-152-SA7-SS-0.0-0.5	24		34	
5	SL-019-SA7-SS-0.0-0.5	15	SL-153-SA7-SS-0.0-0.5	25		35	
6	SL-025-SA7-SS-0.0-0.5	16	SL-181-SA7-SS-0.0-0.5	26		36	
7	SL-027-SA7-SS-0.0-0.5	17	SL-030-SA7-SB-4.0-2.0	27		37	
8	SL-062-SA7-SS-0.0-0.5	18	SL-073-SA7-SB-4.0-5.0	28		38	
9	SL-066-SA7-SS-0.0-0.5	19	SL-076-SA7-SB-2.5-3.5	29		39	
10	SL-067-SA7-SS-0.0-0.5	20	SL-028-SA7-SB-4.0-5.0	30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



QUALITY ASSURANCE SUMMARY  
 FORM 5A (MS/MSD)  
 MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
 SDG No.: DE252  
 Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6418446BKG Matrix Spike Lab Sample ID: 6418447MS Matrix Spike Duplicate Lab Sample ID: 6418448MSD  
 & Solids for Sample: 98.7  
 Batch Id(s): P26908H, P26926C, P27808B, P26911E

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C			Result	Q	Result	Q	RPD	M
Aluminum		14586.1003		17758.7157		17986.0007		194.8406	MG/KG	1613		1745		75	20P
Antimony	121	0.1464	B	0.8111		0.9121		1.2158	MG/KG	55	N	63	N	75	20MS
Arsenic	75	4.7222		8.5187		8.0182		2.0263	MG/KG	189	N	163	N	75	20MS
Barium	137	87.6691		116.2438		113.9412		10.1317	MG/KG	285		259		75	20MS
Beryllium	9	0.6439		1.6995		1.5968		0.8105	MG/KG	132	N	118		75	20MS
Boron		8.6494		194.8879		194.6711		196.7323	MG/KG	95		95		84	20P
Cadmium	111	0.2328		1.5966		1.5429		1.0031	MG/KG	136	N	129	N	75	20MS
Calcium		2805.6018		3278.6595		3365.5230		393.4645	MG/KG	120		144		75	20P
Chromium	52	21.4753		36.4140		34.6099		10.1317	MG/KG	149	N	130	N	75	20MS
Cobalt	59	5.9042		76.4794		72.8470		50.6586	MG/KG	141	N	132	N	75	20MS
Copper	63	8.4510		23.6340		22.8166		10.1317	MG/KG	151	N	142	N	75	20MS
Iron		20876.1383		20802.1355		20684.6236		99.3305	MG/KG	-75		-193		75	20P
Lead	208	9.3073		14.4853		13.7629		3.0094	MG/KG	172	N	147	N	75	20MS
Lithium		23.0618		119.1833		118.4748		97.4203	MG/KG	98		98		82	20P
Magnesium		4664.1540		5072.9778		5180.5374		196.7323	MG/KG	208		265		75	20P
Manganese		266.9504		308.9012		314.2964		48.7102	MG/KG	85		85		75	20P
Mercury		0.0071	B	0.1773		0.1718		0.1657	MG/KG	103		103		65	20CV
Molybdenum	98	0.5398		14.6759		14.0871		10.1317	MG/KG	141	N	134	N	75	20MS
Nickel	60	11.6117		27.5663		26.4640		10.1317	MG/KG	159	N	147	N	75	20MS
Phosphorus		303.0942		381.7068		397.2878		97.4203	MG/KG	80		97		75	20P
Potassium		2462.0253		3703.4556		3788.1040		974.2031	MG/KG	126	N	136	N	75	20P
Selenium	78	0.1690	B	2.7887		2.7396		2.0263	MG/KG	131	N	127	N	75	20MS
Silver	107	0.0743	B	14.0139		13.4083		10.1317	MG/KG	139	N	132	N	75	20MS
Sodium		88.2421	B	1029.5344		1018.2985		974.2031	MG/KG	96		95		75	20P
Strontium		15.4012		110.5163		110.0129		97.4203	MG/KG	97		97		75	20P
Thallium	203	0.2696		0.8968		0.8725		0.4053	MG/KG	156	N	149	N	75	20MS
Tin		2.8997	B	352.9062		349.2518		389.6812	MG/KG	89		89		80	20P
Titanium		1250.5805		1459.6010		1496.6897		97.4203	MG/KG	212		253		75	20P
Vanadium	51	39.1760		59.2254		55.8055		10.1317	MG/KG	200	N	164	N	75	20MS
Zinc	66	59.8168		84.7653		80.5471		10.1317	MG/KG	249		205		75	20MS
Zirconium	90	2.7275	B	95.5912		96.0613		97.4203	MG/KG	94		96		75	20P

METHODS: M  
 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



QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: DE252

Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6418446BKG

Duplicate Lab Sample ID: 6418449DUP

% Solids for Duplicate: 98.6

% Solids for Sample: 98.7

Batch ID(s): P26908H, P26926C, P27808B, P26911E

Concentration Units: MG/KG

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			14586.1003		14589.9425		0		P
Antimony	121		0.1464	B	0.1686	B	14		MS
Arsenic	75		4.7222		5.7325		19		MS
Barium	137		87.6691		105.9777		19		MS
Beryllium	9		0.6439		0.7485		15		MS
Boron		5.1	8.6494		8.7353		1		P
Cadmium	111	0.1	0.2328		0.2367		2		MS
Calcium			2805.6018		2749.4197		2		P
Chromium	52		21.4753		25.3698		17		MS
Cobalt	59		5.9042		7.8480		28	*	MS
Copper	63		8.4510		9.8460		15		MS
Iron			20876.1383		19490.8064		7		P
Lead	208		9.3073		10.4478		12		MS
Lithium			23.0618		23.1485		0		P
Magnesium			4664.1540		4660.2295		0		P
Manganese			266.9504		267.5384		0		P
Mercury			0.0071	B	0.0072	U	200		CV
Molybdenum	98		0.5398		0.6446		18		MS
Nickel	60		11.6117		14.2472		20		MS
Phosphorus			303.0942		289.3346		5		P
Potassium			2462.0253		2527.0727		3		P
Selenium	78		0.1690	B	0.2239	B	28		MS
Silver	107		0.0743	B	0.0641	B	15		MS
Sodium			88.2421	B	89.7840	B	2		P
Strontium			15.4012		15.4754		0		P
Thallium	203	0.1	0.2696		0.3289		20		MS
Tin			2.8997	B	2.9151	B	1		P
Titanium			1250.5805		1221.2054		2		P
Vanadium	51		39.1760		48.9159		22	*	MS
Zinc	66		59.8168		75.1165		23	*	MS
Zirconium			2.7275	B	3.4127	B	22		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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<p>METHODS:</p> <p>P = ICP Atomic Emission Spectrometer</p> <p>MS = ICP Mass Spectrometry</p> <p>CV = Cold Vapor</p> <p>AF = Cold Vapor Atomic Fluorescence</p>	<p>CONCENTRATION QUALIFIERS:</p> <p>U = Below MDL</p> <p>B = Below LOQ</p> <p>FLAGS:</p> <p>* = Duplicate Out of Spec</p>
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# **SAMPLE DELIVERY GROUP**

**DE253**

# **Attachment I**

## **Sample ID Cross Reference and Data Review Level**

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	3050B	6010B	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	3050B	6020	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	3060A	7199	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	3550B	8082	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	3550B	8270C	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	3550B	8270C SIM	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	METHOD	300.0	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	METHOD	314.0	III
23-Sep-2011	SL-028-SA7-SB-8.0-9.0	6418471	N	METHOD	7471A	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	3050B	6010B	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	3050B	6020	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	3060A	7199	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	3550B	8081A	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	3550B	8082	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	3550B	8151A	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	3550B	8270C	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	3550B	8270C SIM	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	METHOD	300.0	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	METHOD	314.0	III
26-Sep-2011	SL-001-SA3-SS-0.0-0.5	6419488	N	METHOD	7471A	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	3050B	6010B	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	3050B	6020	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	3060A	7199	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	3550B	8081A	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	3550B	8082	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	3550B	8151A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	3550B	8270C	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	3550B	8270C SIM	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	METHOD	300.0	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	METHOD	314.0	III
26-Sep-2011	SL-002-SA3-SS-0.0-0.5	6419489	N	METHOD	7471A	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	3050B	6010B	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	3050B	6020	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	3060A	7199	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	3550B	8081A	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	3550B	8082	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	3550B	8151A	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	3550B	8270C	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	3550B	8270C SIM	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	METHOD	300.0	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	METHOD	314.0	III
26-Sep-2011	SL-027-SA5DS-SS-0.0-0.5	6419498	N	METHOD	7471A	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	3050B	6010B	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	3050B	6020	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	3060A	7199	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	3550B	8081A	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	3550B	8082	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	3550B	8151A	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	3550B	8270C	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	3550B	8270C SIM	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	METHOD	300.0	III
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	METHOD	314.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-026-SA5DS-SS-0.0-0.5	6419497	N	METHOD	7471A	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	3050B	6010B	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	3050B	6020	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	3060A	7199	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	3550B	8081A	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	3550B	8082	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	3550B	8151A	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	3550B	8270C	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	3550B	8270C SIM	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	METHOD	300.0	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	METHOD	314.0	III
26-Sep-2011	SL-028-SA5DS-SS-0.0-0.5	6419499	N	METHOD	7471A	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	3050B	6010B	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	3050B	6020	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	3060A	7199	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	3550B	8081A	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	3550B	8082	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	3550B	8151A	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	3550B	8270C	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	3550B	8270C SIM	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	METHOD	300.0	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	METHOD	314.0	III
26-Sep-2011	SL-029-SA5DS-SS-0.0-0.5	6419500	N	METHOD	7471A	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	3050B	6010B	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	3050B	6020	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	3060A	7199	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	3550B	8081A	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	3550B	8082	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	3550B	8151A	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	3550B	8270C	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	3550B	8270C SIM	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	METHOD	300.0	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	METHOD	314.0	III
26-Sep-2011	SL-030-SA5DS-SS-0.0-0.5	6419501	N	METHOD	7471A	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	3050B	6010B	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	3050B	6020	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	3060A	7199	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	3550B	8081A	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	3550B	8082	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	3550B	8151A	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	3550B	8270C	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	3550B	8270C SIM	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	METHOD	300.0	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	METHOD	314.0	III
26-Sep-2011	SL-031-SA5DS-SS-0.0-0.5	6419502	N	METHOD	7471A	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	3050B	6010B	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	3050B	6020	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	3060A	7199	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	3550B	8081A	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	3550B	8082	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	3550B	8151A	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	3550B	8270C	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	3550B	8270C SIM	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	METHOD	300.0	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	METHOD	314.0	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5	6419503	N	METHOD	7471A	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5DU	P419503D271501B	DUP	METHOD	300.0	III
26-Sep-2011	SL-032-SA5DS-SS-0.0-0.5MS	P419503R271514B	MS	METHOD	300.0	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	3050B	6010B	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	3050B	6020	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	3060A	7199	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	3550B	8081A	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	3550B	8082	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	3550B	8151A	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	3550B	8270C	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	3550B	8270C SIM	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	METHOD	300.0	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	METHOD	314.0	III
26-Sep-2011	SL-002-SA5DS-SS-0.0-0.5	6419490	N	METHOD	7471A	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	3050B	6010B	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	3050B	6020	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	3060A	7199	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	3550B	8081A	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	3550B	8082	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	3550B	8151A	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	3550B	8270C	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	3550B	8270C SIM	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	METHOD	300.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	METHOD	314.0	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5	6419491	N	METHOD	7471A	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	3050B	6010B	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	3050B	6020	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	3060A	7199	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	3550B	8081A	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	3550B	8082	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	3550B	8151A	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	3550B	8270C	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	3550B	8270C SIM	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	METHOD	300.0	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	METHOD	314.0	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 M	6419492	MS	METHOD	7471A	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 D	6419494	DUP	3050B	6010B	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 D	6419494	DUP	3050B	6020	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 D	6419494	DUP	3060A	7199	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 D	6419494	DUP	METHOD	300.0	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 D	6419494	DUP	METHOD	314.0	III
26-Sep-2011	SL-001-SA5DS-SS-0.0-0.5 D	6419494	DUP	METHOD	7471A	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	3050B	6010B	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	3050B	6020	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	3060A	7199	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	3550B	8081A	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	3550B	8082	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	3550B	8151A	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	3550B	8270C	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	3550B	8270C SIM	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	METHOD	300.0	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	METHOD	314.0	III
26-Sep-2011	DUP01-SA5DS-QC-092611	6419504	FD	METHOD	7471A	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	GENCHEM	
<b>Method:</b>	300.0	<b>Matrix:</b> SO

<b>Sample ID:</b> DUP01-SA5DS-QC-092611		<b>Collected:</b> 9/26/2011 3:10:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.9		0.82	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-001-SA3-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 7:50:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.80	U	0.80	MDL	1.0	PQL	mg/Kg	UJ	Q

<b>Sample ID:</b> SL-001-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 3:05:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.6		0.82	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-002-SA3-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 8:15:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.79	MDL	0.99	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-002-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 2:35:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.83	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-026-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 10:35:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.83	U	0.83	MDL	1.0	PQL	mg/Kg	UJ	Q

<b>Sample ID:</b> SL-027-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 9:25:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.5		0.80	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-028-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 10:50:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.79	U	0.79	MDL	0.99	PQL	mg/Kg	UJ	Q

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	GENCHEM	<b>Matrix:</b>	SO
<b>Method:</b>	300.0		

<b>Sample ID:</b> SL-029-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:10:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.6		0.81	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-030-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:25:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.83	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-031-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:50:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.82	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-032-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 12:10:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.2		0.83	MDL	1.0	PQL	mg/Kg	J	Q

<b>Method Category:</b>	METALS	<b>Matrix:</b>	SO
<b>Method:</b>	6010B		

<b>Sample ID:</b> DUP01-SA5DS-QC-092611		<b>Collected:</b> 9/26/2011 3:10:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.90	J	0.316	MDL	9.88	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-001-SA3-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 7:50:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	87.8	J	5.83	MDL	98.0	PQL	mg/Kg	J	Z
TIN	3.17	J	0.314	MDL	9.80	PQL	mg/Kg	U	B
Zirconium	2.95	J	0.451	MDL	4.90	PQL	mg/Kg	U	B

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: PrepDE253\_v2

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

<b>Sample ID:</b> SL-001-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 3:05:00		<b>Analysis Type:</b> REA				<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.00	J	0.322	MDL	10.1	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-002-SA3-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 8:15:00		<b>Analysis Type:</b> REA				<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	74.5	J	5.78	MDL	97.1	PQL	mg/Kg	J	Z
TIN	2.78	J	0.311	MDL	9.71	PQL	mg/Kg	U	B
Zirconium	2.40	J	0.447	MDL	4.85	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-002-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 2:35:00		<b>Analysis Type:</b> REA				<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.06	J	0.320	MDL	10.0	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-026-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 10:35:00		<b>Analysis Type:</b> REA				<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.20	J	0.315	MDL	9.85	PQL	mg/Kg	U	B
Zirconium	2.89	J	0.453	MDL	4.92	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-027-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 9:25:00		<b>Analysis Type:</b> REA				<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.63	J	0.314	MDL	9.83	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-028-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 10:50:00		<b>Analysis Type:</b> REA				<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.05	J	0.312	MDL	9.76	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-028-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 10:50:00		<b>Analysis Type:</b> REA3				<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	2.42	J	0.449	MDL	4.88	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Matrix:</b>	SO
<b>Method:</b>	6010B		

<b>Sample ID:</b> SL-028-SA7-SB-8.0-9.0		<b>Collected:</b> 9/23/2011 2:14:00		<b>Analysis Type:</b> RES				<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.53	J	0.339	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	0.771	J	0.488	MDL	5.30	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-029-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:10:00		<b>Analysis Type:</b> REA				<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.12	J	0.328	MDL	10.2	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-029-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:10:00		<b>Analysis Type:</b> REA4				<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	4.39	J	0.471	MDL	5.12	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-030-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:25:00		<b>Analysis Type:</b> REA				<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.08	J	0.324	MDL	10.1	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-030-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:25:00		<b>Analysis Type:</b> REA4				<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	3.54	J	0.466	MDL	5.06	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-031-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:50:00		<b>Analysis Type:</b> REA				<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.21	J	0.331	MDL	10.4	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-031-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:50:00		<b>Analysis Type:</b> REA4				<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	5.13	J	0.476	MDL	5.18	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6010B	<b>Matrix:</b> SO

Sample ID: SL-032-SA5DS-SS-0.0-0.5	Collected: 9/26/2011 12:10:00	Analysis Type: REA	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.07	J	0.327	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: SL-032-SA5DS-SS-0.0-0.5	Collected: 9/26/2011 12:10:00	Analysis Type: REA4	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	2.88	J	0.470	MDL	5.11	PQL	mg/Kg	J	Z

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: DUP01-SA5DS-QC-092611	Collected: 9/26/2011 3:10:00	Analysis Type: REA4	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.430		0.0745	MDL	0.201	PQL	mg/Kg	J	Q
ARSENIC	8.99		0.0806	MDL	0.403	PQL	mg/Kg	J	Q
CADMIUM	0.351		0.0443	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	63.1		0.121	MDL	0.403	PQL	mg/Kg	J	A
COPPER	8.84		0.0806	MDL	0.403	PQL	mg/Kg	J	Q
LEAD	48.0		0.0103	MDL	0.201	PQL	mg/Kg	J	A
NICKEL	19.4		0.101	MDL	0.403	PQL	mg/Kg	J	Q, A
SILVER	0.0541	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.197		0.0302	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	118		0.0222	MDL	0.101	PQL	mg/Kg	J	A
ZINC	82.3		0.564	MDL	3.02	PQL	mg/Kg	J	A

Sample ID: DUP01-SA5DS-QC-092611	Collected: 9/26/2011 3:10:00	Analysis Type: REA7	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.275	J	0.0584	MDL	0.403	PQL	mg/Kg	J	Z, Q

Sample ID: DUP01-SA5DS-QC-092611	Collected: 9/26/2011 3:10:00	Analysis Type: REA8	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.906		0.0504	MDL	0.101	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS									
<b>Method:</b>	6020				Matrix: SO					

<b>Sample ID:</b> DUP01-SA5DS-QC-092611			<b>Collected:</b> 9/26/2011 3:10:00			<b>Analysis Type:</b> REA9			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	98.1		0.107	MDL	0.403	PQL	mg/Kg	J	A	

<b>Sample ID:</b> SL-001-SA3-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 7:50:00			<b>Analysis Type:</b> REA4			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.122	J	0.0725	MDL	0.196	PQL	mg/Kg	J	Z, Q	
ARSENIC	3.15		0.0784	MDL	0.392	PQL	mg/Kg	J	Q	
CADMIUM	0.170		0.0431	MDL	0.0980	PQL	mg/Kg	J	Q	
CHROMIUM	12.0		0.118	MDL	0.392	PQL	mg/Kg	J	A	
COPPER	6.59		0.0784	MDL	0.392	PQL	mg/Kg	J	Q	
LEAD	15.0		0.0100	MDL	0.196	PQL	mg/Kg	J	A	
NICKEL	8.35		0.0980	MDL	0.392	PQL	mg/Kg	J	Q, A	
SILVER	0.0759	J	0.0139	MDL	0.0980	PQL	mg/Kg	J	Z, Q	
THALLIUM	0.251		0.0294	MDL	0.0980	PQL	mg/Kg	J	Q	
VANADIUM	24.5		0.0216	MDL	0.0980	PQL	mg/Kg	J	A	
ZINC	86.9		0.549	MDL	2.94	PQL	mg/Kg	J	A	

<b>Sample ID:</b> SL-001-SA3-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 7:50:00			<b>Analysis Type:</b> REA7			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.145	J	0.0569	MDL	0.392	PQL	mg/Kg	J	Z, Q	

<b>Sample ID:</b> SL-001-SA3-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 7:50:00			<b>Analysis Type:</b> REA8			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	0.473		0.0490	MDL	0.0980	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-001-SA3-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 7:50:00			<b>Analysis Type:</b> REA9			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	84.7		0.104	MDL	0.392	PQL	mg/Kg	J	A	

\* 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: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-001-SA5DS-SS-0.0-0.5	Collected: 9/26/2011 3:05:00	Analysis Type: REA4	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.436		0.0730	MDL	0.197	PQL	mg/Kg	J	Q
ARSENIC	7.36		0.0790	MDL	0.395	PQL	mg/Kg	J	Q
CADMIUM	0.294		0.0434	MDL	0.0987	PQL	mg/Kg	J	Q
CHROMIUM	54.1		0.118	MDL	0.395	PQL	mg/Kg	J	A
COPPER	7.37		0.0790	MDL	0.395	PQL	mg/Kg	J	Q
LEAD	40.1		0.0101	MDL	0.197	PQL	mg/Kg	J	A
NICKEL	14.0		0.0987	MDL	0.395	PQL	mg/Kg	J	Q, A
SILVER	0.0372	J	0.0140	MDL	0.0987	PQL	mg/Kg	J	Z, Q
THALLIUM	0.172		0.0296	MDL	0.0987	PQL	mg/Kg	J	Q
VANADIUM	98.1		0.0217	MDL	0.0987	PQL	mg/Kg	J	A
ZINC	72.7		0.553	MDL	2.96	PQL	mg/Kg	J	A

Sample ID: SL-001-SA5DS-SS-0.0-0.5	Collected: 9/26/2011 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	0.257	J	0.0572	MDL	0.395	PQL	mg/Kg	J	Z, Q

Sample ID: SL-001-SA5DS-SS-0.0-0.5	Collected: 9/26/2011 3:05:00	Analysis Type: REA8	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.757		0.0494	MDL	0.0987	PQL	mg/Kg	J	Q

Sample ID: SL-001-SA5DS-SS-0.0-0.5	Collected: 9/26/2011 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	69.4		0.105	MDL	0.395	PQL	mg/Kg	J	A

Sample ID: SL-002-SA3-SS-0.0-0.5	Collected: 9/26/2011 8:15:00	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	0.0733	MDL	0.198	PQL	mg/Kg	J	Z, Q
ARSENIC	2.97		0.0792	MDL	0.396	PQL	mg/Kg	J	Q
CADMIUM	0.217		0.0436	MDL	0.0990	PQL	mg/Kg	J	Q
CHROMIUM	14.7		0.119	MDL	0.396	PQL	mg/Kg	J	A
COPPER	7.24		0.0792	MDL	0.396	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS									
<b>Method:</b>	6020			<b>Matrix:</b> SO						

Sample ID: SL-002-SA3-SS-0.0-0.5      Collected: 9/26/2011 8:15:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	15.5		0.0101	MDL	0.198	PQL	mg/Kg	J	A
NICKEL	9.40		0.0990	MDL	0.396	PQL	mg/Kg	J	Q, A
SILVER	0.0809	J	0.0141	MDL	0.0990	PQL	mg/Kg	J	Z, Q
THALLIUM	0.237		0.0297	MDL	0.0990	PQL	mg/Kg	J	Q
VANADIUM	31.0		0.0218	MDL	0.0990	PQL	mg/Kg	J	A
ZINC	106		0.554	MDL	2.97	PQL	mg/Kg	J	A

Sample ID: SL-002-SA3-SS-0.0-0.5      Collected: 9/26/2011 8:15:00      Analysis Type: REA7      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.132	J	0.0574	MDL	0.396	PQL	mg/Kg	J	Z, Q

Sample ID: SL-002-SA3-SS-0.0-0.5      Collected: 9/26/2011 8:15:00      Analysis Type: REA8      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.429		0.0495	MDL	0.0990	PQL	mg/Kg	J	Q

Sample ID: SL-002-SA3-SS-0.0-0.5      Collected: 9/26/2011 8:15:00      Analysis Type: REA9      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	86.7		0.105	MDL	0.396	PQL	mg/Kg	J	A

Sample ID: SL-002-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 2:35:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.309		0.0748	MDL	0.202	PQL	mg/Kg	J	Q
ARSENIC	6.53		0.0809	MDL	0.405	PQL	mg/Kg	J	Q
CADMIUM	0.345		0.0445	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	48.8		0.121	MDL	0.405	PQL	mg/Kg	J	A
COPPER	11.0		0.0809	MDL	0.405	PQL	mg/Kg	J	Q
LEAD	24.2		0.0103	MDL	0.202	PQL	mg/Kg	J	A
NICKEL	15.8		0.101	MDL	0.405	PQL	mg/Kg	J	Q, A
SILVER	0.0472	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.219		0.0303	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	84.4		0.0222	MDL	0.101	PQL	mg/Kg	J	A

\* 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: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS									
<b>Method:</b>	6020			Matrix: SO						

<b>Sample ID:</b> SL-002-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 2:35:00			<b>Analysis Type:</b> REA4		<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ZINC	75.9		0.566	MDL	3.03	PQL	mg/Kg	J	A	

<b>Sample ID:</b> SL-002-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 2:35:00			<b>Analysis Type:</b> REA7		<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.294	J	0.0587	MDL	0.405	PQL	mg/Kg	J	Z, Q	

<b>Sample ID:</b> SL-002-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 2:35:00			<b>Analysis Type:</b> REA8		<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	0.747		0.0506	MDL	0.101	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-002-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 2:35:00			<b>Analysis Type:</b> REA9		<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	105		0.107	MDL	0.405	PQL	mg/Kg	J	A	

<b>Sample ID:</b> SL-026-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 10:35:00			<b>Analysis Type:</b> REA4		<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.102	J	0.0736	MDL	0.199	PQL	mg/Kg	J	Z, Q	
ARSENIC	3.27		0.0795	MDL	0.398	PQL	mg/Kg	J	Q	
CADMIUM	0.152		0.0437	MDL	0.0994	PQL	mg/Kg	J	Q	
CHROMIUM	24.8		0.119	MDL	0.398	PQL	mg/Kg	J	A	
COPPER	11.9		0.0795	MDL	0.398	PQL	mg/Kg	J	Q	
LEAD	12.1		0.0101	MDL	0.199	PQL	mg/Kg	J	A	
NICKEL	20.0		0.0994	MDL	0.398	PQL	mg/Kg	J	Q, A	
SILVER	0.0205	J	0.0141	MDL	0.0994	PQL	mg/Kg	J	Z, Q	
THALLIUM	0.186		0.0298	MDL	0.0994	PQL	mg/Kg	J	Q	
VANADIUM	63.9		0.0219	MDL	0.0994	PQL	mg/Kg	J	A	
ZINC	58.8		0.557	MDL	2.98	PQL	mg/Kg	J	A	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-026-SA5DS-SS-0.0-0.5			Collected: 9/26/2011 10:35:00			Analysis Type: REA7		Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.154	J	0.0577	MDL	0.398	PQL	mg/Kg	J	Z, Q

Sample ID: SL-026-SA5DS-SS-0.0-0.5			Collected: 9/26/2011 10:35:00			Analysis Type: REA8		Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.404		0.0497	MDL	0.0994	PQL	mg/Kg	J	Q

Sample ID: SL-026-SA5DS-SS-0.0-0.5			Collected: 9/26/2011 10:35:00			Analysis Type: REA9		Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIIUM	101		0.105	MDL	0.398	PQL	mg/Kg	J	A

Sample ID: SL-027-SA5DS-SS-0.0-0.5			Collected: 9/26/2011 9:25:00			Analysis Type: REA4		Dilution: 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.194	J	0.0734	MDL	0.198	PQL	mg/Kg	J	Z, Q
ARSENIC	5.79		0.0794	MDL	0.397	PQL	mg/Kg	J	Q
CADMIUM	0.354		0.0437	MDL	0.0992	PQL	mg/Kg	J	Q
CHROMIUM	44.5		0.119	MDL	0.397	PQL	mg/Kg	J	A
COPPER	14.1		0.0794	MDL	0.397	PQL	mg/Kg	J	Q
LEAD	10.1		0.0101	MDL	0.198	PQL	mg/Kg	J	A
NICKEL	20.6		0.0992	MDL	0.397	PQL	mg/Kg	J	Q, A
SILVER	0.161		0.0141	MDL	0.0992	PQL	mg/Kg	J	Q
THALLIUM	0.367		0.0298	MDL	0.0992	PQL	mg/Kg	J	Q
VANADIUM	95.0		0.0218	MDL	0.0992	PQL	mg/Kg	J	A
ZINC	104		0.556	MDL	2.98	PQL	mg/Kg	J	A

Sample ID: SL-027-SA5DS-SS-0.0-0.5			Collected: 9/26/2011 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	0.282	J	0.0576	MDL	0.397	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS									
<b>Method:</b>	6020				Matrix: SO					

<b>Sample ID:</b> SL-027-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 9:25:00			<b>Analysis Type:</b> REA8		<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	0.413		0.0496	MDL	0.0992	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-027-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 9:25:00			<b>Analysis Type:</b> REA9		<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIIUM	128		0.105	MDL	0.397	PQL	mg/Kg	J	A	

<b>Sample ID:</b> SL-028-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 10:50:00			<b>Analysis Type:</b> REA4		<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.145	J	0.0722	MDL	0.195	PQL	mg/Kg	J	Z, Q	
ARSENIC	2.80		0.0781	MDL	0.391	PQL	mg/Kg	J	Q	
CADMIUM	0.362		0.0430	MDL	0.0976	PQL	mg/Kg	J	Q	
CHROMIUM	22.5		0.117	MDL	0.391	PQL	mg/Kg	J	A	
COPPER	16.5		0.0781	MDL	0.391	PQL	mg/Kg	J	Q	
LEAD	28.1		0.010	MDL	0.195	PQL	mg/Kg	J	A	
NICKEL	17.3		0.0976	MDL	0.391	PQL	mg/Kg	J	Q, A	
SILVER	0.351		0.0139	MDL	0.0976	PQL	mg/Kg	J	Q	
THALLIUM	0.244		0.0293	MDL	0.0976	PQL	mg/Kg	J	Q	
VANADIUM	62.6		0.0215	MDL	0.0976	PQL	mg/Kg	J	A	
ZINC	109		0.547	MDL	2.93	PQL	mg/Kg	J	A	

<b>Sample ID:</b> SL-028-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 10:50:00			<b>Analysis Type:</b> REA7		<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.144	J	0.0566	MDL	0.391	PQL	mg/Kg	J	Z, Q	

<b>Sample ID:</b> SL-028-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 10:50:00			<b>Analysis Type:</b> REA8		<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	0.384		0.0488	MDL	0.0976	PQL	mg/Kg	J	Q	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>									
<b>Method:</b>	<b>6020</b>			<b>Matrix: SO</b>						

<b>Sample ID: SL-028-SA5DS-SS-0.0-0.5</b>			<b>Collected: 9/26/2011 10:50:00</b>			<b>Analysis Type: REA9</b>		<b>Dilution: 2</b>		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	140		0.103	MDL	0.391	PQL	mg/Kg	J	A	

<b>Sample ID: SL-028-SA7-SB-8.0-9.0</b>			<b>Collected: 9/23/2011 2:14:00</b>			<b>Analysis Type: REA</b>		<b>Dilution: 2</b>		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.0969	J	0.0597	MDL	0.412	PQL	mg/Kg	J	Z	

<b>Sample ID: SL-028-SA7-SB-8.0-9.0</b>			<b>Collected: 9/23/2011 2:14:00</b>			<b>Analysis Type: RES</b>		<b>Dilution: 2</b>		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.0762	U	0.0762	MDL	0.206	PQL	mg/Kg	UJ	Q	
ARSENIC	4.27		0.0824	MDL	0.412	PQL	mg/Kg	J	Q	
CADMIUM	0.0722	J	0.0453	MDL	0.103	PQL	mg/Kg	J	Z	
CHROMIUM	20.1		0.124	MDL	0.412	PQL	mg/Kg	J	Q	
COPPER	8.13		0.0824	MDL	0.412	PQL	mg/Kg	J	Q	
LEAD	4.25		0.0105	MDL	0.206	PQL	mg/Kg	J	Q	
NICKEL	11.7		0.103	MDL	0.412	PQL	mg/Kg	J	Q	
SILVER	0.0176	J	0.0146	MDL	0.103	PQL	mg/Kg	J	Z	
VANADIUM	38.8		0.0227	MDL	0.103	PQL	mg/Kg	J	Q	

<b>Sample ID: SL-029-SA5DS-SS-0.0-0.5</b>			<b>Collected: 9/26/2011 11:10:00</b>			<b>Analysis Type: REA4</b>		<b>Dilution: 2</b>		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.343		0.0744	MDL	0.201	PQL	mg/Kg	J	Q	
ARSENIC	8.36		0.0804	MDL	0.402	PQL	mg/Kg	J	Q	
CADMIUM	0.252		0.0442	MDL	0.101	PQL	mg/Kg	J	Q	
CHROMIUM	58.8		0.121	MDL	0.402	PQL	mg/Kg	J	A	
COPPER	22.4		0.0804	MDL	0.402	PQL	mg/Kg	J	Q	
LEAD	15.7		0.0103	MDL	0.201	PQL	mg/Kg	J	A	
NICKEL	29.2		0.101	MDL	0.402	PQL	mg/Kg	J	Q, A	
SILVER	0.0472	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q	
THALLIUM	0.539		0.0302	MDL	0.101	PQL	mg/Kg	J	Q	
VANADIUM	118		0.0221	MDL	0.101	PQL	mg/Kg	J	A	
ZINC	116		0.563	MDL	3.02	PQL	mg/Kg	J	A	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS									
<b>Method:</b>	6020			Matrix: SD						

<b>Sample ID:</b> SL-029-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 11:10:00			<b>Analysis Type:</b> REA7		<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.412		0.0583	MDL	0.402	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-029-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 11:10:00			<b>Analysis Type:</b> REA8		<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	0.514		0.0503	MDL	0.101	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-029-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 11:10:00			<b>Analysis Type:</b> REA9		<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BARIUM	143		0.107	MDL	0.402	PQL	mg/Kg	J	A	

<b>Sample ID:</b> SL-030-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 11:25:00			<b>Analysis Type:</b> REA4		<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ARSENIC	9.83		0.0810	MDL	0.405	PQL	mg/Kg	J	Q	
CADMIUM	0.283		0.0445	MDL	0.101	PQL	mg/Kg	J	Q	
CHROMIUM	68.5		0.121	MDL	0.405	PQL	mg/Kg	J	A	
COPPER	25.6		0.0810	MDL	0.405	PQL	mg/Kg	J	Q	
LEAD	17.8		0.0103	MDL	0.202	PQL	mg/Kg	J	A	
NICKEL	34.2		0.101	MDL	0.405	PQL	mg/Kg	J	Q, A	
SILVER	0.0488	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q	
THALLIUM	0.616		0.0304	MDL	0.101	PQL	mg/Kg	J	Q	
VANADIUM	136		0.0223	MDL	0.101	PQL	mg/Kg	J	A	
ZINC	138		0.567	MDL	3.04	PQL	mg/Kg	J	A	

<b>Sample ID:</b> SL-030-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 11:25:00			<b>Analysis Type:</b> REA6		<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.182	J	0.0749	MDL	0.202	PQL	mg/Kg	J	Z, Q	

<b>Sample ID:</b> SL-030-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 11:25:00			<b>Analysis Type:</b> REA7		<b>Dilution:</b> 2		
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.483		0.0587	MDL	0.405	PQL	mg/Kg	J	Q	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Method:</b>	6020	<b>Matrix:</b>	SO
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<b>Sample ID:</b> SL-030-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:25:00		<b>Analysis Type:</b> REA8		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.651		0.0506	MDL	0.101	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-030-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:25:00		<b>Analysis Type:</b> REA9		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	180		0.107	MDL	0.405	PQL	mg/Kg	J	A

<b>Sample ID:</b> SL-031-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:50:00		<b>Analysis Type:</b> REA4		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.341		0.0751	MDL	0.203	PQL	mg/Kg	J	Q
ARSENIC	8.83		0.0812	MDL	0.406	PQL	mg/Kg	J	Q
CADMIUM	0.268		0.0447	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	55.5		0.122	MDL	0.406	PQL	mg/Kg	J	A
COPPER	24.8		0.0812	MDL	0.406	PQL	mg/Kg	J	Q
LEAD	32.3		0.0104	MDL	0.203	PQL	mg/Kg	J	A
NICKEL	28.6		0.101	MDL	0.406	PQL	mg/Kg	J	Q, A
SILVER	0.0554	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.526		0.0304	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	111		0.0223	MDL	0.101	PQL	mg/Kg	J	A
ZINC	138		0.568	MDL	3.04	PQL	mg/Kg	J	A

<b>Sample ID:</b> SL-031-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:50:00		<b>Analysis Type:</b> REA7		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.510		0.0589	MDL	0.406	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-031-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:50:00		<b>Analysis Type:</b> REA8		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.664		0.0507	MDL	0.101	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS									
<b>Method:</b>	6020			<b>Matrix:</b> SO						

Sample ID: SL-031-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 11:50:00      Analysis Type: REA9      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	151		0.108	MDL	0.406	PQL	mg/Kg	J	A

Sample ID: SL-032-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 12:10:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.317		0.0749	MDL	0.202	PQL	mg/Kg	J	Q
ARSENIC	8.40		0.0810	MDL	0.405	PQL	mg/Kg	J	Q
CADMIUM	0.282		0.0445	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	47.7		0.121	MDL	0.405	PQL	mg/Kg	J	A
COPPER	20.1		0.0810	MDL	0.405	PQL	mg/Kg	J	Q
LEAD	15.3		0.0103	MDL	0.202	PQL	mg/Kg	J	A
NICKEL	26.2		0.101	MDL	0.405	PQL	mg/Kg	J	Q, A
SILVER	0.0435	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.474		0.0304	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	97.5		0.0223	MDL	0.101	PQL	mg/Kg	J	A
ZINC	101		0.567	MDL	3.04	PQL	mg/Kg	J	A

Sample ID: SL-032-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 12:10:00      Analysis Type: REA7      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.515		0.0587	MDL	0.405	PQL	mg/Kg	J	Q

Sample ID: SL-032-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 12:10:00      Analysis Type: REA8      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.794		0.0506	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-032-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 12:10:00      Analysis Type: REA9      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	146		0.107	MDL	0.405	PQL	mg/Kg	J	A

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS									
<b>Method:</b>	7199				Matrix: SO					

<b>Sample ID:</b> SL-026-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 10:35:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
HEXAVALENT CHROMIUM	0.34	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z	

<b>Sample ID:</b> SL-028-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 10:50:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
HEXAVALENT CHROMIUM	0.38	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z	

<b>Sample ID:</b> SL-028-SA7-SB-8.0-9.0			<b>Collected:</b> 9/23/2011 2:14:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
HEXAVALENT CHROMIUM	0.32	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z	

<b>Sample ID:</b> SL-031-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 11:50:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
HEXAVALENT CHROMIUM	0.38	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z	

<b>Sample ID:</b> SL-032-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 12:10:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
HEXAVALENT CHROMIUM	0.37	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z	

<b>Method Category:</b>	METALS									
<b>Method:</b>	7471A				Matrix: SO					

<b>Sample ID:</b> DUP01-SA5DS-QC-092611			<b>Collected:</b> 9/26/2011 3:10:00			<b>Analysis Type:</b> REA			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MERCURY	0.0115	J	0.0066	MDL	0.0943	PQL	mg/Kg	J	Z	

<b>Sample ID:</b> SL-001-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/26/2011 3:05:00			<b>Analysis Type:</b> REA			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MERCURY	0.0133	J	0.0070	MDL	0.0997	PQL	mg/Kg	J	Z	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	<b>Matrix:</b>	SO
<b>Method:</b>	7471A		

<b>Sample ID:</b> SL-002-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 2:35:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0222	J	0.0069	MDL	0.0979	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-028-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 10:50:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0095	J	0.0070	MDL	0.0996	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-029-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:10:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0076	J	0.0068	MDL	0.0964	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-030-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:25:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0145	J	0.0070	MDL	0.100	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-031-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:50:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0130	J	0.0070	MDL	0.100	PQL	mg/Kg	J	Z

<b>Method Category:</b>	SVDA	<b>Matrix:</b>	SO
<b>Method:</b>	8081A		

<b>Sample ID:</b> DUP01-SA5DS-QC-092611		<b>Collected:</b> 9/26/2011 3:10:00		<b>Analysis Type:</b> RES-BASE/NEUTRAL		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	5.3		0.81	MDL	3.4	PQL	ug/Kg	J	FD
DELTA-BHC	0.48		0.036	MDL	0.17	PQL	ug/Kg	J	FD

<b>Sample ID:</b> SL-001-SA3-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 7:50:00		<b>Analysis Type:</b> RES-BASE/NEUTRAL		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.70		0.066	MDL	0.34	PQL	ug/Kg	J	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVDA	<b>Method:</b>	8081A	<b>Matrix:</b>	SO
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Sample ID: SL-001-SA3-SS-0.0-0.5      Collected: 9/26/2011 7:50:00      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	0.91		0.066	MDL	0.34	PQL	ug/Kg	J	S
Chlordane	2.4	J	0.80	MDL	3.4	PQL	ug/Kg	J	Z, S

Sample ID: SL-001-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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'-DDD	0.066	U	0.066	MDL	0.34	PQL	ug/Kg	R	Q
Chlordane	2.0	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z, FD
DELTA-BHC	0.039	U	0.039	MDL	0.17	PQL	ug/Kg	UJ	FD
ENDRIN ALDEHYDE	0.43		0.066	MDL	0.34	PQL	ug/Kg	J	Q

Sample ID: SL-002-SA3-SS-0.0-0.5      Collected: 9/26/2011 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
Chlordane	1.7	J	0.80	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-002-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 2:35:00      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	0.14	J	0.061	MDL	0.17	PQL	ug/Kg	J	Z
DELTA-BHC	0.052	J	0.037	MDL	0.17	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.040	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-027-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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
4,4'-DDE	1.1	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
4,4'-DDT	1.3	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-028-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 10:50:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	10	J	4.0	MDL	17	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVDA	<b>Method:</b>	8081A	<b>Matrix:</b>	SO
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Sample ID: SL-029-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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
Chlordane	3.3	J	0.83	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-030-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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
ALPHA-BHC	0.090	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z
Chlordane	3.4	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z
ENDOSULFAN I	0.089	J	0.045	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-032-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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
Chlordane	2.6	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.057	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z
METHOXYCHLOR	0.81	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z

<b>Method Category:</b>	SVDA	<b>Method:</b>	8082	<b>Matrix:</b>	SO
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Sample ID: DUP01-SA5DS-QC-092611      Collected: 9/26/2011 3:10:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	7.4		1.0	MDL	3.3	PQL	ug/Kg	J	FD

Sample ID: SL-001-SA3-SS-0.0-0.5      Collected: 9/26/2011 7:50:00      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 1254	0.53	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	1.3	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	3.0	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-001-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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	2.4	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z, FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVDA	<b>Method:</b>	8082	<b>Matrix:</b>	SO
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Sample ID: SL-002-SA3-SS-0.0-0.5      Collected: 9/26/2011 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
AROCLOR 1254	1.3	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-002-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 2:35:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	3.3	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-028-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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
AROCLOR 1260	0.98	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-030-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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 1260	1.3	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z

<b>Method Category:</b>	SVDA	<b>Method:</b>	8151A	<b>Matrix:</b>	SO
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Sample ID: DUP01-SA5DS-QC-092611      Collected: 9/26/2011 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
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-001-SA3-SS-0.0-0.5      Collected: 9/26/2011 7:50:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DICHLOROPROP	1.6	J	0.80	MDL	1.7	PQL	ug/Kg	J	Z
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-001-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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
2,4,5-TP (Silvex)	0.076	U	0.076	MDL	0.17	PQL	ug/Kg	R	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVDA	<b>Method:</b>	8151A	<b>Matrix:</b>	SO
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Sample ID: SL-001-SA5DS-SS-0.0-0.5	Collected: 9/26/2011 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
2,4-DB	2.0	U	2.0	MDL	2.0	PQL	ug/Kg	R	Q
DALAPON	4.4	U	4.4	MDL	9.1	PQL	ug/Kg	R	Q
DICAMBA	0.40	U	0.40	MDL	1.2	PQL	ug/Kg	R	Q
DICHLOROPROP	0.81	U	0.81	MDL	1.7	PQL	ug/Kg	R	Q
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	Q, L
MCPA	77	U	77	MDL	250	PQL	ug/Kg	R	Q
MCPP	76	U	76	MDL	250	PQL	ug/Kg	R	Q

Sample ID: SL-002-SA3-SS-0.0-0.5	Collected: 9/26/2011 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
2,4-D	2.5	J	1.2	MDL	3.6	PQL	ug/Kg	J	Z
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-002-SA5DS-SS-0.0-0.5	Collected: 9/26/2011 2:35:00	Analysis Type: RES-BASE/NEUTRAL	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-026-SA5DS-SS-0.0-0.5	Collected: 9/26/2011 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
DINOSEB	0.86	J	0.81	MDL	2.4	PQL	ug/Kg	J	Z, L

Sample ID: SL-027-SA5DS-SS-0.0-0.5	Collected: 9/26/2011 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
DINOSEB	0.81	U	0.81	MDL	2.4	PQL	ug/Kg	R	L

Sample ID: SL-028-SA5DS-SS-0.0-0.5	Collected: 9/26/2011 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
DINOSEB	0.80	U	0.80	MDL	2.4	PQL	ug/Kg	R	L
MCPA	120	J	76	MDL	250	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVDA	Matrix:	SO
Method:	8151A		

Sample ID: SL-029-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 11:10:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DB	1.7	J	0.64	MDL	1.8	PQL	ug/Kg	J	Z
DINOSEB	0.83	U	0.83	MDL	2.5	PQL	ug/Kg	R	L

Sample ID: SL-030-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L

Sample ID: SL-031-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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
DINOSEB	0.83	U	0.83	MDL	2.5	PQL	ug/Kg	R	L

Sample ID: SL-032-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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
2,4,5-T	0.15	J	0.084	MDL	0.17	PQL	ug/Kg	J	Z
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L

Method Category:	SVDA	Matrix:	SO
Method:	8270C		

Sample ID: DUP01-SA5DS-QC-092611      Collected: 9/26/2011 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
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	51	J	17	MDL	330	PQL	ug/Kg	J	Z
PHENOL	18	J	17	MDL	170	PQL	ug/Kg	J	Z, FD

Sample ID: SL-001-SA3-SS-0.0-0.5      Collected: 9/26/2011 7:50:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVDA
<b>Method:</b>	6270C
<b>Matrix:</b>	SO

Sample ID: SL-001-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 3:05:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BENZIDINE	1200	U	1200	MDL	3300	PQL	ug/Kg	R	Q
FLUORANTHENE	36	J	17	MDL	170	PQL	ug/Kg	J	Z
PHENANTHRENE	35	J	17	MDL	170	PQL	ug/Kg	J	Z
PHENOL	17	U	17	MDL	170	PQL	ug/Kg	UJ	FD
PYRENE	24	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-002-SA3-SS-0.0-0.5      Collected: 9/26/2011 8:15:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	83	J	17	MDL	330	PQL	ug/Kg	J	Z

Sample ID: SL-002-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 2:35:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	510	PQL	ug/Kg	UJ	L

Sample ID: SL-026-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 10:35:00      Analysis Type: RES-ACID      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	8300	U	8300	MDL	25000	PQL	ug/Kg	UJ	L
BENZO(A)PYRENE	1400	J	830	MDL	8300	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1400	J	830	MDL	8300	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1100	J	830	MDL	8300	PQL	ug/Kg	J	Z
CHRYSENE	1500	J	830	MDL	8300	PQL	ug/Kg	J	Z
FLUORANTHENE	1100	J	830	MDL	8300	PQL	ug/Kg	J	Z
PYRENE	1300	J	830	MDL	8300	PQL	ug/Kg	J	Z

Sample ID: SL-027-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 9:25:00      Analysis Type: RES-ACID      Dilution: 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	840	U	840	MDL	2500	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SYQA	<b>Method:</b>	8270C	<b>Matrix:</b>	SQ
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<b>Sample ID:</b> SL-028-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 10:50:00		<b>Analysis Type:</b> RES-ACID		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	500	PQL	ug/Kg	UJ	L
PHENOL	18	J	17	MDL	170	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-028-SA7-SB-8.0-0.0		<b>Collected:</b> 9/23/2011 2:14:00		<b>Analysis Type:</b> RES-ACID		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	180	U	180	MDL	540	PQL	ug/Kg	UJ	L

<b>Sample ID:</b> SL-029-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:10:00		<b>Analysis Type:</b> RES-ACID		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	510	PQL	ug/Kg	UJ	L
PHENOL	18	J	17	MDL	170	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-030-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:25:00		<b>Analysis Type:</b> RES-ACID		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	510	PQL	ug/Kg	UJ	L

<b>Sample ID:</b> SL-031-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 11:50:00		<b>Analysis Type:</b> RES-ACID		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	520	PQL	ug/Kg	UJ	L
BIS(2-ETHYLHEXYL)PHTHALATE	18	J	17	MDL	340	PQL	ug/Kg	J	Z
PHENOL	20	J	17	MDL	170	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-032-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/26/2011 12:10:00		<b>Analysis Type:</b> RES-ACID		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	510	PQL	ug/Kg	UJ	L
PHENOL	18	J	17	MDL	170	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b> SWDA	
<b>Method:</b> 8270C SIM	<b>Matrix:</b> SO

Sample ID: DUP01-SA5DS-QC-092611      Collected: 9/26/2011 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	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z, FD
CHRYSENE	0.75	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
Di-n-octylphthalate	6.0	U	6.0	MDL	18	PQL	ug/Kg	UJ	FD

Sample ID: SL-001-SA3-SS-0.0-0.5      Collected: 9/26/2011 7:50:00      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	5.9	J	5.9	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	0.97	J	0.33	MDL	1.6	PQL	ug/Kg	J	Z
FLUORANTHENE	1.2	J	0.66	MDL	1.6	PQL	ug/Kg	J	Z
PYRENE	1.1	J	0.66	MDL	1.6	PQL	ug/Kg	J	Z

Sample ID: SL-001-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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
BENZO(B)FLUORANTHENE	3.2		0.67	MDL	1.7	PQL	ug/Kg	J	FD
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	6.0	MDL	18	PQL	ug/Kg	J	Z, Q
CHRYSENE	0.49	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
Di-n-octylphthalate	6.9	J	6.0	MDL	18	PQL	ug/Kg	J	Z, FD

Sample ID: SL-002-SA3-SS-0.0-0.5      Collected: 9/26/2011 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
2-METHYLNAPHTHALENE	0.66	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.36	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.1	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.0	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.1	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.80	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.2	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-002-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 2:35:00      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	0.70	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b> SVDA		
<b>Method:</b> 8270C SIM	<b>Matrix:</b> SO	

Sample ID: SL-002-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 2:35:00      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	0.96	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	7.1	J	6.0	MDL	18	PQL	ug/Kg	J	Z
Di-n-octylphthalate	11	J	6.0	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.88	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.3	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-026-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 10:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.48	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	9.0	J	6.0	MDL	18	PQL	ug/Kg	J	Z
NAPHTHALENE	0.99	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-027-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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	3.9	J	3.3	MDL	8.4	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	33	J	30	MDL	90	PQL	ug/Kg	J	Z
PHENANTHRENE	4.5	J	3.3	MDL	8.4	PQL	ug/Kg	J	Z
PYRENE	7.4	J	3.3	MDL	8.4	PQL	ug/Kg	J	Z

Sample ID: SL-028-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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
BENZO(A)ANTHRACENE	0.80	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.1	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.72	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.1	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	0.86	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	0.82	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SNOA	<b>Method:</b>	B270C SIM	<b>Matrix:</b>	SO
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Sample ID: SL-029-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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
BENZO(A)ANTHRACENE	1.3	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.2	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	10	J	6.2	MDL	19	PQL	ug/Kg	J	Z
Di-n-octylphthalate	7.5	J	6.2	MDL	19	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.76	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-030-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 11:25:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	6.1	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.94	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.99	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-032-SA5DS-SS-0.0-0.5      Collected: 9/26/2011 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-METHYLNAPHTHALENE	0.84	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	0.81	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.57	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.3	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
Di-n-octylphthalate	9.6	J	6.1	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

\* 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: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

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	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: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

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

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE253

# Method Blank Outlier Report

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P26908EB220703	10/3/2011 7:03:00 AM	CALCIUM IRON PHOSPHORUS TIN	3.28 mg/Kg 3.68 mg/Kg 1.15 mg/Kg 1.39 mg/Kg	SL-028-SA7-SB-8.0-9.0
P27108AB220719	10/7/2011 7:19:00 AM	BORON MANGANESE PHOSPHORUS STRONTIUM TIN	0.527 mg/Kg 0.0430 mg/Kg 1.09 mg/Kg 0.0680 mg/Kg 1.38 mg/Kg	DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5
P27108AB221351	10/10/2011 1:51:00 PM	ALUMINUM	8.80 mg/Kg	DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5
P27108AB221731	10/7/2011 5:31:00 PM	CALCIUM IRON MAGNESIUM	7.97 mg/Kg 12.9 mg/Kg 1.96 mg/Kg	DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5
P27708BB220741	10/5/2011 7:41:00 AM	TITANIUM	0.0840 mg/Kg	SL-028-SA7-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
DUP01-SA5DS-QC-092611(REA)	TIN	2.90 mg/Kg	2.90U mg/Kg
SL-001-SA3-SS-0.0-0.5(REA)	TIN	3.17 mg/Kg	3.17U mg/Kg
SL-001-SA5DS-SS-0.0-0.5(REA)	TIN	3.00 mg/Kg	3.00U mg/Kg
SL-002-SA3-SS-0.0-0.5(REA)	TIN	2.78 mg/Kg	2.78U mg/Kg
SL-002-SA5DS-SS-0.0-0.5(REA)	TIN	3.06 mg/Kg	3.06U mg/Kg
SL-026-SA5DS-SS-0.0-0.5(REA)	TIN	2.20 mg/Kg	2.20U mg/Kg
SL-027-SA5DS-SS-0.0-0.5(REA)	TIN	2.63 mg/Kg	2.63U mg/Kg
SL-028-SA5DS-SS-0.0-0.5(REA)	TIN	3.05 mg/Kg	3.05U mg/Kg
SL-028-SA7-SB-8.0-9.0(RES)	TIN	2.53 mg/Kg	2.53U mg/Kg
SL-029-SA5DS-SS-0.0-0.5(REA)	TIN	3.12 mg/Kg	3.12U mg/Kg
SL-030-SA5DS-SS-0.0-0.5(REA)	TIN	3.08 mg/Kg	3.08U mg/Kg
SL-031-SA5DS-SS-0.0-0.5(REA)	TIN	3.21 mg/Kg	3.21U mg/Kg

**Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling**

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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*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-SA5DS-SS-0.0-0.5(REA)	TIN	3.07 mg/Kg	3.07U mg/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P26926AB220448A	10/4/2011 4:48:00 AM	LEAD	0.0329 mg/Kg	SL-028-SA7-SB-8.0-9.0

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (SL-001-SA5DS-SS-0.0-0.5)	2,4-D	229	-	17.00-180.00	114 (35.00)	2,4-D	J (all detects)
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (SL-001-SA5DS-SS-0.0-0.5)	2,4,5-TP (Silvex) 2,4-DB DALAPON DICAMBA DICHLOROPROP DINOSEB MCPA MCPD	0 0 - 0 0 0 0 0	0 0 0 0 6 0 0	24.00-141.00 10.00-201.00 10.00-125.00 10.00-190.00 33.00-178.00 10.00-46.00 10.00-213.00 10.00-184.00	- - 200 (50.00) - - 200 (35.00) - -	2,4,5-TP (Silvex) 2,4-DB DALAPON DICAMBA DICHLOROPROP DINOSEB MCPA MCPD	J(all detects) R(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-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (SL-001-SA5DS-SS-0.0-0.5)	4,4'-DDD ENDRIN ALDEHYDE	0 0	- -	16.00-163.00 10.00-148.00	200 (50.00) -	4,4'-DDD ENDRIN ALDEHYDE	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-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	ARSENIC CADMIUM CHROMIUM COPPER NICKEL SILVER THALLIUM VANADIUM ZINC	187 143 181 131 147 139 134 213 -	150 143 164 134 143 140 141 202 131	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - - - - -	ARSENIC CADMIUM CHROMIUM COPPER NICKEL SILVER THALLIUM VANADIUM ZINC	J(all detects)  Cr, V, Zn No Qual, >4x
SL-001-SA5DS-SS-0.0-0.5 MS (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	LEAD	7	-	75.00-125.00	-	LEAD	No Qual, >4x

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8070  
**Matrix:** SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	ANTIMONY	54	50	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	SELENIUM	137	135	75.00-125.00	-	SELENIUM	J(all detects)
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	MOLYBDENUM	145	147	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	BARIUM	133	131	75.00-125.00	-	BARIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-001-SA5DS-SS-0.0-0.5 MS	ALUMINUM	948	956	75.00-125.00	-	ALUMINUM	No Qual, >4x
SL-001-SA5DS-SS-0.0-0.5	CALCIUM	335	259	75.00-125.00	-	CALCIUM	
MSD	IRON	330	763	75.00-125.00	-	IRON	
(DUP01-SA5DS-QC-092611	MAGNESIUM	144	192	75.00-125.00	-	MAGNESIUM	
SL-001-SA3-SS-0.0-0.5	TITANIUM	529	548	75.00-125.00	-	TITANIUM	
SL-001-SA5DS-SS-0.0-0.5							
SL-002-SA3-SS-0.0-0.5							
SL-002-SA5DS-SS-0.0-0.5							
SL-026-SA5DS-SS-0.0-0.5							
SL-027-SA5DS-SS-0.0-0.5							
SL-028-SA5DS-SS-0.0-0.5							
SL-029-SA5DS-SS-0.0-0.5							
SL-030-SA5DS-SS-0.0-0.5							
SL-031-SA5DS-SS-0.0-0.5							
SL-032-SA5DS-SS-0.0-0.5)							

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-001-SA5DS-SS-0.0-0.5 MS (SL-001-SA5DS-SS-0.0-0.5)	BIS(2-ETHYLHEXYL)PHTHALAT	197	-	39.00-167.00	-	BIS(2-ETHYLHEXYL)PHTHALA	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-001-SA5DS-SS-0.0-0.5 MS (SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5)	FLUORIDE	50	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-032-SA5DS-SS-0.0-0.5MS (DUP01-SA5DS-QC-092611 SL-032-SA5DS-SS-0.0-0.5)	FLUORIDE	76	-	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-001-SA5DS-SS-0.0-0.5 MSD (SL-001-SA5DS-SS-0.0-0.5)	2,4-DINITROPHENOL BENZOIC ACID PENTACHLOROPHENOL	- - -	- - -	20.00-143.00 10.00-173.00 28.00-127.00	36 (30.00) 34 (30.00) 39 (30.00)	2,4-DINITROPHENOL BENZOIC ACID PENTACHLOROPHENOL	J(all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method: BZND							
Matrix: SO							
QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-001-SA5DS-SS-0.0-0.5 MS SL-001-SA5DS-SS-0.0-0.5 MSD (SL-001-SA5DS-SS-0.0-0.5)	BENZIDINE	0	0	35.00-141.00	-	BENZIDINE	J(all detects) R(all non-detects)

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method: 300.0**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-032-SA5DS-SS-0.0-0.5DUP (DUP01-SA5DS-QC-092611 SL-032-SA5DS-SS-0.0-0.5)	FLUORIDE	42	20.00	No Qual, OK by Difference
SL-001-SA5DS-SS-0.0-0.5 DUP (SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5)	FLUORIDE	27	20.00	No Qual, OK by Difference

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-001-SA5DS-SS-0.0-0.5 DUP (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	CADMIUM	24	20.00	No Qual, OK by Difference

**Method: 7471A**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-001-SA5DS-SS-0.0-0.5 DUP (DUP01-SA5DS-QC-092611 SL-001-SA3-SS-0.0-0.5 SL-001-SA5DS-SS-0.0-0.5 SL-002-SA3-SS-0.0-0.5 SL-002-SA5DS-SS-0.0-0.5 SL-026-SA5DS-SS-0.0-0.5 SL-027-SA5DS-SS-0.0-0.5 SL-028-SA5DS-SS-0.0-0.5 SL-029-SA5DS-SS-0.0-0.5 SL-030-SA5DS-SS-0.0-0.5 SL-031-SA5DS-SS-0.0-0.5 SL-032-SA5DS-SS-0.0-0.5)	MERCURY	200	20.00	No Qual, OK by Difference

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method:** B151A  
**Matrix:** SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12773AQ242124A (DUP01 -SA5DS -QC -092611 SL -001-SA3-SS-0.0-0.5 SL -001-SA5DS-SS-0.0-0.5 SL -002-SA3-SS-0.0-0.5 SL -002-SA5DS-SS-0.0-0.5 SL -026-SA5DS-SS-0.0-0.5 SL -027-SA5DS-SS-0.0-0.5 SL -028-SA5DS-SS-0.0-0.5 SL -029-SA5DS-SS-0.0-0.5 SL -030-SA5DS-SS-0.0-0.5 SL -031-SA5DS-SS-0.0-0.5 SL -032-SA5DS-SS-0.0-0.5)	DINOSEB	9	-	10.00-36.00	-	DINOSEB	J (all detects) R (all non-detects)

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

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P26926AQ220450A (SL-028-SA7-SB-8.0-9.0)	ANTIMONY	65	-	80.00-120.00	-	ANTIMONY	No Qual, SRM Within QC Limits

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

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P26908EQ220707 (SL-028-SA7-SB-8.0-9.0)	ALUMINUM	138	-	80.00-120.00	-	ALUMINUM	No Qual, SRM Within QC Limits
P27108AQ220723 P27108AQ221735 (DUP01 -SA5DS -QC -092611 SL -001-SA3-SS-0.0-0.5 SL -001-SA5DS-SS-0.0-0.5 SL -002-SA3-SS-0.0-0.5 SL -002-SA5DS-SS-0.0-0.5 SL -026-SA5DS-SS-0.0-0.5 SL -027-SA5DS-SS-0.0-0.5 SL -028-SA5DS-SS-0.0-0.5 SL -029-SA5DS-SS-0.0-0.5 SL -030-SA5DS-SS-0.0-0.5 SL -031-SA5DS-SS-0.0-0.5 SL -032-SA5DS-SS-0.0-0.5)	ALUMINUM IRON MAGNESIUM	143 140 122	- - -	80.00-120.00 80.00-120.00 80.00-120.00	- - -	ALUMINUM IRON MAGNESIUM	No Qual, SRM Within QC Limits

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

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
P7LCLCSQ262217 (DUP01 -SA5DS -QC-092611 SL -001 -SA3 -SS-0.0-0.5 SL -001 -SA5DS -SS-0.0-0.5 SL -002 -SA3 -SS-0.0-0.5 SL -002 -SA5DS -SS-0.0-0.5 SL -026 -SA5DS -SS-0.0-0.5 SL -027 -SA5DS -SS-0.0-0.5 SL -028 -SA5DS -SS-0.0-0.5 SL -028 -SA7 -SB-8.0-9.0 SL -029 -SA5DS -SS-0.0-0.5 SL -030 -SA5DS -SS-0.0-0.5 SL -031 -SA5DS -SS-0.0-0.5 SL -032 -SA5DS -SS-0.0-0.5)	4,6-DINITRO-2-METHYLPHENOL	43	-	46.00-120.00	-	4,6-DINITRO-2-METHYLPHEN	J(all detects) UJ(all non-detects)

# Surrogate Outlier Report

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method: 8081A  
Matrix: SO

<i>Sample ID</i>	<i>Surrogate</i>	<i>Sample % Recovery</i>	<i>% Recovery Limits</i>	<i>Affected Compounds</i>	<i>Flag</i>
SL-001-SA3-SS-0.0-0.5	DECACHLOROBIPHENYL	123	20.00-120.00	All Target Analytes	J (all detects)
SL-028-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	145	20.00-120.00	All Target Analytes	No Qual, Diluted Out

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM SSFL 110509

**Method:** 160.3M  
**Matrix:** SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-001-SA5DS-SS-0.0-0.5	DUP01-SA5DS-QC-092611			
MOISTURE	0.67	0.73	9		No Qualifiers Applied

**Method:** 300.0  
**Matrix:** SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-001-SA5DS-SS-0.0-0.5	DUP01-SA5DS-QC-092611			
FLUORIDE	4.6	2.9	45	50.00	No Qualifiers Applied

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

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-001-SA5DS-SS-0.0-0.5	DUP01-SA5DS-QC-092611			
ALUMINUM	12200	12200	0	50.00	No Qualifiers Applied
BORON	7.49	6.86	9	50.00	
CALCIUM	5160	5090	1	50.00	
IRON	22900	23700	3	50.00	
LITHIUM	16.2	18.2	12	50.00	
MAGNESIUM	5630	5790	3	50.00	
MANGANESE	305	308	1	50.00	
PHOSPHORUS	878	879	0	50.00	
POTASSIUM	1760	1630	8	50.00	
SODIUM	124	109	13	50.00	
STRONTIUM	22.0	22.4	2	50.00	
TIN	3.00	2.90	3	50.00	
TITANIUM	1240	1160	7	50.00	
Zirconium	12.5	8.12	42	50.00	

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

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-001-SA5DS-SS-0.0-0.5	DUP01-SA5DS-QC-092611			
ANTIMONY	0.436	0.430	1	50.00	No Qualifiers Applied
ARSENIC	7.36	8.99	20	50.00	
BARIUM	69.4	98.1	34	50.00	
BERYLLIUM	0.401	0.397	1	50.00	
CADMIUM	0.294	0.351	18	50.00	
CHROMIUM	54.1	63.1	15	50.00	
COBALT	7.42	11.7	45	50.00	
COPPER	7.37	8.84	18	50.00	
LEAD	40.1	48.0	18	50.00	
MOLYBDENUM	0.757	0.906	18	50.00	
NICKEL	14.0	19.4	32	50.00	
SELENIUM	0.257	0.275	7	50.00	
SILVER	0.0372	0.0541	37	50.00	
THALLIUM	0.172	0.197	14	50.00	
VANADIUM	98.1	118	18	50.00	
ZINC	72.7	82.3	12	50.00	

## Field Duplicate RPD Report

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253 v2.

eQAPP Name: CDM\_SSFL\_110509

Method: 7471A  
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-001-SA5DS-SS-0.0-0.5	DUP01-SA5DS-QC-092611			
MERCURY	0.0133	0.0115	15	50.00	No Qualifiers Applied

Method: 8001A  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-001-SA5DS-SS-0.0-0.5	DUP01-SA5DS-QC-092611			
4,4'-DDE	0.52	0.70	30	50.00	No Qualifiers Applied
4,4'-DDT	1.2	1.5	22	50.00	
ENDRIN ALDEHYDE	0.43	0.51	17	50.00	
Chlordane	2.0	5.3	90	50.00	J(all detects) UJ(all non-detects)
DELTA-BHC	0.17 U	0.48	200	50.00	

Method: 8082  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-001-SA5DS-SS-0.0-0.5	DUP01-SA5DS-QC-092611			
AROCLOR 1254	8.0	4.9	48	50.00	No Qualifiers Applied
AROCLOR 1260	7.7	5.9	26	50.00	
Aroclor 5460	2.4	7.4	102	50.00	J(all detects)

Method: 8270C SIM  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-001-SA5DS-SS-0.0-0.5	DUP01-SA5DS-QC-092611			
CHRYSENE	0.49	0.75	42	50.00	No Qualifiers Applied
BENZO(B)FLUORANTHENE	3.2	1.1	98	50.00	J(all detects) UJ(all non-detects)
Di-n-octylphthalate	6.9	18 U	200	50.00	

Method: 8270C  
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-001-SA5DS-SS-0.0-0.5	DUP01-SA5DS-QC-092611			
PHENOL	170 U	18	200	50.00	J(all detects) UJ(all non-detects)

Method: 8045M  
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-001-SA5DS-SS-0.0-0.5	DUP01-SA5DS-QC-092611			
PH	6.04	6.51	7	50.00	No Qualifiers Applied

# Reporting Limit Outliers

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5DS-QC-092611	TIN	J	2.90	9.88	PQL	mg/Kg	J (all detects)
SL-001-SA3-SS-0.0-0.5	SODIUM	J	87.8	98.0	PQL	mg/Kg	J (all detects)
	TIN	J	3.17	9.80	PQL	mg/Kg	
	Zirconium	J	2.95	4.90	PQL	mg/Kg	
SL-001-SA5DS-SS-0.0-0.5	TIN	J	3.00	10.1	PQL	mg/Kg	J (all detects)
SL-002-SA3-SS-0.0-0.5	SODIUM	J	74.5	97.1	PQL	mg/Kg	J (all detects)
	TIN	J	2.78	9.71	PQL	mg/Kg	
	Zirconium	J	2.40	4.85	PQL	mg/Kg	
SL-002-SA5DS-SS-0.0-0.5	TIN	J	3.06	10.0	PQL	mg/Kg	J (all detects)
SL-026-SA5DS-SS-0.0-0.5	TIN	J	2.20	9.85	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.89	4.92	PQL	mg/Kg	
SL-027-SA5DS-SS-0.0-0.5	TIN	J	2.63	9.83	PQL	mg/Kg	J (all detects)
SL-028-SA5DS-SS-0.0-0.5	TIN	J	3.05	9.76	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.42	4.88	PQL	mg/Kg	
SL-028-SA7-SB-8.0-9.0	TIN	J	2.53	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	0.771	5.30	PQL	mg/Kg	
SL-029-SA5DS-SS-0.0-0.5	TIN	J	3.12	10.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.39	5.12	PQL	mg/Kg	
SL-030-SA5DS-SS-0.0-0.5	TIN	J	3.08	10.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.54	5.06	PQL	mg/Kg	
SL-031-SA5DS-SS-0.0-0.5	TIN	J	3.21	10.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	5.13	5.18	PQL	mg/Kg	
SL-032-SA5DS-SS-0.0-0.5	TIN	J	3.07	10.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.88	5.11	PQL	mg/Kg	

**Method:** 8020  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5DS-QC-092611	SELENIUM	J	0.275	0.403	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0541	0.101	PQL	mg/Kg	
SL-001-SA3-SS-0.0-0.5	ANTIMONY	J	0.122	0.196	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.145	0.392	PQL	mg/Kg	
	SILVER	J	0.0759	0.0980	PQL	mg/Kg	
SL-001-SA5DS-SS-0.0-0.5	SELENIUM	J	0.257	0.395	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0372	0.0987	PQL	mg/Kg	
SL-002-SA3-SS-0.0-0.5	ANTIMONY	J	0.141	0.198	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.132	0.396	PQL	mg/Kg	
	SILVER	J	0.0809	0.0990	PQL	mg/Kg	
SL-002-SA5DS-SS-0.0-0.5	SELENIUM	J	0.294	0.405	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0472	0.101	PQL	mg/Kg	
SL-026-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.102	0.199	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.154	0.398	PQL	mg/Kg	
	SILVER	J	0.0205	0.0994	PQL	mg/Kg	
SL-027-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.194	0.198	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.282	0.397	PQL	mg/Kg	
SL-028-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.145	0.195	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.144	0.391	PQL	mg/Kg	

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-028-SA7-SB-8.0-9.0	CADMIUM	J	0.0722	0.103	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0969	0.412	PQL	mg/Kg	
	SILVER	J	0.0176	0.103	PQL	mg/Kg	
SL-029-SA5DS-SS-0.0-0.5	SILVER	J	0.0472	0.101	PQL	mg/Kg	J (all detects)
SL-030-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.182	0.202	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0488	0.101	PQL	mg/Kg	
SL-031-SA5DS-SS-0.0-0.5	SILVER	J	0.0554	0.101	PQL	mg/Kg	J (all detects)
SL-032-SA5DS-SS-0.0-0.5	SILVER	J	0.0435	0.101	PQL	mg/Kg	J (all detects)

**Method:** 7199  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-026-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.34	1.0	PQL	mg/Kg	J (all detects)
SL-028-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.38	1.0	PQL	mg/Kg	J (all detects)
SL-028-SA7-SB-8.0-9.0	HEXAVALENT CHROMIUM	J	0.32	1.1	PQL	mg/Kg	J (all detects)
SL-031-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.38	1.0	PQL	mg/Kg	J (all detects)
SL-032-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.37	1.0	PQL	mg/Kg	J (all detects)

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5DS-QC-092611	MERCURY	J	0.0115	0.0943	PQL	mg/Kg	J (all detects)
SL-001-SA5DS-SS-0.0-0.5	MERCURY	J	0.0133	0.0997	PQL	mg/Kg	J (all detects)
SL-002-SA5DS-SS-0.0-0.5	MERCURY	J	0.0222	0.0979	PQL	mg/Kg	J (all detects)
SL-028-SA5DS-SS-0.0-0.5	MERCURY	J	0.0095	0.0996	PQL	mg/Kg	J (all detects)
SL-029-SA5DS-SS-0.0-0.5	MERCURY	J	0.0076	0.0964	PQL	mg/Kg	J (all detects)
SL-030-SA5DS-SS-0.0-0.5	MERCURY	J	0.0145	0.100	PQL	mg/Kg	J (all detects)
SL-031-SA5DS-SS-0.0-0.5	MERCURY	J	0.0130	0.100	PQL	mg/Kg	J (all detects)

**Method:** 8081A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA3-SS-0.0-0.5	Chlordane	J	2.4	3.4	PQL	ug/Kg	J (all detects)
SL-001-SA5DS-SS-0.0-0.5	Chlordane	J	2.0	3.4	PQL	ug/Kg	J (all detects)
SL-002-SA3-SS-0.0-0.5	Chlordane	J	1.7	3.4	PQL	ug/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8081A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-002-SA5DS-SS-0.0-0.5	BETA-BHC	J	0.14	0.17	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.052	0.17	PQL	ug/Kg	
	gamma-BHC (Lindane)	J	0.040	0.17	PQL	ug/Kg	
SL-027-SA5DS-SS-0.0-0.5	4,4'-DDE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	1.3	1.7	PQL	ug/Kg	
SL-028-SA5DS-SS-0.0-0.5	Chlordane	J	10	17	PQL	ug/Kg	J (all detects)
SL-029-SA5DS-SS-0.0-0.5	Chlordane	J	3.3	3.5	PQL	ug/Kg	J (all detects)
SL-030-SA5DS-SS-0.0-0.5	ALPHA-BHC	J	0.090	0.17	PQL	ug/Kg	J (all detects)
	Chlordane	J	3.4	3.5	PQL	ug/Kg	
	ENDOSULFAN I	J	0.089	0.17	PQL	ug/Kg	
SL-032-SA5DS-SS-0.0-0.5	Chlordane	J	2.6	3.5	PQL	ug/Kg	J (all detects)
	gamma-BHC (Lindane)	J	0.057	0.17	PQL	ug/Kg	
	METHOXYCHLOR	J	0.81	1.7	PQL	ug/Kg	

**Method:** 8082

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA3-SS-0.0-0.5	AROCLOR 1254	J	0.53	1.7	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	1.3	1.7	PQL	ug/Kg	
	Aroclor 5460	J	3.0	3.3	PQL	ug/Kg	
SL-001-SA5DS-SS-0.0-0.5	Aroclor 5460	J	2.4	3.3	PQL	ug/Kg	J (all detects)
SL-002-SA3-SS-0.0-0.5	AROCLOR 1254	J	1.3	1.7	PQL	ug/Kg	J (all detects)
SL-002-SA5DS-SS-0.0-0.5	Aroclor 5460	J	3.3	3.4	PQL	ug/Kg	J (all detects)
SL-028-SA5DS-SS-0.0-0.5	AROCLOR 1260	J	0.98	1.7	PQL	ug/Kg	J (all detects)
SL-030-SA5DS-SS-0.0-0.5	AROCLOR 1260	J	1.3	1.7	PQL	ug/Kg	J (all detects)

**Method:** 8151A

**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-001-SA3-SS-0.0-0.5	DICHLOROPROP	J	1.6	1.7	PQL	ug/Kg	J (all detects)
SL-002-SA3-SS-0.0-0.5	2,4-D	J	2.5	3.6	PQL	ug/Kg	J (all detects)
SL-026-SA5DS-SS-0.0-0.5	DINOSEB	J	0.86	2.4	PQL	ug/Kg	J (all detects)
SL-028-SA5DS-SS-0.0-0.5	MCPA	J	120	250	PQL	ug/Kg	J (all detects)
SL-029-SA5DS-SS-0.0-0.5	2,4-DB	J	1.7	1.8	PQL	ug/Kg	J (all detects)
SL-032-SA5DS-SS-0.0-0.5	2,4,5-T	J	0.15	0.17	PQL	ug/Kg	J (all detects)

## Reporting Limit Outliers

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5DS-QC-092611	BIS(2-ETHYLHEXYL)PHTHALATE	J	51	330	PQL	ug/Kg	J (all detects)
	PHENOL	J	18	170	PQL	ug/Kg	
SL-001-SA5DS-SS-0.0-0.5	FLUORANTHENE	J	36	170	PQL	ug/Kg	J (all detects)
	PHENANTHRENE	J	35	170	PQL	ug/Kg	
	PYRENE	J	24	170	PQL	ug/Kg	
SL-002-SA3-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	83	330	PQL	ug/Kg	J (all detects)
SL-026-SA5DS-SS-0.0-0.5	BENZO(A)PYRENE	J	1400	8300	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1400	8300	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1100	8300	PQL	ug/Kg	
	CHRYSENE	J	1500	8300	PQL	ug/Kg	
	FLUORANTHENE	J	1100	8300	PQL	ug/Kg	
	PYRENE	J	1300	8300	PQL	ug/Kg	
SL-028-SA5DS-SS-0.0-0.5	PHENOL	J	18	170	PQL	ug/Kg	J (all detects)
SL-029-SA5DS-SS-0.0-0.5	PHENOL	J	18	170	PQL	ug/Kg	J (all detects)
SL-031-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	18	340	PQL	ug/Kg	J (all detects)
	PHENOL	J	20	170	PQL	ug/Kg	
SL-032-SA5DS-SS-0.0-0.5	PHENOL	J	18	170	PQL	ug/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP01-SA5DS-QC-092611	BENZO(B)FLUORANTHENE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.75	1.7	PQL	ug/Kg	
SL-001-SA3-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	5.9	18	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.97	1.6	PQL	ug/Kg	
	FLUORANTHENE	J	1.2	1.6	PQL	ug/Kg	
	PYRENE	J	1.1	1.6	PQL	ug/Kg	
SL-001-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	18	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.49	1.7	PQL	ug/Kg	
	Di-n-octylphthalate	J	6.9	18	PQL	ug/Kg	
SL-002-SA3-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.66	1.7	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.36	1.7	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.1	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.0	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.1	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.80	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	1.2	1.7	PQL	ug/Kg	
SL-002-SA5DS-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.70	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	0.96	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.2	1.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	7.1	18	PQL	ug/Kg	
	Di-n-octylphthalate	J	11	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.88	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	1.3	1.7	PQL	ug/Kg	
SL-026-SA5DS-SS-0.0-0.5	ACENAPHTHYLENE	J	0.48	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.0	18	PQL	ug/Kg	
	NAPHTHALENE	J	0.99	1.7	PQL	ug/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE253

Laboratory: LL

EDD Filename: DE253\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-027-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	3.9	8.4	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	33	90	PQL	ug/Kg	
	PHENANTHRENE	J	4.5	8.4	PQL	ug/Kg	
	PYRENE	J	7.4	8.4	PQL	ug/Kg	
SL-028-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.80	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.1	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.72	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.1	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	0.86	1.7	PQL	ug/Kg	
	PYRENE	J	0.82	1.7	PQL	ug/Kg	
SL-029-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.3	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.2	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.2	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	10	19	PQL	ug/Kg	
	Di-n-octylphthalate	J	7.5	19	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.76	1.7	PQL	ug/Kg	
SL-030-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	18	PQL	ug/Kg	J (all detects)
	INDENO(1,2,3-CD)PYRENE	J	0.94	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.99	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	1.7	PQL	ug/Kg	
SL-032-SA5DS-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.84	1.7	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	0.81	1.7	PQL	ug/Kg	
	ANTHRACENE	J	0.57	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.3	1.7	PQL	ug/Kg	
	Di-n-octylphthalate	J	9.6	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.4	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	1.5	1.7	PQL	ug/Kg	

LDC #: 26859W4

**VALIDATION COMPLETENESS WORKSHEET**

Date: 12/30/11

SDG #: DE253

ADR

Page: 1 of 1

Laboratory: Lancaster Laboratories

Reviewer: [Signature]

2nd Reviewer: [Signature]

**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	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Cr, Fe, Pb, Mg, Mn, Ti, V, Zn
VII.	Duplicate Sample Analysis	NA	Cd, Hg < 5X (1-15)
VIII.	Laboratory Control Samples (LCS)	NA	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Ba, Cr, Pb, Ni, V, Zn J/mg (1-15)
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-001-SA3-SS-0.0-0.5	11	SL-032-SA5DS-SS-0.0-0.5	21	<del>SL-001</del>	31
2	SL-002-SA3-SS-0.0-0.5	12	DUP01-SA5DS-QC-092611	22		32
3	SL-002-SA5DS-SS-0.0-0.5	13	SL-001-SA5DS-SS-0.0-0.5MS	23		33
4	SL-001-SA5DS-SS-0.0-0.5	14	SL-001-SA5DS-SS-0.0-0.5MSD	24		34
5	SL-026-SA5DS-SS-0.0-0.5	15	SL-001-SA5DS-SS-0.0-0.5DUP	25		35
6	SL-027-SA5DS-SS-0.0-0.5	16	<del>SL-028-SA7-SB-828</del> - 9.0			36
7	SL-028-SA5DS-SS-0.0-0.5	17		27		37
8	SL-029-SA5DS-SS-0.0-0.5	18		28		38
9	SL-030-SA5DS-SS-0.0-0.5	19		29		39
10	SL-031-SA5DS-SS-0.0-0.5	20		30		40

Notes: \* # 16. batch with DE 251, (see DE 251 for MS/MSD + 146  
qualifiers)

VALIDATION FINDINGS WORKSHEET

**METHOD:** Trace metals (EPA SW 864 Method 6010B/6020/7000)  
**Soil preparation factor applied:** 100X  
**Sample Concentration units, unless otherwise noted:** mg/Kg  
**Associated Samples:** 16  
**Reason:** B

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	16									
Zr			7.5	3.75	0.77									

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 1-6 Reason: B

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	1	2	5	2.9	2.4	2.9				
Zr			12.8	6.4										

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



QUALITY ASSURANCE SUMMARY  
 FORM 5A (MS/MSD)  
 MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
 SDG No.: DE253  
 Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6419491BKG Matrix Spike Lab Sample ID: 6419492MS Matrix Spike Duplicate Lab Sample ID: 6419493MSD  
 % Solids for Sample: 99.3  
 Batch Id(s): P27108A, P271126A, P27111C

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MSD Spike Added	MS Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				%R	Q	%R	Q	%R	RPD
Aluminum	121	12168.5791		14058.4258		14074.8018		199.4157	199.4157	MG/KG	948	956	0	7	4X	20P
Antimony	75	0.4360		1.0850		1.0320		1.2085	1.2085	MG/KG	54 N	50 N	5	75	- 125	20MS
Arsenic	137	7.3633		11.1259		10.3577		2.0141	2.0141	MG/KG	187 N	150 N	7	75	- 125	20MS
Barium	9	69.4272		82.8399		82.4983		10.0705	10.0705	MG/KG	133	131	0	7	4X	20MS
Beryllium	111	0.4014		1.0512		1.0082		0.8056	0.8056	MG/KG	81	76	4	75	- 125	20MS
Boron	111	7.4884		191.7990		194.7903		199.4157	199.4157	MG/KG	92	94	2	84	- 115	20P
Cadmium	111	0.2944		1.7301		1.7158		1.0070	1.0070	MG/KG	143 N	143 N	1	75	- 125	20MS
Calcium	52	5159.4532		6497.2879		6192.8689		398.8314	398.8314	MG/KG	335	259	5	7	4X	20P
Chromium	52	54.1635		72.3666		70.5134		10.0705	10.0705	MG/KG	181	164	3	7	4X	20P
Cobalt	59	7.4225		64.0483		63.8928		50.3525	50.3525	MG/KG	112	113	0	75	- 125	20MS
Copper	63	7.3673		20.6042		20.7392		10.0705	10.0705	MG/KG	131 N	134 N	1	75	- 125	20MS
Iron	208	22864.4179		23193.1969		23625.6678		99.7079	99.7079	MG/KG	330	763	2	7	4X	20P
Lead	208	40.0648		40.2618		43.5524		3.0211	3.0211	MG/KG	7	117	8	7	4X	20MS
Lithium	7	16.2296		112.4804		112.6878		99.7079	99.7079	MG/KG	97	97	0	82	- 114	20P
Magnesium	24	5632.2256		5918.5716		6015.4428		199.4157	199.4157	MG/KG	144	192	2	7	4X	20P
Manganese	55	305.2860		357.6940		366.4014		49.8539	49.8539	MG/KG	105	123	2	7	4X	20P
Mercury	201	0.0133	B	0.1407		0.1643		0.1623	0.1623	MG/KG	78	91	15	65	- 135	20CV
Molybdenum	98	0.7573		15.3938		15.4148		10.0705	10.0705	MG/KG	145 N	147 N	0	75	- 125	20MS
Nickel	60	14.0533		28.8218		28.2971		10.0705	10.0705	MG/KG	147 N	143 N	2	75	- 125	20MS
Phosphorus	31	878.3323		980.7474		971.1236		99.7079	99.7079	MG/KG	103	93	1			20P
Potassium	39	1758.4713		2999.8046		3000.9053		997.0786	997.0786	MG/KG	124	125	0	75	- 125	20P
Selenium	78	0.2571	B	3.0232		2.9553		2.0141	2.0141	MG/KG	137 N	135 N	2	75	- 125	20MS
Silver	107	0.0372	B	14.0262		14.0349		10.0705	10.0705	MG/KG	139 N	140 N	0	75	- 125	20MS
Sodium	23	123.9537		1135.3813		1135.9038		997.0786	997.0786	MG/KG	101	101	0	75	- 125	20P
Strontium	88	21.9869		119.6634		121.0942		99.7079	99.7079	MG/KG	98	99	1	75	- 115	20P
Thallium	203	0.1719		0.7112		0.7340		0.4028	0.4028	MG/KG	134 N	141 N	3	75	- 125	20MS
Tin	119	3.0020	B	364.0164		366.1302		398.8314	398.8314	MG/KG	91	91	1	80	- 110	20P
Titanium	48	1242.7865		1769.9142		1788.7978		99.7079	99.7079	MG/KG	529	548	1	7	4X	20P
Vanadium	51	98.0985		119.5972		118.2136		10.0705	10.0705	MG/KG	213	202	1			20MS
Zinc	66	72.7248		85.1360		85.7687		10.0705	10.0705	MG/KG	123	131	1			20MS
Zirconium	90	12.5196		106.5239		106.2347		99.7079	99.7079	MG/KG	94	94	0	75	- 125	20P

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

# **SAMPLE DELIVERY GROUP**

**DE254**

# **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-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419519	N	3050B	6010B	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419519	N	3050B	6020	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419519	N	3060A	7199	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419519	N	3546	1625C	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419519	N	3550B	8015B	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419519	N	3550B	8015M	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419519	N	3550B	8082	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419519	N	3550B	8270C	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419519	N	3550B	8270C SIM	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419519	N	5035	8015M	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419519	N	METHOD	300.0	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419519	N	METHOD	314.0	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419519	N	METHOD	7471A	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419519	N	METHOD	8015B	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419519	N	METHOD	8015M	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0	6419519	N	METHOD	8315A	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419520	MS	3050B	6010B	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419520	MS	3050B	6020	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419520	MS	3060A	7199	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419520	MS	3546	1625C	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419520	MS	3550B	8015B	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419520	MS	3550B	8015M	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419520	MS	3550B	8082	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419520	MS	3550B	8270C	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419520	MS	3550B	8270C SIM	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419520	MS	5035	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419520	MS	METHOD	300.0	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419520	MS	METHOD	314.0	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419520	MS	METHOD	7471A	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419520	MS	METHOD	8015B	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419520	MS	METHOD	8015M	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MS	6419520	MS	METHOD	8315A	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MSD	6419521	MSD	3050B	6010B	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MSD	6419521	MSD	3050B	6020	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MSD	6419521	MSD	3546	1625C	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MSD	6419521	MSD	3550B	8015B	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MSD	6419521	MSD	3550B	8015M	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MSD	6419521	MSD	3550B	8082	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MSD	6419521	MSD	3550B	8270C	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MSD	6419521	MSD	3550B	8270C SIM	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MSD	6419521	MSD	5035	8015M	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MSD	6419521	MSD	METHOD	7471A	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MSD	6419521	MSD	METHOD	8015B	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MSD	6419521	MSD	METHOD	8015M	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 MSD	6419521	MSD	METHOD	8315A	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 DUP	6419522	DUP	3050B	6010B	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 DUP	6419522	DUP	3050B	6020	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 DUP	6419522	DUP	3060A	7199	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 DUP	6419522	DUP	METHOD	300.0	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 DUP	6419522	DUP	METHOD	314.0	III
26-Sep-2011	SL-102-SA7-SB-4.0-5.0 DUP	6419522	DUP	METHOD	7471A	III
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419525	N	3050B	6010B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419525	N	3050B	6020	III
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419525	N	3060A	7199	III
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419525	N	3546	1625C	III
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419525	N	3550B	8015B	III
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419525	N	3550B	8015M	III
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419525	N	3550B	8082	III
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419525	N	3550B	8270C	III
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419525	N	3550B	8270C SIM	III
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419525	N	5035	8015M	III
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419525	N	METHOD	300.0	III
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419525	N	METHOD	314.0	III
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419525	N	METHOD	7471A	III
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419525	N	METHOD	8015B	III
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419525	N	METHOD	8015M	III
26-Sep-2011	SL-102-SA7-SB-9.0-10.0	6419525	N	METHOD	8315A	III
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419526	N	3050B	6010B	III
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419526	N	3050B	6020	III
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419526	N	3060A	7199	III
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419526	N	3546	1625C	III
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419526	N	3550B	8015B	III
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419526	N	3550B	8015M	III
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419526	N	3550B	8082	III
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419526	N	3550B	8270C	III
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419526	N	3550B	8270C SIM	III
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419526	N	5035	8015M	III
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419526	N	METHOD	300.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419526	N	METHOD	314.0	III
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419526	N	METHOD	7471A	III
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419526	N	METHOD	8015B	III
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419526	N	METHOD	8015M	III
26-Sep-2011	SL-109-SA7-SB-4.0-5.0	6419526	N	METHOD	8315A	III
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419527	N	3050B	6010B	III
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419527	N	3050B	6020	III
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419527	N	3060A	7199	III
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419527	N	3546	1625C	III
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419527	N	3550B	8015B	III
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419527	N	3550B	8015M	III
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419527	N	3550B	8082	III
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419527	N	3550B	8270C	III
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419527	N	3550B	8270C SIM	III
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419527	N	5035	8015M	III
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419527	N	METHOD	300.0	III
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419527	N	METHOD	314.0	III
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419527	N	METHOD	7471A	III
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419527	N	METHOD	8015B	III
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419527	N	METHOD	8015M	III
26-Sep-2011	SL-109-SA7-SB-9.0-10.0	6419527	N	METHOD	8315A	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	GENCHEM	
Method:	300.0	Matrix: SO

Sample ID: SL-102-SA7-SB-4.0-5.0	Collected: 9/26/2011 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	2.4		0.83	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-102-SA7-SB-9.0-10.0	Collected: 9/26/2011 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	3.5		0.94	MDL	1.2	PQL	mg/Kg	J	Q

Sample ID: SL-109-SA7-SB-4.0-5.0	Collected: 9/26/2011 12:13:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.8		0.85	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.1	J	0.85	MDL	1.6	PQL	mg/Kg	J	Z

Sample ID: SL-109-SA7-SB-9.0-10.0	Collected: 9/26/2011 12:20:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.3		0.88	MDL	1.1	PQL	mg/Kg	J	Q

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: SL-102-SA7-SB-4.0-5.0	Collected: 9/26/2011 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	2.82	J	0.332	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	1.35	J	0.477	MDL	5.19	PQL	mg/Kg	U	B

Sample ID: SL-102-SA7-SB-9.0-10.0	Collected: 9/26/2011 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
TIN	3.02	J	0.368	MDL	11.5	PQL	mg/Kg	U	B
Zirconium	4.98	J	0.528	MDL	5.74	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b> METALS
<b>Method:</b> 6010B
<b>Matrix:</b> SO

<b>Sample ID:</b> SL-109-SA7-SB-4.0-5.0		<b>Collected:</b> 9/26/2011 12:13:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.86	J	0.325	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	1.18	J	0.467	MDL	5.07	PQL	mg/Kg	U	B

<b>Sample ID:</b> SL-109-SA7-SB-9.0-10.0		<b>Collected:</b> 9/26/2011 12:20:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.73	J	0.344	MDL	10.7	PQL	mg/Kg	U	B
Zirconium	2.32	J	0.494	MDL	5.37	PQL	mg/Kg	U	B

<b>Method Category:</b> METALS
<b>Method:</b> 6020
<b>Matrix:</b> SO

<b>Sample ID:</b> SL-102-SA7-SB-4.0-5.0		<b>Collected:</b> 9/26/2011 9:10:00		<b>Analysis Type:</b> REA		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.133	J	0.0608	MDL	0.419	PQL	mg/Kg	J	Z, Q

<b>Sample ID:</b> SL-102-SA7-SB-4.0-5.0		<b>Collected:</b> 9/26/2011 9:10:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.592		0.0524	MDL	0.105	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-102-SA7-SB-4.0-5.0		<b>Collected:</b> 9/26/2011 9:10:00		<b>Analysis Type:</b> REA3		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	100		0.111	MDL	0.419	PQL	mg/Kg	J	A

<b>Sample ID:</b> SL-102-SA7-SB-4.0-5.0		<b>Collected:</b> 9/26/2011 9:10:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 2			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.143	J	0.0776	MDL	0.210	PQL	mg/Kg	J	Z, Q
ARSENIC	5.43		0.0839	MDL	0.419	PQL	mg/Kg	J	Q
BERYLLIUM	0.765		0.0168	MDL	0.105	PQL	mg/Kg	J	Q
CADMIUM	0.0840	J	0.0461	MDL	0.105	PQL	mg/Kg	J	Z, Q
COBALT	6.22		0.0210	MDL	0.105	PQL	mg/Kg	J	Q, A

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS									
<b>Method:</b>	6020			<b>Matrix:</b> SO						

Sample ID: SL-102-SA7-SB-4.0-5.0      Collected: 9/26/2011 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
COPPER	8.32		0.0839	MDL	0.419	PQL	mg/Kg	J	Q
LEAD	6.21		0.0107	MDL	0.210	PQL	mg/Kg	J	Q, A
NICKEL	12.2		0.105	MDL	0.419	PQL	mg/Kg	J	Q
SILVER	0.0211	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z, Q
THALLIUM	0.356		0.0314	MDL	0.105	PQL	mg/Kg	J	Q
VANADIUM	42.3		0.0231	MDL	0.105	PQL	mg/Kg	J	A

Sample ID: SL-102-SA7-SB-9.0-10.0      Collected: 9/26/2011 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
SELENIUM	0.137	J	0.0653	MDL	0.451	PQL	mg/Kg	J	Z, Q

Sample ID: SL-102-SA7-SB-9.0-10.0      Collected: 9/26/2011 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
MOLYBDENUM	0.759		0.0563	MDL	0.113	PQL	mg/Kg	J	Q

Sample ID: SL-102-SA7-SB-9.0-10.0      Collected: 9/26/2011 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
BARIUM	169		0.119	MDL	0.451	PQL	mg/Kg	J	A

Sample ID: SL-102-SA7-SB-9.0-10.0      Collected: 9/26/2011 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	0.275		0.0833	MDL	0.225	PQL	mg/Kg	J	Q
ARSENIC	7.05		0.0901	MDL	0.451	PQL	mg/Kg	J	Q
BERYLLIUM	1.00		0.0180	MDL	0.113	PQL	mg/Kg	J	Q
CADMIUM	0.291		0.0496	MDL	0.113	PQL	mg/Kg	J	Q
COBALT	13.0		0.0225	MDL	0.113	PQL	mg/Kg	J	Q, A
COPPER	18.4		0.0901	MDL	0.451	PQL	mg/Kg	J	Q
LEAD	10.5		0.0115	MDL	0.225	PQL	mg/Kg	J	Q, A
NICKEL	25.8		0.113	MDL	0.451	PQL	mg/Kg	J	Q
SILVER	0.0510	J	0.0160	MDL	0.113	PQL	mg/Kg	J	Z, Q
THALLIUM	0.430		0.0338	MDL	0.113	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS									
<b>Method:</b>	6020			<b>Matrix:</b> SO						

Sample ID: SL-102-SA7-SB-9.0-10.0      Collected: 9/26/2011 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
VANADIUM	76.8		0.0248	MDL	0.113	PQL	mg/Kg	J	A

Sample ID: SL-109-SA7-SB-4.0-5.0      Collected: 9/26/2011 12:13:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.121	J	0.0588	MDL	0.406	PQL	mg/Kg	J	Z, Q

Sample ID: SL-109-SA7-SB-4.0-5.0      Collected: 9/26/2011 12:13:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.496		0.0507	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-109-SA7-SB-4.0-5.0      Collected: 9/26/2011 12:13:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	109		0.108	MDL	0.406	PQL	mg/Kg	J	A

Sample ID: SL-109-SA7-SB-4.0-5.0      Collected: 9/26/2011 12:13:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0824	J	0.0751	MDL	0.203	PQL	mg/Kg	J	Z, Q
ARSENIC	5.09		0.0812	MDL	0.406	PQL	mg/Kg	J	Q
BERYLLIUM	0.611		0.0162	MDL	0.101	PQL	mg/Kg	J	Q
CADMIUM	0.121		0.0446	MDL	0.101	PQL	mg/Kg	J	Q
COBALT	6.41		0.0203	MDL	0.101	PQL	mg/Kg	J	Q, A
COPPER	8.31		0.0812	MDL	0.406	PQL	mg/Kg	J	Q
LEAD	5.35		0.0103	MDL	0.203	PQL	mg/Kg	J	Q, A
NICKEL	12.2		0.101	MDL	0.406	PQL	mg/Kg	J	Q
SILVER	0.0190	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.315		0.0304	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	40.7		0.0223	MDL	0.101	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-109-SA7-SB-9.0-10.0	Collected: 9/26/2011 12:20:00	Analysis Type: REA	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0885	J	0.0623	MDL	0.430	PQL	mg/Kg	J	Z, Q

Sample ID: SL-109-SA7-SB-9.0-10.0	Collected: 9/26/2011 12:20:00	Analysis Type: REA2	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.488		0.0537	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-109-SA7-SB-9.0-10.0	Collected: 9/26/2011 12:20:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	85.5		0.114	MDL	0.430	PQL	mg/Kg	J	A

Sample ID: SL-109-SA7-SB-9.0-10.0	Collected: 9/26/2011 12:20:00	Analysis Type: RES	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.128	J	0.0795	MDL	0.215	PQL	mg/Kg	J	Z, Q
ARSENIC	4.83		0.0859	MDL	0.430	PQL	mg/Kg	J	Q
BERYLLIUM	0.637		0.0172	MDL	0.107	PQL	mg/Kg	J	Q
CADMIUM	0.107	J	0.0472	MDL	0.107	PQL	mg/Kg	J	Q
COBALT	6.36		0.0215	MDL	0.107	PQL	mg/Kg	J	Q, A
COPPER	7.86		0.0859	MDL	0.430	PQL	mg/Kg	J	Q
LEAD	5.75		0.0110	MDL	0.215	PQL	mg/Kg	J	Q, A
NICKEL	11.7		0.107	MDL	0.430	PQL	mg/Kg	J	Q
SILVER	0.0423	J	0.0152	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.271		0.0322	MDL	0.107	PQL	mg/Kg	J	Q
VANADIUM	39.6		0.0236	MDL	0.107	PQL	mg/Kg	J	A

Method Category:	METALS	
Method:	7199	Matrix: SO

Sample ID: SL-102-SA7-SB-9.0-10.0	Collected: 9/26/2011 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	0.61	J	0.24	MDL	1.2	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	7199	Matrix: SO

Sample ID: SL-109-SA7-SB-9.0-10.0	Collected: 9/26/2011 12:20:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.32	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

Method Category:	METALS	
Method:	7471A	Matrix: SO

Sample ID: SL-102-SA7-SB-4.0-5.0	Collected: 9/26/2011 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	0.0121	J	0.0073	MDL	0.103	PQL	mg/Kg	UJ	B, FD

Sample ID: SL-102-SA7-SB-9.0-10.0	Collected: 9/26/2011 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	0.0116	J	0.0079	MDL	0.112	PQL	mg/Kg	U	B

Sample ID: SL-109-SA7-SB-9.0-10.0	Collected: 9/26/2011 12:20:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0106	J	0.0074	MDL	0.105	PQL	mg/Kg	U	B

Method Category:	SVDA	
Method:	8015M	Matrix: SO

Sample ID: SL-102-SA7-SB-4.0-5.0	Collected: 9/26/2011 9:10:00	Analysis Type: REA	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	5.2	U	5.2	MDL	10	PQL	mg/Kg	UJ	Q
ETHYLENE GLYCOL	5.2	U	5.2	MDL	10	PQL	mg/Kg	UJ	Q

Sample ID: SL-102-SA7-SB-4.0-5.0	Collected: 9/26/2011 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 (C21-C30)	2.1		0.42	MDL	1.3	PQL	mg/Kg	UJ	Q, B
EFH (C30-C40)	5.5		0.42	MDL	1.3	PQL	mg/Kg	UJ	Q, B

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVDA	
Method:	8015M	Matrix: SO

Sample ID: SL-102-SA7-SB-9.0-10.0	Collected: 9/26/2011 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)	3.0		0.46	MDL	1.4	PQL	mg/Kg	U	B
EFH (C30-C40)	6.8		0.46	MDL	1.4	PQL	mg/Kg	U	B

Sample ID: SL-109-SA7-SB-4.0-5.0	Collected: 9/26/2011 12:13:00	Analysis Type: REA2	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	1.5		0.42	MDL	1.2	PQL	mg/Kg	U	B
EFH (C30-C40)	4.3		0.42	MDL	1.2	PQL	mg/Kg	U	B

Sample ID: SL-109-SA7-SB-9.0-10.0	Collected: 9/26/2011 12:20:00	Analysis Type: REA2	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.50	J	0.43	MDL	1.3	PQL	mg/Kg	J	Z
EFH (C21-C30)	3.7		0.43	MDL	1.3	PQL	mg/Kg	U	B
EFH (C30-C40)	6.6		0.43	MDL	1.3	PQL	mg/Kg	U	B

Method Category:	SVDA	
Method:	8270C	Matrix: SO

Sample ID: SL-102-SA7-SB-4.0-5.0	Collected: 9/26/2011 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	350	U	350	MDL	1000	PQL	ug/Kg	R	Q
BENZIDINE	1200	U	1200	MDL	3500	PQL	ug/Kg	UJ	Q

Method Category:	SVDA	
Method:	8270C SIM	Matrix: SO

Sample ID: SL-102-SA7-SB-4.0-5.0	Collected: 9/26/2011 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
ACENAPHTHENE	1.4	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z, FD
ACENAPHTHYLENE	1.2	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z, FD
ANTHRACENE	2.9		0.35	MDL	1.7	PQL	ug/Kg	J	FD
BENZO(A)ANTHRACENE	2.9		0.70	MDL	1.7	PQL	ug/Kg	J	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b> SVQA		
<b>Method:</b> 6270C SIM	<b>Matrix:</b> SO	

Sample ID: SL-102-SA7-SB-4.0-5.0      Collected: 9/26/2011 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
BENZO(A)PYRENE	2.9		0.70	MDL	1.7	PQL	ug/Kg	J	FD
BENZO(B)FLUORANTHENE	3.2		0.70	MDL	1.7	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	3.1		0.70	MDL	1.7	PQL	ug/Kg	J	FD
BENZO(K)FLUORANTHENE	3.1		0.70	MDL	1.7	PQL	ug/Kg	J	FD
CHRYSENE	2.9		0.35	MDL	1.7	PQL	ug/Kg	J	FD
DIBENZO(A,H)ANTHRACENE	3.0		0.70	MDL	1.7	PQL	ug/Kg	J	FD
FLUORANTHENE	3.1		0.70	MDL	1.7	PQL	ug/Kg	J	FD
FLUORENE	2.4		0.70	MDL	1.7	PQL	ug/Kg	J	FD
INDENO(1,2,3-CD)PYRENE	3.0		0.70	MDL	1.7	PQL	ug/Kg	J	FD
PHENANTHRENE	2.9		0.70	MDL	1.7	PQL	ug/Kg	J	FD
PYRENE	3.0		0.70	MDL	1.7	PQL	ug/Kg	J	FD

Sample ID: SL-102-SA7-SB-9.0-10.0      Collected: 9/26/2011 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
ANTHRACENE	0.47	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
CHRYSENE	0.71	J	0.38	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	0.87	J	0.77	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: SL-109-SA7-SB-9.0-10.0      Collected: 9/26/2011 12:20:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.64	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	0.77	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.79	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.4	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.80	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.73	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	0.94	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.72	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	0.98	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.76	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
PHENANTHRENE	0.97	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	1.0	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE254  
EDD Filename: DE254\_v2.

Laboratory: LL  
eQAPP Name: CDM\_SSFL\_110509

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

\* 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: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

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	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: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

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

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE254

# Method Blank Outlier Report

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: PrepDE254\_v2

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27308AB220153	10/5/2011 1:53:00 AM	BORON CALCIUM MANGANESE PHOSPHORUS STRONTIUM TIN	0.738 mg/Kg 24.6 mg/Kg 0.215 mg/Kg 1.22 mg/Kg 0.145 mg/Kg 1.51 mg/Kg	SL-102-SA7-SB-4.0-5.0 SL-102-SA7-SB-9.0-10.0 SL-109-SA7-SB-4.0-5.0 SL-109-SA7-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-102-SA7-SB-4.0-5.0(RES)	TIN	2.82 mg/Kg	2.82U mg/Kg
SL-102-SA7-SB-9.0-10.0(RES)	TIN	3.02 mg/Kg	3.02U mg/Kg
SL-109-SA7-SB-4.0-5.0(RES)	TIN	2.86 mg/Kg	2.86U mg/Kg
SL-109-SA7-SB-9.0-10.0(RES)	TIN	2.73 mg/Kg	2.73U mg/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27726AB221129A	10/5/2011 11:29:00 AM	LEAD	0.0409 mg/Kg	SL-102-SA7-SB-4.0-5.0 SL-102-SA7-SB-9.0-10.0 SL-109-SA7-SB-4.0-5.0 SL-109-SA7-SB-9.0-10.0

**Method:** 8015M  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P78789AB321035A	10/8/2011 10:35:00 AM	EFH (C21-C30) EFH (C30-C40)	1.0 mg/Kg 4.2 mg/Kg	SL-102-SA7-SB-4.0-5.0 SL-102-SA7-SB-9.0-10.0 SL-109-SA7-SB-4.0-5.0 SL-109-SA7-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-102-SA7-SB-4.0-5.0(REA2)	EFH (C21-C30)	2.1 mg/Kg	2.1U mg/Kg
SL-102-SA7-SB-4.0-5.0(REA2)	EFH (C30-C40)	5.5 mg/Kg	5.5U mg/Kg
SL-102-SA7-SB-9.0-10.0(REA2)	EFH (C21-C30)	3.0 mg/Kg	3.0U mg/Kg
SL-102-SA7-SB-9.0-10.0(REA2)	EFH (C30-C40)	6.8 mg/Kg	6.8U mg/Kg
SL-109-SA7-SB-4.0-5.0(REA2)	EFH (C21-C30)	1.5 mg/Kg	1.5U mg/Kg
SL-109-SA7-SB-4.0-5.0(REA2)	EFH (C30-C40)	4.3 mg/Kg	4.3U mg/Kg
SL-109-SA7-SB-9.0-10.0(REA2)	EFH (C21-C30)	3.7 mg/Kg	3.7U mg/Kg

**Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling**

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: PrepDE254\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8015M  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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*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-109-SA7-SB-9.0-10.0(REA2)	EFH (C30-C40)	6.6 mg/Kg	6.6U mg/Kg

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

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-102-SA7-SB-4.0-5.0 MS SL-102-SA7-SB-4.0-5.0 MSD (SL-102-SA7-SB-4.0-5.0)	DIETHYLENE GLYCOL ETHYLENE GLYCOL	22 58	28 60	59.00-109.00 63.00-107.00	27 (20.00) -	DIETHYLENE GLYCOL ETHYLENE 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-102-SA7-SB-4.0-5.0 MSD (SL-102-SA7-SB-4.0-5.0)	ETHANOL Isopropanol METHANOL	- - -	- - -	48.00-130.00 12.00-149.00 43.00-138.00	27 (20.00) 28 (20.00) 24 (20.00)	ETHANOL Isopropanol METHANOL	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-102-SA7-SB-4.0-5.0 MS SL-102-SA7-SB-4.0-5.0 MSD (SL-102-SA7-SB-4.0-5.0)	EFH (C21-C30) EFH (C30-C40)	- 125	211 219	49.00-123.00 49.00-123.00	51 (20.00) 34 (20.00)	EFH (C21-C30) EFH (C30-C40)	J(all detects)

**Method:** 8010B  
**Matrix:** SD

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-102-SA7-SB-4.0-5.0 MS SL-102-SA7-SB-4.0-5.0 MSD (SL-102-SA7-SB-4.0-5.0) SL-102-SA7-SB-9.0-10.0 SL-109-SA7-SB-4.0-5.0 SL-109-SA7-SB-9.0-10.0)	MAGNESIUM TITANIUM	- 202	161 227	75.00-125.00 75.00-125.00	- -	MAGNESIUM TITANIUM	No Qual, >4x
SL-102-SA7-SB-4.0-5.0 MS SL-102-SA7-SB-4.0-5.0 MSD (SL-102-SA7-SB-4.0-5.0) SL-102-SA7-SB-9.0-10.0 SL-109-SA7-SB-4.0-5.0 SL-109-SA7-SB-9.0-10.0)	IRON	-169	-173	75.00-125.00	-	IRON	No Qual, >4x
SL-102-SA7-SB-4.0-5.0 MS SL-102-SA7-SB-4.0-5.0 MSD (SL-102-SA7-SB-4.0-5.0) SL-102-SA7-SB-9.0-10.0 SL-109-SA7-SB-4.0-5.0 SL-109-SA7-SB-9.0-10.0)	CALCIUM	47	133	75.00-125.00	-	CALCIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8010**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-102-SA7-SB-4.0-5.0 MS (SL-102-SA7-SB-4.0-5.0 SL-102-SA7-SB-9.0-10.0 SL-109-SA7-SB-4.0-5.0 SL-109-SA7-SB-9.0-10.0)	FLUORIDE	42	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

**Method: 8020**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-102-SA7-SB-4.0-5.0 MS SL-102-SA7-SB-4.0-5.0 MSD (SL-102-SA7-SB-4.0-5.0 SL-102-SA7-SB-9.0-10.0 SL-109-SA7-SB-4.0-5.0 SL-109-SA7-SB-9.0-10.0)	ARSENIC BERYLLIUM CADMIUM COBALT COPPER LEAD NICKEL SILVER THALLIUM VANADIUM	144 133 145 140 145 134 139 142 132 130	130 - 133 128 129 - - 130 - -	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - - - - - -	ARSENIC BERYLLIUM CADMIUM COBALT COPPER LEAD NICKEL SILVER THALLIUM VANADIUM	J(all detects)              V, No Qual, >4x
SL-102-SA7-SB-4.0-5.0 MS SL-102-SA7-SB-4.0-5.0 MSD (SL-102-SA7-SB-4.0-5.0 SL-102-SA7-SB-9.0-10.0 SL-109-SA7-SB-4.0-5.0 SL-109-SA7-SB-9.0-10.0)	ANTIMONY ZINC	66 -	61 69	75.00-125.00 75.00-125.00	- -	ANTIMONY ZINC	J(all detects) UJ(all non-detects)  Zn, No Qual, >4x
SL-102-SA7-SB-4.0-5.0 MS (SL-102-SA7-SB-4.0-5.0 SL-102-SA7-SB-9.0-10.0 SL-109-SA7-SB-4.0-5.0 SL-109-SA7-SB-9.0-10.0)	SELENIUM	128	-	75.00-125.00	-	SELENIUM	J(all detects)
SL-102-SA7-SB-4.0-5.0 MS SL-102-SA7-SB-4.0-5.0 MSD (SL-102-SA7-SB-4.0-5.0 SL-102-SA7-SB-9.0-10.0 SL-109-SA7-SB-4.0-5.0 SL-109-SA7-SB-9.0-10.0)	MOLYBDENUM	142	133	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-102-SA7-SB-4.0-5.0 MS SL-102-SA7-SB-4.0-5.0 MSD (SL-102-SA7-SB-4.0-5.0 SL-102-SA7-SB-9.0-10.0 SL-109-SA7-SB-4.0-5.0 SL-109-SA7-SB-9.0-10.0)	BARIUM	146	128	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-102-SA7-SB-4.0-5.0 MSD (SL-102-SA7-SB-4.0-5.0)	BENZOIC ACID	-	-	10.00-173.00	35 (30.00)	BENZOIC ACID	J(all detects)
SL-102-SA7-SB-4.0-5.0 MS SL-102-SA7-SB-4.0-5.0 MSD (SL-102-SA7-SB-4.0-5.0)	2,4-DINITROPHENOL	0	0	20.00-143.00	-	2,4-DINITROPHENOL	J(all detects) R(all non-detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-102-SA7-SB-4.0-5.0 MS (SL-102-SA7-SB-4.0-5.0)	BENZIDINE	32	-	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-102-SA7-SB-4.0-5.0 MS SL-102-SA7-SB-4.0-5.0 MSD (SL-102-SA7-SB-4.0-5.0 SL-102-SA7-SB-9.0-10.0 SL-109-SA7-SB-4.0-5.0 SL-109-SA7-SB-9.0-10.0)	ALUMINUM	-1214	-39	75.00-125.00	-	ALUMINUM	No Qual, >4x

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

eQAPP Name: CDM\_SSFL\_110509

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-102-SA7-SB-4.0-5.0 DUP (SL-102-SA7-SB-4.0-5.0 SL -102-SA7-SB-9.0-10.0 SL -109-SA7-SB-4.0-5.0 SL -109-SA7-SB-9.0-10.0)	Zirconium	57	20.00	No Qual, OK by Difference

**Method:** 7471A  
**Matrix:** SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-102-SA7-SB-4.0-5.0 DUP (SL-102-SA7-SB-4.0-5.0 SL -102-SA7-SB-9.0-10.0 SL -109-SA7-SB-4.0-5.0 SL -109-SA7-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: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8010B  
**Matrix:** SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P27308AQ220157 (SL-102-SA7-SB-4.0-5.0 SL-102-SA7-SB-9.0-10.0 SL-109-SA7-SB-4.0-5.0 SL-109-SA7-SB-9.0-10.0)	IRON MAGNESIUM POTASSIUM	142 133 123	- - -	80.00-120.00 80.00-120.00 80.00-120.00	- - -	IRON MAGNESIUM POTASSIUM	No Qual, SRM Within QC Limits

**Method:** 8020  
**Matrix:** SO

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P27726AQ221132A (SL-102-SA7-SB-4.0-5.0 SL-102-SA7-SB-9.0-10.0 SL-109-SA7-SB-4.0-5.0 SL-109-SA7-SB-9.0-10.0)	VANADIUM	123	-	80.00-120.00	-	VANADIUM	No Qual, SRM Within QC Limits

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: DE254 v2.

eQAPP Name: CDM SSFL 110509

**Method:** 100.3M  
**Matrix:** SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-102-SA7-SB-4.0-5.0	DUP007-SA7-QC-092611			
MOISTURE	4.6	5.100000000	10		No Qualifiers Applied

**Method:** 300.0  
**Matrix:** SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-102-SA7-SB-4.0-5.0	DUP007-SA7-QC-092611			
FLUORIDE	2.4	2.500000000	4	50.00	No Qualifiers Applied
Nitrate-NO3	2.4	3.500000000	37	50.00	

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

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-102-SA7-SB-4.0-5.0	DUP007-SA7-QC-092611			
ALUMINUM	18400	15000.000000000	20	50.00	No Qualifiers Applied
BORON	6.49	5.750000000	12	50.00	
CALCIUM	3550	3920.000000000	10	50.00	
IRON	19100	18600.000000000	3	50.00	
LITHIUM	24.2	23.800000000	2	50.00	
MAGNESIUM	4270	4210.000000000	1	50.00	
MANGANESE	230	231.000000000	0	50.00	
PHOSPHORUS	273	265.000000000	3	50.00	
POTASSIUM	2780	2640.000000000	5	50.00	
SODIUM	130	107.000000000	19	50.00	
STRONTIUM	15.5	18.100000000	15	50.00	
TIN	2.82	2.650000000	6	50.00	
TITANIUM	1160	1080.000000000	7	50.00	
Zirconium	1.35	0.923000000	38	50.00	

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

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-102-SA7-SB-4.0-5.0	DUP007-SA7-QC-092611			
ANTIMONY	0.143	0.101000000	34	50.00	No Qualifiers Applied
ARSENIC	5.43	5.030000000	8	50.00	
BARIUM	100	97.000000000	3	50.00	
BERYLLIUM	0.765	0.701000000	9	50.00	
CADMIUM	0.0840	0.085400000	2	50.00	
CHROMIUM	19.8	16.000000000	21	50.00	
COBALT	6.22	5.630000000	10	50.00	
COPPER	8.32	6.640000000	22	50.00	
LEAD	6.21	6.250000000	1	50.00	
MOLYBDENUM	0.592	0.525000000	12	50.00	
NICKEL	12.2	10.300000000	17	50.00	
SELENIUM	0.133	0.099500000	29	50.00	
SILVER	0.0211	0.026600000	23	50.00	
THALLIUM	0.356	0.288000000	21	50.00	
VANADIUM	42.3	34.100000000	21	50.00	
ZINC	71.1	66.600000000	7	50.00	

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: DE254\_v2.

eQAPP Name: CDM\_SSFL\_110509

**Method: 7471A**  
**Matrix: SO**

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-102-SA7-SB-4.0-5.0	DUP007-SA7-QC-092611			
MERCURY	0.0121	0.103000000 U	200	50.00	J(all detects) UJ(all non-detects)

**Method: 8075M**  
**Matrix: SO**

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-102-SA7-SB-4.0-5.0	DUP007-SA7-QC-092611			
EFH (C21-C30)	2.1	2.600000000	21	50.00	No Qualifiers Applied
EFH (C30-C40)	5.5	4.400000000	22	50.00	

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

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-102-SA7-SB-4.0-5.0	DUP007-SA7-QC-092611			
ACENAPHTHENE	1.4	1.700000000 U	200	50.00	J(all detects) UJ(all non-detects)
ACENAPHTHYLENE	1.2	1.700000000 U	200	50.00	
ANTHRACENE	2.9	1.700000000 U	200	50.00	
BENZO(A)ANTHRACENE	2.9	1.700000000 U	200	50.00	
BENZO(A)PYRENE	2.9	1.700000000 U	200	50.00	
BENZO(B)FLUORANTHENE	3.2	1.700000000 U	200	50.00	
BENZO(G,H,I)PERYLENE	3.1	1.700000000 U	200	50.00	
BENZO(K)FLUORANTHENE	3.1	1.700000000 U	200	50.00	
CHRYSENE	2.9	1.700000000 U	200	50.00	
DIBENZO(A,H)ANTHRACENE	3.0	1.700000000 U	200	50.00	
FLUORANTHENE	3.1	1.700000000 U	200	50.00	
FLUORENE	2.4	1.700000000 U	200	50.00	
INDENO(1,2,3-CD)PYRENE	3.0	1.700000000 U	200	50.00	
PHENANTHRENE	2.9	1.700000000 U	200	50.00	
PYRENE	3.0	1.700000000 U	200	50.00	

**Method: 9045M**  
**Matrix: SO**

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-102-SA7-SB-4.0-5.0	DUP007-SA7-QC-092611			
PH	8.19	7.810000000	5	50.00	No Qualifiers Applied

# Reporting Limit Outliers

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: PrepDE254\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method:** 300.0  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-109-SA7-SB-4.0-5.0	Nitrate-NO3	J	1.1	1.6	PQL	mg/Kg	J (all detects)

**Method:** 8010B  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-102-SA7-SB-4.0-5.0	TIN	J	2.82	10.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.35	5.19	PQL	mg/Kg	
SL-102-SA7-SB-9.0-10.0	TIN	J	3.02	11.5	PQL	mg/Kg	J (all detects)
	Zirconium	J	4.98	5.74	PQL	mg/Kg	
SL-109-SA7-SB-4.0-5.0	TIN	J	2.86	10.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.18	5.07	PQL	mg/Kg	
SL-109-SA7-SB-9.0-10.0	TIN	J	2.73	10.7	PQL	mg/Kg	J (all detects)
	Zirconium	J	2.32	5.37	PQL	mg/Kg	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-102-SA7-SB-4.0-5.0	ANTIMONY	J	0.143	0.210	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0840	0.105	PQL	mg/Kg	
	SELENIUM	J	0.133	0.419	PQL	mg/Kg	
	SILVER	J	0.0211	0.105	PQL	mg/Kg	
SL-102-SA7-SB-9.0-10.0	SELENIUM	J	0.137	0.451	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0510	0.113	PQL	mg/Kg	
SL-109-SA7-SB-4.0-5.0	ANTIMONY	J	0.0824	0.203	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.121	0.406	PQL	mg/Kg	
	SILVER	J	0.0190	0.101	PQL	mg/Kg	
SL-109-SA7-SB-9.0-10.0	ANTIMONY	J	0.128	0.215	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0885	0.430	PQL	mg/Kg	
	SILVER	J	0.0423	0.107	PQL	mg/Kg	

**Method:** 7199  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-102-SA7-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.61	1.2	PQL	mg/Kg	J (all detects)
SL-109-SA7-SB-9.0-10.0	HEXAVALENT CHROMIUM	J	0.32	1.1	PQL	mg/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE254

Laboratory: LL

EDD Filename: PrepDE254\_v2

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-102-SA7-SB-4.0-5.0	MERCURY	J	0.0121	0.103	PQL	mg/Kg	J (all detects)
SL-102-SA7-SB-9.0-10.0	MERCURY	J	0.0116	0.112	PQL	mg/Kg	J (all detects)
SL-109-SA7-SB-9.0-10.0	MERCURY	J	0.0106	0.105	PQL	mg/Kg	J (all detects)

**Method:** 8015M  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-109-SA7-SB-9.0-10.0	EFH (C15-C20)	J	0.50	1.3	PQL	mg/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-102-SA7-SB-4.0-5.0	ACENAPHTHENE	J	1.4	1.7	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	1.2	1.7	PQL	ug/Kg	
SL-102-SA7-SB-9.0-10.0	ANTHRACENE	J	0.47	1.9	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.71	1.9	PQL	ug/Kg	
	PYRENE	J	0.87	1.9	PQL	ug/Kg	
SL-109-SA7-SB-9.0-10.0	ANTHRACENE	J	0.64	1.8	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	0.77	1.8	PQL	ug/Kg	
	BENZO(A)PYRENE	J	0.79	1.8	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.4	1.8	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.80	1.8	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.73	1.8	PQL	ug/Kg	
	CHRYSENE	J	0.94	1.8	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.72	1.8	PQL	ug/Kg	
	FLUORANTHENE	J	0.98	1.8	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.76	1.8	PQL	ug/Kg	
	PHENANTHRENE	J	0.97	1.8	PQL	ug/Kg	
	PYRENE	J	1.0	1.8	PQL	ug/Kg	

**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	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Fe, Mg, Ti, V, Zn 74X
VII.	Duplicate Sample Analysis	NA	Hg, Zr 45X
VIII.	Laboratory Control Samples (LCS)	NA	SRM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Ba, Ca, Pb, V U/T
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	N	
XV.	Field Blanks	N	

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

Validated Samples:

1	SL-102-SA7-SB-4.0-5.0	11		21		31	
2	SL-102-SA7-SB-9.0-10.0	12		22		32	
3	SL-109-SA7-SB-4.0-5.0	13		23		33	
4	SL-109-SA7-SB-9.0-10.0	14		24		34	
5	SL-102-SA7-SB-4.0-5.0MS	15		25		35	
6	SL-102-SA7-SB-4.0-5.0MSD	16		26		36	
7	SL-102-SA7-SB-4.0-5.0DUP	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET  
PB/ICB/CCB QUALIFIED SAMPLES**

**METHOD:** Trace metals (EPA SW 864 Method 6010B/6020/7000)  
Soil preparation factor applied: Zr:100X, Hg: 167X

Associated Samples: All Reason: B

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit	1	2	3	4					
Hg			0.088	0.073	0.012	0.012							
Zr			6.6	3.3	1.4		1.2	2.3					

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.



QUALITY ASSURANCE SUMMARY  
 FORM 5A (MS/MSD)  
 MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
 SDG No.: DE254  
 Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6419519BKG Matrix Spike Lab Sample ID: 6419520MS Matrix Spike Duplicate Lab Sample ID: 6419521MSD  
 % Solids for Sample: 95.4  
 Batch Id(s): P28008B, P27726A, P27308A, P27311A

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				%R	Q	%R	Q	%R	RPD
Aluminum	121	18378.0660		15855.3760		18294.9335		207.5679	207.5679	MG/KG	-1215		-40		74	20P
Antimony	73	0.1430	B	0.9679		0.8866		1.2454	1.2212	MG/KG	66N		61N		75 - 125	20MS
Arsenic	137	5.4319		8.4231		8.0723		2.0757	2.0354	MG/KG	144N		130N		75 - 125	20MS
Barium	9	99.9790		115.1172		113.0040		10.3784	10.1769	MG/KG	146		128		74	20MS
Beryllium	111	0.7654		1.8708		1.7807		0.8303	0.8141	MG/KG	133N		125		75 - 125	20MS
Boron	66	6.4896		210.6127		209.1524		205.5329	205.5329	MG/KG	99		99		84 - 115	20P
Cadmium	52	0.0840	B	1.5887		1.4396		1.0378	1.0177	MG/KG	145N		133N		75 - 125	20MS
Calcium	52	3553.4352		3747.3908		4099.0217		411.0659	411.0659	MG/KG	47		133		74	20P
Chromium	59	19.7715		32.2768		30.1032		10.3784	10.1769	MG/KG	120		102		75 - 125	20MS
Cobalt	63	6.2159		79.0419		71.2585		51.8920	50.8844	MG/KG	140N		128N		75 - 125	20MS
Copper	208	8.3187		23.3514		21.4325		10.3784	10.1769	MG/KG	145N		129N		75 - 125	20MS
Iron	66	19066.1083		18892.7632		18888.2579		102.7665	102.7665	MG/KG	-169		-173		74	20P
Lead	66	6.2096		10.3784		9.8268		3.1135	3.0531	MG/KG	134N		118		75 - 125	20MS
Lithium	66	24.1671		127.2701		126.8930		102.7665	102.7665	MG/KG	100		100		82 - 114	20P
Magnesium	66	4266.6438		4442.1661		4596.6323		205.5329	205.5329	MG/KG	85		161		74	20P
Manganese	66	229.9220		271.9746		275.0391		51.3832	51.3832	MG/KG	82		88		74	20P
Mercury	66	0.0121	B	0.1811		0.1808		0.1646	0.1629	MG/KG	103		104		65 - 135	20CV
Molybdenum	60	0.5916		15.3517		14.1642		10.3784	10.1769	MG/KG	142N		133N		75 - 125	20MS
Nickel	60	12.1719		26.6310		24.9333		10.3784	10.1769	MG/KG	139N		125		75 - 125	20MS
Phosphorus	66	273.4168		364.8477		393.6603		102.7665	102.7665	MG/KG	89		117		75 - 125	20P
Potassium	66	2777.4903		3772.9570		3869.3037		1027.6647	1027.6647	MG/KG	97		106		75 - 125	20P
Selenium	66	0.1330	B	2.7939		2.5666		2.0757	2.0354	MG/KG	128N		120		75 - 125	20MS
Silver	66	0.0211	B	14.7332		13.2686		10.3784	10.1769	MG/KG	142N		130N		75 - 125	20MS
Sodium	66	129.9292		1160.1739		1152.5126		1027.6647	1027.6647	MG/KG	100		100		75 - 125	20P
Strontium	66	15.4586		116.7848		117.6995		102.7665	102.7665	MG/KG	99		99		75 - 115	20P
Thallium	66	0.3556		0.9042		0.8201		0.4151	0.4071	MG/KG	132N		114		75 - 125	20MS
Tin	66	2.8219	B	371.2624		367.6255		411.0659	411.0659	MG/KG	90		89		80 - 110	20P
Titanium	66	1160.1573		1368.2472		1393.1393		102.7665	102.7665	MG/KG	202		227		74	20P
Vanadium	66	42.2851		55.7527		52.8587		10.3784	10.1769	MG/KG	130		104		74	20MS
Zinc	66	71.1321		83.3385		78.1991		10.3784	10.1769	MG/KG	118		69		74	20MS
Zirconium	66	1.3502	B	104.4539		103.9092		102.7665	102.7665	MG/KG	100		100		81 - 110	20P

METHODS: P = ICP Atomic Emission Spectrometer CV = Cold Vapor MS = ICP Mass Spectrometry  
 CONCENTRATION QUALIFIERS: U = Below MDL, B = Below LOQ  
 FLAGS: N = Matrix Spike OOS, \* = Duplicate OOS

# **SAMPLE DELIVERY GROUP**

**DE255**

## **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-Sep-2011	DUP007-SA7-QC-092611	6419536	FD	3050B	6010B	III
26-Sep-2011	DUP007-SA7-QC-092611	6419536	FD	3050B	6020	III
26-Sep-2011	DUP007-SA7-QC-092611	6419536	FD	3060A	7199	III
26-Sep-2011	DUP007-SA7-QC-092611	6419536	FD	3546	1625C	III
26-Sep-2011	DUP007-SA7-QC-092611	6419536	FD	3550B	8015B	III
26-Sep-2011	DUP007-SA7-QC-092611	6419536	FD	3550B	8015M	III
26-Sep-2011	DUP007-SA7-QC-092611	6419536	FD	3550B	8082	III
26-Sep-2011	DUP007-SA7-QC-092611	6419536	FD	3550B	8270C	III
26-Sep-2011	DUP007-SA7-QC-092611	6419536	FD	3550B	8270C SIM	III
26-Sep-2011	DUP007-SA7-QC-092611	6419536	FD	5035	8015M	III
26-Sep-2011	DUP007-SA7-QC-092611	6419536	FD	METHOD	300.0	III
26-Sep-2011	DUP007-SA7-QC-092611	6419536	FD	METHOD	314.0	III
26-Sep-2011	DUP007-SA7-QC-092611	6419536	FD	METHOD	7471A	III
26-Sep-2011	DUP007-SA7-QC-092611	6419536	FD	METHOD	8015B	III
26-Sep-2011	DUP007-SA7-QC-092611	6419536	FD	METHOD	8015M	III
26-Sep-2011	DUP007-SA7-QC-092611	6419536	FD	METHOD	8315A	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419534	N	3050B	6010B	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419534	N	3050B	6020	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419534	N	3060A	7199	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419534	N	3546	1625C	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419534	N	3550B	8015B	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419534	N	3550B	8015M	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419534	N	3550B	8082	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419534	N	3550B	8270C	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419534	N	3550B	8270C SIM	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419534	N	5035	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419534	N	METHOD	300.0	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419534	N	METHOD	314.0	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419534	N	METHOD	7471A	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419534	N	METHOD	8015B	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419534	N	METHOD	8015M	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0	6419534	N	METHOD	8315A	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0MSD	P419534M320900A	MSD	3550B	8015M	III
26-Sep-2011	SL-170-SA7-SB-4.0-5.0MS	P419534R320836A	MS	3550B	8015M	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419535	N	3050B	6010B	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419535	N	3050B	6020	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419535	N	3060A	7199	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419535	N	3546	1625C	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419535	N	3550B	8015B	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419535	N	3550B	8015M	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419535	N	3550B	8082	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419535	N	3550B	8270C	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419535	N	3550B	8270C SIM	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419535	N	5035	8015M	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419535	N	METHOD	300.0	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419535	N	METHOD	314.0	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419535	N	METHOD	7471A	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419535	N	METHOD	8015B	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419535	N	METHOD	8015M	III
26-Sep-2011	SL-170-SA7-SB-9.0-10.0	6419535	N	METHOD	8315A	III
26-Sep-2011	TB-092611	6419538	TB	5030B	8015M	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0	6419528	N	3050B	6010B	III

III = EPA Level 3 Data Review  
IV = EPA Level 4 Data Validation

N = Normal Sample  
FD = Field Duplicate

TB = Trip Blank  
FB = Field Blank

MS = Matrix Spike  
MSD = Matrix Spike Duplicate

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-125-SA7-SB-4.0-5.0	6419528	N	3050B	6020	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0	6419528	N	3060A	7199	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0	6419528	N	3550B	8082	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0	6419528	N	3550B	8270C	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0	6419528	N	3550B	8270C SIM	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0	6419528	N	METHOD	300.0	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0	6419528	N	METHOD	314.0	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0	6419528	N	METHOD	7471A	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MS	6419529	MS	3050B	6010B	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MS	6419529	MS	3050B	6020	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MS	6419529	MS	3060A	7199	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MS	6419529	MS	3550B	8082	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MS	6419529	MS	3550B	8270C	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MS	6419529	MS	3550B	8270C SIM	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MS	6419529	MS	METHOD	300.0	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MS	6419529	MS	METHOD	314.0	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MS	6419529	MS	METHOD	7471A	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MSD	6419530	MSD	3050B	6010B	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MSD	6419530	MSD	3050B	6020	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MSD	6419530	MSD	3550B	8082	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MSD	6419530	MSD	3550B	8270C	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MSD	6419530	MSD	3550B	8270C SIM	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 MSD	6419530	MSD	METHOD	7471A	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 DUP	6419531	DUP	3050B	6010B	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 DUP	6419531	DUP	3050B	6020	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 DUP	6419531	DUP	3060A	7199	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 DUP	6419531	DUP	METHOD	300.0	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 DUP	6419531	DUP	METHOD	314.0	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0 DUP	6419531	DUP	METHOD	7471A	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0DUP	P419528D270239B	DUP	METHOD	300.0	III
26-Sep-2011	SL-125-SA7-SB-4.0-5.0MS	P419528R270252B	MS	METHOD	300.0	III
26-Sep-2011	DUP008-SA7-QC-092611	6419537	FD	3050B	6010B	III
26-Sep-2011	DUP008-SA7-QC-092611	6419537	FD	3050B	6020	III
26-Sep-2011	DUP008-SA7-QC-092611	6419537	FD	3060A	7199	III
26-Sep-2011	DUP008-SA7-QC-092611	6419537	FD	3550B	8082	III
26-Sep-2011	DUP008-SA7-QC-092611	6419537	FD	3550B	8270C	III
26-Sep-2011	DUP008-SA7-QC-092611	6419537	FD	3550B	8270C SIM	III
26-Sep-2011	DUP008-SA7-QC-092611	6419537	FD	METHOD	300.0	III
26-Sep-2011	DUP008-SA7-QC-092611	6419537	FD	METHOD	314.0	III
26-Sep-2011	DUP008-SA7-QC-092611	6419537	FD	METHOD	7471A	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	GENCHEM	
<b>Method:</b>	300.0	<b>Matrix:</b> SO

<b>Sample ID:</b> DUP007-SA7-QC-092611	<b>Collected:</b> 9/26/2011 9:23:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.5		0.83	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> DUP008-SA7-QC-092611	<b>Collected:</b> 9/26/2011 3:00:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.83	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-125-SA7-SB-4.0-5.0	<b>Collected:</b> 9/26/2011 2:52:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.6		0.83	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-170-SA7-SB-4.0-5.0	<b>Collected:</b> 9/26/2011 11:15:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	4.6		0.83	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-170-SA7-SB-9.0-10.0	<b>Collected:</b> 9/26/2011 11:30:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.3		0.83	MDL	1.0	PQL	mg/Kg	J	Q
Nitrate-NO3	1.2	J	0.83	MDL	1.6	PQL	mg/Kg	J	Z

<b>Method Category:</b>	METALS	
<b>Method:</b>	6010B	<b>Matrix:</b> SO

<b>Sample ID:</b> DUP007-SA7-QC-092611	<b>Collected:</b> 9/26/2011 9:23:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.65	J	0.327	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	0.923	J	0.471	MDL	5.12	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

Sample ID: DUP008-SA7-QC-092611      Collected: 9/26/2011 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
SODIUM	68.3	J	5.96	MDL	100	PQL	mg/Kg	J	Z
TIN	2.35	J	0.320	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	1.04	J	0.460	MDL	5.00	PQL	mg/Kg	J	Z

Sample ID: SL-125-SA7-SB-4.0-5.0      Collected: 9/26/2011 2:52:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SODIUM	65.5	J	5.84	MDL	98.1	PQL	mg/Kg	J	Z
TIN	2.41	J	0.314	MDL	9.81	PQL	mg/Kg	U	B
Zirconium	1.22	J	0.451	MDL	4.91	PQL	mg/Kg	J	Z

Sample ID: SL-170-SA7-SB-4.0-5.0      Collected: 9/26/2011 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
SODIUM	93.2	J	6.03	MDL	101	PQL	mg/Kg	J	Z
TIN	2.47	J	0.324	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	1.09	J	0.466	MDL	5.06	PQL	mg/Kg	J	Z

Sample ID: SL-170-SA7-SB-9.0-10.0      Collected: 9/26/2011 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
TIN	2.54	J	0.329	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	0.718	J	0.473	MDL	5.14	PQL	mg/Kg	J	Z

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: DUP007-SA7-QC-092611      Collected: 9/26/2011 9:23:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0995	J	0.0593	MDL	0.409	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

1/9/2012 10:23:02 AM

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# Data Qualifier Summary

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: DUP007-SA7-QC-092611      Collected: 9/26/2011 9:23:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	97.0		0.108	MDL	0.409	PQL	mg/Kg	J	E, A

Sample ID: DUP007-SA7-QC-092611      Collected: 9/26/2011 9:23:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.101	J	0.0757	MDL	0.205	PQL	mg/Kg	J	Z, Q
CADMIUM	0.0854	J	0.0450	MDL	0.102	PQL	mg/Kg	J	Z, Q
COBALT	5.63		0.0205	MDL	0.102	PQL	mg/Kg	J	E, A
COPPER	6.64		0.0818	MDL	0.409	PQL	mg/Kg	J	E, A
LEAD	6.25		0.0104	MDL	0.205	PQL	mg/Kg	J	E, A
NICKEL	10.3		0.102	MDL	0.409	PQL	mg/Kg	J	A
SILVER	0.0266	J	0.0145	MDL	0.102	PQL	mg/Kg	J	Z
VANADIUM	34.1		0.0225	MDL	0.102	PQL	mg/Kg	J	Q
ZINC	66.6		0.573	MDL	3.07	PQL	mg/Kg	J	E, A

Sample ID: DUP008-SA7-QC-092611      Collected: 9/26/2011 3:00:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.127	J	0.0581	MDL	0.400	PQL	mg/Kg	J	Z

Sample ID: DUP008-SA7-QC-092611      Collected: 9/26/2011 3:00:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	113		0.106	MDL	0.400	PQL	mg/Kg	J	E, A

Sample ID: DUP008-SA7-QC-092611      Collected: 9/26/2011 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	0.131	J	0.0741	MDL	0.200	PQL	mg/Kg	J	Z, Q
CADMIUM	0.128		0.0440	MDL	0.100	PQL	mg/Kg	J	Q
COBALT	7.32		0.0200	MDL	0.100	PQL	mg/Kg	J	E, A
COPPER	9.30		0.0801	MDL	0.400	PQL	mg/Kg	J	E, A
LEAD	6.44		0.0102	MDL	0.200	PQL	mg/Kg	J	E, A
NICKEL	14.2		0.100	MDL	0.400	PQL	mg/Kg	J	A
SILVER	0.0356	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z, FD

\* 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: DE255

Laboratory: LL

EDD Filename: DE255\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: DUP008-SA7-QC-092611      Collected: 9/26/2011 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
VANADIUM	42.5		0.0220	MDL	0.100	PQL	mg/Kg	J	Q
ZINC	89.8		0.561	MDL	3.00	PQL	mg/Kg	J	E, A

Sample ID: SL-125-SA7-SB-4.0-5.0      Collected: 9/26/2011 2:52:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.171	J	0.0575	MDL	0.396	PQL	mg/Kg	J	Z

Sample ID: SL-125-SA7-SB-4.0-5.0      Collected: 9/26/2011 2:52:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	103		0.105	MDL	0.396	PQL	mg/Kg	J	E, A

Sample ID: SL-125-SA7-SB-4.0-5.0      Collected: 9/26/2011 2:52:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.170	J	0.0733	MDL	0.198	PQL	mg/Kg	J	Z, Q
CADMIUM	0.124		0.0436	MDL	0.0991	PQL	mg/Kg	J	Q
COBALT	5.98		0.0198	MDL	0.0991	PQL	mg/Kg	J	E, A
COPPER	8.11		0.0793	MDL	0.396	PQL	mg/Kg	J	E, A
LEAD	5.24		0.0101	MDL	0.198	PQL	mg/Kg	J	E, A
NICKEL	11.9		0.0991	MDL	0.396	PQL	mg/Kg	J	A
SILVER	0.0200	J	0.0141	MDL	0.0991	PQL	mg/Kg	J	Z, FD
VANADIUM	36.3		0.0218	MDL	0.0991	PQL	mg/Kg	J	Q
ZINC	73.9		0.555	MDL	2.97	PQL	mg/Kg	J	E, A

Sample ID: SL-170-SA7-SB-4.0-5.0      Collected: 9/26/2011 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	0.120	J	0.0582	MDL	0.401	PQL	mg/Kg	J	Z

Sample ID: SL-170-SA7-SB-4.0-5.0      Collected: 9/26/2011 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	94.4		0.106	MDL	0.401	PQL	mg/Kg	J	E, A

\* 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: DE255

Laboratory: LL

EDD Filename: DE255\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-170-SA7-SB-4.0-5.0      Collected: 9/26/2011 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	0.0865	J	0.0742	MDL	0.201	PQL	mg/Kg	J	Z, Q
CADMIUM	0.102		0.0441	MDL	0.100	PQL	mg/Kg	J	Q
COBALT	5.72		0.0201	MDL	0.100	PQL	mg/Kg	J	E, A
COPPER	6.64		0.0802	MDL	0.401	PQL	mg/Kg	J	E, A
LEAD	4.95		0.0102	MDL	0.201	PQL	mg/Kg	J	E, A
NICKEL	10.2		0.100	MDL	0.401	PQL	mg/Kg	J	A
SILVER	0.0228	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z
VANADIUM	30.9		0.0221	MDL	0.100	PQL	mg/Kg	J	Q
ZINC	68.7		0.562	MDL	3.01	PQL	mg/Kg	J	E, A

Sample ID: SL-170-SA7-SB-9.0-10.0      Collected: 9/26/2011 11:30:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.122	J	0.0596	MDL	0.411	PQL	mg/Kg	J	Z

Sample ID: SL-170-SA7-SB-9.0-10.0      Collected: 9/26/2011 11:30:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	94.2		0.109	MDL	0.411	PQL	mg/Kg	J	E, A

Sample ID: SL-170-SA7-SB-9.0-10.0      Collected: 9/26/2011 11:30:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0852	J	0.0761	MDL	0.206	PQL	mg/Kg	J	Z, Q
CADMIUM	0.103	J	0.0452	MDL	0.103	PQL	mg/Kg	J	Q
COBALT	5.50		0.0206	MDL	0.103	PQL	mg/Kg	J	E, A
COPPER	6.92		0.0823	MDL	0.411	PQL	mg/Kg	J	E, A
LEAD	5.08		0.0105	MDL	0.206	PQL	mg/Kg	J	E, A
NICKEL	10.6		0.103	MDL	0.411	PQL	mg/Kg	J	A
SILVER	0.0163	J	0.0146	MDL	0.103	PQL	mg/Kg	J	Z
VANADIUM	32.3		0.0226	MDL	0.103	PQL	mg/Kg	J	Q
ZINC	69.5		0.576	MDL	3.08	PQL	mg/Kg	J	E, A

\* 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: DE255

Laboratory: LL

EDD Filename: DE255\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	7199	<b>Matrix:</b> SO

Sample ID: DUP008-SA7-QC-092611      Collected: 9/26/2011 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	0.37	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z, FD

Sample ID: SL-125-SA7-SB-4.0-5.0      Collected: 9/26/2011 2:52:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.21	U	0.21	MDL	1.0	PQL	mg/Kg	UJ	FD

Sample ID: SL-170-SA7-SB-4.0-5.0      Collected: 9/26/2011 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	0.44	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

<b>Method Category:</b>	METALS	
<b>Method:</b>	7471A	<b>Matrix:</b> SO

Sample ID: DUP007-SA7-QC-092611      Collected: 9/26/2011 9:23:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0072	U	0.0072	MDL	0.103	PQL	mg/Kg	UJ	FD

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8015M	<b>Matrix:</b> SO

Sample ID: DUP007-SA7-QC-092611      Collected: 9/26/2011 9:23:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	2.6		0.42	MDL	1.3	PQL	mg/Kg	U	B
EFH (C30-C40)	4.4		0.42	MDL	1.3	PQL	mg/Kg	U	B

Sample ID: SL-170-SA7-SB-4.0-5.0      Collected: 9/26/2011 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 (C15-C20)	0.45	J	0.41	MDL	1.2	PQL	mg/Kg	U	B
EFH (C21-C30)	2.5		0.41	MDL	1.2	PQL	mg/Kg	U	B
EFH (C30-C40)	8.2		0.41	MDL	1.2	PQL	mg/Kg	UJ	Q, 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: DE255

Laboratory: LL

EDD Filename: PrepDE255\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8015M	Matrix: SO

Sample ID: SL-170-SA7-SB-9.0-10.0      Collected: 9/26/2011 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 (C12-C14)	0.43	J	0.41	MDL	1.2	PQL	mg/Kg	J	Z
EFH (C21-C30)	1.7		0.41	MDL	1.2	PQL	mg/Kg	U	B
EFH (C30-C40)	5.1		0.41	MDL	1.2	PQL	mg/Kg	U	B

Sample ID: SL-170-SA7-SB-9.0-10.0      Collected: 9/26/2011 11:30:00      Analysis Type: RES      Dilution: 28.6

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
GASOLINE RANGE ORGANICS (C5-C12)	0.8	J	0.2	MDL	1.2	PQL	mg/Kg	J	Z

Method Category:	SVOA	
Method:	8082	Matrix: SO

Sample ID: DUP008-SA7-QC-092611      Collected: 9/26/2011 3:00:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.34	U	0.34	MDL	1.8	PQL	ug/Kg	UJ	FD

Sample ID: SL-125-SA7-SB-4.0-5.0      Collected: 9/26/2011 2:52:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.92	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z, FD, Q

Sample ID: SL-170-SA7-SB-4.0-5.0      Collected: 9/26/2011 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	0.46	J	0.40	MDL	1.8	PQL	ug/Kg	J	Z

Method Category:	SVOA	
Method:	8270C	Matrix: SO

Sample ID: SL-125-SA7-SB-4.0-5.0      Collected: 9/26/2011 2:52:00      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	330	U	330	MDL	1000	PQL	ug/Kg	R	Q
3,3'-DICHLOROBENZIDINE	100	U	100	MDL	330	PQL	ug/Kg	UJ	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C	<b>Matrix:</b> SO

Sample ID: SL-125-SA7-SB-4.0-5.0      Collected: 9/26/2011 2:52:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
3,5-Dimethylphenol	33	U	33	MDL	170	PQL	ug/Kg	R	Q
4-CHLOROPHENYL-PHENYLETHER	33	U	33	MDL	170	PQL	ug/Kg	UJ	Q
ANILINE	170	U	170	MDL	500	PQL	ug/Kg	R	Q
BENZIDINE	1200	U	1200	MDL	3300	PQL	ug/Kg	R	Q, Q
BENZO(G,H,I)PERYLENE	51	J	17	MDL	170	PQL	ug/Kg	J	Z, Q
BENZOIC ACID	170	U	170	MDL	500	PQL	ug/Kg	R	Q
BIS(2-CHLOROISOPROPYL) ETHER	17	U	17	MDL	170	PQL	ug/Kg	R	Q
CHRYSENE	52	J	17	MDL	170	PQL	ug/Kg	J	Z

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C SIM	<b>Matrix:</b> SO

Sample ID: DUP007-SA7-QC-092611      Collected: 9/26/2011 9:23:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	0.70	U	0.70	MDL	1.7	PQL	ug/Kg	UJ	FD
ACENAPHTHYLENE	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	FD
ANTHRACENE	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	FD
BENZO(A)ANTHRACENE	0.70	U	0.70	MDL	1.7	PQL	ug/Kg	UJ	FD
BENZO(A)PYRENE	0.70	U	0.70	MDL	1.7	PQL	ug/Kg	UJ	FD
BENZO(B)FLUORANTHENE	0.70	U	0.70	MDL	1.7	PQL	ug/Kg	UJ	FD
BENZO(G,H,I)PERYLENE	0.70	U	0.70	MDL	1.7	PQL	ug/Kg	UJ	FD
BENZO(K)FLUORANTHENE	0.70	U	0.70	MDL	1.7	PQL	ug/Kg	UJ	FD
CHRYSENE	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	FD
DIBENZO(A,H)ANTHRACENE	0.70	U	0.70	MDL	1.7	PQL	ug/Kg	UJ	FD
FLUORANTHENE	0.70	U	0.70	MDL	1.7	PQL	ug/Kg	UJ	FD
FLUORENE	0.70	U	0.70	MDL	1.7	PQL	ug/Kg	UJ	FD
INDENO(1,2,3-CD)PYRENE	0.70	U	0.70	MDL	1.7	PQL	ug/Kg	UJ	FD
PHENANTHRENE	0.70	U	0.70	MDL	1.7	PQL	ug/Kg	UJ	FD
PYRENE	0.70	U	0.70	MDL	1.7	PQL	ug/Kg	UJ	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8270C SIM	Matrix:	SO

Sample ID: DUP008-SA7-QC-092611

Collected: 9/26/2011 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(A)ANTHRACENE	1.4	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	2.5		0.69	MDL	1.7	PQL	ug/Kg	J	FD
BENZO(B)FLUORANTHENE	3.3		0.69	MDL	1.7	PQL	ug/Kg	J	FD
BENZO(G,H,I)PERYLENE	0.92	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.5	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
DIBENZO(A,H)ANTHRACENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD
FLUORANTHENE	0.74	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
INDENO(1,2,3-CD)PYRENE	0.87	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
PYRENE	1.0	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD

Sample ID: SL-125-SA7-SB-4.0-5.0

Collected: 9/26/2011 2:52:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	7.6	J	6.8	MDL	17	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	15	J	6.8	MDL	17	PQL	ug/Kg	J	Z, FD
BENZO(B)FLUORANTHENE	51		6.8	MDL	17	PQL	ug/Kg	J	FD
BENZO(K)FLUORANTHENE	6.8	U	6.8	MDL	17	PQL	ug/Kg	UJ	FD
DIBENZO(A,H)ANTHRACENE	9.0	J	6.8	MDL	17	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	6.8	U	6.8	MDL	17	PQL	ug/Kg	UJ	FD
INDENO(1,2,3-CD)PYRENE	6.8	U	6.8	MDL	17	PQL	ug/Kg	UJ	FD
PYRENE	10	J	6.8	MDL	17	PQL	ug/Kg	J	Z, FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_v1.

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

\* 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: DE255

Laboratory: LL

EDD Filename: DE255\_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	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: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_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

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE255

# Method Blank Outlier Report

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method:</b>	<b>6010B</b>
<b>Matrix:</b>	<b>SO</b>

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27208CB222343	10/4/2011 11:43:00 PM	CALCIUM MANGANESE PHOSPHORUS STRONTIUM TIN	6.97 mg/Kg 0.0380 mg/Kg 1.31 mg/Kg 0.0420 mg/Kg 1.49 mg/Kg	DUP007-SA7-QC-092611 DUP008-SA7-QC-092611 SL-125-SA7-SB-4.0-5.0 SL-170-SA7-SB-4.0-5.0 SL-170-SA7-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
DUP007-SA7-QC-092611(RES)	TIN	2.65 mg/Kg	2.65U mg/Kg
DUP008-SA7-QC-092611(RES)	TIN	2.35 mg/Kg	2.35U mg/Kg
SL-125-SA7-SB-4.0-5.0(RES)	TIN	2.41 mg/Kg	2.41U mg/Kg
SL-170-SA7-SB-4.0-5.0(RES)	TIN	2.47 mg/Kg	2.47U mg/Kg
SL-170-SA7-SB-9.0-10.0(RES)	TIN	2.54 mg/Kg	2.54U mg/Kg

<b>Method:</b>	<b>6020</b>
<b>Matrix:</b>	<b>SO</b>

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27226CB220936A	9/30/2011 9:36:00 AM	LEAD VANADIUM	0.0450 mg/Kg 0.0337 mg/Kg	DUP007-SA7-QC-092611 DUP008-SA7-QC-092611 SL-125-SA7-SB-4.0-5.0 SL-170-SA7-SB-4.0-5.0 SL-170-SA7-SB-9.0-10.0

<b>Method:</b>	<b>8015M</b>
<b>Matrix:</b>	<b>SO</b>

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P78788AB320550A	10/8/2011 5:50:00 AM	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	2.0 mg/Kg 7.3 mg/Kg 5.2 mg/Kg	DUP007-SA7-QC-092611 SL-170-SA7-SB-4.0-5.0 SL-170-SA7-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
DUP007-SA7-QC-092611(REA2)	EFH (C21-C30)	2.6 mg/Kg	2.6U mg/Kg
DUP007-SA7-QC-092611(REA2)	EFH (C30-C40)	4.4 mg/Kg	4.4U mg/Kg
SL-170-SA7-SB-4.0-5.0(REA2)	EFH (C15-C20)	0.45 mg/Kg	1.2U mg/Kg
SL-170-SA7-SB-4.0-5.0(REA2)	EFH (C21-C30)	2.5 mg/Kg	2.5U mg/Kg
SL-170-SA7-SB-4.0-5.0(REA2)	EFH (C30-C40)	8.2 mg/Kg	8.2U mg/Kg
SL-170-SA7-SB-9.0-10.0(REA2)	EFH (C21-C30)	1.7 mg/Kg	1.7U mg/Kg
SL-170-SA7-SB-9.0-10.0(REA2)	EFH (C30-C40)	5.1 mg/Kg	5.1U mg/Kg

**Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling**

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_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-170-SA7-SB-4.0-5.0MSD (SL-170-SA7-SB-4.0-5.0)	EFH (C12-C14)	-	-	49.00-123.00	21 (20.00)	EFH (C12-C14)	J (all detects)
SL-170-SA7-SB-4.0-5.0MS SL-170-SA7-SB-4.0-5.0MSD (SL-170-SA7-SB-4.0-5.0)	EFH (C30-C40)	29	42	49.00-123.00	-	EFH (C30-C40)	J(all detects) UJ(all non-detects)

**Method: 8082**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-125-SA7-SB-4.0-5.0 MSD (SL-125-SA7-SB-4.0-5.0)	AROCLOR 1260	-	-	39.00-149.00	70 (50.00)	AROCLOR 1260, AROCLOR 1242, AROCLOR 1248, AROCLOR 1254	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-125-SA7-SB-4.0-5.0 MSD (DUP007 -SA7-QC-092611 DUP008 -SA7-QC-092611 SL -125-SA7-SB-4.0-5.0 SL -170-SA7-SB-4.0-5.0 SL -170-SA7-SB-9.0-10.0)	CADMIUM	-	131	75.00-125.00	-	CADMIUM	J(all detects)
SL-125-SA7-SB-4.0-5.0 MS SL-125-SA7-SB-4.0-5.0 MSD (DUP007 -SA7-QC-092611 DUP008 -SA7-QC-092611 SL -125-SA7-SB-4.0-5.0 SL -170-SA7-SB-4.0-5.0 SL -170-SA7-SB-9.0-10.0)	ZINC	21	44	75.00-125.00	-	ZINC	No Qual, >4x
SL-125-SA7-SB-4.0-5.0 MS SL-125-SA7-SB-4.0-5.0 MSD (DUP007 -SA7-QC-092611 DUP008 -SA7-QC-092611 SL -125-SA7-SB-4.0-5.0 SL -170-SA7-SB-4.0-5.0 SL -170-SA7-SB-9.0-10.0)	ANTIMONY VANADIUM	63 64	64 -	75.00-125.00 75.00-125.00	- -	ANTIMONY VANADIUM	J(all detects) UJ(all non-detects)
SL-125-SA7-SB-4.0-5.0 MS SL-125-SA7-SB-4.0-5.0 MSD (DUP007 -SA7-QC-092611 DUP008 -SA7-QC-092611 SL -125-SA7-SB-4.0-5.0 SL -170-SA7-SB-4.0-5.0 SL -170-SA7-SB-9.0-10.0)	BARIUM	-43	14	75.00-125.00	-	BARIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_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-125-SA7-SB-4.0-5.0 MS SL-125-SA7-SB-4.0-5.0 MSD (DUP007-SA7-QC-092611 DUP008-SA7-QC-092611 SL-125-SA7-SB-4.0-5.0 SL-170-SA7-SB-4.0-5.0 SL-170-SA7-SB-9.0-10.0)	ALUMINUM CALCIUM IRON MAGNESIUM TITANIUM	1398 332 820 318 289	1258 222 766 206 264	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

**Method: 300.0**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-125-SA7-SB-4.0-5.0 MS (DUP007-SA7-QC-092611 DUP008-SA7-QC-092611 SL-125-SA7-SB-4.0-5.0 SL-170-SA7-SB-4.0-5.0 SL-170-SA7-SB-9.0-10.0)	FLUORIDE	78	-	80.00-120.00	-	FLUORIDE	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-125-SA7-SB-4.0-5.0 MSD (SL-125-SA7-SB-4.0-5.0)	BENZO(A)PYRENE Di-n-octylphthalate PYRENE	- - -	- 216 -	45.00-138.00 40.00-192.00 15.00-153.00	39 (30.00) - 47 (30.00)	BENZO(A)PYRENE Di-n-octylphthalate PYRENE	No Qual, Diluted Out
SL-125-SA7-SB-4.0-5.0 MS SL-125-SA7-SB-4.0-5.0 MSD (SL-125-SA7-SB-4.0-5.0)	BENZO(B)FLUORANTHENE BIS(2-ETHYLHEXYL)PHTHALAT Butylbenzylphthalate CHRYSENE Diethylphthalate Dimethylphthalate Di-n-butylphthalate	-22 0 0 -6 0 0 0	307 406 0 177 0 0 0	54.00-163.00 39.00-167.00 57.00-173.00 67.00-123.00 70.00-136.00 74.00-118.00 65.00-148.00	113 (30.00) 200 (30.00) - 89 (30.00) - - -	BENZO(B)FLUORANTHENE BIS(2-ETHYLHEXYL)PHTHALA Butylbenzylphthalate CHRYSENE Diethylphthalate Dimethylphthalate Di-n-butylphthalate	No Qual, Diluted Out
SL-125-SA7-SB-4.0-5.0 MS SL-125-SA7-SB-4.0-5.0 MSD (SL-125-SA7-SB-4.0-5.0)	1-METHYLNAPHTHALENE ACENAPHTHYLENE ANTHRACENE BENZO(G,H,I)PERYLENE	- - - 23	66 66 72 -	72.00-123.00 67.00-114.00 73.00-115.00 33.00-141.00	- - - 37 (30.00)	1-METHYLNAPHTHALENE ACENAPHTHYLENE ANTHRACENE BENZO(G,H,I)PERYLENE	No Qual, Diluted Out

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_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-125-SA7-SB-4.0-5.0 MS SL-125-SA7-SB-4.0-5.0 MSD (SL-125-SA7-SB-4.0-5.0)	2,4-DINITROTOLUENE 2-CHLORONAPHTHALENE 3-NITROANILINE 4-CHLOROANILINE ACENAPHTHYLENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE BIS(2-ETHYLHEXYL)PHTHALAT DIBENZO(A,H)ANTHRACENE HEXACHLOROBENZENE HEXACHLOROCYCLOPENTADI INDENO(1,2,3-CD)PYRENE	- - - - 111 - - - - 123 - - - -	- - - - - - - - - - - - -	56.00-129.00 50.00-141.00 59.00-122.00 23.00-95.00 81.00-110.00 57.00-126.00 54.00-163.00 59.00-127.00 56.00-132.00 63.00-122.00 65.00-125.00 77.00-114.00 10.00-153.00 61.00-126.00	34 (30.00) 46 (30.00) 34 (30.00) 38 (30.00) - 34 (30.00) 32 (30.00) 35 (30.00) 33 (30.00) - 35 (30.00) 33 (30.00) 52 (30.00) 33 (30.00)	2,4-DINITROTOLUENE 2-CHLORONAPHTHALENE 3-NITROANILINE 4-CHLOROANILINE ACENAPHTHYLENE BENZO(A)PYRENE BENZO(B)FLUORANTHENE BENZO(G,H,I)PERYLENE BENZO(K)FLUORANTHENE BIS(2-ETHYLHEXYL)PHTHALA DIBENZO(A,H)ANTHRACENE HEXACHLOROBENZENE HEXACHLOROCYCLOPENTAD INDENO(1,2,3-CD)PYRENE	J(all detects)
SL-125-SA7-SB-4.0-5.0 MS SL-125-SA7-SB-4.0-5.0 MSD (SL-125-SA7-SB-4.0-5.0)	2,4-DINITROPHENOL 3,5-Dimethylphenol ANILINE BENZIDINE BENZOIC ACID BIS(2-CHLOROISOPROPYL) ET	0 - - 14 0 0	0 0 0 0 - -	20.00-143.00 70.00-130.00 18.00-116.00 35.00-141.00 10.00-173.00 55.00-142.00	- 200 (30.00) 200 (30.00) 200 (30.00) 200 (30.00) 200 (30.00)	2,4-DINITROPHENOL 3,5-Dimethylphenol ANILINE BENZIDINE BENZOIC ACID BIS(2-CHLOROISOPROPYL) E	J(all detects) R(all non-detects)
SL-125-SA7-SB-4.0-5.0 MSD (SL-125-SA7-SB-4.0-5.0)	3,3'-DICHLOROBENZIDINE 4-CHLOROPHENYL-PHENYLET	- -	25 78	28.00-109.00 80.00-109.00	108 (30.00) -	3,3'-DICHLOROBENZIDINE 4-CHLOROPHENYL-PHENYLE	J(all detects) UJ(all non-detects)

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 300.0**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-125-SA7-SB-4.0-5.0 DUP (DUP007 -SA7-QC-092611 DUP008-SA7-QC-092611 SL -125-SA7-SB-4.0-5.0 SL -170-SA7-SB-4.0-5.0 SL -170-SA7-SB-9.0-10.0)	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-125-SA7-SB-4.0-5.0 DUP (DUP007 -SA7-QC-092611 DUP008-SA7-QC-092611 SL -125-SA7-SB-4.0-5.0 SL -170-SA7-SB-4.0-5.0 SL -170-SA7-SB-9.0-10.0)	Zirconium	44	20.00	No Qual, OK by Difference

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-125-SA7-SB-4.0-5.0 DUP (DUP007 -SA7-QC-092611 DUP008-SA7-QC-092611 SL -125-SA7-SB-4.0-5.0 SL -170-SA7-SB-4.0-5.0 SL -170-SA7-SB-9.0-10.0)	ANTIMONY BARIUM BERYLLIUM COBALT COPPER LEAD SELENIUM SILVER ZINC	55 27 25 22 26 23 40 21 24	20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00	J(all detects) UJ(all non-detects)  Sb, Be, Se, Ag, No Qual, OK by Difference

**Method: 300.0**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-125-SA7-SB-4.0-5.0DUP (DUP007 -SA7-QC-092611 DUP008-SA7-QC-092611 SL -125-SA7-SB-4.0-5.0 SL -170-SA7-SB-4.0-5.0 SL -170-SA7-SB-9.0-10.0)	Nitrate-NO3	200	20.00	No Qual, OK by Difference

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_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
P27208CQ222347 (DUP007 -SA7-QC-092611 DUP008 -SA7-QC-092611 SL -125-SA7-SB-4.0-5.0 SL -170-SA7-SB-4.0-5.0 SL -170-SA7-SB-9.0-10.0)	ALUMINUM IRON MAGNESIUM	144 136 123	- - -	80.00-120.00 80.00-120.00 80.00-120.00	- - -	ALUMINUM IRON MAGNESIUM	No Qual, SRM within QC limits

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_v1.

eQAPP Name: CDM SSFL 110509

**Method: 160.3M**  
**Matrix: SO**

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-125-SA7-SB-4.0-5.0	DUP008-SA7-QC-092611			
MOISTURE	2.0	3.0	40		No Qualifiers Applied

**Method: 300.0**  
**Matrix: SO**

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-125-SA7-SB-4.0-5.0	DUP008-SA7-QC-092611			
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-125-SA7-SB-4.0-5.0	DUP008-SA7-QC-092611			
ALUMINUM	11500	11600	1	50.00	No Qualifiers Applied
BORON	5.22	5.05	3	50.00	
CALCIUM	3440	2570	29	50.00	
IRON	18500	18500	0	50.00	
LITHIUM	25.2	24.6	2	50.00	
MAGNESIUM	4360	4400	1	50.00	
MANGANESE	276	248	11	50.00	
PHOSPHORUS	326	360	10	50.00	
POTASSIUM	2720	2640	3	50.00	
SODIUM	65.5	68.3	4	50.00	
STRONTIUM	11.5	11.2	3	50.00	
TIN	2.41	2.35	3	50.00	
TITANIUM	1040	1030	1	50.00	
Zirconium	1.22	1.04	16	50.00	

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

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-125-SA7-SB-4.0-5.0	DUP008-SA7-QC-092611			
ANTIMONY	0.170	0.131	26	50.00	No Qualifiers Applied
ARSENIC	4.63	5.28	13	50.00	
BARIUM	103	113	9	50.00	
BERYLLIUM	0.595	0.610	2	50.00	
CADMIUM	0.124	0.128	3	50.00	
CHROMIUM	17.6	20.7	16	50.00	
COBALT	5.98	7.32	20	50.00	
COPPER	8.11	9.30	14	50.00	
LEAD	5.24	6.44	21	50.00	
MOLYBDENUM	0.430	0.613	35	50.00	
NICKEL	11.9	14.2	18	50.00	
SELENIUM	0.171	0.127	30	50.00	
THALLIUM	0.318	0.349	9	50.00	
VANADIUM	36.3	42.5	16	50.00	
ZINC	73.9	89.8	19	50.00	
SILVER	0.0200	0.0356	56	50.00	

## Field Duplicate RPD Report

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 7199

Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-125-SA7-SB-4.0-5.0	DUP008-SA7-QC-092611			
HEXAVALENT CHROMIUM	1.0 U	0.37	200	50.00	J(all detects) UJ(all non-detects)

Method: 8082

Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-125-SA7-SB-4.0-5.0	DUP008-SA7-QC-092611			
AROCLOR 1254	0.92	1.8 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-125-SA7-SB-4.0-5.0	DUP008-SA7-QC-092611			
BENZO(A)ANTHRACENE	7.6	1.4	138	50.00	J(all detects) UJ(all non-detects)
BENZO(A)PYRENE	15	2.5	143	50.00	
BENZO(B)FLUORANTHENE	51	3.3	176	50.00	
BENZO(K)FLUORANTHENE	17 U	1.5	200	50.00	
DIBENZO(A,H)ANTHRACENE	9.0	1.7 U	200	50.00	
FLUORANTHENE	17 U	0.74	200	50.00	
INDENO(1,2,3-CD)PYRENE	17 U	0.87	200	50.00	
PYRENE	10	1.0	164	50.00	

Method: 9045M

Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-125-SA7-SB-4.0-5.0	DUP008-SA7-QC-092611			
PH	7.64	7.75	1	50.00	No Qualifiers Applied

## Reporting Limit Outliers

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 300.0  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-170-SA7-SB-9.0-10.0	Nitrate-NO3	J	1.2	1.6	PQL	mg/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP007-SA7-QC-092611	TIN	J	2.65	10.2	PQL	mg/Kg	J (all detects)
	Zirconium	J	0.923	5.12	PQL	mg/Kg	
DUP008-SA7-QC-092611	SODIUM	J	68.3	100	PQL	mg/Kg	J (all detects)
	TIN	J	2.35	10.0	PQL	mg/Kg	
	Zirconium	J	1.04	5.00	PQL	mg/Kg	
SL-125-SA7-SB-4.0-5.0	SODIUM	J	65.5	98.1	PQL	mg/Kg	J (all detects)
	TIN	J	2.41	9.81	PQL	mg/Kg	
	Zirconium	J	1.22	4.91	PQL	mg/Kg	
SL-170-SA7-SB-4.0-5.0	SODIUM	J	93.2	101	PQL	mg/Kg	J (all detects)
	TIN	J	2.47	10.1	PQL	mg/Kg	
	Zirconium	J	1.09	5.06	PQL	mg/Kg	
SL-170-SA7-SB-9.0-10.0	TIN	J	2.54	10.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	0.718	5.14	PQL	mg/Kg	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP007-SA7-QC-092611	ANTIMONY	J	0.101	0.205	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0854	0.102	PQL	mg/Kg	
	SELENIUM	J	0.0995	0.409	PQL	mg/Kg	
	SILVER	J	0.0266	0.102	PQL	mg/Kg	
DUP008-SA7-QC-092611	ANTIMONY	J	0.131	0.200	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.127	0.400	PQL	mg/Kg	
	SILVER	J	0.0356	0.100	PQL	mg/Kg	
SL-125-SA7-SB-4.0-5.0	ANTIMONY	J	0.170	0.198	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.171	0.396	PQL	mg/Kg	
	SILVER	J	0.0200	0.0991	PQL	mg/Kg	
SL-170-SA7-SB-4.0-5.0	ANTIMONY	J	0.0865	0.201	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.120	0.401	PQL	mg/Kg	
	SILVER	J	0.0228	0.100	PQL	mg/Kg	
SL-170-SA7-SB-9.0-10.0	ANTIMONY	J	0.0852	0.206	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.122	0.411	PQL	mg/Kg	
	SILVER	J	0.0163	0.103	PQL	mg/Kg	

## Reporting Limit Outliers

Lab Reporting Batch ID: DE255

Laboratory: LL

EDD Filename: DE255\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7199  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP008-SA7-QC-092611	HEXAVALENT CHROMIUM	J	0.37	1.0	PQL	mg/Kg	J (all detects)
SL-170-SA7-SB-4.0-5.0	HEXAVALENT CHROMIUM	J	0.44	1.0	PQL	mg/Kg	J (all detects)

**Method:** 8015M  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-170-SA7-SB-4.0-5.0	EFH (C15-C20)	J	0.45	1.2	PQL	mg/Kg	J (all detects)
SL-170-SA7-SB-9.0-10.0	EFH (C12-C14)	J	0.43	1.2	PQL	mg/Kg	J (all detects)
	GASOLINE RANGE ORGANICS (C5-C12)	J	0.8	1.2	PQL	mg/Kg	J (all detects)

**Method:** 8082  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-125-SA7-SB-4.0-5.0	AROCLOR 1254	J	0.92	1.7	PQL	ug/Kg	J (all detects)
SL-170-SA7-SB-4.0-5.0	AROCLOR 1260	J	0.46	1.8	PQL	ug/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-125-SA7-SB-4.0-5.0	BENZO(G,H,I)PERYLENE	J	51	170	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	52	170	PQL	ug/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP008-SA7-QC-092611	BENZO(A)ANTHRACENE	J	1.4	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.92	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	0.74	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.87	1.7	PQL	ug/Kg	
	PYRENE	J	1.0	1.7	PQL	ug/Kg	
SL-125-SA7-SB-4.0-5.0	BENZO(A)ANTHRACENE	J	7.6	17	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	15	17	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	9.0	17	PQL	ug/Kg	
	PYRENE	J	10	17	PQL	ug/Kg	

LDC #: 26859Y4

**VALIDATION COMPLETENESS WORKSHEET**

Date: 1/4/12

SDG #: DE255

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	N	
III.	Calibration	N	
IV.	Blanks	A	No find by PCB/UB
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	SW	Al, Ba, Ca, Fe, Mg, Ti, Zn > 4X
VII.	Duplicate Sample Analysis	SW	Sb, Be, Se, Ag, Cr < 5X
VIII.	Laboratory Control Samples (LCS)	NA	SPM
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	SW	Ba, Co, Cu, Pb, Ni, Zn σ/uJ
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	✓	
XV.	Field Blanks	✓	

Note: A = Acceptable  
 N = Not provided/applicable  
 SW = See worksheet

ND = No compounds detected  
 R = Rinsate  
 FB = Field blank

D = Duplicate  
 TB = Trip blank  
 EB = Equipment blank

Validated Samples:

1	SL-125-SA7-SB-4.0-5.0	11		21		31	
2	SL-170-SA7-SB-4.0-5.0	12		22		32	
3	SL-170-SA7-SB-9.0-10.0	13		23		33	
4	DUP007-SA7-QC-092611	14		24		34	
5	DUP008-SA7-QC-092611	15		25		35	
6	SL-125-SA7-SB-4.0-5.0MS	16		26		36	
7	SL-125-SA7-SB-4.0-5.0MSD	17		27		37	
8	SL-125-SA7-SB-4.0-5.0DUP	18		28		38	
9		19		29		39	
10		20		30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



QUALITY ASSURANCE SUMMARY  
 FORM 5A (MS/MSD)  
 MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
 SDG No.: DE255  
 Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6419528BKG Matrix Spike Lab Sample ID: 6419529MS Matrix Spike Duplicate Lab Sample ID: 6419530MSD  
 % Solids for Sample: 98.0  
 Batch Id(s): P27208C, P27226C, P27211D

Analyte	Maps	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit		
		Result	C	Result	C	Result	C				%R	Q	%R	Q	%R	RPD	Q
Aluminum	121	11490.5485		14260.8926		14057.3980		198.1375	204.0816	MG/KG	1398		1258		74X	1	20P
Antimony	75	0.1700	B	0.9396		0.9424		1.2124	1.2124	MG/KG	63 N		64 N		75 - 125	0	20MS
Arsenic	137	4.6325		6.5650		6.9145		2.0206	2.0206	MG/KG	96		113		75 - 125	5	20MS
Barium	9	103.1108		98.8078		104.5262		10.1031	10.1031	MG/KG	-43		14		74X	6	20MS
Beryllium	111	0.5950		1.3811		1.3789		0.8082	0.8082	MG/KG	97		97		75 - 125	0	20MS
Boron	111	5.2178		200.6122		206.7551		198.1375	204.0816	MG/KG	99		99		84 - 115	3	20P
Cadmium	52	0.1236		1.3241		1.4437		1.0103	1.0103	MG/KG	119		131 N		75 - 125	9	20MS
Calcium	59	3436.4698		4752.8145		4344.6143		396.2750	408.1633	MG/KG	332		222		74X	9	20P
Chromium	52	17.5768		26.1871		27.6622		10.1031	10.1031	MG/KG	85		100		75 - 125	5	20MS
Cobalt	59	5.9838		61.8913		65.0434		50.5153	50.5153	MG/KG	111		117		75 - 125	5	20MS
Copper	63	8.1117		17.9673		19.3393		10.1031	10.1031	MG/KG	98		111		75 - 125	7	20MS
Iron	208	18471.8524		19284.2837		19253.3929		99.0688	102.0408	MG/KG	820		766		74X	0	20P
Lead	208	5.2388		8.1370		8.5977		3.0309	3.0309	MG/KG	96		111		75 - 125	6	20MS
Lithium	60	25.1776		126.8486		128.9408		99.0688	102.0408	MG/KG	103		102		82 - 114	2	20P
Magnesium	60	4361.3815		4990.6439		4781.1469		198.1375	204.0816	MG/KG	318		206		74X	4	20P
Manganese	98	276.3883		334.6483		337.6959		49.5344	51.0204	MG/KG	118		120			1	20P
Mercury	98	0.0069	U	0.1754		0.1693		0.1654	0.1613	MG/KG	106		105		65 - 135	4	20CV
Molybdenum	60	0.4300		12.2934		13.0491		10.1031	10.1031	MG/KG	117		125		75 - 125	6	20MS
Nickel	60	11.8645		22.0449		23.6613		10.1031	10.1031	MG/KG	101		117		75 - 125	7	20MS
Phosphorus	78	325.7702		436.8932		427.2255		99.0688	102.0408	MG/KG	112		99		75 - 125	2	20P
Potassium	107	2722.1458		3954.4551		3863.8908		990.6875	1020.4082	MG/KG	124		112		75 - 125	2	20P
Selenium	107	0.1713	B	2.4975		2.5924		2.0206	2.0206	MG/KG	115		120		75 - 125	4	20MS
Silver	107	0.0200	B	11.8812		12.5783		10.1031	10.1031	MG/KG	117		124		75 - 125	6	20MS
Sodium	203	65.4729	B	1056.4771		1085.8888		990.6875	1020.4082	MG/KG	100		100		75 - 125	3	20P
Strontium	203	11.4825		112.4430		112.9010		99.0688	102.0408	MG/KG	102		99		75 - 115	0	20P
Thallium	203	0.3176		0.7276		0.7842		0.4041	0.4041	MG/KG	101		115		75 - 125	7	20MS
Tin	203	2.4117	B	360.8569		374.1531		396.2750	408.1633	MG/KG	90		91		80 - 110	4	20P
Titanium	51	1038.6921		1325.0020		1307.9816		99.0688	102.0408	MG/KG	289		264		74X	1	20P
Vanadium	51	36.3384		42.7965		44.8575		10.1031	10.1031	MG/KG	64 N		84		75 - 125	5	20MS
Zinc	66	73.8657		76.0154		78.3189		10.1031	10.1031	MG/KG	21		44		74X	3	20MS
Zirconium	66	1.2235	B	101.5395		104.4786		99.0688	102.0408	MG/KG	101		101		75 - 125	3	20P

METHODS: U = 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



QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: DE255

Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6419528BKG  
 % Solids for Duplicate: 97.8  
 Batch ID(s): P27208C, P27226C, P27211D  
 Concentration Units: MG/KG

Duplicate Lab Sample ID: 6419531DUP  
 % Solids for Sample: 98.0

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			11490.5485		12010.0760		4		P
Antimony	121		0.1700	B	0.0967	B	<del>55</del>		MS
Arsenic	75		4.6325		3.9076		17		MS
Barium	137		103.1108		78.5114		27	*	MS
Beryllium	9	0.1	0.5950		0.4638		<del>25</del>	*	MS
Boron		4.9	5.2178		5.2471		1		P
Cadmium	111	0.1	0.1236		0.1079		14		MS
Calcium			3436.4698		3318.8015		3		P
Chromium	52		17.5768		14.4358		20		MS
Cobalt	59		5.9838		4.7779		22	*	MS
Copper	63		8.1117		6.2605		26	*	MS
Iron			18471.8524		18830.9834		2		P
Lead	208		5.2388		4.1437		23	*	MS
Lithium			25.1776		26.0974		4		P
Magnesium			4361.3815		4499.4038		3		P
Manganese			276.3883		267.7111		3		P
Mercury			0.0069	U	0.0071	U			CV
Molybdenum	98	0.1	0.4300		0.3904		10		MS
Nickel	60		11.8645		9.7619		19		MS
Phosphorus			325.7702		348.2403		7		P
Potassium			2722.1458		2868.8185		5		P
Selenium	78		0.1713	B	0.1144	B	<del>40</del>		MS
Silver	107		0.0200	B	0.0162	B	<del>21</del>		MS
Sodium			65.4729	B	67.3940	B	3		P
Strontium			11.4825		11.3445		1		P
Thallium	203	0.1	0.3176		0.2773		14		MS
Tin			2.4117	B	2.5040	B	4		P
Titanium			1038.6921		1104.9160		6		P
Vanadium	51		36.3384		29.6919		20		MS
Zinc	66		73.8657		57.9232		24	*	MS
Zirconium			1.2235	B	1.9148	B	<del>44</del>		P

*OK by difference*

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.

DE255 2248

<p><b>METHODS:</b></p> <p>P = ICP Atomic Emission Spectrometer          MS = ICP Mass Spectrometry          CV = Cold Vapor          AF = Cold Vapor Atomic Fluorescence</p>	<p><b>CONCENTRATION QUALIFIERS:</b></p> <p>U= Below MDL          B= Below LOQ</p> <p><b>FLAGS:</b></p> <p>* = Duplicate Out of Spec.</p>
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QUALITY ASSURANCE SUMMARY

FORM 9

SERIAL DILUTIONS

SDG No.: DE255

Matrix: SOIL

Level (low/med): LOW

Background Lab Sample ID: 6419528BKG

Serial Dilution Lab Sample ID: 6419528L

Batch ID(s): P27208C, P27226C

Concentration Units: UG/L

Analyte	Mass	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Diff.	Q	M
Aluminum		117111.6700		110349.7500		6		P
Antimony	121	0.8581	B	1.8500	U	100		MS
Arsenic	75	23.3800		19.1850		18		MS
Barium	137	520.4000		427.7500		18	E	MS
Beryllium	9	3.0030		2.5925		14		MS
Boron		53.1800		59.6500	B	12		P
Cadmium	111	0.6237		1.1000	U	100		MS
Calcium		35024.5000		34756.0000		1		P
Chromium	52	88.7100		81.7000		8		MS
Cobalt	59	30.2000		25.5250		15	E	MS
Copper	63	40.9400		34.9050		15	E	MS
Iron		188265.1200		182077.4500		3		P
Lead	208	26.4400		22.6850		14	E	MS
Lithium		256.6100		250.6000		2		P
Magnesium		44451.2000		43570.3500		2		P
Manganese		2816.9500		2854.5500		1		P
Molybdenum	98	2.1700		2.2545	B	4		MS
Nickel	60	59.8800		52.4500		12	E	MS
Phosphorus		3320.2500		3197.7500		4		P
Potassium		27744.1100		27050.5000		3		P
Selenium	78	0.8647	B	1.4500	U	100		MS
Silver	107	0.1008	B	0.3550	U	100		MS
Sodium		667.3000	B	654.4500	B	2		P
Strontium		117.0300		116.2000		1		P
Thallium	203	1.6030		1.3755	B	14		MS
Tin		24.5800	B	26.6500	B	8		P
Titanium		10586.3500		10792.1000		2		P
Vanadium	51	183.4000		171.1000		7		MS
Zinc	66	372.8000		308.7000		17	E	MS
Zirconium		12.4700	B	31.7000	B	154		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.

<p>METHODS:</p> <p>P = ICP Atomic Emission Spectrometer</p> <p>MS = ICP Mass Spectrometry</p>	<p>CONCENTRATION QUALIFIERS:</p> <p>U= Below MDL</p> <p>B= Below LOQ</p>	<p>DE255 2242</p>
	<p>FLAGS:</p> <p>E = Matrix Effects exist as proven by Serial Dilution or Spiked Dilution</p>	

# **SAMPLE DELIVERY GROUP**

**DE256**

# **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-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	3050B	6010B	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	3050B	6020	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	3060A	7199	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	3550B	8081A	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	3550B	8082	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	3550B	8151A	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	3550B	8270C	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	3550B	8270C SIM	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	METHOD	300.0	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	METHOD	314.0	III
27-Sep-2011	SL-025-SA5DS-SS-0.0-0.5	6421297	N	METHOD	7471A	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3050B	6010B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3050B	6020	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3060A	7199	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3546	1625C	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3550B	8015B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3550B	8015M	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3550B	8082	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3550B	8270C	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	3550B	8270C SIM	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	5035	8015M	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	METHOD	300.0	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	METHOD	314.0	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	METHOD	7471A	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	METHOD	8015B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	METHOD	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-103-SA7-SB-4.0-5.0	6421299	N	METHOD	8315A	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3050B	6010B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3050B	6020	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3060A	7199	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3546	1625C	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3550B	8015B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3550B	8015M	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3550B	8082	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3550B	8270C	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	3550B	8270C SIM	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	5035	8015M	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	METHOD	300.0	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	METHOD	314.0	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	METHOD	7471A	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	METHOD	8015B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	METHOD	8015M	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MS	6421300	MS	METHOD	8315A	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	3050B	6010B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	3050B	6020	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	3546	1625C	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	3550B	8015B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	3550B	8015M	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	3550B	8082	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	3550B	8270C	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	3550B	8270C SIM	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	5035	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	METHOD	7471A	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	METHOD	8015B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	METHOD	8015M	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0MSD	6421301	MSD	METHOD	8315A	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0DUP	6421302	DUP	3050B	6010B	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0DUP	6421302	DUP	3050B	6020	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0DUP	6421302	DUP	3060A	7199	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0DUP	6421302	DUP	METHOD	300.0	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0DUP	6421302	DUP	METHOD	314.0	III
27-Sep-2011	SL-103-SA7-SB-4.0-5.0DUP	6421302	DUP	METHOD	7471A	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	3050B	6010B	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	3050B	6020	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	3060A	7199	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	3550B	8081A	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	3550B	8082	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	3550B	8151A	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	3550B	8270C	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	3550B	8270C SIM	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	METHOD	300.0	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	METHOD	314.0	III
27-Sep-2011	SL-024-SA5DS-SS-0.0-0.5	6421296	N	METHOD	7471A	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3050B	6010B	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3050B	6020	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3060A	7199	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3546	1625C	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3550B	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3550B	8015M	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3550B	8082	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3550B	8270C	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	3550B	8270C SIM	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	5035	8015M	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	METHOD	300.0	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	METHOD	314.0	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	METHOD	7471A	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	METHOD	8015B	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	METHOD	8015M	III
27-Sep-2011	DUP-09-SA7-QC-092711	6421311	FD	METHOD	8315A	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3050B	6010B	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3050B	6020	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3060A	7199	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3546	1625C	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3550B	8015B	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3550B	8015M	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3550B	8082	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3550B	8270C	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	3550B	8270C SIM	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	5035	8015M	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	METHOD	300.0	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	METHOD	314.0	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	METHOD	7471A	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	METHOD	8015B	III
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	METHOD	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-103-SA7-SB-9.0-10.0	6421305	N	METHOD	8315A	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	3050B	6010B	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	3050B	6020	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	3060A	7199	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	3550B	8081A	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	3550B	8082	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	3550B	8151A	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	3550B	8270C	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	3550B	8270C SIM	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	METHOD	300.0	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	METHOD	314.0	III
27-Sep-2011	SL-023-SA5DS-SS-0.0-0.5	6421295	N	METHOD	7471A	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3050B	6010B	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3050B	6020	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3060A	7199	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3546	1625C	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3550B	8015B	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3550B	8015M	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3550B	8082	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3550B	8270C	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	3550B	8270C SIM	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	5035	8015M	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	METHOD	300.0	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	METHOD	314.0	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	METHOD	7471A	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	METHOD	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	METHOD	8015M	III
27-Sep-2011	SL-172-SA7-SB-4.0-5.0	6421309	N	METHOD	8315A	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	3050B	6010B	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	3050B	6020	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	3060A	7199	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	3550B	8081A	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	3550B	8082	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	3550B	8151A	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	3550B	8270C	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	3550B	8270C SIM	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	METHOD	300.0	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	METHOD	314.0	III
27-Sep-2011	SL-019-SA5DS-SS-0.0-0.5	6421291	N	METHOD	7471A	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3050B	6010B	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3050B	6020	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3060A	7199	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3546	1625C	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3550B	8015B	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3550B	8015M	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3550B	8082	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3550B	8270C	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	3550B	8270C SIM	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	5035	8015M	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	METHOD	300.0	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	METHOD	314.0	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	METHOD	7471A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	METHOD	8015B	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	METHOD	8015M	III
27-Sep-2011	SL-172-SA7-SB-9.0-10.0	6421310	N	METHOD	8315A	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	3050B	6010B	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	3050B	6020	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	3060A	7199	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	3550B	8081A	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	3550B	8082	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	3550B	8151A	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	3550B	8270C	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	3550B	8270C SIM	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	METHOD	300.0	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	METHOD	314.0	III
27-Sep-2011	SL-020-SA5DS-SS-0.0-0.5	6421292	N	METHOD	7471A	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	3050B	6010B	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	3050B	6020	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	3060A	7199	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	3550B	8081A	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	3550B	8082	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	3550B	8151A	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	3550B	8270C	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	3550B	8270C SIM	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	METHOD	300.0	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	METHOD	314.0	III
27-Sep-2011	SL-006-SA5DS-SS-0.0-0.5	6421290	N	METHOD	7471A	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	3050B	6010B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	3050B	6020	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	3060A	7199	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	3550B	8081A	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	3550B	8082	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	3550B	8151A	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	3550B	8270C	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	3550B	8270C SIM	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	METHOD	300.0	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	METHOD	314.0	III
27-Sep-2011	SL-021-SA5DS-SS-0.0-0.5	6421293	N	METHOD	7471A	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3050B	6010B	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3050B	6020	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3060A	7199	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3546	1625C	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3550B	8015B	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3550B	8015M	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3550B	8082	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3550B	8270C	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	3550B	8270C SIM	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	METHOD	300.0	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	METHOD	314.0	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	METHOD	7471A	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	METHOD	8015B	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	METHOD	8015M	III
27-Sep-2011	SL-104-SA7-SB-4.0-5.0	6421306	N	METHOD	8315A	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3050B	6010B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3050B	6020	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3060A	7199	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3546	1625C	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3550B	8015B	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3550B	8015M	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3550B	8082	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3550B	8270C	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	3550B	8270C SIM	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	METHOD	300.0	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	METHOD	314.0	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	METHOD	7471A	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	METHOD	8015B	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	METHOD	8015M	III
27-Sep-2011	SL-104-SA7-SB-9.0-10.0	6421307	N	METHOD	8315A	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	3005A	6010B	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	3020A	6020	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	3510C	8015B	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	3510C	8015M	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	3510C	8082	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	3510C	8270C	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	3510C	8270C SIM	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	3520C	1625C	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	5030B	8015M	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	5030B	8260B	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	5030B	8260B SIM	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	8330	8330A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	Gen Prep	300.0	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	Gen Prep	314.0	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	Gen Prep	7199	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	Gen Prep	8015B	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	Gen Prep	8015M	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	METHOD	7470A	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	METHOD	8315A	III
27-Sep-2011	EB-SA7-SB-092711	6421313	EB	METHOD	9012B	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	3050B	6010B	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	3050B	6020	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	3060A	7199	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	3550B	8081A	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	3550B	8082	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	3550B	8151A	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	3550B	8270C	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	3550B	8270C SIM	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	METHOD	300.0	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	METHOD	314.0	III
27-Sep-2011	SL-005-SA5DS-SS-0.0-0.5	6421289	N	METHOD	7471A	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	3050B	6010B	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	3050B	6020	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	3060A	7199	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	3550B	8081A	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	3550B	8082	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	3550B	8151A	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	3550B	8270C	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	3550B	8270C SIM	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	METHOD	300.0	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	METHOD	314.0	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5	6421288	N	METHOD	7471A	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5DU	P421288D270805A	DUP	METHOD	314.0	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5DU	P421288D271643A	DUP	METHOD	300.0	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5MS	P421288R270828A	MS	METHOD	314.0	III
27-Sep-2011	SL-004-SA5DS-SS-0.0-0.5MS	P421288R271655A	MS	METHOD	300.0	III
27-Sep-2011	TB-092711	6421312	TB	5030B	8015M	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	3050B	6010B	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	3050B	6020	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	3060A	7199	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	3550B	8081A	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	3550B	8082	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	3550B	8151A	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	3550B	8270C	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	3550B	8270C SIM	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	METHOD	300.0	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	METHOD	314.0	III
27-Sep-2011	SL-022-SA5DS-SS-0.0-0.5	6421294	N	METHOD	7471A	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3050B	6010B	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3050B	6020	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3060A	7199	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3546	1625C	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3550B	8015B	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3550B	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3550B	8082	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3550B	8270C	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	3550B	8270C SIM	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	5035	8015M	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	METHOD	300.0	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	METHOD	314.0	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	METHOD	7471A	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	METHOD	8015B	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	METHOD	8015M	III
27-Sep-2011	SL-105-SA7-SB-4.0-5.0	6421308	N	METHOD	8315A	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	3050B	6010B	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	3050B	6020	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	3060A	7199	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	3550B	8081A	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	3550B	8082	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	3550B	8151A	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	3550B	8270C	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	3550B	8270C SIM	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	METHOD	300.0	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	METHOD	314.0	III
27-Sep-2011	SL-038-SA5DS-SS-0.0-0.5	6421298	N	METHOD	7471A	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	GENCHEM	
Method:	300.0	Matrix: SO

Sample ID: DUP-09-SA7-QC-092711      Collected: 9/27/2011 8:45:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.4		0.84	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	0.84	U	0.84	MDL	1.6	PQL	mg/Kg	UJ	FD

Sample ID: SL-004-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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	2.0		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-005-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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	1.3		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-006-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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	1.5		0.82	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-019-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
FLUORIDE	1.3		0.81	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-020-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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	1.8		0.81	MDL	1.0	PQL	mg/Kg	J	Q

Sample ID: SL-021-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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	1.5		0.82	MDL	1.0	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	GENCHEM	
<b>Method:</b>	300.0	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-022-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/27/2011 2:40:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.83	U	0.83	MDL	1.0	PQL	mg/Kg	UJ	Q

<b>Sample ID:</b> SL-023-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/27/2011 9:15:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.7		0.83	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-024-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/27/2011 8:45:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 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

<b>Sample ID:</b> SL-025-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/27/2011 7:30:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	1.4		0.81	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-038-SA5DS-SS-0.0-0.5		<b>Collected:</b> 9/27/2011 3:00:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.1		0.84	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-103-SA7-SB-4.0-5.0		<b>Collected:</b> 9/27/2011 8:40:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.7		0.84	MDL	1.1	PQL	mg/Kg	J	Q
Nitrate-NO3	1.7		0.84	MDL	1.6	PQL	mg/Kg	J	FD

<b>Sample ID:</b> SL-103-SA7-SB-9.0-10.0		<b>Collected:</b> 9/27/2011 8:55:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 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

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	GENCHEM	
<b>Method:</b>	300.0	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-104-SA7-SB-4.0-5.0		<b>Collected:</b> 9/27/2011 12:35:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.5		0.84	MDL	1.0	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-104-SA7-SB-9.0-10.0		<b>Collected:</b> 9/27/2011 12:45:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.3		0.86	MDL	1.1	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-105-SA7-SB-4.0-5.0		<b>Collected:</b> 9/27/2011 2:45:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.9		0.81	MDL	1.0	PQL	mg/Kg	J	Q
Nitrate-NO3	0.96	J	0.81	MDL	1.5	PQL	mg/Kg	J	Z

<b>Sample ID:</b> SL-172-SA7-SB-4.0-5.0		<b>Collected:</b> 9/27/2011 10:35:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	2.7		0.88	MDL	1.1	PQL	mg/Kg	J	Q

<b>Sample ID:</b> SL-172-SA7-SB-9.0-10.0		<b>Collected:</b> 9/27/2011 10:45:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	3.5		0.87	MDL	1.1	PQL	mg/Kg	J	Q

<b>Method Category:</b>	METALS	
<b>Method:</b>	6010B	<b>Matrix:</b> AQ

<b>Sample ID:</b> EB-SA7-SB-092711		<b>Collected:</b> 9/27/2011 1:00:00		<b>Analysis Type:</b> REA2		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.0039	J	0.0022	MDL	0.0500	PQL	mg/L	J	Z
STRONTIUM	0.00023	J	0.00022	MDL	0.0050	PQL	mg/L	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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: DUP-09-SA7-QC-092711      Collected: 9/27/2011 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
CALCIUM	4210		2.48	MDL	19.8	PQL	mg/Kg	J	E
SODIUM	81.8	J	5.90	MDL	99.1	PQL	mg/Kg	J	Z
STRONTIUM	17.9		0.0248	MDL	0.496	PQL	mg/Kg	J	E
TIN	0.615	J	0.317	MDL	9.91	PQL	mg/Kg	U	B
Zirconium	1.13	J	0.456	MDL	4.96	PQL	mg/Kg	J	Z

Sample ID: SL-004-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
CALCIUM	3540		2.52	MDL	20.1	PQL	mg/Kg	J	E
SODIUM	93.6	J	5.99	MDL	101	PQL	mg/Kg	J	Z
STRONTIUM	20.1		0.0252	MDL	0.504	PQL	mg/Kg	J	E
TIN	1.04	J	0.322	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: SL-005-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
CALCIUM	3540		2.51	MDL	20.1	PQL	mg/Kg	J	E
SODIUM	91.1	J	5.98	MDL	101	PQL	mg/Kg	J	Z
STRONTIUM	20.9		0.0251	MDL	0.503	PQL	mg/Kg	J	E
TIN	1.06	J	0.322	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	3.56	J	0.462	MDL	5.03	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
CALCIUM	3840		2.42	MDL	19.4	PQL	mg/Kg	J	E
SODIUM	85.9	J	5.77	MDL	97.0	PQL	mg/Kg	J	Z
STRONTIUM	24.4		0.0242	MDL	0.485	PQL	mg/Kg	J	E
TIN	0.816	J	0.310	MDL	9.70	PQL	mg/Kg	U	B

Sample ID: SL-019-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
CALCIUM	3250		2.49	MDL	19.9	PQL	mg/Kg	J	E

\* 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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS  
**Method:** 6010B **Matrix:** SO

Sample ID: SL-019-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
SODIUM	86.7	J	5.93	MDL	99.7	PQL	mg/Kg	J	Z
STRONTIUM	20.2		0.0249	MDL	0.499	PQL	mg/Kg	J	E
TIN	0.959	J	0.319	MDL	9.97	PQL	mg/Kg	U	B

Sample ID: SL-020-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
CALCIUM	3440		2.49	MDL	19.9	PQL	mg/Kg	J	E
SODIUM	88.1	J	5.92	MDL	99.4	PQL	mg/Kg	J	Z
STRONTIUM	21.4		0.0249	MDL	0.497	PQL	mg/Kg	J	E
TIN	0.969	J	0.318	MDL	9.94	PQL	mg/Kg	U	B

Sample ID: SL-021-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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	3510		2.47	MDL	19.7	PQL	mg/Kg	J	E
SODIUM	91.3	J	5.87	MDL	98.7	PQL	mg/Kg	J	Z
STRONTIUM	23.6		0.0247	MDL	0.493	PQL	mg/Kg	J	E
TIN	1.08	J	0.316	MDL	9.87	PQL	mg/Kg	U	B
Zirconium	4.06	J	0.454	MDL	4.93	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 2:40:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3560		2.52	MDL	20.2	PQL	mg/Kg	J	E
SODIUM	83.9	J	6.00	MDL	101	PQL	mg/Kg	J	Z
STRONTIUM	23.1		0.0252	MDL	0.504	PQL	mg/Kg	J	E
TIN	1.03	J	0.323	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: SL-023-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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	3610		2.52	MDL	20.2	PQL	mg/Kg	J	E
SODIUM	98.7	J	6.01	MDL	101	PQL	mg/Kg	J	Z
STRONTIUM	21.9		0.0252	MDL	0.505	PQL	mg/Kg	J	E

\* 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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

Sample ID: SL-023-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
TIN	1.04	J	0.323	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: SL-024-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
CALCIUM	4600		2.52	MDL	20.1	PQL	mg/Kg	J	E
STRONTIUM	20.5		0.0252	MDL	0.503	PQL	mg/Kg	J	E
TIN	0.857	J	0.322	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: SL-025-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 7:30:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	4700		2.53	MDL	20.2	PQL	mg/Kg	J	E
SODIUM	98.2	J	6.01	MDL	101	PQL	mg/Kg	J	Z
STRONTIUM	21.3		0.0253	MDL	0.505	PQL	mg/Kg	J	E
TIN	1.01	J	0.323	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: SL-038-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
CALCIUM	14300		2.47	MDL	19.8	PQL	mg/Kg	J	E
SODIUM	85.8	J	5.88	MDL	98.8	PQL	mg/Kg	J	Z
STRONTIUM	41.1		0.0247	MDL	0.494	PQL	mg/Kg	J	E
TIN	0.592	J	0.316	MDL	9.88	PQL	mg/Kg	U	B
Zirconium	4.84	J	0.455	MDL	4.94	PQL	mg/Kg	J	Z

Sample ID: SL-103-SA7-SB-4.0-5.0      Collected: 9/27/2011 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
CALCIUM	5170		2.57	MDL	20.6	PQL	mg/Kg	J	E
STRONTIUM	26.2		0.0257	MDL	0.514	PQL	mg/Kg	J	E
TIN	0.840	J	0.329	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	1.38	J	0.473	MDL	5.14	PQL	mg/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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: SL-103-SA7-SB-9.0-10.0	Collected: 9/27/2011 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
CALCIUM	3320		2.65	MDL	21.2	PQL	mg/Kg	J	E
STRONTIUM	14.7		0.0265	MDL	0.529	PQL	mg/Kg	J	E
TIN	0.721	J	0.339	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	0.905	J	0.487	MDL	5.29	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA7-SB-4.0-5.0	Collected: 9/27/2011 12:35:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	3870		2.54	MDL	20.3	PQL	mg/Kg	J	E
SODIUM	82.2	J	6.04	MDL	101	PQL	mg/Kg	J	Z
STRONTIUM	17.4		0.0254	MDL	0.507	PQL	mg/Kg	J	E
TIN	0.751	J	0.325	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	1.40	J	0.467	MDL	5.07	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA7-SB-9.0-10.0	Collected: 9/27/2011 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
CALCIUM	4070		2.65	MDL	21.2	PQL	mg/Kg	J	E
STRONTIUM	18.2		0.0265	MDL	0.531	PQL	mg/Kg	J	E
TIN	0.916	J	0.340	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	1.06	J	0.488	MDL	5.31	PQL	mg/Kg	J	Z

Sample ID: SL-105-SA7-SB-4.0-5.0	Collected: 9/27/2011 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
CALCIUM	3260		2.56	MDL	20.5	PQL	mg/Kg	J	E
SODIUM	71.3	J	6.09	MDL	102	PQL	mg/Kg	J	Z
STRONTIUM	14.1		0.0256	MDL	0.511	PQL	mg/Kg	J	E
TIN	1.02	J	0.327	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	0.965	J	0.471	MDL	5.11	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA7-SB-4.0-5.0	Collected: 9/27/2011 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
CALCIUM	7950		2.61	MDL	20.9	PQL	mg/Kg	J	E

\* 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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6010B	Matrix: SO

Sample ID: SL-172-SA7-SB-4.0-5.0      Collected: 9/27/2011 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
STRONTIUM	43.5		0.0261	MDL	0.521	PQL	mg/Kg	J	E
TIN	0.895	J	0.334	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	1.55	J	0.480	MDL	5.21	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA7-SB-9.0-10.0      Collected: 9/27/2011 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
CALCIUM	3920		2.73	MDL	21.8	PQL	mg/Kg	J	E
STRONTIUM	17.6		0.0273	MDL	0.545	PQL	mg/Kg	J	E
TIN	0.941	J	0.349	MDL	10.9	PQL	mg/Kg	U	B
Zirconium	1.23	J	0.502	MDL	5.45	PQL	mg/Kg	J	Z

Method Category:	METALS	
Method:	6020	Matrix: AQ

Sample ID: EB-SA7-SB-092711      Collected: 9/27/2011 1:00:00      Analysis Type: REA4      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
LEAD	0.00013	J	0.00008 0	MDL	0.0010	PQL	mg/L	U	B

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: DUP-09-SA7-QC-092711      Collected: 9/27/2011 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	0.139	J	0.0580	MDL	0.400	PQL	mg/Kg	J	Z

Sample ID: DUP-09-SA7-QC-092711      Collected: 9/27/2011 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	0.0740	U	0.0740	MDL	0.200	PQL	mg/Kg	UJ	Q, FD
CADMIUM	0.0950	J	0.0440	MDL	0.100	PQL	mg/Kg	J	Z
SILVER	0.0142	U	0.0142	MDL	0.100	PQL	mg/Kg	UJ	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-004-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 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	0.350	J	0.0584	MDL	0.403	PQL	mg/Kg	J	Z

Sample ID: SL-004-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 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	0.105	J	0.0745	MDL	0.201	PQL	mg/Kg	J	Z, Q
SILVER	0.0252	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-005-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 1:50:00	Analysis Type: REA	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.244	J	0.0561	MDL	0.387	PQL	mg/Kg	J	Z

Sample ID: SL-005-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 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
ANTIMONY	0.112	J	0.0715	MDL	0.193	PQL	mg/Kg	J	Z, Q
SILVER	0.0236	J	0.0137	MDL	0.0967	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 11:30:00	Analysis Type: REA	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.178	J	0.0585	MDL	0.403	PQL	mg/Kg	J	Z

Sample ID: SL-006-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 11:30:00	Analysis Type: RES	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.134	J	0.0746	MDL	0.202	PQL	mg/Kg	J	Z, Q
SILVER	0.0282	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-019-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 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
SELENIUM	0.190	J	0.0584	MDL	0.403	PQL	mg/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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

<b>Sample ID: SL-019-SA5DS-SS-0.0-0.5</b>			<b>Collected: 9/27/2011 10:45:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.0922	J	0.0745	MDL	0.201	PQL	mg/Kg	J	Z, Q	
SILVER	0.0210	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z	

<b>Sample ID: SL-020-SA5DS-SS-0.0-0.5</b>			<b>Collected: 9/27/2011 11:10:00</b>			<b>Analysis Type: REA</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.190	J	0.0588	MDL	0.406	PQL	mg/Kg	J	Z	

<b>Sample ID: SL-020-SA5DS-SS-0.0-0.5</b>			<b>Collected: 9/27/2011 11:10:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.107	J	0.0751	MDL	0.203	PQL	mg/Kg	J	Z, Q	
SILVER	0.0708	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z	

<b>Sample ID: SL-021-SA5DS-SS-0.0-0.5</b>			<b>Collected: 9/27/2011 11:50:00</b>			<b>Analysis Type: REA</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.170	J	0.0572	MDL	0.395	PQL	mg/Kg	J	Z	

<b>Sample ID: SL-021-SA5DS-SS-0.0-0.5</b>			<b>Collected: 9/27/2011 11:50:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.100	J	0.0730	MDL	0.197	PQL	mg/Kg	J	Z, Q	
SILVER	0.0207	J	0.0140	MDL	0.0987	PQL	mg/Kg	J	Z	

<b>Sample ID: SL-022-SA5DS-SS-0.0-0.5</b>			<b>Collected: 9/27/2011 2:40:00</b>			<b>Analysis Type: REA</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.217	J	0.0585	MDL	0.403	PQL	mg/Kg	J	Z	

<b>Sample ID: SL-022-SA5DS-SS-0.0-0.5</b>			<b>Collected: 9/27/2011 2:40:00</b>			<b>Analysis Type: RES</b>			<b>Dilution: 2</b>	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.108	J	0.0746	MDL	0.202	PQL	mg/Kg	J	Z, Q	
SILVER	0.0204	J	0.0143	MDL	0.101	PQL	mg/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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-023-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 9:15:00	Analysis Type: REA	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.259	J	0.0585	MDL	0.404	PQL	mg/Kg	J	Z

Sample ID: SL-023-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 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	0.111	J	0.0747	MDL	0.202	PQL	mg/Kg	J	Z, Q
SILVER	0.0152	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-024-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 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	0.170	J	0.0578	MDL	0.399	PQL	mg/Kg	J	Z

Sample ID: SL-024-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 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	0.119	J	0.0737	MDL	0.199	PQL	mg/Kg	J	Z, Q
SILVER	0.0169	J	0.0141	MDL	0.0996	PQL	mg/Kg	J	Z

Sample ID: SL-025-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 7:30:00	Analysis Type: REA	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.188	J	0.0564	MDL	0.389	PQL	mg/Kg	J	Z

Sample ID: SL-025-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 7:30:00	Analysis Type: RES	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.133	J	0.0719	MDL	0.194	PQL	mg/Kg	J	Z, Q
SILVER	0.0162	J	0.0138	MDL	0.0972	PQL	mg/Kg	J	Z

Sample ID: SL-038-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 3:00:00	Analysis Type: REA	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.292	J	0.0584	MDL	0.403	PQL	mg/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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

<b>Sample ID:</b> SL-038-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/27/2011 3:00:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.122	J	0.0746	MDL	0.202	PQL	mg/Kg	J	Z, Q	
SILVER	0.0234	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z	

<b>Sample ID:</b> SL-103-SA7-SB-4.0-5.0			<b>Collected:</b> 9/27/2011 8:40:00			<b>Analysis Type:</b> REA			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.160	J	0.0608	MDL	0.419	PQL	mg/Kg	J	Z	

<b>Sample ID:</b> SL-103-SA7-SB-4.0-5.0			<b>Collected:</b> 9/27/2011 8:40:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.0944	J	0.0776	MDL	0.210	PQL	mg/Kg	J	Z, Q, FD	
CADMIUM	0.0906	J	0.0461	MDL	0.105	PQL	mg/Kg	J	Z	
SILVER	0.0234	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z, FD	

<b>Sample ID:</b> SL-103-SA7-SB-9.0-10.0			<b>Collected:</b> 9/27/2011 8:55:00			<b>Analysis Type:</b> REA			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.113	J	0.0632	MDL	0.436	PQL	mg/Kg	J	Z	

<b>Sample ID:</b> SL-103-SA7-SB-9.0-10.0			<b>Collected:</b> 9/27/2011 8:55:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.0807	U	0.0807	MDL	0.218	PQL	mg/Kg	UJ	Q	
CADMIUM	0.0962	J	0.0480	MDL	0.109	PQL	mg/Kg	J	Z	
SILVER	0.0182	J	0.0155	MDL	0.109	PQL	mg/Kg	J	Z	

<b>Sample ID:</b> SL-104-SA7-SB-4.0-5.0			<b>Collected:</b> 9/27/2011 12:35:00			<b>Analysis Type:</b> REA			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.135	J	0.0588	MDL	0.406	PQL	mg/Kg	J	Z	

<b>Sample ID:</b> SL-104-SA7-SB-4.0-5.0			<b>Collected:</b> 9/27/2011 12:35:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.0751	U	0.0751	MDL	0.203	PQL	mg/Kg	UJ	Q	

\* 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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	6020	Matrix: SO

Sample ID: SL-104-SA7-SB-4.0-5.0      Collected: 9/27/2011 12:35:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.0978	J	0.0446	MDL	0.101	PQL	mg/Kg	J	Z
SILVER	0.0200	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA7-SB-9.0-10.0      Collected: 9/27/2011 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
SELENIUM	0.101	J	0.0610	MDL	0.420	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA7-SB-9.0-10.0      Collected: 9/27/2011 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	0.0778	U	0.0778	MDL	0.210	PQL	mg/Kg	UJ	Q
CADMIUM	0.102	J	0.0462	MDL	0.105	PQL	mg/Kg	J	Z
SILVER	0.0221	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z

Sample ID: SL-105-SA7-SB-4.0-5.0      Collected: 9/27/2011 2:45:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.142	J	0.0599	MDL	0.413	PQL	mg/Kg	J	Z

Sample ID: SL-105-SA7-SB-4.0-5.0      Collected: 9/27/2011 2:45:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0764	U	0.0764	MDL	0.207	PQL	mg/Kg	UJ	Q
CADMIUM	0.0921	J	0.0455	MDL	0.103	PQL	mg/Kg	J	Z
SILVER	0.0154	J	0.0147	MDL	0.103	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA7-SB-4.0-5.0      Collected: 9/27/2011 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	0.160	J	0.0623	MDL	0.430	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA7-SB-4.0-5.0      Collected: 9/27/2011 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	0.377		0.0795	MDL	0.215	PQL	mg/Kg	J	Q

\* 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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-172-SA7-SB-4.0-5.0	Collected: 9/27/2011 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
SILVER	0.0248	J	0.0152	MDL	0.107	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA7-SB-9.0-10.0	Collected: 9/27/2011 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
SELENIUM	0.126	J	0.0620	MDL	0.428	PQL	mg/Kg	J	Z

Sample ID: SL-172-SA7-SB-9.0-10.0	Collected: 9/27/2011 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	0.0791	U	0.0791	MDL	0.214	PQL	mg/Kg	UJ	Q
SILVER	0.0224	J	0.0152	MDL	0.107	PQL	mg/Kg	J	Z

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7199</b>	<b>Matrix: SO</b>

Sample ID: SL-004-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 2:15:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.97	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-005-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 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	0.92	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-021-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 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	0.65	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 2:40:00	Analysis Type: RES	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.56	J	0.20	MDL	1.0	PQL	mg/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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	7199	Matrix: SO

Sample ID: SL-024-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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	0.67	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-025-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 7:30:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.86	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Method Category:	METALS	
Method:	7470A	Matrix: AQ

Sample ID: EB-SA7-SB-092711      Collected: 9/27/2011 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	0.000045	J	0.000026	MDL	0.00020	PQL	mg/L	U	B, B

Method Category:	METALS	
Method:	7471A	Matrix: SO

Sample ID: DUP-09-SA7-QC-092711      Collected: 9/27/2011 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	0.0079	J	0.0071	MDL	0.101	PQL	mg/Kg	UJ	F, FD

Sample ID: SL-004-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
MERCURY	0.0103	J	0.0071	MDL	0.101	PQL	mg/Kg	J	Z

Sample ID: SL-005-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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	0.0074	J	0.0066	MDL	0.0945	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7471A</b>	<b>Matrix: SO</b>

Sample ID: SL-006-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 11:30:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0109	J	0.0068	MDL	0.0963	PQL	mg/Kg	J	Z

Sample ID: SL-019-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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	0.0135	J	0.0070	MDL	0.0991	PQL	mg/Kg	J	Z

Sample ID: SL-020-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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	0.0088	J	0.0067	MDL	0.0959	PQL	mg/Kg	J	Z

Sample ID: SL-021-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
MERCURY	0.0115	J	0.0068	MDL	0.0972	PQL	mg/Kg	J	Z

Sample ID: SL-022-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 2:40:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0193	J	0.0070	MDL	0.0997	PQL	mg/Kg	J	Z

Sample ID: SL-023-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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	0.0118	J	0.0068	MDL	0.0967	PQL	mg/Kg	J	Z

Sample ID: SL-024-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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	0.0098	J	0.0070	MDL	0.100	PQL	mg/Kg	J	Z

Sample ID: SL-025-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 7:30:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0098	J	0.0068	MDL	0.0963	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	METALS	
Method:	7471A	Matrix: SO

Sample ID: SL-038-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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	0.0877	J	0.0069	MDL	0.0977	PQL	mg/Kg	J	Z

Sample ID: SL-103-SA7-SB-4.0-5.0      Collected: 9/27/2011 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	0.0071	U	0.0071	MDL	0.101	PQL	mg/Kg	UJ	FD

Sample ID: SL-172-SA7-SB-4.0-5.0      Collected: 9/27/2011 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	0.0079	J	0.0074	MDL	0.105	PQL	mg/Kg	U	F

Sample ID: SL-172-SA7-SB-9.0-10.0      Collected: 9/27/2011 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	0.0490	J	0.0074	MDL	0.105	PQL	mg/Kg	J	Z

Method Category:	SVOA	
Method:	1625C	Matrix: AQ

Sample ID: EB-SA7-SB-092711      Collected: 9/27/2011 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	3.23		0.532	MDL	1.06	PQL	ng/L	UJ	B, S

Method Category:	SVOA	
Method:	8015M	Matrix: SO

Sample ID: DUP-09-SA7-QC-092711      Collected: 9/27/2011 8:45:00      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)	2.1	U	2.1	MDL	6.2	PQL	mg/Kg	UJ	FD
EFH (C21-C30)	17		2.1	MDL	6.2	PQL	mg/Kg	J	FD
EFH (C30-C40)	60		2.1	MDL	6.2	PQL	mg/Kg	J	FD

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA		
Method:	8015M	Matrix:	SO

Sample ID: SL-103-SA7-SB-4.0-5.0	Collected: 9/27/2011 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
DIETHYLENE GLYCOL	5.2	U	5.2	MDL	10	PQL	mg/Kg	UJ	Q
ETHYLENE GLYCOL	5.2	U	5.2	MDL	10	PQL	mg/Kg	UJ	Q
Propylene glycol	5.2	U	5.2	MDL	10	PQL	mg/Kg	UJ	Q

Sample ID: SL-103-SA7-SB-4.0-5.0	Collected: 9/27/2011 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
EFH (C15-C20)	0.60	J	0.42	MDL	1.3	PQL	mg/Kg	J	Z, FD
EFH (C21-C30)	8.7		0.42	MDL	1.3	PQL	mg/Kg	J	Q, Q, Q, FD
EFH (C30-C40)	24		0.42	MDL	1.3	PQL	mg/Kg	J	FD

Sample ID: SL-103-SA7-SB-9.0-10.0	Collected: 9/27/2011 8:55:00	Analysis Type: REA2	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.44	J	0.44	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-104-SA7-SB-4.0-5.0	Collected: 9/27/2011 12:35:00	Analysis Type: REA	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.53	J	0.42	MDL	1.3	PQL	mg/Kg	J	Z

Sample ID: SL-105-SA7-SB-4.0-5.0	Collected: 9/27/2011 2:45:00	Analysis Type: REA2	Dilution: 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	0.45	J	0.41	MDL	1.2	PQL	mg/Kg	J	Z

Method Category:	SVOA		
Method:	8061A	Matrix:	SO

Sample ID: SL-006-SA5DS-SS-0.0-0.5	Collected: 9/27/2011 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
4,4'-DDE	1.0		0.067	MDL	0.35	PQL	ug/Kg	J	S
4,4'-DDT	0.63		0.067	MDL	0.35	PQL	ug/Kg	J	S
Chlordane	3.8		0.81	MDL	3.5	PQL	ug/Kg	J	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8081A	<b>Matrix:</b>	SO
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Sample ID: SL-019-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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	0.23	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.086	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z

Sample ID: SL-020-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
Chlordane	2.9	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-021-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
Chlordane	1.6	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z
TOXAPHENE	2.6	J	2.2	MDL	6.7	PQL	ug/Kg	J	Z

Sample ID: SL-022-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 2:40:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DELTA-BHC	0.046	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z
ENDRIN KETONE	0.097	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z

Sample ID: SL-023-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
4,4'-DDD	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
4,4'-DDE	0.25	J	0.067	MDL	0.35	PQL	ug/Kg	J	Z, S
4,4'-DDT	0.38		0.067	MDL	0.35	PQL	ug/Kg	J	S
ALDRIN	0.067	U	0.067	MDL	0.17	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	S
BETA-BHC	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	S
Chlordane	1.8	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z, S
DELTA-BHC	0.037	U	0.037	MDL	0.17	PQL	ug/Kg	UJ	S
DIELDRIN	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.045	U	0.045	MDL	0.17	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
ENDOSULFAN SULFATE	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S

\* 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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8081A	Matrix: SO

Sample ID: SL-023-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
ENDRIN	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.075	U	0.075	MDL	0.35	PQL	ug/Kg	UJ	S
ENDRIN KETONE	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	S
MIREX	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
TOXAPHENE	2.2	U	2.2	MDL	6.7	PQL	ug/Kg	UJ	S

Sample ID: SL-025-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 7:30:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BETA-BHC	0.079	J	0.061	MDL	0.17	PQL	ug/Kg	J	Z
Chlordane	2.5	J	0.81	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-038-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
Chlordane	1.1	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z

Method Category:	SVOA	
Method:	8082	Matrix: SO

Sample ID: DUP-09-SA7-QC-092711      Collected: 9/27/2011 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 1260	0.41	U	0.41	MDL	1.8	PQL	ug/Kg	UJ	FD

Sample ID: SL-004-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
AROCLOR 1254	0.51	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	0.67	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	1.2	J	1.0	MDL	3.4	PQL	ug/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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8082	Matrix: SO

Sample ID: SL-006-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
AROCLOR 1254	1.2	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	1.0	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	1.9	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-019-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
AROCLOR 1260	0.52	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-020-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 11:10:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.2	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	0.87	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	2.0	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-021-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
AROCLOR 1254	0.89	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	0.71	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	1.6	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-022-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 2:40:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.2	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z, S
AROCLOR 1260	0.97	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z, S
Aroclor 5460	2.0	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z, S

Sample ID: SL-023-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 9:15:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.64	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z, S
AROCLOR 1260	0.75	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z, S

\* 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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8082	<b>Matrix:</b> SO

<b>Sample ID:</b> SL-023-SA5DS-SS-0.0-0.5	<b>Collected:</b> 9/27/2011 9:15:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	1.6	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z, S

<b>Sample ID:</b> SL-024-SA5DS-SS-0.0-0.5	<b>Collected:</b> 9/27/2011 8:45:00	<b>Analysis Type:</b> RES-BASE/NEUTRAL	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.89	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	1.3	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-025-SA5DS-SS-0.0-0.5	<b>Collected:</b> 9/27/2011 7:30:00	<b>Analysis Type:</b> RES	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	1.3	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-038-SA5DS-SS-0.0-0.5	<b>Collected:</b> 9/27/2011 3:00:00	<b>Analysis Type:</b> RES-BASE/NEUTRAL	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1242	0.72	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-103-SA7-SB-4.0-5.0	<b>Collected:</b> 9/27/2011 8:40:00	<b>Analysis Type:</b> RES-BASE/NEUTRAL	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.47	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z, S, FD

<b>Sample ID:</b> SL-104-SA7-SB-4.0-5.0	<b>Collected:</b> 9/27/2011 12:35:00	<b>Analysis Type:</b> RES-BASE/NEUTRAL	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.90	J	0.40	MDL	1.8	PQL	ug/Kg	J	Z

<b>Sample ID:</b> SL-104-SA7-SB-9.0-10.0	<b>Collected:</b> 9/27/2011 12:45:00	<b>Analysis Type:</b> RES-BASE/NEUTRAL	<b>Dilution:</b> 1						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.47	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8082	<b>Matrix:</b> SO

Sample ID: SL-105-SA7-SB-4.0-5.0      Collected: 9/27/2011 2:45:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.75	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-172-SA7-SB-4.0-5.0      Collected: 9/27/2011 10:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.76	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8151A	<b>Matrix:</b> SO

Sample ID: SL-006-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
2,4-D	2.0	J	1.2	MDL	3.7	PQL	ug/Kg	J	Z

Sample ID: SL-021-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
2,4,5-TP (Silvex)	0.13	J	0.076	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-038-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
2,4,5-TP (Silvex)	0.090	J	0.077	MDL	0.17	PQL	ug/Kg	J	Z
DICAMBA	0.61	J	0.41	MDL	1.2	PQL	ug/Kg	J	Z
DICHLOROPROP	1.6	J	0.82	MDL	1.7	PQL	ug/Kg	J	Z
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C	<b>Matrix:</b> AQ

Sample ID: EB-SA7-SB-092711      Collected: 9/27/2011 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	7	U	7	MDL	17	PQL	ug/L	UJ	E

\* 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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8270C	Matrix: AQ

Method Category:	SVOA	
Method:	8270C	Matrix: SO

Sample ID: DUP-09-SA7-QC-092711      Collected: 9/27/2011 8:45:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Di-n-butylphthalate	35	J	17	MDL	170	PQL	ug/Kg	J	Z

Sample ID: SL-005-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	19	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-006-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 11:30:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	51	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-024-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	18	J	17	MDL	340	PQL	ug/Kg	J	Z

Sample ID: SL-103-SA7-SB-4.0-5.0      Collected: 9/27/2011 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
BENZIDINE	1200	U	1200	MDL	3400	PQL	ug/Kg	UJ	Q
BENZOIC ACID	170	U	170	MDL	520	PQL	ug/Kg	R	Q

Method Category:	SVOA	
Method:	8270C SIM	Matrix: AQ

Sample ID: EB-SA7-SB-092711      Collected: 9/27/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	0.13	J	0.055	MDL	1.1	PQL	ug/L	J	Z
Diethylphthalate	0.36	J	0.055	MDL	1.1	PQL	ug/L	J	Z
Di-n-butylphthalate	0.79	J	0.055	MDL	1.1	PQL	ug/L	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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C SIM	<b>Matrix:</b> AQ

Sample ID: EB-SA7-SB-092711      Collected: 9/27/2011 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
Di-n-octylphthalate	0.11	J	0.055	MDL	1.1	PQL	ug/L	J	Z

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C SIM	<b>Matrix:</b> SO

Sample ID: DUP-09-SA7-QC-092711      Collected: 9/27/2011 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
BENZO(A)ANTHRACENE	0.76	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	1.0	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
BENZO(G,H,I)PERYLENE	1.0	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
BIS(2-ETHYLHEXYL)PHTHALATE	6.2	U	6.2	MDL	19	PQL	ug/Kg	UJ	FD
CHRYSENE	1.5	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	1.0	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
PYRENE	1.5	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD

Sample ID: SL-004-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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-METHYLNAPHTHALENE	0.78	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.2	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	0.81	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.6	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	12	J	6.0	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-005-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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(A)ANTHRACENE	0.76	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.4	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.71	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.1	J	0.67	MDL	1.7	PQL	ug/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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	
Method:	8270C SIM	Matrix: SO

Sample ID: SL-006-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
1-METHYLNAPHTHALENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	0.78	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.73	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-019-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
BENZO(B)FLUORANTHENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	0.36	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-020-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
BENZO(A)ANTHRACENE	0.76	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.71	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	16	J	6.1	MDL	18	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.6	J	6.1	MDL	18	PQL	ug/Kg	J	Z
NAPHTHALENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.6	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-021-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	7.1	J	6.1	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	0.93	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	0.98	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.76	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	0.86	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>SVOA</b>
<b>Method:</b>	<b>8270C SIM</b>
<b>Matrix:</b>	<b>SO</b>

Sample ID: SL-022-SA5DS-SS-0.0-0.5 Collected: 9/27/2011 2:40:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	10	J	6.1	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.89	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.87	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-023-SA5DS-SS-0.0-0.5 Collected: 9/27/2011 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(A)ANTHRACENE	1.5	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.90	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	6.6	J	6.1	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	1.6	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-024-SA5DS-SS-0.0-0.5 Collected: 9/27/2011 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
2-METHYLNAPHTHALENE	0.71	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	0.79	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.4	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.70	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.6	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.3	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-025-SA5DS-SS-0.0-0.5 Collected: 9/27/2011 7:30:00 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	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.6	J	6.1	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.74	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

Method Category:	SVOA	Matrix:	SO
Method:	8270C SIM		

Sample ID: SL-025-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 7:30:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHENANTHRENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-038-SA5DS-SS-0.0-0.5      Collected: 9/27/2011 3:00:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	11	J	6.2	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	0.78	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	0.92	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	0.89	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-103-SA7-SB-4.0-5.0      Collected: 9/27/2011 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
BENZO(A)ANTHRACENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD
BENZO(A)PYRENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD
BENZO(G,H,I)PERYLENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD
BIS(2-ETHYLHEXYL)PHTHALATE	55		6.2	MDL	19	PQL	ug/Kg	J	Q, FD
CHRYSENE	0.48	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z, FD
FLUORANTHENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD
PYRENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD

Sample ID: SL-103-SA7-SB-9.0-10.0      Collected: 9/27/2011 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(B)FLUORANTHENE	0.91	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-104-SA7-SB-4.0-5.0      Collected: 9/27/2011 12:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.75	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.2	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	6.3	J	6.2	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	0.76	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	0.98	J	0.69	MDL	1.7	PQL	ug/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: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C SIM	<b>Matrix:</b> SO

Sample ID: SL-104-SA7-SB-9.0-10.0      Collected: 9/27/2011 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	0.72	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-105-SA7-SB-4.0-5.0      Collected: 9/27/2011 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(G,H,I)PERYLENE	0.87	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.5	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-172-SA7-SB-4.0-5.0      Collected: 9/27/2011 10:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.2	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	0.50	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-172-SA7-SB-9.0-10.0      Collected: 9/27/2011 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
BENZO(B)FLUORANTHENE	0.74	J	0.73	MDL	1.8	PQL	ug/Kg	J	Z

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8330A	<b>Matrix:</b> AQ

Sample ID: EB-SA7-SB-092711      Collected: 9/27/2011 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
Tetryl	0.40	U	0.40	MDL	0.60	PQL	ug/L	UJ	L

<b>Method Category:</b>	VOA	
<b>Method:</b>	8260B	<b>Matrix:</b> AQ

Sample ID: EB-SA7-SB-092711      Collected: 9/27/2011 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
METHYLENE CHLORIDE	3	J	2	MDL	5	PQL	ug/L	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## ***Data Qualifier Summary***

Lab Reporting Batch ID: DE256

EDD Filename: PrepDE256\_v1

Laboratory: LL

eQAPP Name: CDM\_SSFL\_110509

\* denotes a non-reportable result

**Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling**

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## Data Qualifier Summary

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

### Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256\_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	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: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256\_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

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE256

# Field Duplicate RPD Report

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM SSFL\_110509

Method: 160.3M  
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-103-SA7-SB-4.0-5.0	DUP-09-SA7-QC-092711			
MOISTURE	4.6	3.9	16		No Qualifiers Applied

Method: 300.0  
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-103-SA7-SB-4.0-5.0	DUP-09-SA7-QC-092711			
FLUORIDE	3.7	2.4	43	50.00	No Qualifiers Applied
Nitrate-NO3	1.7	1.6 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 6010B  
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-103-SA7-SB-4.0-5.0	DUP-09-SA7-QC-092711			
ALUMINUM	13700	14100	3	50.00	No Qualifiers Applied
BORON	6.93	6.69	4	50.00	
CALCIUM	5170	4210	20	50.00	
IRON	18300	18700	2	50.00	
LITHIUM	23.5	24.0	2	50.00	
MAGNESIUM	4200	4320	3	50.00	
MANGANESE	259	255	2	50.00	
PHOSPHORUS	356	378	6	50.00	
POTASSIUM	2670	2720	2	50.00	
SODIUM	103	81.8	23	50.00	
STRONTIUM	26.2	17.9	38	50.00	
TIN	0.840	0.615	31	50.00	
TITANIUM	1050	1140	8	50.00	
Zirconium	1.38	1.13	20	50.00	

Method: 6020  
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-103-SA7-SB-4.0-5.0	DUP-09-SA7-QC-092711			
ARSENIC	3.85	3.84	0	50.00	No Qualifiers Applied
BARIUM	76.5	76.0	1	50.00	
BERYLLIUM	0.500	0.425	16	50.00	
CADMIUM	0.0906	0.0950	5	50.00	
CHROMIUM	15.1	14.4	5	50.00	
COBALT	4.75	4.59	3	50.00	
COPPER	7.14	7.00	2	50.00	
LEAD	4.80	4.51	6	50.00	
MOLYBDENUM	0.615	0.445	32	50.00	
NICKEL	9.34	9.02	3	50.00	
SELENIUM	0.160	0.139	14	50.00	
THALLIUM	0.240	0.258	7	50.00	
VANADIUM	30.5	31.5	3	50.00	
ZINC	52.9	50.8	4	50.00	

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Field Duplicate RPD Report

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: PrepDE256\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method: 6020</b>					
<b>Matrix: SO</b>					
ANTIMONY	0.0944	0.200 U	200	50.00	J(all detects)
SILVER	0.0234	0.100 U	200	50.00	UJ(all non-detects)

<b>Method: 7471A</b>					
<b>Matrix: SO</b>					
Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-103-SA7-SB-4.0-5.0	DUP-09-SA7-QC-092711			
MERCURY	0.101 U	0.0079	200	50.00	J(all detects) UJ(all non-detects)

<b>Method: 8015M</b>					
<b>Matrix: SO</b>					
Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-103-SA7-SB-4.0-5.0	DUP-09-SA7-QC-092711			
EFH (C15-C20)	0.60	6.2 U	200	50.00	J(all detects) UJ(all non-detects)
EFH (C21-C30)	8.7	17	65	50.00	
EFH (C30-C40)	24	60	86	50.00	

<b>Method: 8082</b>					
<b>Matrix: SO</b>					
Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-103-SA7-SB-4.0-5.0	DUP-09-SA7-QC-092711			
AROCOR 1260	0.47	1.8 U	200	50.00	J(all detects) UJ(all non-detects)

<b>Method: 8270C SIM</b>					
<b>Matrix: SO</b>					
Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-103-SA7-SB-4.0-5.0	DUP-09-SA7-QC-092711			
BENZO(B)FLUORANTHENE	2.1	2.4	13	50.00	No Qualifiers Applied
BENZO(A)ANTHRACENE	1.7 U	0.76	200	50.00	J(all detects) UJ(all non-detects)
BENZO(A)PYRENE	1.7 U	1.0	200	50.00	
BENZO(G,H,I)PERYLENE	1.7 U	1.0	200	50.00	
BIS(2-ETHYLHEXYL)PHTHALATE	55	19 U	200	50.00	
CHRYSENE	0.48	1.5	103	50.00	
FLUORANTHENE	1.7 U	1.0	200	50.00	
PYRENE	1.7 U	1.5	200	50.00	

<b>Method: 9045M</b>					
<b>Matrix: SO</b>					
Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-103-SA7-SB-4.0-5.0	DUP-09-SA7-QC-092711			
PH	8.37	8.32	1	50.00	No Qualifiers Applied

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 1625C  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWA26B261601	10/3/2011 4:01:00 PM	N-NITROSODIMETHYLAMINE	1.47 ng/L	EB-SA7-SB-092711

*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
EB-SA7-SB-092711(RES)	N-NITROSODIMETHYLAMINE	3.23 ng/L	3.23U ng/L

**Method:** 6010B  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27848CB222339	10/9/2011 11:39:00 PM	STRONTIUM	0.00022 mg/L	EB-SA7-SB-092711

*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
EB-SA7-SB-092711(REA2)	STRONTIUM	0.00023 mg/L	0.00023U mg/L

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27208AB220108	10/11/2011 1:08:00 AM	ALUMINUM	8.39 mg/Kg	DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0

# Method Blank Outlier Report

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27208AB220759	10/10/2011 7:59:00 AM	CALCIUM MANGANESE PHOSPHORUS STRONTIUM TIN	7.16 mg/Kg 0.0466 mg/Kg 1.24 mg/Kg 0.0262 mg/Kg 1.35 mg/Kg	DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0

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

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-09-SA7-QC-092711(RES)	TIN	0.615 mg/Kg	0.615U mg/Kg
SL-004-SA5DS-SS-0.0-0.5(RES)	TIN	1.04 mg/Kg	1.04U mg/Kg
SL-005-SA5DS-SS-0.0-0.5(RES)	TIN	1.06 mg/Kg	1.06U mg/Kg
SL-006-SA5DS-SS-0.0-0.5(RES)	TIN	0.816 mg/Kg	0.816U mg/Kg
SL-019-SA5DS-SS-0.0-0.5(RES)	TIN	0.959 mg/Kg	0.959U mg/Kg
SL-020-SA5DS-SS-0.0-0.5(RES)	TIN	0.969 mg/Kg	0.969U mg/Kg
SL-021-SA5DS-SS-0.0-0.5(RES)	TIN	1.08 mg/Kg	1.08U mg/Kg
SL-022-SA5DS-SS-0.0-0.5(RES)	TIN	1.03 mg/Kg	1.03U mg/Kg
SL-023-SA5DS-SS-0.0-0.5(RES)	TIN	1.04 mg/Kg	1.04U mg/Kg
SL-024-SA5DS-SS-0.0-0.5(RES)	TIN	0.857 mg/Kg	0.857U mg/Kg
SL-025-SA5DS-SS-0.0-0.5(RES)	TIN	1.01 mg/Kg	1.01U mg/Kg
SL-038-SA5DS-SS-0.0-0.5(RES)	TIN	0.592 mg/Kg	0.592U mg/Kg
SL-103-SA7-SB-4.0-5.0(RES)	TIN	0.840 mg/Kg	0.840U mg/Kg
SL-103-SA7-SB-9.0-10.0(RES)	TIN	0.721 mg/Kg	0.721U mg/Kg
SL-104-SA7-SB-4.0-5.0(RES)	TIN	0.751 mg/Kg	0.751U mg/Kg
SL-104-SA7-SB-9.0-10.0(RES)	TIN	0.916 mg/Kg	0.916U mg/Kg
SL-105-SA7-SB-4.0-5.0(RES)	TIN	1.02 mg/Kg	1.02U mg/Kg
SL-172-SA7-SB-4.0-5.0(RES)	TIN	0.895 mg/Kg	0.895U mg/Kg
SL-172-SA7-SB-9.0-10.0(RES)	TIN	0.941 mg/Kg	0.941U mg/Kg

# Method Blank Outlier Report

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27226AB222155A	9/29/2011 9:55:00 PM	COPPER LEAD	0.0875 mg/Kg 0.0645 mg/Kg	DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0

**Method:** 7470A  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27813AB220856	10/6/2011 8:56:00 AM	MERCURY	0.000042 mg/L	EB-SA7-SB-092711

*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
EB-SA7-SB-092711(RES)	MERCURY	0.000045 mg/L	0.000045U mg/L

**Method:** 8151A  
**Matrix:** SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P78786AB241039A	10/7/2011 10:39:00 AM	MCPP	130 ug/Kg	SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5
P83832AB241715A	10/12/2011 5:15:00 PM	2,4,5-T	0.10 ug/Kg	SL-038-SA5DS-SS-0.0-0.5

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_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-103-SA7-SB-4.0-5.0MS SL-103-SA7-SB-4.0-5.0MSD (SL-103-SA7-SB-4.0-5.0)	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	12 49 55	16 55 59	59.00-109.00 63.00-107.00 63.00-107.00	28 (20.00) - -	DIETHYLENE GLYCOL ETHYLENE GLYCOL Propylene glycol	J (all detects) UJ (all non-detects)
SL-103-SA7-SB-4.0-5.0MS SL-103-SA7-SB-4.0-5.0MSD (SL-103-SA7-SB-4.0-5.0)	EFH (C21-C30) EFH (C30-C40)	-50 -175	35 -220	49.00-123.00 49.00-123.00	22 (20.00) -	EFH (C21-C30) EFH (C30-C40)	J(all detects) R(all non-detects) EFH (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-103-SA7-SB-4.0-5.0MS SL-103-SA7-SB-4.0-5.0MSD (DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	ANTIMONY	35	30	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)
SL-103-SA7-SB-4.0-5.0MSD (DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	BARIUM	-	154	75.00-125.00	-	BARIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_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-103-SA7-SB-4.0-5.0MS SL-103-SA7-SB-4.0-5.0MSD (DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	ALUMINUM MAGNESIUM	361 -	988 279	75.00-125.00 75.00-125.00	- -	ALUMINUM MAGNESIUM	No Qual, >4x
SL-103-SA7-SB-4.0-5.0MS SL-103-SA7-SB-4.0-5.0MSD (DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	CALCIUM IRON	-278 -889	-149 837	75.00-125.00 75.00-125.00	- -	CALCIUM IRON	No Qual, >4x
SL-103-SA7-SB-4.0-5.0MS (DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	MANGANESE	54	-	75.00-125.00	-	MANGANESE	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_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-004-SA5DS-SS-0.0-0.5MS (SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5)	FLUORIDE	44	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-103-SA7-SB-4.0-5.0MS (DUP-09-SA7-QC-092711 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	FLUORIDE	61	-	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-103-SA7-SB-4.0-5.0MSD (SL-103-SA7-SB-4.0-5.0)	2,4-DINITROPHENOL 3,3'-DICHLOROBENZIDINE 4-CHLOROANILINE	- - -	- - -	20.00-143.00 28.00-109.00 23.00-95.00	56 (30.00) 43 (30.00) 42 (30.00)	2,4-DINITROPHENOL 3,3'-DICHLOROBENZIDINE 4-CHLOROANILINE	J(all detects)
SL-103-SA7-SB-4.0-5.0MSD (SL-103-SA7-SB-4.0-5.0)	BENZOIC ACID	-	0	10.00-173.00	200 (30.00)	BENZOIC ACID	J(all detects) R(all non-detects)
SL-103-SA7-SB-4.0-5.0MS SL-103-SA7-SB-4.0-5.0MSD (SL-103-SA7-SB-4.0-5.0)	BENZIDINE	21	25	35.00-141.00	-	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-103-SA7-SB-4.0-5.0MSD (SL-103-SA7-SB-4.0-5.0)	N-NITROSODIMETHYLAMINE	-	277	48.00-113.00	105 (30.00)	N-NITROSODIMETHYLAMINE	J(all detects)
SL-103-SA7-SB-4.0-5.0MS SL-103-SA7-SB-4.0-5.0MSD (SL-103-SA7-SB-4.0-5.0)	BIS(2-ETHYLHEXYL)PHTHALAT	-27	-39	39.00-167.00	-	BIS(2-ETHYLHEXYL)PHTHALA	J(all detects) R(all non-detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 1625C

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-103-SA7-SB-4.0-5.0MS (SL-103-SA7-SB-4.0-5.0)	N-NITROSODIMETHYLAMINE	134	-	70.00-130.00	-	N-NITROSODIMETHYLAMINE	J(all detects)

Method: 6010B

Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-103-SA7-SB-4.0-5.0MS SL-103-SA7-SB-4.0-5.0MSD (DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	TITANIUM	205	230	75.00-125.00	-	TITANIUM	No Qual, >4x

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 300.0**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-103-SA7-SB-4.0-5.0DUP (DUP-09-SA7-QC-092711 SL -038-SA5DS-SS-0.0-0.5 SL -103-SA7-SB-4.0-5.0 SL -103-SA7-SB-9.0-10.0 SL -104-SA7-SB-4.0-5.0 SL -104-SA7-SB-9.0-10.0 SL -105-SA7-SB-4.0-5.0 SL -172-SA7-SB-4.0-5.0 SL -172-SA7-SB-9.0-10.0)	Nitrate-NO3	28	20.00	No Qual, OK by Difference

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

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-103-SA7-SB-4.0-5.0DUP (DUP-09-SA7-QC-092711 SL -004-SA5DS-SS-0.0-0.5 SL -005-SA5DS-SS-0.0-0.5 SL -006-SA5DS-SS-0.0-0.5 SL -019-SA5DS-SS-0.0-0.5 SL -020-SA5DS-SS-0.0-0.5 SL -021-SA5DS-SS-0.0-0.5 SL -022-SA5DS-SS-0.0-0.5 SL -023-SA5DS-SS-0.0-0.5 SL -024-SA5DS-SS-0.0-0.5 SL -025-SA5DS-SS-0.0-0.5 SL -038-SA5DS-SS-0.0-0.5 SL -103-SA7-SB-4.0-5.0 SL -103-SA7-SB-9.0-10.0 SL -104-SA7-SB-4.0-5.0 SL -104-SA7-SB-9.0-10.0 SL -105-SA7-SB-4.0-5.0 SL -172-SA7-SB-4.0-5.0 SL -172-SA7-SB-9.0-10.0)	CALCIUM STRONTIUM Zirconium	38 47 42	20.00 20.00 20.00	J(all detects) UJ(all non-detects)  Zr, No Qual, OK by Difference

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 6020  
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-103-SA7-SB-4.0-5.0DUP (DUP-09-SA7-QC-092711)	ANTIMONY	200	20.00	No Qual, OK by Difference
SL -004-SA5DS-SS-0.0-0.5	MOLYBDENUM	38	20.00	
SL -005-SA5DS-SS-0.0-0.5	SELENIUM	42	20.00	
SL -006-SA5DS-SS-0.0-0.5				
SL -019-SA5DS-SS-0.0-0.5				
SL -020-SA5DS-SS-0.0-0.5				
SL -021-SA5DS-SS-0.0-0.5				
SL -022-SA5DS-SS-0.0-0.5				
SL -023-SA5DS-SS-0.0-0.5				
SL -024-SA5DS-SS-0.0-0.5				
SL -025-SA5DS-SS-0.0-0.5				
SL -038-SA5DS-SS-0.0-0.5				
SL -103-SA7-SB-4.0-5.0				
SL -103-SA7-SB-9.0-10.0				
SL -104-SA7-SB-4.0-5.0				
SL -104-SA7-SB-9.0-10.0				
SL -105-SA7-SB-4.0-5.0				
SL -172-SA7-SB-4.0-5.0				
SL -172-SA7-SB-9.0-10.0				

Method: 7199  
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-103-SA7-SB-4.0-5.0DUP (DUP-09-SA7-QC-092711)	HEXAVALENT CHROMIUM	200	20.00	No Qual, OK by Difference
SL -004-SA5DS-SS-0.0-0.5				
SL -005-SA5DS-SS-0.0-0.5				
SL -006-SA5DS-SS-0.0-0.5				
SL -019-SA5DS-SS-0.0-0.5				
SL -020-SA5DS-SS-0.0-0.5				
SL -021-SA5DS-SS-0.0-0.5				
SL -022-SA5DS-SS-0.0-0.5				
SL -023-SA5DS-SS-0.0-0.5				
SL -024-SA5DS-SS-0.0-0.5				
SL -025-SA5DS-SS-0.0-0.5				
SL -038-SA5DS-SS-0.0-0.5				
SL -103-SA7-SB-4.0-5.0				
SL -103-SA7-SB-9.0-10.0				
SL -104-SA7-SB-4.0-5.0				
SL -104-SA7-SB-9.0-10.0				
SL -105-SA7-SB-4.0-5.0				
SL -172-SA7-SB-4.0-5.0				
SL -172-SA7-SB-9.0-10.0				

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_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
P12766AQ241326A P12766AY241408A (EB-SA7-SB-092711)	Tetryl	71	67	72.00-141.00	-	Tetryl	J (all detects) UJ (all non-detects)

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

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P6WCLCSQ261423 (EB-SA7-SB-092711)	BIS(2-CHLOROETHYL) ETHER NITROBENZENE	109 111	-	77.00-108.00 75.00-109.00	-	BIS(2-CHLOROETHYL) ETHER NITROBENZENE	J(all detects)
P6WCLCSY261448 (EB-SA7-SB-092711)	BENZOIC ACID	-	-	10.00-69.00	82 (30.00)	BENZOIC ACID	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
P12799AQ242322A (SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5)	METHOXYCHLOR	130	-	59.00-125.00	-	METHOXYCHLOR	J(all detects)

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P12832AQ241743A (SL-038-SA5DS-SS-0.0-0.5)	DINOSEB	8	-	10.00-36.00	-	DINOSEB	J(all detects) R(all non-detects)

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_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
P27226AQ222158A (DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	ANTIMONY	62	-	80.00-120.00	-	ANTIMONY	No Qual, SRM within QC limits

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

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P27208AQ220112 (DUP-09-SA7-QC-092711 SL-004-SA5DS-SS-0.0-0.5 SL-005-SA5DS-SS-0.0-0.5 SL-006-SA5DS-SS-0.0-0.5 SL-019-SA5DS-SS-0.0-0.5 SL-020-SA5DS-SS-0.0-0.5 SL-021-SA5DS-SS-0.0-0.5 SL-022-SA5DS-SS-0.0-0.5 SL-023-SA5DS-SS-0.0-0.5 SL-024-SA5DS-SS-0.0-0.5 SL-025-SA5DS-SS-0.0-0.5 SL-038-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-4.0-5.0 SL-103-SA7-SB-9.0-10.0 SL-104-SA7-SB-4.0-5.0 SL-104-SA7-SB-9.0-10.0 SL-105-SA7-SB-4.0-5.0 SL-172-SA7-SB-4.0-5.0 SL-172-SA7-SB-9.0-10.0)	ALUMINUM	143	-	80.00-120.00	-	ALUMINUM	No Qual, SRM within QC limits

# Surrogate Outlier Report

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 1625C**  
**Matrix: AQ**

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
EB-SA7-SB-092711	N-Nitrosodimethylamine-d6	277	50.00-150.00	All Target Analytes	J (all detects)

**Method: 8081A**  
**Matrix: SO**

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-006-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	127	20.00-120.00	All Target Analytes	J(all detects)
SL-023-SA5DS-SS-0.0-0.5	TETRACHLORO-M-XYLENE	46	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)

**Method: 8082**  
**Matrix: SO**

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-022-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	123	45.00-120.00	All Target Analytes	J(all detects)
SL-023-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	155 154	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)
SL-103-SA7-SB-4.0-5.0	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	135 152	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 6010B**  
**Matrix: AQ**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-092711	BORON	J	0.0039	0.0500	PQL	mg/L	J (all detects)
		J	0.00023	0.0050	PQL	mg/L	

**Method: 6020**  
**Matrix: AQ**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-092711	LEAD	J	0.00013	0.0010	PQL	mg/L	J (all detects)

**Method: 7470A**  
**Matrix: AQ**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-092711	MERCURY	J	0.000045	0.00020	PQL	mg/L	J (all detects)

**Method: 8260B**  
**Matrix: AQ**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-092711	METHYLENE CHLORIDE	J	3	5	PQL	ug/L	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA7-SB-092711	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.13	1.1	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.36	1.1	PQL	ug/L	
	Di-n-butylphthalate	J	0.79	1.1	PQL	ug/L	
	Di-n-octylphthalate	J	0.11	1.1	PQL	ug/L	

**Method: 300.0**  
**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-105-SA7-SB-4.0-5.0	Nitrate-NO3	J	0.96	1.5	PQL	mg/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-09-SA7-QC-092711	SODIUM	J	81.8	99.1	PQL	mg/Kg	J (all detects)
	TIN	J	0.615	9.91	PQL	mg/Kg	
	Zirconium	J	1.13	4.96	PQL	mg/Kg	
SL-004-SA5DS-SS-0.0-0.5	SODIUM	J	93.6	101	PQL	mg/Kg	J (all detects)
	TIN	J	1.04	10.1	PQL	mg/Kg	
SL-005-SA5DS-SS-0.0-0.5	SODIUM	J	91.1	101	PQL	mg/Kg	J (all detects)
	TIN	J	1.06	10.1	PQL	mg/Kg	
	Zirconium	J	3.56	5.03	PQL	mg/Kg	
SL-006-SA5DS-SS-0.0-0.5	SODIUM	J	85.9	97.0	PQL	mg/Kg	J (all detects)
	TIN	J	0.816	9.70	PQL	mg/Kg	
SL-019-SA5DS-SS-0.0-0.5	SODIUM	J	86.7	99.7	PQL	mg/Kg	J (all detects)
	TIN	J	0.959	9.97	PQL	mg/Kg	
SL-020-SA5DS-SS-0.0-0.5	SODIUM	J	88.1	99.4	PQL	mg/Kg	J (all detects)
	TIN	J	0.969	9.94	PQL	mg/Kg	
SL-021-SA5DS-SS-0.0-0.5	SODIUM	J	91.3	98.7	PQL	mg/Kg	J (all detects)
	TIN	J	1.08	9.87	PQL	mg/Kg	
	Zirconium	J	4.06	4.93	PQL	mg/Kg	
SL-022-SA5DS-SS-0.0-0.5	SODIUM	J	83.9	101	PQL	mg/Kg	J (all detects)
	TIN	J	1.03	10.1	PQL	mg/Kg	
SL-023-SA5DS-SS-0.0-0.5	SODIUM	J	98.7	101	PQL	mg/Kg	J (all detects)
	TIN	J	1.04	10.1	PQL	mg/Kg	
SL-024-SA5DS-SS-0.0-0.5	TIN	J	0.857	10.1	PQL	mg/Kg	J (all detects)
SL-025-SA5DS-SS-0.0-0.5	SODIUM	J	98.2	101	PQL	mg/Kg	J (all detects)
	TIN	J	1.01	10.1	PQL	mg/Kg	
SL-038-SA5DS-SS-0.0-0.5	SODIUM	J	85.8	98.8	PQL	mg/Kg	J (all detects)
	TIN	J	0.592	9.88	PQL	mg/Kg	
	Zirconium	J	4.84	4.94	PQL	mg/Kg	
SL-103-SA7-SB-4.0-5.0	TIN	J	0.840	10.3	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.38	5.14	PQL	mg/Kg	
SL-103-SA7-SB-9.0-10.0	TIN	J	0.721	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	0.905	5.29	PQL	mg/Kg	
SL-104-SA7-SB-4.0-5.0	SODIUM	J	82.2	101	PQL	mg/Kg	J (all detects)
	TIN	J	0.751	10.1	PQL	mg/Kg	
	Zirconium	J	1.40	5.07	PQL	mg/Kg	
SL-104-SA7-SB-9.0-10.0	TIN	J	0.916	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.06	5.31	PQL	mg/Kg	
SL-105-SA7-SB-4.0-5.0	SODIUM	J	71.3	102	PQL	mg/Kg	J (all detects)
	TIN	J	1.02	10.2	PQL	mg/Kg	
	Zirconium	J	0.965	5.11	PQL	mg/Kg	
SL-172-SA7-SB-4.0-5.0	TIN	J	0.895	10.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.55	5.21	PQL	mg/Kg	
SL-172-SA7-SB-9.0-10.0	TIN	J	0.941	10.9	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.23	5.45	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-09-SA7-QC-092711	CADMIUM	J	0.0950	0.100	PQL	mg/Kg	J (all detects)
		J	0.139	0.400	PQL	mg/Kg	
SL-004-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.105	0.201	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.350	0.403	PQL	mg/Kg	
	SILVER	J	0.0252	0.101	PQL	mg/Kg	
SL-005-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.112	0.193	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.244	0.387	PQL	mg/Kg	
	SILVER	J	0.0236	0.0967	PQL	mg/Kg	
SL-006-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.134	0.202	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.178	0.403	PQL	mg/Kg	
	SILVER	J	0.0282	0.101	PQL	mg/Kg	
SL-019-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.0922	0.201	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.190	0.403	PQL	mg/Kg	
	SILVER	J	0.0210	0.101	PQL	mg/Kg	
SL-020-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.107	0.203	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.190	0.406	PQL	mg/Kg	
	SILVER	J	0.0708	0.101	PQL	mg/Kg	
SL-021-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.100	0.197	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.170	0.395	PQL	mg/Kg	
	SILVER	J	0.0207	0.0987	PQL	mg/Kg	
SL-022-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.108	0.202	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.217	0.403	PQL	mg/Kg	
	SILVER	J	0.0204	0.101	PQL	mg/Kg	
SL-023-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.111	0.202	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.259	0.404	PQL	mg/Kg	
	SILVER	J	0.0152	0.101	PQL	mg/Kg	
SL-024-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.119	0.199	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.170	0.399	PQL	mg/Kg	
	SILVER	J	0.0169	0.0996	PQL	mg/Kg	
SL-025-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.133	0.194	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.188	0.389	PQL	mg/Kg	
	SILVER	J	0.0162	0.0972	PQL	mg/Kg	
SL-038-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.122	0.202	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.292	0.403	PQL	mg/Kg	
	SILVER	J	0.0234	0.101	PQL	mg/Kg	
SL-103-SA7-SB-4.0-5.0	ANTIMONY	J	0.0944	0.210	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0906	0.105	PQL	mg/Kg	
	SELENIUM	J	0.160	0.419	PQL	mg/Kg	
	SILVER	J	0.0234	0.105	PQL	mg/Kg	
SL-103-SA7-SB-9.0-10.0	CADMIUM	J	0.0962	0.109	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.113	0.436	PQL	mg/Kg	
	SILVER	J	0.0182	0.109	PQL	mg/Kg	
SL-104-SA7-SB-4.0-5.0	CADMIUM	J	0.0978	0.101	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.135	0.406	PQL	mg/Kg	
	SILVER	J	0.0200	0.101	PQL	mg/Kg	
SL-104-SA7-SB-9.0-10.0	CADMIUM	J	0.102	0.105	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.101	0.420	PQL	mg/Kg	
	SILVER	J	0.0221	0.105	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-105-SA7-SB-4.0-5.0	CADMIUM SELENIUM SILVER	J	0.0921	0.103	PQL	mg/Kg	J (all detects)
		J	0.142	0.413	PQL	mg/Kg	
		J	0.0154	0.103	PQL	mg/Kg	
SL-172-SA7-SB-4.0-5.0	SELENIUM SILVER	J	0.160	0.430	PQL	mg/Kg	J (all detects)
		J	0.0248	0.107	PQL	mg/Kg	
SL-172-SA7-SB-9.0-10.0	SELENIUM SILVER	J	0.126	0.428	PQL	mg/Kg	J (all detects)
		J	0.0224	0.107	PQL	mg/Kg	

**Method:** 7199  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-004-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.97	1.0	PQL	mg/Kg	J (all detects)
SL-005-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.92	1.0	PQL	mg/Kg	J (all detects)
SL-021-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.65	1.0	PQL	mg/Kg	J (all detects)
SL-022-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.56	1.0	PQL	mg/Kg	J (all detects)
SL-024-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.67	1.0	PQL	mg/Kg	J (all detects)
SL-025-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.86	1.0	PQL	mg/Kg	J (all detects)

**Method:** 7471A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-09-SA7-QC-092711	MERCURY	J	0.0079	0.101	PQL	mg/Kg	J (all detects)
SL-004-SA5DS-SS-0.0-0.5	MERCURY	J	0.0103	0.101	PQL	mg/Kg	J (all detects)
SL-005-SA5DS-SS-0.0-0.5	MERCURY	J	0.0074	0.0945	PQL	mg/Kg	J (all detects)
SL-006-SA5DS-SS-0.0-0.5	MERCURY	J	0.0109	0.0963	PQL	mg/Kg	J (all detects)
SL-019-SA5DS-SS-0.0-0.5	MERCURY	J	0.0135	0.0991	PQL	mg/Kg	J (all detects)
SL-020-SA5DS-SS-0.0-0.5	MERCURY	J	0.0088	0.0959	PQL	mg/Kg	J (all detects)
SL-021-SA5DS-SS-0.0-0.5	MERCURY	J	0.0115	0.0972	PQL	mg/Kg	J (all detects)
SL-022-SA5DS-SS-0.0-0.5	MERCURY	J	0.0193	0.0997	PQL	mg/Kg	J (all detects)
SL-023-SA5DS-SS-0.0-0.5	MERCURY	J	0.0118	0.0967	PQL	mg/Kg	J (all detects)
SL-024-SA5DS-SS-0.0-0.5	MERCURY	J	0.0098	0.100	PQL	mg/Kg	J (all detects)
SL-025-SA5DS-SS-0.0-0.5	MERCURY	J	0.0098	0.0963	PQL	mg/Kg	J (all detects)
SL-038-SA5DS-SS-0.0-0.5	MERCURY	J	0.0877	0.0977	PQL	mg/Kg	J (all detects)
SL-172-SA7-SB-4.0-5.0	MERCURY	J	0.0079	0.105	PQL	mg/Kg	J (all detects)
SL-172-SA7-SB-9.0-10.0	MERCURY	J	0.0490	0.105	PQL	mg/Kg	J (all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

# Reporting Limit Outliers

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_v1.

eQAPP Name: CDM\_SSFL\_110509

<b>Method:</b> 7471A	
<b>Matrix:</b> SO	

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
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<b>Method:</b> 8015M	
<b>Matrix:</b> SO	

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-103-SA7-SB-4.0-5.0	EFH (C15-C20)	J	0.60	1.3	PQL	mg/Kg	J (all detects)
SL-103-SA7-SB-9.0-10.0	EFH (C15-C20)	J	0.44	1.3	PQL	mg/Kg	J (all detects)
SL-104-SA7-SB-4.0-5.0	EFH (C15-C20)	J	0.53	1.3	PQL	mg/Kg	J (all detects)
SL-105-SA7-SB-4.0-5.0	EFH (C15-C20)	J	0.45	1.2	PQL	mg/Kg	J (all detects)

<b>Method:</b> 8081A	
<b>Matrix:</b> SO	

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-019-SA5DS-SS-0.0-0.5	4,4'-DDE	J	0.23	0.34	PQL	ug/Kg	J (all detects)
	ENDRIN ALDEHYDE	J	0.086	0.34	PQL	ug/Kg	
SL-020-SA5DS-SS-0.0-0.5	Chlordane	J	2.9	3.4	PQL	ug/Kg	J (all detects)
SL-021-SA5DS-SS-0.0-0.5	Chlordane	J	1.6	3.4	PQL	ug/Kg	J (all detects)
	TOXAPHENE	J	2.6	6.7	PQL	ug/Kg	
SL-022-SA5DS-SS-0.0-0.5	DELTA-BHC	J	0.046	0.17	PQL	ug/Kg	J (all detects)
	ENDRIN KETONE	J	0.097	0.34	PQL	ug/Kg	
SL-023-SA5DS-SS-0.0-0.5	4,4'-DDE	J	0.25	0.35	PQL	ug/Kg	J (all detects)
	Chlordane	J	1.8	3.5	PQL	ug/Kg	
SL-025-SA5DS-SS-0.0-0.5	BETA-BHC	J	0.079	0.17	PQL	ug/Kg	J (all detects)
	Chlordane	J	2.5	3.5	PQL	ug/Kg	
SL-038-SA5DS-SS-0.0-0.5	Chlordane	J	1.1	3.5	PQL	ug/Kg	J (all detects)

<b>Method:</b> 8082	
<b>Matrix:</b> SO	

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-004-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	0.51	1.7	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.67	1.7	PQL	ug/Kg	
	Aroclor 5460	J	1.2	3.4	PQL	ug/Kg	
SL-006-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	1.0	1.7	PQL	ug/Kg	
	Aroclor 5460	J	1.9	3.4	PQL	ug/Kg	
SL-019-SA5DS-SS-0.0-0.5	AROCLOR 1260	J	0.52	1.7	PQL	ug/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8082  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-020-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.87	1.7	PQL	ug/Kg	
	Aroclor 5460	J	2.0	3.3	PQL	ug/Kg	
SL-021-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	0.89	1.7	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.71	1.7	PQL	ug/Kg	
	Aroclor 5460	J	1.6	3.3	PQL	ug/Kg	
SL-022-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.97	1.7	PQL	ug/Kg	
	Aroclor 5460	J	2.0	3.4	PQL	ug/Kg	
SL-023-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	0.64	1.7	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.75	1.7	PQL	ug/Kg	
	Aroclor 5460	J	1.6	3.4	PQL	ug/Kg	
SL-024-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	0.89	1.7	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	1.3	3.3	PQL	ug/Kg	
SL-025-SA5DS-SS-0.0-0.5	Aroclor 5460	J	1.3	3.3	PQL	ug/Kg	J (all detects)
SL-038-SA5DS-SS-0.0-0.5	AROCLOR 1242	J	0.72	1.7	PQL	ug/Kg	J (all detects)
SL-103-SA7-SB-4.0-5.0	AROCLOR 1260	J	0.47	1.8	PQL	ug/Kg	J (all detects)
SL-104-SA7-SB-4.0-5.0	AROCLOR 1260	J	0.90	1.8	PQL	ug/Kg	J (all detects)
SL-104-SA7-SB-9.0-10.0	AROCLOR 1260	J	0.47	1.8	PQL	ug/Kg	J (all detects)
SL-105-SA7-SB-4.0-5.0	AROCLOR 1260	J	0.75	1.7	PQL	ug/Kg	J (all detects)
SL-172-SA7-SB-4.0-5.0	AROCLOR 1260	J	0.76	1.8	PQL	ug/Kg	J (all detects)

**Method:** 8151A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-006-SA5DS-SS-0.0-0.5	2,4-D	J	2.0	3.7	PQL	ug/Kg	J (all detects)
SL-021-SA5DS-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.13	0.17	PQL	ug/Kg	J (all detects)
SL-038-SA5DS-SS-0.0-0.5	2,4,5-TP (Silvex)	J	0.090	0.17	PQL	ug/Kg	J (all detects)
	DICAMBA	J	0.61	1.2	PQL	ug/Kg	
	DICHLOROPROP	J	1.6	1.7	PQL	ug/Kg	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-09-SA7-QC-092711	Di-n-butylphthalate	J	35	170	PQL	ug/Kg	J (all detects)
SL-005-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	19	340	PQL	ug/Kg	J (all detects)
SL-006-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	51	340	PQL	ug/Kg	J (all detects)
SL-024-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	18	340	PQL	ug/Kg	J (all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Reporting Limit Outliers

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 8270C SIM

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-09-SA7-QC-092711	BENZO(A)ANTHRACENE	J	0.76	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.0	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.0	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.5	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.0	1.7	PQL	ug/Kg	
	PYRENE	J	1.5	1.7	PQL	ug/Kg	
SL-004-SA5DS-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	0.78	1.7	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.2	1.7	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	0.81	1.7	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.6	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.1	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	12	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.7	PQL	ug/Kg	
SL-005-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.76	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.0	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.4	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.71	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.7	PQL	ug/Kg	
SL-006-SA5DS-SS-0.0-0.5	1-METHYLNAPHTHALENE	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	0.78	1.7	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.2	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.73	1.7	PQL	ug/Kg	
SL-019-SA5DS-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.4	1.7	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.36	1.7	PQL	ug/Kg	
SL-020-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.76	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.1	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.71	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	16	18	PQL	ug/Kg	
	Butylbenzylphthalate	J	6.6	18	PQL	ug/Kg	
	NAPHTHALENE	J	1.0	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.0	1.7	PQL	ug/Kg	
	PYRENE	J	1.6	1.7	PQL	ug/Kg	
SL-021-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.1	18	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.93	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	0.98	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.76	1.7	PQL	ug/Kg	
	PYRENE	J	0.86	1.7	PQL	ug/Kg	
SL-022-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.1	1.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	10	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.89	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.87	1.7	PQL	ug/Kg	
SL-023-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.5	1.7	PQL	ug/Kg	J (all detects)
	BENZO(K)FLUORANTHENE	J	0.90	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	6.6	18	PQL	ug/Kg	
	CHRYSENE	J	1.6	1.7	PQL	ug/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE256

Laboratory: LL

EDD Filename: DE256\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-024-SA5DS-SS-0.0-0.5	2-METHYLNAPHTHALENE	J	0.71	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.79	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.0	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.4	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.70	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	1.6	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.3	1.7	PQL	ug/Kg	
PYRENE	J	1.5	1.7	PQL	ug/Kg		
SL-025-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.5	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.4	1.7	PQL	ug/Kg	
	Butylbenzylphthalate	J	6.6	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.74	1.7	PQL	ug/Kg	
PHENANTHRENE	J	1.5	1.7	PQL	ug/Kg		
SL-038-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	11	19	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.78	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	0.92	1.7	PQL	ug/Kg	
	PYRENE	J	0.89	1.7	PQL	ug/Kg	
SL-103-SA7-SB-4.0-5.0	CHRYSENE	J	0.48	1.7	PQL	ug/Kg	J (all detects)
SL-103-SA7-SB-9.0-10.0	BENZO(B)FLUORANTHENE	J	0.91	1.8	PQL	ug/Kg	J (all detects)
SL-104-SA7-SB-4.0-5.0	BENZO(A)PYRENE	J	0.75	1.7	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.2	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	6.3	19	PQL	ug/Kg	
	CHRYSENE	J	0.76	1.7	PQL	ug/Kg	
PYRENE	J	0.98	1.7	PQL	ug/Kg		
SL-104-SA7-SB-9.0-10.0	BENZO(B)FLUORANTHENE	J	0.72	1.7	PQL	ug/Kg	J (all detects)
SL-105-SA7-SB-4.0-5.0	BENZO(G,H,I)PERYLENE	J	0.87	1.7	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	1.5	1.7	PQL	ug/Kg	
SL-172-SA7-SB-4.0-5.0	BENZO(B)FLUORANTHENE	J	1.2	1.8	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.50	1.8	PQL	ug/Kg	
SL-172-SA7-SB-9.0-10.0	BENZO(B)FLUORANTHENE	J	0.74	1.8	PQL	ug/Kg	J (all detects)

LDC #: 26859Z4

**VALIDATION COMPLETENESS WORKSHEET**

SDG #: DE256

ADR

Laboratory: Lancaster Laboratories

Date: 1/4/12

Page: 1 of 1

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	N	
III.	Calibration	N	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N SW	Al, Ba, Ca, Fe, Mg, Mn, Ti, > 4X
VII.	Duplicate Sample Analysis	N SW	Sb, Mo, Se, Zr < 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	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	-	
XV.	Field Blanks	SW	EB=20

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-004-SA5DS-SS-0.0-0.5	11	SL-038-SA5DS-SS-0.0-0.5	21	SL-103-SA7-SB-4.0-5.0MS	31	
2	SL-005-SA5DS-SS-0.0-0.5	12	SL-103-SA7-SB-4.0-5.0	22	SL-103-SA7-SB-4.0-5.0MSD	32	
3	SL-006-SA5DS-SS-0.0-0.5	13	SL-103-SA7-SB-9.0-10.0	23	SL-103-SA7-SB-4.0-5.0DUP	33	
4	SL-019-SA5DS-SS-0.0-0.5	14	SL-104-SA7-SB-4.0-5.0	24		34	
5	SL-020-SA5DS-SS-0.0-0.5	15	SL-104-SA7-SB-9.0-10.0	25		35	
6	SL-021-SA5DS-SS-0.0-0.5	16	SL-105-SA7-SB-4.0-5.0	26		36	
7	SL-022-SA5DS-SS-0.0-0.5	17	SL-172-SA7-SB-4.0-5.0	27		37	
8	SL-023-SA5DS-SS-0.0-0.5	18	SL-172-SA7-SB-9.0-10.0	28		38	
9	SL-024-SA5DS-SS-0.0-0.5	19	DUP-09-SA7-QC-092711	29		39	
10	SL-025-SA5DS-SS-0.0-0.5	20	EB-SA7-SB-092711	30		40	

Notes: \_\_\_\_\_

\_\_\_\_\_

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000)

Soil preparation factor applied: 100X

2nd Reviewer: [Signature]

Sample Concentration units, unless otherwise noted: ug/L

Associated Samples: All AQ

Reason: B

Analyte	Maximum PB <sup>a</sup> (mg/Kg)	Maximum PB <sup>a</sup> (ug/L)	Maximum ICB/CCB <sup>a</sup> (ug/L)	Action Limit										
Pb			0.061	0.305	20									
Hg			0.036	0.18										

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.

**VALIDATION FINDINGS WORKSHEET**  
**Field Blanks**

**METHOD:** Trace Metals (EPA SW846 6010B/6020/7000)

**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:** 9/27/11 **Soil factor applied:** 100X, Hg:167X

**Field blank type:** (circle one) Field Blank / Rinsate / Other:

12-19  
Associated Samples: All Soil Reason Code: F

Analyte	Blank ID	Sample Identification														
		1	2	3	4	5	6	7	8	9	10					
	20	1.95	0.065	0.037575	0.115	0.010	0.0074	0.011	0.014	0.0088	0.012	0.019	0.042	0.0098	0.0079	0.0079
B	3.9															
Pb	0.13															
Hg	0.045															
Sr	0.23															

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".



QUALITY ASSURANCE SUMMARY  
 FORM 5A (MS/MSD)  
 MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
 SDG No.: DE256  
 Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6421299BKG Matrix Spike Lab Sample ID: 6421300MS Matrix Spike Duplicate Lab Sample ID: 6421301MSD  
 & Solids for Sample: 95.4  
 Batch Id(s): P27208A, P27226A, P27211A, P28408B

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				%R	Q	%R	Q	%R	RPD
Aluminum	121	13667.8290		14417.2510		15679.3002		207.5679	203.5375	MG/KG	361	30N	988	8	74	20P
Antimony	75	0.0944	B	0.5289		0.4602		1.2454	1.2095	MG/KG	35N	30N	30	14	75-125	20MS
Arsenic	137	3.8470		5.9800		5.9708		2.0757	2.0158	MG/KG	103	105	105	0	75-125	20MS
Barium	9	76.5199		88.4862		92.0618		10.3784	10.0790	MG/KG	115	154	154	4	74	20MS
Beryllium	9	0.5000		1.2116		1.1883		0.8303	0.8063	MG/KG	86	85	85	2	75-125	20MS
Boron	111	6.9275		201.0389		203.4785		207.5679	203.5375	MG/KG	94	97	97	1	84-115	20P
Cadmium	111	0.0906	B	1.1460		1.0817		1.0378	1.0079	MG/KG	102	98	98	6	75-125	20MS
Calcium	52	5169.9973		4015.4742		4565.1981		415.1358	407.0750	MG/KG	-278	-149	-149	13	74	20P
Chromium	52	15.1321		24.4307		23.5043		10.3784	10.0790	MG/KG	90	83	83	4	75-125	20MS
Cobalt	59	4.7526		53.2204		51.1006		51.8920	50.3951	MG/KG	93	92	92	4	75-125	20MS
Copper	63	7.1447		17.5914		16.0881		10.3784	10.0790	MG/KG	101	89	89	9	75-125	20MS
Iron	208	18270.9705		17348.3218		19123.2257		103.7840	101.7687	MG/KG	-889	837	837	10	74	20P
Lead	208	4.7966		7.9955		7.6681		3.1135	3.0237	MG/KG	103	95	95	4	75-125	20MS
Lithium	23	23.5346		124.3716		126.1719		103.7840	101.7687	MG/KG	97	101	101	1	82-114	20P
Magnesium	4198	4198.1502		4405.2546		4765.9431		207.5679	203.5375	MG/KG	100	279	279	8	74	20P
Manganese	258	258.6437		286.4323		308.4387		51.8920	50.8844	MG/KG	54	98	98	7	74	20P
Mercury	0.0073	0.0073	U	0.1725		0.1734		0.1691	0.1741	MG/KG	102	100	100	1	65-135	20CV
Molybdenum	98	0.6149		10.1750		9.8332		10.3784	10.0790	MG/KG	92	92	92	3	75-125	20MS
Nickel	60	9.3354		20.0033		18.7409		10.3784	10.0790	MG/KG	103	93	93	7	75-125	20MS
Phosphorus	355	355.8628		434.1688		449.1126		103.7840	101.7687	MG/KG	75	92	92	3	75-125	20P
Potassium	2674	2674.5468		3778.4513		3942.8457		1037.8396	1017.6874	MG/KG	106	125	125	4	75-125	20P
Selenium	78	0.1604	B	2.1006		2.1005		2.0757	2.0158	MG/KG	93	96	96	0	75-125	20MS
Silver	107	0.0234	B	10.1874		9.7867		10.3784	10.0790	MG/KG	98	97	97	4	75-125	20MS
Sodium	103	103.0881		1021.7407		1043.8348		1037.8396	1017.6874	MG/KG	89	92	92	2	75-125	20P
Strontium	26	26.1572		115.0310		117.7230		103.7840	101.7687	MG/KG	86	90	90	2	75-115	20P
Thallium	203	0.2400		0.6557		0.6152		0.4151	0.4032	MG/KG	100	93	93	6	75-125	20MS
Tin	0.8396	0.8396	B	360.8755		359.7861		415.1358	407.0750	MG/KG	87	88	88	0	80-110	20P
Titanium	1054	1054.7817		1261.5163		1293.9919		100.7902	103.7840	MG/KG	205	230	230	3	74	20P
Vanadium	51	30.5241		39.9568		39.3888		10.3784	10.0790	MG/KG	91	88	88	1	75-125	20MS
Zinc	66	52.8931		64.5744		61.2603		10.3784	10.0790	MG/KG	113	83	83	5	75-125	20MS
Zirconium	138	1.3812	B	101.3886		101.2283		103.7840	101.7687	MG/KG	96	98	98	0	81-110	20P

METHODS: P = ICP Atomic Emission Spectrometer CV = Cold Vapor MS = ICP Mass Spectrometry  
 CONCENTRATION QUALIFIERS: U = Below MDL, B = Below LOQ  
 FLAGS: N = Matrix Spike OOS, \* = Duplicate OOS



QUALITY ASSURANCE SUMMARY

FORM 6

DUPLICATES

SDG No.: DE256

Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 6421299BKG

Duplicate Lab Sample ID: 6421302DUP

% Solids for Duplicate: 95.2

% Solids for Sample: 95.4

Batch ID(s): P27208A, P27226A, P27211A, P28408B

Concentration Units: MG/KG

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			13667.8290		13449.7437			2	P
Antimony	121		0.0944	B	0.0760	U	280		MS
Arsenic	75		3.8470		3.7777			2	MS
Barium	137		76.5199		80.0140			4	MS
Beryllium	9	0.1	0.5000		0.4692			6	MS
Boron		5.1	6.9275		6.5467			6	P
Cadmium	111		0.0906	B	0.0789	B		14	MS
Calcium			5169.9973		3501.8141			38 *	P
Chromium	52		15.1321		14.1345			7	MS
Cobalt	59		4.7526		4.8218			1	MS
Copper	63		7.1447		6.7682			5	MS
Iron			18270.9705		18669.9141			2	P
Lead	208		4.7966		4.4971			6	MS
Lithium			23.5346		25.1479			7	P
Magnesium			4198.1502		4437.6590			6	P
Manganese			258.6437		247.6088			4	P
Mercury			0.0073	U	0.0074	U			CV
Molybdenum	98	0.1	0.6149		0.4203			38 *	MS
Nickel	60		9.3354		9.1565			2	MS
Phosphorus			355.8628		329.2214			8	P
Potassium			2674.5468		2874.8075			7	P
Selenium	78		0.1604	B	0.1048	B		42	MS
Silver	107		0.0234	B	0.0240	B		3	MS
Sodium		102.8	103.0881		95.8538	B		7	P
Strontium			26.1572		16.1571			47 *	P
Thallium	203	0.1	0.2400		0.2234			7	MS
Tin			0.8396	B	0.7877	B		6	P
Titanium			1054.7817		1070.9829			2	P
Vanadium	51		30.5241		29.1240			5	MS
Zinc	66		52.8931		55.2473			4	MS
Zirconium			1.3812	B	2.1193	B		42	P

*ok by Jeffery*

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.

DE256 5728

<p><b>METHODS:</b></p> <p>P = ICP Atomic Emission Spectrometer</p> <p>MS = ICP Mass Spectrometry</p> <p>CV = Cold Vapor</p> <p>AF = Cold Vapor Atomic Fluorescence</p>	<p><b>CONCENTRATION QUALIFIERS:</b></p> <p>U= Below MDL</p> <p>B= Below LOQ</p> <p><b>FLAGS:</b></p> <p>* = Duplicate Out of Spec</p>
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# **SAMPLE DELIVERY GROUP**

**DE257**

# **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-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	3050B	6010B	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	3050B	6020	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	3550B	8081A	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	3550B	8082	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	3550B	8151A	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	3550B	8270C	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	3550B	8270C SIM	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	Gen Prep	7199	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	METHOD	300.0	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	METHOD	314.0	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	METHOD	6850	III
28-Sep-2011	SL-008-SA5DS-SS-0.0-0.5	6422530	N	METHOD	7471A	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	3050B	6010B	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	3050B	6020	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	3550B	8081A	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	3550B	8082	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	3550B	8151A	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	3550B	8270C	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	3550B	8270C SIM	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	Gen Prep	7199	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	METHOD	300.0	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	METHOD	314.0	III
28-Sep-2011	SL-007-SA5DS-SS-0.0-0.5	6422529	N	METHOD	7471A	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	3050B	6010B	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	3050B	6020	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	3550B	8081A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	3550B	8082	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	3550B	8151A	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	3550B	8270C	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	3550B	8270C SIM	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	Gen Prep	7199	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	METHOD	300.0	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	METHOD	314.0	III
28-Sep-2011	SL-010-SA5DS-SS-0.0-0.5	6422532	N	METHOD	7471A	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	3050B	6010B	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	3050B	6020	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	3550B	8081A	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	3550B	8082	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	3550B	8151A	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	3550B	8270C	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	3550B	8270C SIM	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	Gen Prep	7199	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	METHOD	300.0	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	METHOD	314.0	III
28-Sep-2011	SL-017-SA5DS-SS-0.0-0.5	6422537	N	METHOD	7471A	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	3050B	6010B	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	3050B	6020	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	3550B	8081A	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	3550B	8082	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	3550B	8151A	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	3550B	8270C	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	3550B	8270C SIM	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	Gen Prep	7199	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	METHOD	300.0	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	METHOD	314.0	III
28-Sep-2011	SL-016-SA5DS-SS-0.0-0.5	6422536	N	METHOD	7471A	III
28-Sep-2011	SL-106-SA7-SB-15.5	6422525	N	5035	8015M	III
28-Sep-2011	SL-106-SA7-SB-15.5	6422525	N	5035	8260B	III
28-Sep-2011	SL-106-SA7-SB-15.5	6422525	N	5035	8260B SIM	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	3050B	6010B	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	3050B	6020	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	3546	1625C	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	3550B	8015B	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	3550B	8015M	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	3550B	8082	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	3550B	8270C	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	3550B	8270C SIM	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	5035	8015M	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	Gen Prep	7199	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	METHOD	300.0	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	METHOD	314.0	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	METHOD	7471A	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	METHOD	8015B	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	METHOD	8015M	III
28-Sep-2011	SL-106-SA7-SB-19.0-20.0	6422527	N	METHOD	8315A	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	3050B	6010B	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	3050B	6020	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	3550B	8081A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	3550B	8082	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	3550B	8151A	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	3550B	8270C	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	3550B	8270C SIM	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	Gen Prep	7199	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	METHOD	300.0	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	METHOD	314.0	III
28-Sep-2011	SL-009-SA5DS-SS-0.0-0.5	6422531	N	METHOD	7471A	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	3050B	6010B	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	3050B	6020	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	3550B	8081A	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	3550B	8082	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	3550B	8151A	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	3550B	8270C	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	3550B	8270C SIM	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	Gen Prep	7199	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	METHOD	300.0	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	METHOD	314.0	III
28-Sep-2011	SL-014-SA5DS-SS-0.0-0.5	6422534	N	METHOD	7471A	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	3050B	6010B	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	3050B	6020	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	3550B	8081A	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	3550B	8082	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	3550B	8151A	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	3550B	8270C	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	3550B	8270C SIM	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	Gen Prep	7199	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	METHOD	300.0	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	METHOD	314.0	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	METHOD	6850	III
28-Sep-2011	SL-015-SA5DS-SS-0.0-0.5	6422535	N	METHOD	7471A	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	3050B	6010B	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	3050B	6020	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	3550B	8081A	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	3550B	8082	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	3550B	8151A	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	3550B	8270C	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	3550B	8270C SIM	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	Gen Prep	7199	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	METHOD	300.0	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	METHOD	314.0	III
28-Sep-2011	SL-013-SA5DS-SS-0.0-0.5	6422533	N	METHOD	7471A	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	3050B	6010B	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	3050B	6020	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	3546	1625C	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	3550B	8015B	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	3550B	8015M	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	3550B	8082	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	3550B	8270C	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	3550B	8270C SIM	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	5035	8015M	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	Gen Prep	7199	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	METHOD	300.0	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	METHOD	314.0	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	METHOD	7471A	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	METHOD	8015B	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	METHOD	8015M	III
28-Sep-2011	SL-106-SA7-SB-4.0-5.0	6422523	N	METHOD	8315A	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	3050B	6010B	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	3050B	6020	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	3546	1625C	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	3550B	8015B	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	3550B	8015M	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	3550B	8082	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	3550B	8270C	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	3550B	8270C SIM	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	5035	8015M	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	Gen Prep	7199	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	METHOD	300.0	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	METHOD	314.0	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	METHOD	7471A	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	METHOD	8015B	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	METHOD	8015M	III
28-Sep-2011	SL-106-SA7-SB-9.0-10.0	6422524	N	METHOD	8315A	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	3050B	6010B	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	3050B	6020	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	3546	1625C	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	3550B	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	3550B	8015M	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	3550B	8082	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	3550B	8270C	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	3550B	8270C SIM	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	5035	8015M	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	Gen Prep	7199	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	METHOD	300.0	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	METHOD	314.0	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	METHOD	7471A	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	METHOD	8015B	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	METHOD	8015M	III
28-Sep-2011	SL-106-SA7-SB-16.5-17.5	6422526	N	METHOD	8315A	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	3005A	6010B	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	3020A	6020	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	3510C	8081A	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	3510C	8082	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	3510C	8270C	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	3510C	8270C SIM	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	Gen Prep	300.0	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	Gen Prep	314.0	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	Gen Prep	7199	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	METHOD	7470A	III
28-Sep-2011	EB-SA5DS-SS-092811	6422547	EB	METHOD	8151A	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	3050B	6010B	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	3050B	6020	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	3550B	8081A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	3550B	8082	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	3550B	8151A	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	3550B	8270C	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	3550B	8270C SIM	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	Gen Prep	7199	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	METHOD	300.0	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	METHOD	314.0	III
28-Sep-2011	SL-033-SA5DS-SS-0.0-0.5	6422538	N	METHOD	7471A	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	3050B	6010B	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	3050B	6020	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	3550B	8081A	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	3550B	8082	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	3550B	8151A	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	3550B	8270C	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	3550B	8270C SIM	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	Gen Prep	7199	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	METHOD	300.0	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	METHOD	314.0	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5	6422539	N	METHOD	7471A	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	3050B	6010B	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	3050B	6020	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	3550B	8081A	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	3550B	8082	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	3550B	8151A	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	3550B	8270C	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	3550B	8270C SIM	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	Gen Prep	7199	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	METHOD	300.0	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	METHOD	314.0	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5MS	6422540	MS	METHOD	7471A	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5DU	6422542	DUP	3050B	6010B	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5DU	6422542	DUP	3050B	6020	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5DU	6422542	DUP	Gen Prep	7199	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5DU	6422542	DUP	METHOD	300.0	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5DU	6422542	DUP	METHOD	314.0	III
28-Sep-2011	SL-034-SA5DS-SS-0.0-0.5DU	6422542	DUP	METHOD	7471A	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	3050B	6010B	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	3050B	6020	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	3550B	8081A	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	3550B	8082	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	3550B	8151A	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	3550B	8270C	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	3550B	8270C SIM	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	Gen Prep	7199	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	METHOD	300.0	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	METHOD	314.0	III
28-Sep-2011	DUP-02-SA5DS-QC-092811	6422546	FD	METHOD	7471A	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	3050B	6010B	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	3050B	6020	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	3546	1625C	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	3550B	8015B	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	3550B	8015M	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	3550B	8082	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	3550B	8270C	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	3550B	8270C SIM	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	5035	8015M	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	Gen Prep	7199	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	METHOD	300.0	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	METHOD	314.0	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	METHOD	6850	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	METHOD	7471A	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	METHOD	8015B	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	METHOD	8015M	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0	6422522	N	METHOD	8315A	III
28-Sep-2011	TB-092711	6422528	TB	5030B	8015M	III
28-Sep-2011	TB-092711	6422528	TB	5030B	8260B	III
28-Sep-2011	TB-092711	6422528	TB	5030B	8260B SIM	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0DU	P422522D270032A	DUP	METHOD	300.0	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0DU	P422522D272022A	DUP	METHOD	314.0	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0MS	P422522R270045A	MS	METHOD	300.0	III
28-Sep-2011	SL-103-SA7-SB-18.0-19.0MS	P422522R272045A	MS	METHOD	314.0	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	3050B	6010B	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	3050B	6020	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	3550B	8081A	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	3550B	8082	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	3550B	8151A	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	3550B	8270C	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	3550B	8270C SIM	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	Gen Prep	7199	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	METHOD	300.0	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	METHOD	314.0	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	METHOD	6850	III
28-Sep-2011	SL-040-SA5DS-SS-0.0-0.5	6422545	N	METHOD	7471A	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>GENCHEM</b>	
<b>Method:</b>	<b>300.0</b>	<b>Matrix: SO</b>

<b>Sample ID:</b> SL-007-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/28/2011 8:00:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q	

<b>Sample ID:</b> SL-008-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/28/2011 7:30:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	1.1		0.81	MDL	1.0	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-009-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/28/2011 9:50:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q	

<b>Sample ID:</b> SL-010-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/28/2011 8:20:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q	

<b>Sample ID:</b> SL-013-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/28/2011 11:00:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	0.93	J	0.81	MDL	1.0	PQL	mg/Kg	J	Z, Q	

<b>Sample ID:</b> SL-103-SA7-SB-18.0-19.0			<b>Collected:</b> 9/28/2011 2:30:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	2.8		0.87	MDL	1.1	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-106-SA7-SB-16.5-17.5			<b>Collected:</b> 9/28/2011 12:45:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	4.2		0.86	MDL	1.1	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-106-SA7-SB-19.0-20.0			<b>Collected:</b> 9/28/2011 9:50:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
FLUORIDE	2.1		0.85	MDL	1.1	PQL	mg/Kg	J	Q	

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>GENCHEM</b>	
<b>Method:</b>	<b>300.0</b>	<b>Matrix: SO</b>

Sample ID: SL-106-SA7-SB-4.0-5.0      Collected: 9/28/2011 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
FLUORIDE	2.0		0.83	MDL	1.0	PQL	mg/Kg	J	Q
Nitrate-NO3	1.1	J	0.83	MDL	1.6	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-9.0-10.0      Collected: 9/28/2011 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	2.1		0.87	MDL	1.1	PQL	mg/Kg	J	Q

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: AQ</b>

Sample ID: EB-SA5DS-SS-092811      Collected: 9/28/2011 1:00:00      Analysis Type: REA2      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	0.0025	J	0.0022	MDL	0.0500	PQL	mg/L	J	Z
PHOSPHORUS	0.0105	J	0.0047	MDL	0.100	PQL	mg/L	U	B

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

Sample ID: DUP-02-SA5DS-QC-092811      Collected: 9/28/2011 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
SODIUM	99.2	J	6.12	MDL	103	PQL	mg/Kg	J	Z
TIN	2.82	J	0.329	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	4.15	J	0.473	MDL	5.15	PQL	mg/Kg	J	Z

Sample ID: SL-007-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
SODIUM	87.7	J	5.98	MDL	101	PQL	mg/Kg	J	Z
TIN	2.67	J	0.322	MDL	10.1	PQL	mg/Kg	U	B

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>								
<b>Method:</b>	<b>6010B</b>	<b>Matrix:</b>		<b>SO</b>					

<b>Sample ID:</b> SL-008-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/28/2011 7:30:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
BORON	4.38	J	0.360	MDL	5.00	PQL	mg/Kg	J	Z	
SODIUM	69.5	J	5.95	MDL	99.9	PQL	mg/Kg	J	Z	
TIN	2.57	J	0.320	MDL	9.99	PQL	mg/Kg	U	B	
Zirconium	0.970	J	0.460	MDL	5.00	PQL	mg/Kg	J	Z	

<b>Sample ID:</b> SL-009-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/28/2011 9:50:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SODIUM	88.4	J	6.04	MDL	102	PQL	mg/Kg	J	Z	
TIN	2.78	J	0.325	MDL	10.2	PQL	mg/Kg	U	B	

<b>Sample ID:</b> SL-010-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/28/2011 8:20:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SODIUM	91.2	J	5.97	MDL	100	PQL	mg/Kg	J	Z	
TIN	2.63	J	0.321	MDL	10.0	PQL	mg/Kg	U	B	

<b>Sample ID:</b> SL-013-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/28/2011 11:00:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SODIUM	85.1	J	6.02	MDL	101	PQL	mg/Kg	J	Z	
TIN	2.52	J	0.324	MDL	10.1	PQL	mg/Kg	U	B	
Zirconium	3.72	J	0.466	MDL	5.06	PQL	mg/Kg	J	Z	

<b>Sample ID:</b> SL-014-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/28/2011 10:05:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SODIUM	93.6	J	5.92	MDL	99.5	PQL	mg/Kg	J	Z	
TIN	2.71	J	0.319	MDL	9.95	PQL	mg/Kg	U	B	
Zirconium	2.65	J	0.458	MDL	4.98	PQL	mg/Kg	J	Z	

<b>Sample ID:</b> SL-015-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/28/2011 10:45:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 1	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SODIUM	84.7	J	5.87	MDL	98.7	PQL	mg/Kg	J	Z	

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>								
<b>Method:</b>	<b>6010B</b>	<b>Matrix:</b>	<b>SO</b>						

Sample ID: SL-015-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
TIN	2.74	J	0.316	MDL	9.87	PQL	mg/Kg	U	B

Sample ID: SL-016-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
SODIUM	80.5	J	6.13	MDL	103	PQL	mg/Kg	J	Z
TIN	2.71	J	0.330	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	4.97	J	0.474	MDL	5.15	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
SODIUM	97.7	J	5.93	MDL	99.7	PQL	mg/Kg	J	Z
TIN	2.83	J	0.319	MDL	9.97	PQL	mg/Kg	U	B

Sample ID: SL-033-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 1:25:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.66	J	0.332	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	3.67	J	0.477	MDL	5.18	PQL	mg/Kg	J	Z

Sample ID: SL-034-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
SODIUM	100	J	6.14	MDL	103	PQL	mg/Kg	J	Z
TIN	2.95	J	0.330	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	4.78	J	0.474	MDL	5.16	PQL	mg/Kg	J	Z

Sample ID: SL-040-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
SODIUM	83.6	J	5.97	MDL	100	PQL	mg/Kg	J	Z
TIN	2.42	J	0.321	MDL	10.0	PQL	mg/Kg	U	B
Zirconium	3.49	J	0.461	MDL	5.02	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

Sample ID: SL-103-SA7-SB-18.0-19.0      Collected: 9/28/2011 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
TIN	2.67	J	0.338	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	1.67	J	0.486	MDL	5.28	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-16.5-17.5      Collected: 9/28/2011 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
TIN	2.89	J	0.339	MDL	10.6	PQL	mg/Kg	U	B
Zirconium	1.46	J	0.488	MDL	5.30	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-19.0-20.0      Collected: 9/28/2011 9:50:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.77	J	0.333	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	1.26	J	0.479	MDL	5.20	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-4.0-5.0      Collected: 9/28/2011 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
TIN	2.55	J	0.322	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	0.809	J	0.463	MDL	5.04	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-9.0-10.0      Collected: 9/28/2011 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	4.42	J	0.378	MDL	5.25	PQL	mg/Kg	J	Z
TIN	2.78	J	0.336	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	1.01	J	0.483	MDL	5.25	PQL	mg/Kg	J	Z

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: AQ</b>

Sample ID: EB-SA5DS-SS-092811      Collected: 9/28/2011 1:00:00      Analysis Type: REA4      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.00022	J	0.00020	MDL	0.00050	PQL	mg/L	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: DUP-02-SA5DS-QC-092811      Collected: 9/28/2011 1:55:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.267	J	0.0580	MDL	0.400	PQL	mg/Kg	J	Z

Sample ID: DUP-02-SA5DS-QC-092811      Collected: 9/28/2011 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
MOLYBDENUM	0.543		0.0500	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: DUP-02-SA5DS-QC-092811      Collected: 9/28/2011 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	0.330		0.0740	MDL	0.200	PQL	mg/Kg	J	Q
ARSENIC	7.53		0.0800	MDL	0.400	PQL	mg/Kg	J	Q
CADMIUM	0.277		0.0440	MDL	0.100	PQL	mg/Kg	J	Q
CHROMIUM	40.4		0.120	MDL	0.400	PQL	mg/Kg	J	Q
COBALT	14.2		0.0200	MDL	0.100	PQL	mg/Kg	J	Q
COPPER	21.8		0.0800	MDL	0.400	PQL	mg/Kg	J	Q
LEAD	12.7		0.0102	MDL	0.200	PQL	mg/Kg	J	Q
NICKEL	28.0		0.100	MDL	0.400	PQL	mg/Kg	J	Q
SILVER	0.0420	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z, Q
THALLIUM	0.448		0.0300	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: SL-007-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:00:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.204	J	0.0566	MDL	0.390	PQL	mg/Kg	J	Z

Sample ID: SL-007-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:00:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.705		0.0488	MDL	0.0976	PQL	mg/Kg	J	Q

Sample ID: SL-007-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:00:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.271		0.0722	MDL	0.195	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-007-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:00:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.01		0.0781	MDL	0.390	PQL	mg/Kg	J	Q
CADMIUM	0.203		0.0430	MDL	0.0976	PQL	mg/Kg	J	Q
CHROMIUM	37.6		0.117	MDL	0.390	PQL	mg/Kg	J	Q
COBALT	6.77		0.0195	MDL	0.0976	PQL	mg/Kg	J	Q
COPPER	7.44		0.0781	MDL	0.390	PQL	mg/Kg	J	Q
LEAD	14.2		0.010	MDL	0.195	PQL	mg/Kg	J	Q
NICKEL	12.7		0.0976	MDL	0.390	PQL	mg/Kg	J	Q
SILVER	0.0242	J	0.0139	MDL	0.0976	PQL	mg/Kg	J	Z, Q
THALLIUM	0.184		0.0293	MDL	0.0976	PQL	mg/Kg	J	Q

Sample ID: SL-008-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 7:30:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0809	J	0.0574	MDL	0.396	PQL	mg/Kg	J	Z

Sample ID: SL-008-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 7:30:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.439		0.0495	MDL	0.0990	PQL	mg/Kg	J	Q

Sample ID: SL-008-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 7:30:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.105	J	0.0732	MDL	0.198	PQL	mg/Kg	J	Z, Q
ARSENIC	4.51		0.0792	MDL	0.396	PQL	mg/Kg	J	Q
CADMIUM	0.125		0.0435	MDL	0.0990	PQL	mg/Kg	J	Q
CHROMIUM	16.6		0.119	MDL	0.396	PQL	mg/Kg	J	Q
COBALT	6.13		0.0198	MDL	0.0990	PQL	mg/Kg	J	Q
COPPER	7.88		0.0792	MDL	0.396	PQL	mg/Kg	J	Q
LEAD	5.33		0.0101	MDL	0.198	PQL	mg/Kg	J	Q
NICKEL	12.0		0.0990	MDL	0.396	PQL	mg/Kg	J	Q
SILVER	0.0787	J	0.0141	MDL	0.0990	PQL	mg/Kg	J	Z, Q
THALLIUM	0.284		0.0297	MDL	0.0990	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-009-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 9:50:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.222	J	0.0577	MDL	0.398	PQL	mg/Kg	J	Z

Sample ID: SL-009-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 9:50:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.696		0.0498	MDL	0.0995	PQL	mg/Kg	J	Q

Sample ID: SL-009-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 9:50:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.294		0.0737	MDL	0.199	PQL	mg/Kg	J	Q
ARSENIC	6.31		0.0796	MDL	0.398	PQL	mg/Kg	J	Q
CADMIUM	0.221		0.0438	MDL	0.0995	PQL	mg/Kg	J	Q
CHROMIUM	38.3		0.119	MDL	0.398	PQL	mg/Kg	J	Q
COBALT	7.48		0.0199	MDL	0.0995	PQL	mg/Kg	J	Q
COPPER	8.34		0.0796	MDL	0.398	PQL	mg/Kg	J	Q
LEAD	14.8		0.0102	MDL	0.199	PQL	mg/Kg	J	Q
NICKEL	13.4		0.0995	MDL	0.398	PQL	mg/Kg	J	Q
SILVER	0.0309	J	0.0141	MDL	0.0995	PQL	mg/Kg	J	Z, Q
THALLIUM	0.216		0.0299	MDL	0.0995	PQL	mg/Kg	J	Q

Sample ID: SL-010-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:20:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.252	J	0.0577	MDL	0.398	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:20:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.792		0.0497	MDL	0.0994	PQL	mg/Kg	J	Q

Sample ID: SL-010-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:20:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.307		0.0736	MDL	0.199	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>									
<b>Method:</b>	<b>6020</b>	<b>Matrix:</b>							<b>SO</b>	

Sample ID: SL-010-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:20:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	7.13		0.0795	MDL	0.398	PQL	mg/Kg	J	Q
CADMIUM	0.297		0.0437	MDL	0.0994	PQL	mg/Kg	J	Q
CHROMIUM	46.2		0.119	MDL	0.398	PQL	mg/Kg	J	Q
COBALT	9.03		0.0199	MDL	0.0994	PQL	mg/Kg	J	Q
COPPER	9.76		0.0795	MDL	0.398	PQL	mg/Kg	J	Q
LEAD	18.9		0.0101	MDL	0.199	PQL	mg/Kg	J	Q
NICKEL	15.9		0.0994	MDL	0.398	PQL	mg/Kg	J	Q
SILVER	0.0320	J	0.0141	MDL	0.0994	PQL	mg/Kg	J	Z, Q
THALLIUM	0.248		0.0298	MDL	0.0994	PQL	mg/Kg	J	Q

Sample ID: SL-013-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
SELENIUM	0.217	J	0.0581	MDL	0.401	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
MOLYBDENUM	0.839		0.0501	MDL	0.100	PQL	mg/Kg	J	Q

Sample ID: SL-013-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.229		0.0742	MDL	0.200	PQL	mg/Kg	J	Q
ARSENIC	5.71		0.0802	MDL	0.401	PQL	mg/Kg	J	Q
CADMIUM	0.240		0.0441	MDL	0.100	PQL	mg/Kg	J	Q
CHROMIUM	37.9		0.120	MDL	0.401	PQL	mg/Kg	J	Q
COBALT	7.23		0.0200	MDL	0.100	PQL	mg/Kg	J	Q
COPPER	8.80		0.0802	MDL	0.401	PQL	mg/Kg	J	Q
LEAD	14.2		0.0102	MDL	0.200	PQL	mg/Kg	J	Q
NICKEL	14.0		0.100	MDL	0.401	PQL	mg/Kg	J	Q
SILVER	0.0405	J	0.0142	MDL	0.100	PQL	mg/Kg	J	Z, Q
THALLIUM	0.210		0.0301	MDL	0.100	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-014-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
SELENIUM	0.216	J	0.0583	MDL	0.402	PQL	mg/Kg	J	Z

Sample ID: SL-014-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
MOLYBDENUM	0.685		0.0503	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-014-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.242		0.0744	MDL	0.201	PQL	mg/Kg	J	Q
ARSENIC	4.58		0.0804	MDL	0.402	PQL	mg/Kg	J	Q
CADMIUM	0.210		0.0442	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	31.3		0.121	MDL	0.402	PQL	mg/Kg	J	Q
COBALT	5.97		0.0201	MDL	0.101	PQL	mg/Kg	J	Q
COPPER	7.35		0.0804	MDL	0.402	PQL	mg/Kg	J	Q
LEAD	11.9		0.0103	MDL	0.201	PQL	mg/Kg	J	Q
NICKEL	11.6		0.101	MDL	0.402	PQL	mg/Kg	J	Q
SILVER	0.0258	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.186		0.0302	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-015-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
SELENIUM	0.241	J	0.0573	MDL	0.395	PQL	mg/Kg	J	Z

Sample ID: SL-015-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
MOLYBDENUM	0.779		0.0494	MDL	0.0987	PQL	mg/Kg	J	Q

Sample ID: SL-015-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.305		0.0731	MDL	0.197	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	6020	<b>Matrix:</b> SO

Sample ID: SL-015-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
ARSENIC	6.25		0.0790	MDL	0.395	PQL	mg/Kg	J	Q
CADMIUM	0.279		0.0434	MDL	0.0987	PQL	mg/Kg	J	Q
CHROMIUM	39.8		0.118	MDL	0.395	PQL	mg/Kg	J	Q
COBALT	8.50		0.0197	MDL	0.0987	PQL	mg/Kg	J	Q
COPPER	9.03		0.0790	MDL	0.395	PQL	mg/Kg	J	Q
LEAD	11.6		0.0101	MDL	0.197	PQL	mg/Kg	J	Q
NICKEL	15.5		0.0987	MDL	0.395	PQL	mg/Kg	J	Q
SILVER	0.0297	J	0.0140	MDL	0.0987	PQL	mg/Kg	J	Z, Q
THALLIUM	0.233		0.0296	MDL	0.0987	PQL	mg/Kg	J	Q

Sample ID: SL-016-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 9:15:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.220	J	0.0604	MDL	0.416	PQL	mg/Kg	J	Z

Sample ID: SL-016-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 9:15:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.726		0.0521	MDL	0.104	PQL	mg/Kg	J	Q

Sample ID: SL-016-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.287		0.0770	MDL	0.208	PQL	mg/Kg	J	Q
ARSENIC	5.99		0.0833	MDL	0.416	PQL	mg/Kg	J	Q
CADMIUM	0.286		0.0458	MDL	0.104	PQL	mg/Kg	J	Q
CHROMIUM	38.1		0.125	MDL	0.416	PQL	mg/Kg	J	Q
COBALT	8.95		0.0208	MDL	0.104	PQL	mg/Kg	J	Q
COPPER	9.83		0.0833	MDL	0.416	PQL	mg/Kg	J	Q
LEAD	13.3		0.0106	MDL	0.208	PQL	mg/Kg	J	Q
NICKEL	15.7		0.104	MDL	0.416	PQL	mg/Kg	J	Q
SILVER	0.0328	J	0.0148	MDL	0.104	PQL	mg/Kg	J	Z, Q
THALLIUM	0.245		0.0312	MDL	0.104	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-017-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.253	J	0.0584	MDL	0.403	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.808		0.0504	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-017-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.328		0.0745	MDL	0.201	PQL	mg/Kg	J	Q
ARSENIC	6.84		0.0806	MDL	0.403	PQL	mg/Kg	J	Q
CADMIUM	0.338		0.0443	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	43.4		0.121	MDL	0.403	PQL	mg/Kg	J	Q
COBALT	10.6		0.0201	MDL	0.101	PQL	mg/Kg	J	Q
COPPER	10.5		0.0806	MDL	0.403	PQL	mg/Kg	J	Q
LEAD	30.0		0.0103	MDL	0.201	PQL	mg/Kg	J	Q
NICKEL	17.8		0.101	MDL	0.403	PQL	mg/Kg	J	Q
SILVER	0.0461	J	0.0143	MDL	0.101	PQL	mg/Kg	J	Z, Q
THALLIUM	0.245		0.0302	MDL	0.101	PQL	mg/Kg	J	Q

Sample ID: SL-033-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 1:25:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.194	J	0.0595	MDL	0.411	PQL	mg/Kg	J	Z

Sample ID: SL-033-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 1:25:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.646		0.0513	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-033-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 1:25:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.340		0.0760	MDL	0.205	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>								
<b>Method:</b>	<b>6020</b>			<b>Matrix: SO</b>					

Sample ID: SL-033-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 1:25:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	8.25		0.0821	MDL	0.411	PQL	mg/Kg	J	Q
CADMIUM	0.304		0.0452	MDL	0.103	PQL	mg/Kg	J	Q
CHROMIUM	42.4		0.123	MDL	0.411	PQL	mg/Kg	J	Q
COBALT	15.0		0.0205	MDL	0.103	PQL	mg/Kg	J	Q
COPPER	20.5		0.0821	MDL	0.411	PQL	mg/Kg	J	Q
LEAD	12.4		0.0105	MDL	0.205	PQL	mg/Kg	J	Q
NICKEL	28.7		0.103	MDL	0.411	PQL	mg/Kg	J	Q
SILVER	0.0371	J	0.0146	MDL	0.103	PQL	mg/Kg	J	Z, Q
THALLIUM	0.448		0.0308	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-034-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.272	J	0.0598	MDL	0.413	PQL	mg/Kg	J	Z

Sample ID: SL-034-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.548		0.0516	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-034-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.392		0.0763	MDL	0.206	PQL	mg/Kg	J	Q
ARSENIC	7.40		0.0825	MDL	0.413	PQL	mg/Kg	J	Q
CADMIUM	0.304		0.0454	MDL	0.103	PQL	mg/Kg	J	Q
CHROMIUM	40.0		0.124	MDL	0.413	PQL	mg/Kg	J	Q
COBALT	13.9		0.0206	MDL	0.103	PQL	mg/Kg	J	Q
COPPER	21.6		0.0825	MDL	0.413	PQL	mg/Kg	J	Q
LEAD	12.4		0.0105	MDL	0.206	PQL	mg/Kg	J	Q
NICKEL	27.8		0.103	MDL	0.413	PQL	mg/Kg	J	Q
SILVER	0.0485	J	0.0146	MDL	0.103	PQL	mg/Kg	J	Z, Q
THALLIUM	0.432		0.0309	MDL	0.103	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

<b>Sample ID:</b> SL-040-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/28/2011 3:05:00			<b>Analysis Type:</b> REA			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.188	J	0.0588	MDL	0.405	PQL	mg/Kg	J	Z	

<b>Sample ID:</b> SL-040-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/28/2011 3:05:00			<b>Analysis Type:</b> REA2			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	0.762		0.0507	MDL	0.101	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-040-SA5DS-SS-0.0-0.5			<b>Collected:</b> 9/28/2011 3:05:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.258		0.0750	MDL	0.203	PQL	mg/Kg	J	Q	
ARSENIC	5.98		0.0811	MDL	0.405	PQL	mg/Kg	J	Q	
CADMIUM	0.217		0.0446	MDL	0.101	PQL	mg/Kg	J	Q	
CHROMIUM	33.2		0.122	MDL	0.405	PQL	mg/Kg	J	Q	
COBALT	9.83		0.0203	MDL	0.101	PQL	mg/Kg	J	Q	
COPPER	10.9		0.0811	MDL	0.405	PQL	mg/Kg	J	Q	
LEAD	14.1		0.0103	MDL	0.203	PQL	mg/Kg	J	Q	
NICKEL	17.7		0.101	MDL	0.405	PQL	mg/Kg	J	Q	
SILVER	0.0289	J	0.0144	MDL	0.101	PQL	mg/Kg	J	Z, Q	
THALLIUM	0.273		0.0304	MDL	0.101	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-103-SA7-SB-18.0-19.0			<b>Collected:</b> 9/28/2011 2:30:00			<b>Analysis Type:</b> REA			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
SELENIUM	0.204	J	0.0619	MDL	0.427	PQL	mg/Kg	J	Z	

<b>Sample ID:</b> SL-103-SA7-SB-18.0-19.0			<b>Collected:</b> 9/28/2011 2:30:00			<b>Analysis Type:</b> REA2			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
MOLYBDENUM	0.483		0.0533	MDL	0.107	PQL	mg/Kg	J	Q	

<b>Sample ID:</b> SL-103-SA7-SB-18.0-19.0			<b>Collected:</b> 9/28/2011 2:30:00			<b>Analysis Type:</b> RES			<b>Dilution:</b> 2	
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code	
ANTIMONY	0.133	J	0.0790	MDL	0.213	PQL	mg/Kg	J	Z, Q	

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS  
**Method:** 6020 **Matrix:** SO

Sample ID: SL-103-SA7-SB-18.0-19.0 Collected: 9/28/2011 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
ARSENIC	5.12		0.0854	MDL	0.427	PQL	mg/Kg	J	Q
CADMIUM	0.118		0.0469	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	17.2		0.128	MDL	0.427	PQL	mg/Kg	J	Q
COBALT	5.93		0.0213	MDL	0.107	PQL	mg/Kg	J	Q
COPPER	8.28		0.0854	MDL	0.427	PQL	mg/Kg	J	Q
LEAD	5.34		0.0109	MDL	0.213	PQL	mg/Kg	J	Q
NICKEL	11.5		0.107	MDL	0.427	PQL	mg/Kg	J	Q
SILVER	0.0267	J	0.0151	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.254		0.0320	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA7-SB-16.5-17.5 Collected: 9/28/2011 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
SELENIUM	0.210	J	0.0621	MDL	0.428	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-16.5-17.5 Collected: 9/28/2011 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
MOLYBDENUM	0.909		0.0535	MDL	0.107	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA7-SB-16.5-17.5 Collected: 9/28/2011 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	0.347		0.0792	MDL	0.214	PQL	mg/Kg	J	Q
ARSENIC	10.5		0.0856	MDL	0.428	PQL	mg/Kg	J	Q
CADMIUM	0.183		0.0471	MDL	0.107	PQL	mg/Kg	J	Q
CHROMIUM	31.6		0.128	MDL	0.428	PQL	mg/Kg	J	Q
COBALT	9.55		0.0214	MDL	0.107	PQL	mg/Kg	J	Q
COPPER	15.9		0.0856	MDL	0.428	PQL	mg/Kg	J	Q
LEAD	16.3		0.0109	MDL	0.214	PQL	mg/Kg	J	Q
NICKEL	19.5		0.107	MDL	0.428	PQL	mg/Kg	J	Q
SILVER	0.0434	J	0.0152	MDL	0.107	PQL	mg/Kg	J	Z, Q
THALLIUM	0.414		0.0321	MDL	0.107	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-106-SA7-SB-19.0-20.0      Collected: 9/28/2011 9:50:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.213	J	0.0609	MDL	0.420	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-19.0-20.0      Collected: 9/28/2011 9:50:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	4.43		0.0525	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA7-SB-19.0-20.0      Collected: 9/28/2011 9:50:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.143	J	0.0778	MDL	0.210	PQL	mg/Kg	J	Z, Q
ARSENIC	5.25		0.0841	MDL	0.420	PQL	mg/Kg	J	Q
CADMIUM	0.186		0.0462	MDL	0.105	PQL	mg/Kg	J	Q
CHROMIUM	28.1		0.126	MDL	0.420	PQL	mg/Kg	J	Q
COBALT	6.42		0.0210	MDL	0.105	PQL	mg/Kg	J	Q
COPPER	9.86		0.0841	MDL	0.420	PQL	mg/Kg	J	Q
LEAD	6.75		0.0107	MDL	0.210	PQL	mg/Kg	J	Q
NICKEL	13.8		0.105	MDL	0.420	PQL	mg/Kg	J	Q
SILVER	0.0200	J	0.0149	MDL	0.105	PQL	mg/Kg	J	Z, Q
THALLIUM	0.311		0.0315	MDL	0.105	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA7-SB-4.0-5.0      Collected: 9/28/2011 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
SELENIUM	0.131	J	0.0579	MDL	0.399	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-4.0-5.0      Collected: 9/28/2011 12:15:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.511		0.0499	MDL	0.0997	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA7-SB-4.0-5.0      Collected: 9/28/2011 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	0.0932	J	0.0738	MDL	0.199	PQL	mg/Kg	J	Z, Q

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-106-SA7-SB-4.0-5.0      Collected: 9/28/2011 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
ARSENIC	4.57		0.0798	MDL	0.399	PQL	mg/Kg	J	Q
CADMIUM	0.109		0.0439	MDL	0.0997	PQL	mg/Kg	J	Q
CHROMIUM	16.3		0.120	MDL	0.399	PQL	mg/Kg	J	Q
COBALT	5.67		0.0199	MDL	0.0997	PQL	mg/Kg	J	Q
COPPER	7.35		0.0798	MDL	0.399	PQL	mg/Kg	J	Q
LEAD	5.54		0.0102	MDL	0.199	PQL	mg/Kg	J	Q
NICKEL	11.0		0.0997	MDL	0.399	PQL	mg/Kg	J	Q
SILVER	0.0241	J	0.0142	MDL	0.0997	PQL	mg/Kg	J	Z, Q
THALLIUM	0.270		0.0299	MDL	0.0997	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA7-SB-9.0-10.0      Collected: 9/28/2011 12:30:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.160	J	0.0615	MDL	0.424	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-9.0-10.0      Collected: 9/28/2011 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
MOLYBDENUM	0.529		0.0531	MDL	0.106	PQL	mg/Kg	J	Q

Sample ID: SL-106-SA7-SB-9.0-10.0      Collected: 9/28/2011 12:30:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.127	J	0.0785	MDL	0.212	PQL	mg/Kg	J	Z, Q
ARSENIC	4.88		0.0849	MDL	0.424	PQL	mg/Kg	J	Q
CADMIUM	0.160		0.0467	MDL	0.106	PQL	mg/Kg	J	Q
CHROMIUM	16.5		0.127	MDL	0.424	PQL	mg/Kg	J	Q
COBALT	6.43		0.0212	MDL	0.106	PQL	mg/Kg	J	Q
COPPER	7.93		0.0849	MDL	0.424	PQL	mg/Kg	J	Q
LEAD	5.51		0.0108	MDL	0.212	PQL	mg/Kg	J	Q
NICKEL	12.7		0.106	MDL	0.424	PQL	mg/Kg	J	Q
THALLIUM	0.277		0.0318	MDL	0.106	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7199</b>	<b>Matrix: SO</b>

Sample ID: DUP-02-SA5DS-QC-092811      Collected: 9/28/2011 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
HEXAVALENT CHROMIUM	1.0		0.20	MDL	1.0	PQL	mg/Kg	J	FD

Sample ID: SL-008-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 7:30:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.48	J	0.20	MDL	0.99	PQL	mg/Kg	J	Z

Sample ID: SL-009-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 9:50:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.68	J	0.20	MDL	0.99	PQL	mg/Kg	J	Z

Sample ID: SL-010-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:20:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.21	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-014-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.53	J	0.20	MDL	1.0	PQL	mg/Kg	J	Z

Sample ID: SL-016-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.73	J	0.19	MDL	0.97	PQL	mg/Kg	J	Z

Sample ID: SL-034-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.21	U	0.21	MDL	1.0	PQL	mg/Kg	UJ	FD

Sample ID: SL-103-SA7-SB-18.0-19.0      Collected: 9/28/2011 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
HEXAVALENT CHROMIUM	0.23	J	0.22	MDL	1.1	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7199</b>	<b>Matrix: SO</b>

Sample ID: SL-106-SA7-SB-16.5-17.5      Collected: 9/28/2011 12:45:00      Analysis Type: RES      Dilution: 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	8.5	J	2.0	MDL	10.2	PQL	mg/Kg	J	Z

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7470A</b>	<b>Matrix: AQ</b>

Sample ID: EB-SA5DS-SS-092811      Collected: 9/28/2011 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	0.000045	J	0.000026	MDL	0.00020	PQL	mg/L	U	B, B

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7471A</b>	<b>Matrix: SO</b>

Sample ID: SL-007-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
MERCURY	0.0121	J	0.0069	MDL	0.0981	PQL	mg/Kg	U	F

Sample ID: SL-009-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 9:50:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0105	J	0.0069	MDL	0.0983	PQL	mg/Kg	U	F

Sample ID: SL-010-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:20:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0133	J	0.0067	MDL	0.0947	PQL	mg/Kg	U	F

Sample ID: SL-013-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.0081	J	0.0070	MDL	0.0997	PQL	mg/Kg	U	F

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7471A</b>	<b>Matrix: SO</b>

Sample ID: SL-014-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.0114	J	0.0071	MDL	0.101	PQL	mg/Kg	U	F

Sample ID: SL-015-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.0472	J	0.0070	MDL	0.0991	PQL	mg/Kg	J	Z

Sample ID: SL-017-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.0238	J	0.0069	MDL	0.0978	PQL	mg/Kg	U	F

Sample ID: SL-106-SA7-SB-16.5-17.5      Collected: 9/28/2011 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	0.0072	MDL	0.102	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-19.0-20.0      Collected: 9/28/2011 9:50:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0073	J	0.0072	MDL	0.102	PQL	mg/Kg	J	Z

Sample ID: SL-106-SA7-SB-9.0-10.0      Collected: 9/28/2011 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	0.0073	J	0.0072	MDL	0.102	PQL	mg/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>	
<b>Method:</b>	<b>6850</b>	<b>Matrix: SO</b>

Sample ID: SL-040-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
PERCHLORATE	2.3	J	2.1	MDL	5.1	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8081A	<b>Matrix:</b> SO

Sample ID: DUP-02-SA5DS-QC-092811      Collected: 9/28/2011 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
4,4'-DDE	0.36		0.068	MDL	0.35	PQL	ug/Kg	J	FD
4,4'-DDT	0.46		0.068	MDL	0.35	PQL	ug/Kg	J	FD
BETA-BHC	0.13	J	0.062	MDL	0.17	PQL	ug/Kg	J	Z, FD
Chlordane	1.9	J	0.83	MDL	3.5	PQL	ug/Kg	J	Z, FD
ENDRIN ALDEHYDE	0.13	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z, FD
gamma-BHC (Lindane)	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	FD

Sample ID: SL-007-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:00:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.78		0.067	MDL	0.34	PQL	ug/Kg	J	S
4,4'-DDT	0.64		0.067	MDL	0.34	PQL	ug/Kg	J	S
Chlordane	1.9	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z, S

Sample ID: SL-008-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 7:30:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Chlordane	1.9	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z
DELTA-BHC	0.038	J	0.037	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-009-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 9:50:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.31	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z
Chlordane	2.0	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z
DELTA-BHC	0.071	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z
ENDRIN ALDEHYDE	0.089	J	0.067	MDL	0.34	PQL	ug/Kg	J	Z

Sample ID: SL-010-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:20:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BETA-BHC	0.078	J	0.061	MDL	0.17	PQL	ug/Kg	J	Z
Chlordane	3.0	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z
DELTA-BHC	0.061	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8081A	<b>Matrix:</b>	SO
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Sample ID: SL-013-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
Chlordane	1.7	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-014-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	1.7	J	0.81	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-015-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.24	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z
4,4'-DDT	0.31	J	0.068	MDL	0.35	PQL	ug/Kg	J	Z
Chlordane	1.8	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z

Sample ID: SL-016-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
ALPHA-BHC	0.076	J	0.036	MDL	0.17	PQL	ug/Kg	J	Z
Chlordane	2.5	J	0.84	MDL	3.6	PQL	ug/Kg	J	Z
HEPTACHLOR	0.077	J	0.063	MDL	0.17	PQL	ug/Kg	J	Z

Sample ID: SL-017-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:35:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
4,4'-DDE	2.2		0.067	MDL	0.35	PQL	ug/Kg	J	S
4,4'-DDT	2.9		0.067	MDL	0.35	PQL	ug/Kg	J	S
ALDRIN	0.067	U	0.067	MDL	0.17	PQL	ug/Kg	UJ	S
ALPHA-BHC	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	S
BETA-BHC	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	S
Chlordane	4.4		0.81	MDL	3.5	PQL	ug/Kg	J	S
DELTA-BHC	0.048	U	0.048	MDL	0.17	PQL	ug/Kg	UJ	S
DIELDRIN	0.23	U	0.23	MDL	0.35	PQL	ug/Kg	UJ	S
ENDOSULFAN I	0.071	U	0.071	MDL	0.17	PQL	ug/Kg	UJ	S
ENDOSULFAN II	0.26	U	0.26	MDL	0.35	PQL	ug/Kg	UJ	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8081A	<b>Matrix:</b> SO

Sample ID: SL-017-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
ENDOSULFAN SULFATE	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
ENDRIN	0.13	U	0.13	MDL	0.35	PQL	ug/Kg	UJ	S
ENDRIN ALDEHYDE	0.99		0.067	MDL	0.35	PQL	ug/Kg	J	S
ENDRIN KETONE	0.067	U	0.067	MDL	0.35	PQL	ug/Kg	UJ	S
gamma-BHC (Lindane)	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	S
HEPTACHLOR	0.061	U	0.061	MDL	0.17	PQL	ug/Kg	UJ	S
HEPTACHLOR EPOXIDE	0.081	U	0.081	MDL	0.17	PQL	ug/Kg	UJ	S
METHOXYCHLOR	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	S
MIREX	0.26	U	0.26	MDL	0.35	PQL	ug/Kg	UJ	S
TOXAPHENE	18	U	18	MDL	18	PQL	ug/Kg	UJ	S

Sample ID: SL-034-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
4,4'-DDE	0.10	J	0.069	MDL	0.35	PQL	ug/Kg	J	Z, FD
4,4'-DDT	0.22	J	0.069	MDL	0.35	PQL	ug/Kg	J	Z, FD
BETA-BHC	0.062	U	0.062	MDL	0.17	PQL	ug/Kg	UJ	FD
Chlordane	0.90	J	0.83	MDL	3.5	PQL	ug/Kg	J	Z, FD
ENDRIN ALDEHYDE	0.069	U	0.069	MDL	0.35	PQL	ug/Kg	UJ	FD
gamma-BHC (Lindane)	0.038	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z, FD

Sample ID: SL-040-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
BETA-BHC	0.081	J	0.061	MDL	0.17	PQL	ug/Kg	J	Z
gamma-BHC (Lindane)	0.053	J	0.034	MDL	0.17	PQL	ug/Kg	J	Z

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8082	<b>Matrix:</b> SO

Sample ID: DUP-02-SA5DS-QC-092811      Collected: 9/28/2011 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
AROCLOR 1254	0.62	J	0.34	MDL	1.8	PQL	ug/Kg	J	Z, FD

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8082	<b>Matrix:</b>	SO
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Sample ID: SL-007-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:00:00      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	1.2	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	1.5	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-008-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 7:30:00      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 1254	1.6	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	3.1	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-009-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 9:50:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	2.0		0.34	MDL	1.7	PQL	ug/Kg	J	S
AROCLOR 1260	1.8		0.40	MDL	1.7	PQL	ug/Kg	J	S
Aroclor 5460	3.5		1.0	MDL	3.4	PQL	ug/Kg	J	S

Sample ID: SL-010-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:20:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	1.2	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	3.1	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-013-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	1.2	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z, S
Aroclor 5460	1.9	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z, S

Sample ID: SL-014-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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 1254	0.92	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	0.92	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	2.4	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8082	<b>Matrix:</b> SO

Sample ID: SL-015-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 10:45:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	3.5		0.34	MDL	1.7	PQL	ug/Kg	J	S
Aroclor 5460	1.5	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z, S

Sample ID: SL-016-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	2.2		0.41	MDL	1.8	PQL	ug/Kg	J	S
Aroclor 5460	2.9	J	1.0	MDL	3.5	PQL	ug/Kg	J	Z, S

Sample ID: SL-017-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	9.3		0.40	MDL	1.7	PQL	ug/Kg	J	S
Aroclor 5460	5.9		1.0	MDL	3.4	PQL	ug/Kg	J	S

Sample ID: SL-033-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 1:25:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	2.6		0.34	MDL	1.8	PQL	ug/Kg	J	S

Sample ID: SL-034-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.34	U	0.34	MDL	1.8	PQL	ug/Kg	UJ	FD

Sample ID: SL-040-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
AROCLOR 1254	0.85	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	1.5	J	0.39	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	2.9	J	1.0	MDL	3.3	PQL	ug/Kg	J	Z

Sample ID: SL-103-SA7-SB-18.0-19.0      Collected: 9/28/2011 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
AROCLOR 1254	0.49	J	0.36	MDL	1.9	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8082	<b>Matrix:</b> SO

Sample ID: SL-106-SA7-SB-4.0-5.0      Collected: 9/28/2011 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
AROCLOR 1248	1.5	J	0.34	MDL	1.8	PQL	ug/Kg	J	Z, S
AROCLOR 1254	1.1	J	0.34	MDL	1.8	PQL	ug/Kg	J	Z, S
AROCLOR 1260	1.1	J	0.40	MDL	1.8	PQL	ug/Kg	J	Z, S

Sample ID: SL-106-SA7-SB-9.0-10.0      Collected: 9/28/2011 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
AROCLOR 1254	0.45	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z, S
AROCLOR 1260	0.71	J	0.42	MDL	1.8	PQL	ug/Kg	J	Z, S

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8151A	<b>Matrix:</b> SO

Sample ID: DUP-02-SA5DS-QC-092811      Collected: 9/28/2011 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
2,4,5-TP (Silvex)	0.23	U	0.23	MDL	0.23	PQL	ug/Kg	UJ	FD

Sample ID: SL-014-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
DICHLOROPROP	1.0	J	0.81	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-034-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
2,4,5-TP (Silvex)	0.44		0.078	MDL	0.18	PQL	ug/Kg	J	Q, FD

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C	<b>Matrix:</b> AQ

Sample ID: EB-SA5DS-SS-092811      Collected: 9/28/2011 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: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C	<b>Matrix:</b> AQ

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C	<b>Matrix:</b> SO

Sample ID: DUP-02-SA5DS-QC-092811      Collected: 9/28/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	48	J	17	MDL	350	PQL	ug/Kg	J	Z

Sample ID: SL-034-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
BENZIDINE	1200	U	1200	MDL	3400	PQL	ug/Kg	R	Q

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C SIM	<b>Matrix:</b> AQ

Sample ID: EB-SA5DS-SS-092811      Collected: 9/28/2011 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
BIS(2-ETHYLHEXYL)PHTHALATE	0.11	J	0.053	MDL	1.1	PQL	ug/L	J	Z
Diethylphthalate	0.36	J	0.053	MDL	1.1	PQL	ug/L	J	Z
Di-n-butylphthalate	0.74	J	0.053	MDL	1.1	PQL	ug/L	J	Z
Di-n-octylphthalate	0.12	J	0.053	MDL	1.1	PQL	ug/L	J	Z

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C SIM	<b>Matrix:</b> SO

Sample ID: DUP-02-SA5DS-QC-092811      Collected: 9/28/2011 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(B)FLUORANTHENE	1.7	J	0.68	MDL	1.7	PQL	ug/Kg	J	FD

Sample ID: SL-007-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:00:00      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	10	J	6.0	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	0.84	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C SIM
		<b>Matrix:</b>	SO

Sample ID: SL-007-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:00:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PYRENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-008-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 7:30:00      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	0.87	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	14	J	6.0	MDL	18	PQL	ug/Kg	J	Z
Butylbenzylphthalate	11	J	6.0	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	1.2	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.6	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.77	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.77	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.3	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-009-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 9:50:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.84	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	9.5	J	6.0	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	1.2	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.96	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-010-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 8:20:00      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)PYRENE	0.89	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.3	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.84	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.90	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA		
<b>Method:</b>	8270C SIM	<b>Matrix:</b>	SO

Sample ID: SL-013-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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	0.74	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	6.5	J	6.0	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	0.81	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.73	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.75	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-014-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
BENZO(A)ANTHRACENE	0.68	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.4	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.80	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.6	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-015-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 10:45:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.88	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	15	J	6.1	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	1.2	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.69	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-016-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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(A)PYRENE	0.85	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	10	J	6.2	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	1.2	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C SIM	<b>Matrix:</b> SO

Sample ID: SL-016-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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
FLUORANTHENE	1.4	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	0.81	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.75	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.1	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.3	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-017-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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(A)ANTHRACENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.68	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	15	J	6.0	MDL	18	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.0	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	1.3	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.67	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.95	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.4	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-033-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 1:25:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	0.96	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	8.4	J	6.2	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-034-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 1:45:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z, FD

Sample ID: SL-040-SA5DS-SS-0.0-0.5      Collected: 9/28/2011 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(A)ANTHRACENE	0.77	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.2	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	6.0	MDL	18	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

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

Sample ID: SL-040-SA5DS-SS-0.0-0.5 Collected: 9/28/2011 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
Butylbenzylphthalate	8.8	J	6.0	MDL	18	PQL	ug/Kg	J	Z
NAPHTHALENE	1.4	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.5	J	0.66	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-103-SA7-SB-18.0-19.0 Collected: 9/28/2011 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
BENZO(B)FLUORANTHENE	1.1	J	0.72	MDL	1.8	PQL	ug/Kg	J	Z
CHRYSENE	0.69	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-106-SA7-SB-16.5-17.5 Collected: 9/28/2011 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(G,H,I)PERYLENE	1.2	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	6.8	J	6.4	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	1.3	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-106-SA7-SB-19.0-20.0 Collected: 9/28/2011 9:50:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	1.3	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.4	J	0.70	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	15	J	6.3	MDL	19	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.3	J	0.70	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-106-SA7-SB-4.0-5.0 Collected: 9/28/2011 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
BENZO(G,H,I)PERYLENE	0.70	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.1	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	0.72	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C SIM	<b>Matrix:</b> SO

Sample ID: SL-106-SA7-SB-9.0-10.0      Collected: 9/28/2011 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	0.82	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8315A	<b>Matrix:</b> SO

Sample ID: SL-106-SA7-SB-19.0-20.0      Collected: 9/28/2011 9:50:00      Analysis Type: RES      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	1200	J	640	MDL	1600	PQL	ug/Kg	J	Z

<b>Method Category:</b>	VOA	
<b>Method:</b>	8260B	<b>Matrix:</b> SO

Sample ID: SL-106-SA7-SB-15.5      Collected: 9/28/2011 9:33:00      Analysis Type: RES      Dilution: 0.96

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE (MEK)	2.9	J	1.3	MDL	8.3	PQL	ug/Kg	J	Z
ETHYLBENZENE	0.08	J	0.06	MDL	4.2	PQL	ug/Kg	J	Z
m,p-Xylene	0.32	J	0.18	MDL	4.2	PQL	ug/Kg	J	Z
METHYLENE CHLORIDE	0.72	J	0.25	MDL	4.2	PQL	ug/Kg	U	B
TOLUENE	0.42	J	0.08	MDL	4.2	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_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	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: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_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

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE257

# Method Blank Outlier Report

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6010B  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27848CB222339	10/9/2011 11:39:00 PM	STRONTIUM	0.00022 mg/L	EB-SA5DS-SS-092811

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27208BB220426	10/12/2011 4:26:00 AM	IRON TITANIUM	24.7 mg/Kg 0.112 mg/Kg	DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0
P27208BB221406	10/11/2011 2:06:00 PM	ALUMINUM BORON CALCIUM MAGNESIUM MANGANESE PHOSPHORUS POTASSIUM STRONTIUM TIN	10.2 mg/Kg 0.529 mg/Kg 41.1 mg/Kg 31.2 mg/Kg 0.174 mg/Kg 1.50 mg/Kg 11.5 mg/Kg 0.0670 mg/Kg 1.53 mg/Kg	DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0

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

Sample ID	Analyte	Reported Result	Modified Final Result
DUP-02-SA5DS-QC-092811(RES)	TIN	2.82 mg/Kg	2.82U mg/Kg
SL-007-SA5DS-SS-0.0-0.5(RES)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-008-SA5DS-SS-0.0-0.5(RES)	TIN	2.57 mg/Kg	2.57U mg/Kg
SL-009-SA5DS-SS-0.0-0.5(RES)	TIN	2.78 mg/Kg	2.78U mg/Kg
SL-010-SA5DS-SS-0.0-0.5(RES)	TIN	2.63 mg/Kg	2.63U mg/Kg
SL-013-SA5DS-SS-0.0-0.5(RES)	TIN	2.52 mg/Kg	2.52U mg/Kg

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

1/9/2012 8:16:01 AM

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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*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-014-SA5DS-SS-0.0-0.5(RES)	TIN	2.71 mg/Kg	2.71U mg/Kg
SL-015-SA5DS-SS-0.0-0.5(RES)	TIN	2.74 mg/Kg	2.74U mg/Kg
SL-016-SA5DS-SS-0.0-0.5(RES)	TIN	2.71 mg/Kg	2.71U mg/Kg
SL-017-SA5DS-SS-0.0-0.5(RES)	TIN	2.83 mg/Kg	2.83U mg/Kg
SL-033-SA5DS-SS-0.0-0.5(RES)	TIN	2.66 mg/Kg	2.66U mg/Kg
SL-034-SA5DS-SS-0.0-0.5(RES)	TIN	2.95 mg/Kg	2.95U mg/Kg
SL-040-SA5DS-SS-0.0-0.5(RES)	TIN	2.42 mg/Kg	2.42U mg/Kg
SL-103-SA7-SB-18.0-19.0(RES)	TIN	2.67 mg/Kg	2.67U mg/Kg
SL-106-SA7-SB-16.5-17.5(RES)	TIN	2.89 mg/Kg	2.89U mg/Kg
SL-106-SA7-SB-19.0-20.0(RES)	TIN	2.77 mg/Kg	2.77U mg/Kg
SL-106-SA7-SB-4.0-5.0(RES)	TIN	2.55 mg/Kg	2.55U mg/Kg
SL-106-SA7-SB-9.0-10.0(RES)	TIN	2.78 mg/Kg	2.78U mg/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27226BB221116A	9/30/2011 11:16:00 AM	LEAD	0.0226 mg/Kg	DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0

**Method:** 7470A  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27813AB220856	10/6/2011 8:56:00 AM	MERCURY	0.000042 mg/L	EB-SA5DS-SS-092811

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

1/9/2012 8:16:01 AM

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 7470A  
**Matrix:** AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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*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
EB-SA5DS-SS-092811(RES)	MERCURY	0.000045 mg/L	0.000045U mg/L

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
VBLKB75B211352A	10/4/2011 1:52:00 PM	CHLOROFORM METHYLENE CHLORIDE	0.20 ug/Kg 0.57 ug/Kg	SL-106-SA7-SB-15.5

*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-106-SA7-SB-15.5(RES)	METHYLENE CHLORIDE	0.72 ug/Kg	4.2U ug/Kg



# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_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-034-SA5DS-SS-0.0-0.5MS SL-034-SA5DS-SS-0.0-0.5MSD (DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	MOLYBDENUM	132	132	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-034-SA5DS-SS-0.0-0.5MS SL-034-SA5DS-SS-0.0-0.5MSD (DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	BARIUM	-299	-318	75.00-125.00	-	BARIUM	No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_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-034-SA5DS-SS-0.0-0.5MS SL-034-SA5DS-SS-0.0-0.5MSD (DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	ALUMINIUM MAGNESIUM POTASSIUM TITANIUM	2353 134 146 412	2665 182 161 508	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ALUMINIUM MAGNESIUM POTASSIUM TITANIUM	No Qual, >4x
SL-034-SA5DS-SS-0.0-0.5MS SL-034-SA5DS-SS-0.0-0.5MSD (DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	CALCIUM IRON	29 -314	- 1817	75.00-125.00 75.00-125.00	- -	CALCIUM IRON	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-034-SA5DS-SS-0.0-0.5MSD (SL-034-SA5DS-SS-0.0-0.5)	2-CHLORONAPHTHALENE	-	-	50.00-141.00	33 (30.00)	2-CHLORONAPHTHALENE	J(all detects)
SL-034-SA5DS-SS-0.0-0.5MS SL-034-SA5DS-SS-0.0-0.5MSD (SL-034-SA5DS-SS-0.0-0.5)	BENZIDINE	14	0	35.00-141.00	200 (30.00)	BENZIDINE	J(all detects) R(all non-detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_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-103-SA7-SB-18.0-19.0MS (SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-18.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	FLUORIDE	76	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8020**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-034-SA5DS-SS-0.0-0.5DUP (DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	SILVER	26	20.00	No Qual, OK by Difference

**Method: 7199**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-034-SA5DS-SS-0.0-0.5DUP (DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	HEXAVALENT CHROMIUM	200	20.00	No Qual, OK by Difference

# Lab Duplicate Outlier Report

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 300.0**  
**Matrix: SO**

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-103-SA7-SB-18.0-19.0DUP (SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	FLUORIDE	25	20.00	No Qual, OK by Difference

# Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_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
P6WCLCSQ261423 (EB-SA5DS-SS-092811)	BIS(2-CHLOROETHYL) ETHER NITROBENZENE	109 111	-	77.00-108.00 75.00-109.00	-	BIS(2-CHLOROETHYL) ETHER NITROBENZENE	J(all detects)
P6WCLCSY261448 (EB-SA5DS-SS-092811)	BENZOIC ACID	-	-	10.00-69.00	82 (30.00)	BENZOIC ACID	J(all detects) UJ(all non-detects)

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

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P27208BQ221410 (DUP-02-SA5DS-QC-092811 SL-007-SA5DS-SS-0.0-0.5 SL-008-SA5DS-SS-0.0-0.5 SL-009-SA5DS-SS-0.0-0.5 SL-010-SA5DS-SS-0.0-0.5 SL-013-SA5DS-SS-0.0-0.5 SL-014-SA5DS-SS-0.0-0.5 SL-015-SA5DS-SS-0.0-0.5 SL-016-SA5DS-SS-0.0-0.5 SL-017-SA5DS-SS-0.0-0.5 SL-033-SA5DS-SS-0.0-0.5 SL-034-SA5DS-SS-0.0-0.5 SL-040-SA5DS-SS-0.0-0.5 SL-103-SA7-SB-18.0-19.0 SL-106-SA7-SB-16.5-17.5 SL-106-SA7-SB-19.0-20.0 SL-106-SA7-SB-4.0-5.0 SL-106-SA7-SB-9.0-10.0)	ALUMINUM IRON MAGNESIUM	145 133 122	- - -	80.00-120.00 80.00-120.00 80.00-120.00	- - -	ALUMINUM IRON MAGNESIUM	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
LCSB75Y211440A (SL-106-SA7-SB-15.5)	1,1,2-TRICHLORO-1,2,2-TRIFLU	-	127	61.00-126.00	-	1,1,2-TRICHLORO-1,2,2-TRIFL	J(all detects)

# Surrogate Outlier Report

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: PrepDE257\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8081A  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-007-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	127	20.00-120.00	All Target Analytes	J (all detects)
SL-017-SA5DS-SS-0.0-0.5	TETRACHLORO-M-XYLENE	45	50.00-130.00	All Target Analytes	J(all detects) UJ(all non-detects)

**Method:** 8082  
**Matrix:** SO

Sample ID	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-009-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	137	45.00-120.00	All Target Analytes	J(all detects)
SL-013-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	141	45.00-120.00	All Target Analytes	J(all detects)
SL-015-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	137	45.00-120.00	All Target Analytes	J(all detects)
SL-016-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	127	45.00-120.00	All Target Analytes	J(all detects)
SL-017-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	122	45.00-120.00	All Target Analytes	J(all detects)
SL-033-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	132	45.00-120.00	All Target Analytes	J(all detects)
SL-034-SA5DS-SS-0.0-0.5	DECACHLOROBIPHENYL	148	45.00-120.00	All Target Analytes	J(all detects)
SL-034-SA5DS-SS-0.0-0.5RLLCS	DECACHLOROBIPHENYL	152	45.00-120.00	All Target Analytes	Not Validated
SL-034-SA5DS-SS-0.0-0.5RLMS	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	171 155	45.00-120.00 53.00-139.00	All Target Analytes	Not Validated
SL-106-SA7-SB-16.5-17.5	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	124 143	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)
SL-106-SA7-SB-4.0-5.0	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	149 176	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)
SL-106-SA7-SB-9.0-10.0	DECACHLOROBIPHENYL TETRACHLORO-M-XYLENE	136 144	45.00-120.00 53.00-139.00	All Target Analytes	J(all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Field Duplicate RPD Report

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 100.311  
**Matrix:** SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
MOISTURE	4.0	3.8	5		No Qualifiers Applied

**Method:** 300.0  
**Matrix:** SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
FLUORIDE	1.4	1.3	7	50.00	No Qualifiers Applied

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

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
ALUMINUM	31900	30100	6	50.00	No Qualifiers Applied
BORON	15.5	14.9	4	50.00	
CALCIUM	9210	8920	3	50.00	
IRON	37400	35800	4	50.00	
LITHIUM	31.6	30.4	4	50.00	
MAGNESIUM	8840	8650	2	50.00	
MANGANESE	370	353	5	50.00	
PHOSPHORUS	511	533	4	50.00	
POTASSIUM	4980	5030	1	50.00	
SODIUM	100	99.2	1	50.00	
STRONTIUM	40.3	39.1	3	50.00	
TIN	2.95	2.82	5	50.00	
TITANIUM	1540	1440	7	50.00	
Zirconium	4.78	4.15	14	50.00	

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

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
ANTIMONY	0.392	0.330	17	50.00	No Qualifiers Applied
ARSENIC	7.40	7.53	2	50.00	
BARIUM	182	134	30	50.00	
BERYLLIUM	1.16	1.08	7	50.00	
CADMIUM	0.304	0.277	9	50.00	
CHROMIUM	40.0	40.4	1	50.00	
COBALT	13.9	14.2	2	50.00	
COPPER	21.6	21.8	1	50.00	
LEAD	12.4	12.7	2	50.00	
MOLYBDENUM	0.548	0.543	1	50.00	
NICKEL	27.8	28.0	1	50.00	
SELENIUM	0.272	0.267	2	50.00	
SILVER	0.0485	0.0420	14	50.00	
THALLIUM	0.432	0.448	4	50.00	
VANADIUM	79.0	81.1	3	50.00	
ZINC	102	99.6	2	50.00	

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Field Duplicate RPD Report

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 7199**  
**Matrix: SO**

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
HEXAVALENT CHROMIUM	1.0 U	1.0	200	50.00	J(all detects) UJ(all non-detects)

**Method: 8081A**  
**Matrix: SO**

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
4,4'-DDE	0.10	0.36	113	50.00	J(all detects) UJ(all non-detects)
4,4'-DDT	0.22	0.46	71	50.00	
BETA-BHC	0.17 U	0.13	200	50.00	
Chlordane	0.90	1.9	71	50.00	
ENDRIN ALDEHYDE	0.35 U	0.13	200	50.00	
gamma-BHC (Lindane)	0.038	0.17 U	200	50.00	

**Method: 8082**  
**Matrix: SO**

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
AROCLOR 1254	1.8 U	0.62	200	50.00	J(all detects) UJ(all non-detects)

**Method: 8151A**  
**Matrix: SO**

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
2,4,5-TP (Silvex)	0.44	0.23 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-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
BENZO(B)FLUORANTHENE	1.0	1.7	52	50.00	J(all detects)

**Method: 9045M**  
**Matrix: SO**

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-034-SA5DS-SS-0.0-0.5	DUP-02-SA5DS-QC-092811			
PH	7.61	7.31	4	50.00	No Qualifiers Applied

# Reporting Limit Outliers

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 6010B  
**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DS-SS-092811	BORON	J	0.0025	0.0500	PQL	mg/L	J (all detects)
		J	0.0105	0.100	PQL	mg/L	

**Method:** 6020  
**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DS-SS-092811	CADMIUM	J	0.00022	0.00050	PQL	mg/L	J (all detects)

**Method:** 7470A  
**Matrix:** AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DS-SS-092811	MERCURY	J	0.000045	0.00020	PQL	mg/L	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-SA5DS-SS-092811	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.11	1.1	PQL	ug/L	J (all detects)
	Diethylphthalate	J	0.36	1.1	PQL	ug/L	
	Di-n-butylphthalate	J	0.74	1.1	PQL	ug/L	
	Di-n-octylphthalate	J	0.12	1.1	PQL	ug/L	

**Method:** 300.0  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-013-SA5DS-SS-0.0-0.5	FLUORIDE	J	0.93	1.0	PQL	mg/Kg	J (all detects)
SL-106-SA7-SB-4.0-5.0	Nitrate-NO3	J	1.1	1.6	PQL	mg/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-02-SA5DS-QC-092811	SODIUM	J	99.2	103	PQL	mg/Kg	J (all detects)
	TIN	J	2.82	10.3	PQL	mg/Kg	
	Zirconium	J	4.15	5.15	PQL	mg/Kg	
SL-007-SA5DS-SS-0.0-0.5	SODIUM	J	87.7	101	PQL	mg/Kg	J (all detects)
	TIN	J	2.67	10.1	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA5DS-SS-0.0-0.5	BORON	J	4.38	5.00	PQL	mg/Kg	J (all detects)
	SODIUM	J	69.5	99.9	PQL	mg/Kg	
	TIN	J	2.57	9.99	PQL	mg/Kg	
	Zirconium	J	0.970	5.00	PQL	mg/Kg	
SL-009-SA5DS-SS-0.0-0.5	SODIUM	J	88.4	102	PQL	mg/Kg	J (all detects)
	TIN	J	2.78	10.2	PQL	mg/Kg	
SL-010-SA5DS-SS-0.0-0.5	SODIUM	J	91.2	100	PQL	mg/Kg	J (all detects)
	TIN	J	2.63	10.0	PQL	mg/Kg	
SL-013-SA5DS-SS-0.0-0.5	SODIUM	J	85.1	101	PQL	mg/Kg	J (all detects)
	TIN	J	2.52	10.1	PQL	mg/Kg	
	Zirconium	J	3.72	5.06	PQL	mg/Kg	
SL-014-SA5DS-SS-0.0-0.5	SODIUM	J	93.6	99.5	PQL	mg/Kg	J (all detects)
	TIN	J	2.71	9.95	PQL	mg/Kg	
	Zirconium	J	2.65	4.98	PQL	mg/Kg	
SL-015-SA5DS-SS-0.0-0.5	SODIUM	J	84.7	98.7	PQL	mg/Kg	J (all detects)
	TIN	J	2.74	9.87	PQL	mg/Kg	
SL-016-SA5DS-SS-0.0-0.5	SODIUM	J	80.5	103	PQL	mg/Kg	J (all detects)
	TIN	J	2.71	10.3	PQL	mg/Kg	
	Zirconium	J	4.97	5.15	PQL	mg/Kg	
SL-017-SA5DS-SS-0.0-0.5	SODIUM	J	97.7	99.7	PQL	mg/Kg	J (all detects)
	TIN	J	2.83	9.97	PQL	mg/Kg	
SL-033-SA5DS-SS-0.0-0.5	TIN	J	2.66	10.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	3.67	5.18	PQL	mg/Kg	
SL-034-SA5DS-SS-0.0-0.5	SODIUM	J	100	103	PQL	mg/Kg	J (all detects)
	TIN	J	2.95	10.3	PQL	mg/Kg	
	Zirconium	J	4.78	5.16	PQL	mg/Kg	
SL-040-SA5DS-SS-0.0-0.5	SODIUM	J	83.6	100	PQL	mg/Kg	J (all detects)
	TIN	J	2.42	10.0	PQL	mg/Kg	
	Zirconium	J	3.49	5.02	PQL	mg/Kg	
SL-103-SA7-SB-18.0-19.0	TIN	J	2.67	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.67	5.28	PQL	mg/Kg	
SL-106-SA7-SB-16.5-17.5	TIN	J	2.89	10.6	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.46	5.30	PQL	mg/Kg	
SL-106-SA7-SB-19.0-20.0	TIN	J	2.77	10.4	PQL	mg/Kg	J (all detects)
	Zirconium	J	1.26	5.20	PQL	mg/Kg	
SL-106-SA7-SB-4.0-5.0	TIN	J	2.55	10.1	PQL	mg/Kg	J (all detects)
	Zirconium	J	0.809	5.04	PQL	mg/Kg	
SL-106-SA7-SB-9.0-10.0	BORON	J	4.42	5.25	PQL	mg/Kg	J (all detects)
	TIN	J	2.78	10.5	PQL	mg/Kg	
	Zirconium	J	1.01	5.25	PQL	mg/Kg	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-02-SA5DS-QC-092811	SELENIUM	J	0.267	0.400	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0420	0.100	PQL	mg/Kg	
SL-007-SA5DS-SS-0.0-0.5	SELENIUM	J	0.204	0.390	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0242	0.0976	PQL	mg/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA5DS-SS-0.0-0.5	ANTIMONY	J	0.105	0.198	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.0809	0.396	PQL	mg/Kg	
	SILVER	J	0.0787	0.0990	PQL	mg/Kg	
SL-009-SA5DS-SS-0.0-0.5	SELENIUM	J	0.222	0.398	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0309	0.0995	PQL	mg/Kg	
SL-010-SA5DS-SS-0.0-0.5	SELENIUM	J	0.252	0.398	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0320	0.0994	PQL	mg/Kg	
SL-013-SA5DS-SS-0.0-0.5	SELENIUM	J	0.217	0.401	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0405	0.100	PQL	mg/Kg	
SL-014-SA5DS-SS-0.0-0.5	SELENIUM	J	0.216	0.402	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0258	0.101	PQL	mg/Kg	
SL-015-SA5DS-SS-0.0-0.5	SELENIUM	J	0.241	0.395	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0297	0.0987	PQL	mg/Kg	
SL-016-SA5DS-SS-0.0-0.5	SELENIUM	J	0.220	0.416	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0328	0.104	PQL	mg/Kg	
SL-017-SA5DS-SS-0.0-0.5	SELENIUM	J	0.253	0.403	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0461	0.101	PQL	mg/Kg	
SL-033-SA5DS-SS-0.0-0.5	SELENIUM	J	0.194	0.411	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0371	0.103	PQL	mg/Kg	
SL-034-SA5DS-SS-0.0-0.5	SELENIUM	J	0.272	0.413	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0485	0.103	PQL	mg/Kg	
SL-040-SA5DS-SS-0.0-0.5	SELENIUM	J	0.188	0.405	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0289	0.101	PQL	mg/Kg	
SL-103-SA7-SB-18.0-19.0	ANTIMONY	J	0.133	0.213	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.204	0.427	PQL	mg/Kg	
	SILVER	J	0.0267	0.107	PQL	mg/Kg	
SL-106-SA7-SB-16.5-17.5	SELENIUM	J	0.210	0.428	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0434	0.107	PQL	mg/Kg	
SL-106-SA7-SB-19.0-20.0	ANTIMONY	J	0.143	0.210	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.213	0.420	PQL	mg/Kg	
	SILVER	J	0.0200	0.105	PQL	mg/Kg	
SL-106-SA7-SB-4.0-5.0	ANTIMONY	J	0.0932	0.199	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.131	0.399	PQL	mg/Kg	
	SILVER	J	0.0241	0.0997	PQL	mg/Kg	
SL-106-SA7-SB-9.0-10.0	ANTIMONY	J	0.127	0.212	PQL	mg/Kg	J (all detects)
	SELENIUM	J	0.160	0.424	PQL	mg/Kg	

**Method:** 6850  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-040-SA5DS-SS-0.0-0.5	PERCHLORATE	J	2.3	5.1	PQL	ug/Kg	J (all detects)

# Reporting Limit Outliers

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 7199**  
**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-008-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.48	0.99	PQL	mg/Kg	J (all detects)
SL-009-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.68	0.99	PQL	mg/Kg	J (all detects)
SL-010-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.21	1.0	PQL	mg/Kg	J (all detects)
SL-014-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.53	1.0	PQL	mg/Kg	J (all detects)
SL-016-SA5DS-SS-0.0-0.5	HEXAVALENT CHROMIUM	J	0.73	0.97	PQL	mg/Kg	J (all detects)
SL-103-SA7-SB-18.0-19.0	HEXAVALENT CHROMIUM	J	0.23	1.1	PQL	mg/Kg	J (all detects)
SL-106-SA7-SB-16.5-17.5	HEXAVALENT CHROMIUM	J	8.5	10.2	PQL	mg/Kg	J (all detects)

**Method: 7471A**  
**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-007-SA5DS-SS-0.0-0.5	MERCURY	J	0.0121	0.0981	PQL	mg/Kg	J (all detects)
SL-009-SA5DS-SS-0.0-0.5	MERCURY	J	0.0105	0.0983	PQL	mg/Kg	J (all detects)
SL-010-SA5DS-SS-0.0-0.5	MERCURY	J	0.0133	0.0947	PQL	mg/Kg	J (all detects)
SL-013-SA5DS-SS-0.0-0.5	MERCURY	J	0.0081	0.0997	PQL	mg/Kg	J (all detects)
SL-014-SA5DS-SS-0.0-0.5	MERCURY	J	0.0114	0.101	PQL	mg/Kg	J (all detects)
SL-015-SA5DS-SS-0.0-0.5	MERCURY	J	0.0472	0.0991	PQL	mg/Kg	J (all detects)
SL-017-SA5DS-SS-0.0-0.5	MERCURY	J	0.0238	0.0978	PQL	mg/Kg	J (all detects)
SL-106-SA7-SB-16.5-17.5	MERCURY	J	0.0143	0.102	PQL	mg/Kg	J (all detects)
SL-106-SA7-SB-19.0-20.0	MERCURY	J	0.0073	0.102	PQL	mg/Kg	J (all detects)
SL-106-SA7-SB-9.0-10.0	MERCURY	J	0.0073	0.102	PQL	mg/Kg	J (all detects)

**Method: 8081A**  
**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-02-SA5DS-QC-092811	BETA-BHC	J	0.13	0.17	PQL	ug/Kg	J (all detects)
	Chlordane	J	1.9	3.5	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.13	0.35	PQL	ug/Kg	
SL-007-SA5DS-SS-0.0-0.5	Chlordane	J	1.9	3.4	PQL	ug/Kg	J (all detects)
SL-008-SA5DS-SS-0.0-0.5	Chlordane	J	1.9	3.4	PQL	ug/Kg	J (all detects)
	DELTA-BHC	J	0.038	0.17	PQL	ug/Kg	
SL-009-SA5DS-SS-0.0-0.5	4,4'-DDE	J	0.31	0.34	PQL	ug/Kg	J (all detects)
	Chlordane	J	2.0	3.4	PQL	ug/Kg	
	DELTA-BHC	J	0.071	0.17	PQL	ug/Kg	
	ENDRIN ALDEHYDE	J	0.089	0.34	PQL	ug/Kg	
SL-010-SA5DS-SS-0.0-0.5	BETA-BHC	J	0.078	0.17	PQL	ug/Kg	J (all detects)
	Chlordane	J	3.0	3.4	PQL	ug/Kg	
	DELTA-BHC	J	0.061	0.17	PQL	ug/Kg	
SL-013-SA5DS-SS-0.0-0.5	Chlordane	J	1.7	3.5	PQL	ug/Kg	J (all detects)

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Reporting Limit Outliers

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8081A**  
**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-014-SA5DS-SS-0.0-0.5	Chlordane	J	1.7	3.4	PQL	ug/Kg	J (all detects)
SL-015-SA5DS-SS-0.0-0.5	4,4'-DDE	J	0.24	0.35	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.31	0.35	PQL	ug/Kg	
	Chlordane	J	1.8	3.5	PQL	ug/Kg	
SL-016-SA5DS-SS-0.0-0.5	ALPHA-BHC	J	0.076	0.17	PQL	ug/Kg	J (all detects)
	Chlordane	J	2.5	3.6	PQL	ug/Kg	
	HEPTACHLOR	J	0.077	0.17	PQL	ug/Kg	
SL-034-SA5DS-SS-0.0-0.5	4,4'-DDE	J	0.10	0.35	PQL	ug/Kg	J (all detects)
	4,4'-DDT	J	0.22	0.35	PQL	ug/Kg	
	Chlordane	J	0.90	3.5	PQL	ug/Kg	
	gamma-BHC (Lindane)	J	0.038	0.17	PQL	ug/Kg	
SL-040-SA5DS-SS-0.0-0.5	BETA-BHC	J	0.081	0.17	PQL	ug/Kg	J (all detects)
	gamma-BHC (Lindane)	J	0.053	0.17	PQL	ug/Kg	

**Method: 8082**  
**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-02-SA5DS-QC-092811	AROCLOR 1254	J	0.62	1.8	PQL	ug/Kg	J (all detects)
SL-007-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	1.5	1.7	PQL	ug/Kg	
SL-008-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	1.6	1.7	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	3.1	3.3	PQL	ug/Kg	
SL-010-SA5DS-SS-0.0-0.5	AROCLOR 1260	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	3.1	3.3	PQL	ug/Kg	
SL-013-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	Aroclor 5460	J	1.9	3.4	PQL	ug/Kg	
SL-014-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	0.92	1.7	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.92	1.7	PQL	ug/Kg	
	Aroclor 5460	J	2.4	3.3	PQL	ug/Kg	
SL-015-SA5DS-SS-0.0-0.5	Aroclor 5460	J	1.5	3.4	PQL	ug/Kg	J (all detects)
SL-016-SA5DS-SS-0.0-0.5	Aroclor 5460	J	2.9	3.5	PQL	ug/Kg	J (all detects)
SL-040-SA5DS-SS-0.0-0.5	AROCLOR 1254	J	0.85	1.7	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	1.5	1.7	PQL	ug/Kg	
	Aroclor 5460	J	2.9	3.3	PQL	ug/Kg	
SL-103-SA7-SB-18.0-19.0	AROCLOR 1254	J	0.49	1.9	PQL	ug/Kg	J (all detects)
SL-106-SA7-SB-4.0-5.0	AROCLOR 1248	J	1.5	1.8	PQL	ug/Kg	J (all detects)
	AROCLOR 1254	J	1.1	1.8	PQL	ug/Kg	
	AROCLOR 1260	J	1.1	1.8	PQL	ug/Kg	
SL-106-SA7-SB-9.0-10.0	AROCLOR 1254	J	0.45	1.8	PQL	ug/Kg	J (all detects)
	AROCLOR 1260	J	0.71	1.8	PQL	ug/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method:** 8151A  
**Matrix:** SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-014-SA5DS-SS-0.0-0.5	DICHLOROPROP	J	1.0	1.7	PQL	ug/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-106-SA7-SB-15.5	2-BUTANONE (MEK)	J	2.9	8.3	PQL	ug/Kg	J (all detects)
	ETHYLBENZENE	J	0.08	4.2	PQL	ug/Kg	
	m,p-Xylene	J	0.32	4.2	PQL	ug/Kg	
	METHYLENE CHLORIDE	J	0.72	4.2	PQL	ug/Kg	
	TOLUENE	J	0.42	4.2	PQL	ug/Kg	

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
DUP-02-SA5DS-QC-092811	BIS(2-ETHYLHEXYL)PHTHALATE	J	48	350	PQL	ug/Kg	J (all detects)

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-007-SA5DS-SS-0.0-0.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	10	18	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.84	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.0	1.7	PQL	ug/Kg	
	PYRENE	J	1.0	1.7	PQL	ug/Kg	
SL-008-SA5DS-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	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	14	18	PQL	ug/Kg	
	Butylbenzylphthalate	J	11	18	PQL	ug/Kg	
	CHRYSENE	J	1.2	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.6	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.77	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.77	1.7	PQL	ug/Kg	
	PYRENE	J	1.3	1.7	PQL	ug/Kg	
SL-009-SA5DS-SS-0.0-0.5	BENZO(A)PYRENE	J	0.84	1.7	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.4	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.5	18	PQL	ug/Kg	
	CHRYSENE	J	1.2	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.96	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.7	PQL	ug/Kg	
	PYRENE	J	1.5	1.7	PQL	ug/Kg	
SL-010-SA5DS-SS-0.0-0.5	BENZO(A)PYRENE	J	0.89	1.7	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.3	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.84	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.90	1.7	PQL	ug/Kg	
	PYRENE	J	1.4	1.7	PQL	ug/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-013-SA5DS-SS-0.0-0.5	BENZO(A)PYRENE	J	0.74	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	6.5	18	PQL	ug/Kg	
	CHRYSENE	J	0.81	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.1	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.73	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.75	1.7	PQL	ug/Kg	
	PYRENE	J	1.1	1.7	PQL	ug/Kg	
SL-014-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.68	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.1	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.4	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.80	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.0	1.7	PQL	ug/Kg	
	PYRENE	J	1.6	1.7	PQL	ug/Kg	
SL-015-SA5DS-SS-0.0-0.5	BENZO(A)PYRENE	J	0.88	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	15	18	PQL	ug/Kg	
	CHRYSENE	J	1.2	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.69	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.0	1.7	PQL	ug/Kg	
	PYRENE	J	1.5	1.7	PQL	ug/Kg	
SL-016-SA5DS-SS-0.0-0.5	BENZO(A)PYRENE	J	0.85	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	10	19	PQL	ug/Kg	
	CHRYSENE	J	1.2	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.4	1.7	PQL	ug/Kg	
	FLUORENE	J	0.81	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.75	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.7	PQL	ug/Kg	
	PYRENE	J	1.3	1.7	PQL	ug/Kg	
SL-017-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	0.68	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	15	18	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.0	1.7	PQL	ug/Kg	
	FLUORENE	J	1.3	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.67	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.95	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.4	1.7	PQL	ug/Kg	
SL-033-SA5DS-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	0.96	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.4	19	PQL	ug/Kg	
SL-034-SA5DS-SS-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.0	1.7	PQL	ug/Kg	J (all detects)
SL-040-SA5DS-SS-0.0-0.5	BENZO(A)ANTHRACENE	J	0.77	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.2	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	18	PQL	ug/Kg	
	Butylbenzylphthalate	J	8.8	18	PQL	ug/Kg	
	NAPHTHALENE	J	1.4	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.5	1.7	PQL	ug/Kg	
SL-103-SA7-SB-18.0-19.0	BENZO(B)FLUORANTHENE	J	1.1	1.8	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	0.69	1.8	PQL	ug/Kg	
SL-106-SA7-SB-16.5-17.5	BENZO(G,H,I)PERYLENE	J	1.2	1.8	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	6.8	19	PQL	ug/Kg	
	CHRYSENE	J	1.3	1.8	PQL	ug/Kg	
SL-106-SA7-SB-19.0-20.0	ANTHRACENE	J	1.3	1.8	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	1.4	1.8	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	15	19	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.3	1.8	PQL	ug/Kg	

# Reporting Limit Outliers

Lab Reporting Batch ID: DE257

Laboratory: LL

EDD Filename: DE257\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-106-SA7-SB-4.0-5.0	BENZO(G,H,I)PERYLENE	J	0.70	1.7	PQL	ug/Kg	J (all detects)
	CHRYSENE	J	1.1	1.7	PQL	ug/Kg	
	PYRENE	J	0.72	1.7	PQL	ug/Kg	
SL-106-SA7-SB-9.0-10.0	BENZO(B)FLUORANTHENE	J	0.82	1.8	PQL	ug/Kg	J (all detects)

**Method: 8315A**  
**Matrix: SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-106-SA7-SB-19.0-20.0	FORMALDEHYDE	J	1200	1600	PQL	ug/Kg	J (all detects)

LDC #: 26864A4  
 SDG #: DE257  
 Laboratory: Lancaster Laboratories

**VALIDATION COMPLETENESS WORKSHEET**  
 ADR

Date: 1/4/12  
 Page: (of) 1  
 Reviewer: [Signature]  
 2nd Reviewer: [Signature]

**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	SW	1 sample by 20B/1005 W
V.	ICP Interference Check Sample (ICS) Analysis	N	
VI.	Matrix Spike Analysis	N SW	Al, Ba, Ca, Fe, Mg, K, Ti, V, Zn > 4x
VII.	Duplicate Sample Analysis	N A	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	A	
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-103-SA7-SB-18.0-19.0	11	SL-014-SA5DS-SS-0.0-0.5	21	SL-034-SA5DS-SS-0.0-0.5MSD	31	
2	SL-106-SA7-SB-4.0-5.0	12	SL-015-SA5DS-SS-0.0-0.5	22	SL-034-SA5DS-SS-0.0-0.5DUP	32	
3	SL-106-SA7-SB-9.0-10.0	13	SL-016-SA5DS-SS-0.0-0.5	23		33	
4	SL-106-SA7-SB-16.5-17.5	14	SL-017-SA5DS-SS-0.0-0.5	24		34	
5	SL-106-SA7-SB-19.0-20.0	15	SL-033-SA5DS-SS-0.0-0.5	25		35	
6	SL-007-SA5DS-SS-0.0-0.5	16	SL-034-SA5DS-SS-0.0-0.5	26		36	
7	SL-008-SA5DS-SS-0.0-0.5	17	SL-040-SA5DS-SS-0.0-0.5	27		37	
8	SL-009-SA5DS-SS-0.0-0.5	18	DUP-02-SA5DS-QC-092811	28		38	
9	SL-010-SA5DS-SS-0.0-0.5	19	EB-SA5DS-SS-092811	29		39	
10	SL-013-SA5DS-SS-0.0-0.5	20	SL-034-SA5DS-SS-0.0-0.5MS	30		40	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**VALIDATION FINDINGS WORKSHEET  
PB/ICB/CCB QUALIFIED SAMPLES**

**METHOD:** Trace metals (EPA SW 864 Method 6010B/6020/7000)  
**Sample Concentration units, unless otherwise noted:** ug/L

Soil preparation factor applied: 100X  
 Associated Samples: All AQ Reason: B

Analyte	Maximum PB* (mg/Kg)	Maximum PB* (ug/L)	Maximum ICB/CCB* (ug/L)	Action Limit	19													
P			2.7	13.5	10.5													
Sb			0.39	1.95														
Pb			0.061	0.305														
Hg			0.036	0.18	0.045													

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.

VALIDATION FINDINGS WORKSHEET  
Field Blanks

METHOD: Trace Metals (EPA SW846 6010B/6020/7000)

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: 9/28/11 Soil factor applied 100X, Hg:167X

Field blank type: (circle one) Field Blank / Rinsate / Other: 6-18

Associated Samples: Att-Soil Reason Code: F

Analyte	Blank ID	Sample Identification																		
		19	2.5	0.22	2.6	0.045	10.5	Action Level	1.25	0.11	1.3	0.037575	5.25	6	8	9	10	11	14	
B																				
Cd																				
Pb																				
Hg																				
Sr																				

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".



QUALITY ASSURANCE SUMMARY  
 FORM 5A (MS/MSD)  
 MATRIX SPIKE/MATRIX SPIKE DUPLICATE  
 SDG No.: DE257  
 Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 64222539BKG Matrix Spike Lab Sample ID: 64222540MS Matrix Spike Duplicate Lab Sample ID: 64222541MSD  
 & Solids for Sample: 96.0  
 Batch Id(s): P27208B, P27226B, P27211C

Analyte	Mass	BKG Sample		MS Sample		MSD Sample		MS Spike Added	MSD Spike Added	Units	MS		MSD		Control Limit	
		Result	C	Result	C	Result	C				Q	R	Q	R	Q	R
Aluminum		31930.1196		36643.1450		37373.8215		200.3205	204.2484	MG/KG	2353	2665	2		70K	20P
Antimony	121	0.3921		1.1542		1.1454		1.2500	1.2376	MG/KG	61	61	N		75 - 125	20MS
Arsenic	75	7.4010		10.4167		9.9134		2.0833	2.0627	MG/KG	145	122	N		75 - 125	20MS
Barium	137	182.4876		151.3542		149.7009		10.4167	10.3135	MG/KG	-299	-318			70K	20MS
Beryllium	9	1.1559		2.1188		2.0710		0.8333	0.8251	MG/KG	116	111			75 - 125	20MS
Boron		15.5456		215.1252		219.4210		200.3205	204.2484	MG/KG	100	100			84 - 115	20P
Cadmium	111	0.3045		1.6579		1.6679		1.0417	1.0314	MG/KG	130	132	N		75 - 125	20MS
Calcium		9213.1271		9328.0769		9594.2330		400.6410	408.4967	MG/KG	29	93			70K	20P
Chromium	52	39.9752		51.5000		54.3317		10.4167	10.3135	MG/KG	111	139	N		75 - 125	20MS
Cobalt	59	13.9212		78.8542		80.6106		52.0833	51.5677	MG/KG	125	129	N		75 - 125	20MS
Copper	63	21.5965		34.8750		34.7772		10.4167	10.3135	MG/KG	127	128	N		75 - 125	20MS
Iron		37434.7669		37119.8317		39290.6924		100.1603	102.1242	MG/KG	-314	1817			70K	20P
Lead	208	12.4278		16.4083		16.7987		3.1250	3.0941	MG/KG	127	141			75 - 125	MS
Lithium		31.5584		131.1308		135.4126		100.1603	102.1242	MG/KG	99	102			82 - 114	20P
Magnesium		8844.7174		9112.7113		9217.3621		200.3205	204.2484	MG/KG	134	182			70K	20P
Manganese		369.7556		411.6577		421.0590		50.0801	51.0621	MG/KG	84	100			65 - 135	20CV
Mercury		0.0074	U	0.1815		0.1742		0.1729	0.1643	MG/KG	105	106			75 - 125	20MS
Molybdenum	98	0.5476		14.2854		14.1172		10.4167	10.3135	MG/KG	132	132	N		75 - 125	20MS
Nickel	60	27.7847		42.3542		44.1007		10.4167	10.3135	MG/KG	140	158	N		75 - 125	20MS
Phosphorus		510.6817		605.2073		630.6097		100.1603	102.1242	MG/KG	94	117			70K	20P
Potassium		4979.0058		6442.1945		6621.1152		1001.6026	1021.2418	MG/KG	146	161			70K	20P
Selenium	78	0.2719	B	2.6167		2.6753		2.0833	2.0627	MG/KG	113	117			75 - 125	20MS
Silver	107	0.0485	B	13.4458		13.2653		10.4167	10.3135	MG/KG	129	128	N		75 - 125	20MS
Sodium		100.2279	B	1076.7728		1088.8807		1001.6026	1021.2418	MG/KG	97	97			75 - 125	20P
Strontium		40.2527		135.6460		138.6509		100.1603	102.1242	MG/KG	95	96			75 - 115	20P
Thallium	203	0.4319		0.9708		0.9383		0.4167	0.4125	MG/KG	129	123			75 - 125	20MS
Tin		2.9455	B	341.2260		350.2522		400.6410	408.4967	MG/KG	84	85			80 - 110	20P
Titanium		1540.2042		1952.6222		2059.2218		100.1603	102.1242	MG/KG	412	508			70K	20P
Tantalum	51	78.9810		92.5625		97.9167		10.4167	10.3135	MG/KG	130	184			70K	20MS
Zinc	66	101.6708		115.6875		113.9233		10.4167	10.3135	MG/KG	135	119			70K	20MS
Zirconium		4.7844	B	93.7049		96.7647		100.1603	102.1242	MG/KG	89	90			81 - 110	20P

METHODS: N  
 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

# **SAMPLE DELIVERY GROUP**

**DE258**

## **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	6423863	N	3050B	6010B	III
29-Sep-2011	SL-007-SA8S-SS-0.0-0.5	6423863	N	3050B	6020	III
29-Sep-2011	SL-007-SA8S-SS-0.0-0.5	6423863	N	3060A	7199	III
29-Sep-2011	SL-007-SA8S-SS-0.0-0.5	6423863	N	3550B	8081A	III
29-Sep-2011	SL-007-SA8S-SS-0.0-0.5	6423863	N	3550B	8082	III
29-Sep-2011	SL-007-SA8S-SS-0.0-0.5	6423863	N	3550B	8151A	III
29-Sep-2011	SL-007-SA8S-SS-0.0-0.5	6423863	N	3550B	8270C	III
29-Sep-2011	SL-007-SA8S-SS-0.0-0.5	6423863	N	3550B	8270C SIM	III
29-Sep-2011	SL-007-SA8S-SS-0.0-0.5	6423863	N	Gen Prep	314.0	III
29-Sep-2011	SL-007-SA8S-SS-0.0-0.5	6423863	N	METHOD	300.0	III
29-Sep-2011	SL-007-SA8S-SS-0.0-0.5	6423863	N	METHOD	7471A	III
29-Sep-2011	SL-005-SA8S-SS-0.0-0.5	6423862	N	3050B	6010B	III
29-Sep-2011	SL-005-SA8S-SS-0.0-0.5	6423862	N	3050B	6020	III
29-Sep-2011	SL-005-SA8S-SS-0.0-0.5	6423862	N	3060A	7199	III
29-Sep-2011	SL-005-SA8S-SS-0.0-0.5	6423862	N	3550B	8081A	III
29-Sep-2011	SL-005-SA8S-SS-0.0-0.5	6423862	N	3550B	8082	III
29-Sep-2011	SL-005-SA8S-SS-0.0-0.5	6423862	N	3550B	8151A	III
29-Sep-2011	SL-005-SA8S-SS-0.0-0.5	6423862	N	3550B	8270C	III
29-Sep-2011	SL-005-SA8S-SS-0.0-0.5	6423862	N	3550B	8270C SIM	III
29-Sep-2011	SL-005-SA8S-SS-0.0-0.5	6423862	N	Gen Prep	314.0	III
29-Sep-2011	SL-005-SA8S-SS-0.0-0.5	6423862	N	METHOD	300.0	III
29-Sep-2011	SL-005-SA8S-SS-0.0-0.5	6423862	N	METHOD	7471A	III
29-Sep-2011	SL-177-SA7-SB-3.0-4.0	6423871	N	3050B	6010B	III
29-Sep-2011	SL-177-SA7-SB-3.0-4.0	6423871	N	3050B	6020	III
29-Sep-2011	SL-177-SA7-SB-3.0-4.0	6423871	N	3060A	7199	III
29-Sep-2011	SL-177-SA7-SB-3.0-4.0	6423871	N	3550B	8015B	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
29-Sep-2011	SL-177-SA7-SB-3.0-4.0	6423871	N	3550B	8015M	III
29-Sep-2011	SL-177-SA7-SB-3.0-4.0	6423871	N	3550B	8082	III
29-Sep-2011	SL-177-SA7-SB-3.0-4.0	6423871	N	3550B	8270C	III
29-Sep-2011	SL-177-SA7-SB-3.0-4.0	6423871	N	3550B	8270C SIM	III
29-Sep-2011	SL-177-SA7-SB-3.0-4.0	6423871	N	5035	8015M	III
29-Sep-2011	SL-177-SA7-SB-3.0-4.0	6423871	N	METHOD	300.0	III
29-Sep-2011	SL-177-SA7-SB-3.0-4.0	6423871	N	METHOD	314.0	III
29-Sep-2011	SL-177-SA7-SB-3.0-4.0	6423871	N	METHOD	7471A	III
29-Sep-2011	SL-177-SA7-SB-3.0-4.0	6423871	N	METHOD	8015B	III
29-Sep-2011	SL-177-SA7-SB-3.0-4.0	6423871	N	METHOD	8015M	III
29-Sep-2011	SL-177-SA7-SB-3.0-4.0	6423871	N	METHOD	9012B	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5	6423856	N	3050B	6010B	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5	6423856	N	3050B	6020	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5	6423856	N	3060A	7199	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5	6423856	N	3550B	8081A	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5	6423856	N	3550B	8082	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5	6423856	N	3550B	8151A	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5	6423856	N	3550B	8270C	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5	6423856	N	3550B	8270C SIM	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5	6423856	N	Gen Prep	314.0	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5	6423856	N	METHOD	300.0	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5	6423856	N	METHOD	7471A	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MS	6423857	MS	3050B	6010B	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MS	6423857	MS	3050B	6020	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MS	6423857	MS	3060A	7199	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MS	6423857	MS	3550B	8081A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MS	6423857	MS	3550B	8082	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MS	6423857	MS	3550B	8151A	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MS	6423857	MS	3550B	8270C	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MS	6423857	MS	3550B	8270C SIM	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MS	6423857	MS	Gen Prep	314.0	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MS	6423857	MS	METHOD	300.0	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MS	6423857	MS	METHOD	7471A	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MSD	6423858	MSD	3050B	6010B	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MSD	6423858	MSD	3050B	6020	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MSD	6423858	MSD	3550B	8081A	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MSD	6423858	MSD	3550B	8082	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MSD	6423858	MSD	3550B	8151A	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MSD	6423858	MSD	3550B	8270C	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MSD	6423858	MSD	3550B	8270C SIM	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5MSD	6423858	MSD	METHOD	7471A	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5DUP	6423859	DUP	3050B	6010B	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5DUP	6423859	DUP	3050B	6020	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5DUP	6423859	DUP	3060A	7199	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5DUP	6423859	DUP	Gen Prep	314.0	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5DUP	6423859	DUP	METHOD	300.0	III
29-Sep-2011	SL-003-SA8S-SS-0.0-0.5DUP	6423859	DUP	METHOD	7471A	III
29-Sep-2011	SL-127-SA7-SB-4.0-5.0	6423870	N	3050B	6010B	III
29-Sep-2011	SL-127-SA7-SB-4.0-5.0	6423870	N	3050B	6020	III
29-Sep-2011	SL-127-SA7-SB-4.0-5.0	6423870	N	3060A	7199	III
29-Sep-2011	SL-127-SA7-SB-4.0-5.0	6423870	N	3550B	8082	III
29-Sep-2011	SL-127-SA7-SB-4.0-5.0	6423870	N	3550B	8270C	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
29-Sep-2011	SL-127-SA7-SB-4.0-5.0	6423870	N	3550B	8270C SIM	III
29-Sep-2011	SL-127-SA7-SB-4.0-5.0	6423870	N	METHOD	300.0	III
29-Sep-2011	SL-127-SA7-SB-4.0-5.0	6423870	N	METHOD	314.0	III
29-Sep-2011	SL-127-SA7-SB-4.0-5.0	6423870	N	METHOD	7471A	III
29-Sep-2011	SL-127-SA7-SB-4.0-5.0DUP	P423870D220520A	DUP	3050B	6020	III
29-Sep-2011	SL-127-SA7-SB-4.0-5.0DUP	P423870D271756B	DUP	METHOD	314.0	III
29-Sep-2011	SL-127-SA7-SB-4.0-5.0MSD	P423870M220523A	MSD	3050B	6020	III
29-Sep-2011	SL-127-SA7-SB-4.0-5.0MS	P423870R220521A	MS	3050B	6020	III
29-Sep-2011	SL-127-SA7-SB-4.0-5.0MS	P423870R271819B	MS	METHOD	314.0	III
29-Sep-2011	DUP01-SA8S-QC-092911	6423868	FD	3050B	6010B	III
29-Sep-2011	DUP01-SA8S-QC-092911	6423868	FD	3050B	6020	III
29-Sep-2011	DUP01-SA8S-QC-092911	6423868	FD	3060A	7199	III
29-Sep-2011	DUP01-SA8S-QC-092911	6423868	FD	3550B	8081A	III
29-Sep-2011	DUP01-SA8S-QC-092911	6423868	FD	3550B	8082	III
29-Sep-2011	DUP01-SA8S-QC-092911	6423868	FD	3550B	8151A	III
29-Sep-2011	DUP01-SA8S-QC-092911	6423868	FD	3550B	8270C	III
29-Sep-2011	DUP01-SA8S-QC-092911	6423868	FD	3550B	8270C SIM	III
29-Sep-2011	DUP01-SA8S-QC-092911	6423868	FD	Gen Prep	314.0	III
29-Sep-2011	DUP01-SA8S-QC-092911	6423868	FD	METHOD	300.0	III
29-Sep-2011	DUP01-SA8S-QC-092911	6423868	FD	METHOD	7471A	III
29-Sep-2011	SL-001-SA8S-SS-0.0-0.5	6423855	N	3050B	6010B	III
29-Sep-2011	SL-001-SA8S-SS-0.0-0.5	6423855	N	3050B	6020	III
29-Sep-2011	SL-001-SA8S-SS-0.0-0.5	6423855	N	3060A	7199	III
29-Sep-2011	SL-001-SA8S-SS-0.0-0.5	6423855	N	3550B	8081A	III
29-Sep-2011	SL-001-SA8S-SS-0.0-0.5	6423855	N	3550B	8082	III
29-Sep-2011	SL-001-SA8S-SS-0.0-0.5	6423855	N	3550B	8151A	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
29-Sep-2011	SL-001-SA8S-SS-0.0-0.5	6423855	N	3550B	8270C	III
29-Sep-2011	SL-001-SA8S-SS-0.0-0.5	6423855	N	3550B	8270C SIM	III
29-Sep-2011	SL-001-SA8S-SS-0.0-0.5	6423855	N	Gen Prep	314.0	III
29-Sep-2011	SL-001-SA8S-SS-0.0-0.5	6423855	N	METHOD	300.0	III
29-Sep-2011	SL-001-SA8S-SS-0.0-0.5	6423855	N	METHOD	7471A	III
29-Sep-2011	SL-126-SA7-SB-4.0-5.0	6423869	N	3050B	6010B	III
29-Sep-2011	SL-126-SA7-SB-4.0-5.0	6423869	N	3050B	6020	III
29-Sep-2011	SL-126-SA7-SB-4.0-5.0	6423869	N	3060A	7199	III
29-Sep-2011	SL-126-SA7-SB-4.0-5.0	6423869	N	3550B	8082	III
29-Sep-2011	SL-126-SA7-SB-4.0-5.0	6423869	N	3550B	8270C	III
29-Sep-2011	SL-126-SA7-SB-4.0-5.0	6423869	N	3550B	8270C SIM	III
29-Sep-2011	SL-126-SA7-SB-4.0-5.0	6423869	N	METHOD	300.0	III
29-Sep-2011	SL-126-SA7-SB-4.0-5.0	6423869	N	METHOD	314.0	III
29-Sep-2011	SL-126-SA7-SB-4.0-5.0	6423869	N	METHOD	7471A	III
29-Sep-2011	SL-126-SA7-SB-4.0-5.0DUP	P423869D271642B	DUP	METHOD	300.0	III
29-Sep-2011	SL-126-SA7-SB-4.0-5.0MS	P423869R271654B	MS	METHOD	300.0	III
29-Sep-2011	SL-024-SA8S-SS-0.0-0.5	6423867	N	3050B	6010B	III
29-Sep-2011	SL-024-SA8S-SS-0.0-0.5	6423867	N	3050B	6020	III
29-Sep-2011	SL-024-SA8S-SS-0.0-0.5	6423867	N	3060A	7199	III
29-Sep-2011	SL-024-SA8S-SS-0.0-0.5	6423867	N	3550B	8081A	III
29-Sep-2011	SL-024-SA8S-SS-0.0-0.5	6423867	N	3550B	8082	III
29-Sep-2011	SL-024-SA8S-SS-0.0-0.5	6423867	N	3550B	8151A	III
29-Sep-2011	SL-024-SA8S-SS-0.0-0.5	6423867	N	3550B	8270C	III
29-Sep-2011	SL-024-SA8S-SS-0.0-0.5	6423867	N	3550B	8270C SIM	III
29-Sep-2011	SL-024-SA8S-SS-0.0-0.5	6423867	N	Gen Prep	314.0	III
29-Sep-2011	SL-024-SA8S-SS-0.0-0.5	6423867	N	METHOD	300.0	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
29-Sep-2011	SL-024-SA8S-SS-0.0-0.5	6423867	N	METHOD	7471A	III
29-Sep-2011	TB-092911	6423872	TB	5030B	8015M	III
29-Sep-2011	SL-013-SA8S-SS-0.0-0.5	6423864	N	3050B	6010B	III
29-Sep-2011	SL-013-SA8S-SS-0.0-0.5	6423864	N	3050B	6020	III
29-Sep-2011	SL-013-SA8S-SS-0.0-0.5	6423864	N	3060A	7199	III
29-Sep-2011	SL-013-SA8S-SS-0.0-0.5	6423864	N	3550B	8081A	III
29-Sep-2011	SL-013-SA8S-SS-0.0-0.5	6423864	N	3550B	8082	III
29-Sep-2011	SL-013-SA8S-SS-0.0-0.5	6423864	N	3550B	8151A	III
29-Sep-2011	SL-013-SA8S-SS-0.0-0.5	6423864	N	3550B	8270C	III
29-Sep-2011	SL-013-SA8S-SS-0.0-0.5	6423864	N	3550B	8270C SIM	III
29-Sep-2011	SL-013-SA8S-SS-0.0-0.5	6423864	N	Gen Prep	314.0	III
29-Sep-2011	SL-013-SA8S-SS-0.0-0.5	6423864	N	METHOD	300.0	III
29-Sep-2011	SL-013-SA8S-SS-0.0-0.5	6423864	N	METHOD	7471A	III
29-Sep-2011	SL-014-SA8S-SS-0.0-0.5	6423865	N	3050B	6010B	III
29-Sep-2011	SL-014-SA8S-SS-0.0-0.5	6423865	N	3050B	6020	III
29-Sep-2011	SL-014-SA8S-SS-0.0-0.5	6423865	N	3060A	7199	III
29-Sep-2011	SL-014-SA8S-SS-0.0-0.5	6423865	N	3550B	8081A	III
29-Sep-2011	SL-014-SA8S-SS-0.0-0.5	6423865	N	3550B	8082	III
29-Sep-2011	SL-014-SA8S-SS-0.0-0.5	6423865	N	3550B	8151A	III
29-Sep-2011	SL-014-SA8S-SS-0.0-0.5	6423865	N	3550B	8270C	III
29-Sep-2011	SL-014-SA8S-SS-0.0-0.5	6423865	N	3550B	8270C SIM	III
29-Sep-2011	SL-014-SA8S-SS-0.0-0.5	6423865	N	Gen Prep	314.0	III
29-Sep-2011	SL-014-SA8S-SS-0.0-0.5	6423865	N	METHOD	300.0	III
29-Sep-2011	SL-014-SA8S-SS-0.0-0.5	6423865	N	METHOD	7471A	III
29-Sep-2011	SL-015-SA8S-SS-0.0-0.5	6423866	N	3050B	6010B	III
29-Sep-2011	SL-015-SA8S-SS-0.0-0.5	6423866	N	3050B	6020	III

## Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
29-Sep-2011	SL-015-SA8S-SS-0.0-0.5	6423866	N	3060A	7199	III
29-Sep-2011	SL-015-SA8S-SS-0.0-0.5	6423866	N	3550B	8081A	III
29-Sep-2011	SL-015-SA8S-SS-0.0-0.5	6423866	N	3550B	8082	III
29-Sep-2011	SL-015-SA8S-SS-0.0-0.5	6423866	N	3550B	8151A	III
29-Sep-2011	SL-015-SA8S-SS-0.0-0.5	6423866	N	3550B	8270C	III
29-Sep-2011	SL-015-SA8S-SS-0.0-0.5	6423866	N	3550B	8270C SIM	III
29-Sep-2011	SL-015-SA8S-SS-0.0-0.5	6423866	N	Gen Prep	314.0	III
29-Sep-2011	SL-015-SA8S-SS-0.0-0.5	6423866	N	METHOD	300.0	III
29-Sep-2011	SL-015-SA8S-SS-0.0-0.5	6423866	N	METHOD	7471A	III

## **Attachment II**

### **Overall Data Qualification Summary**

# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	GENCHEM	
<b>Method:</b>	300.0	<b>Matrix:</b> SO

<b>Sample ID:</b> DUP01-SA8S-QC-092911		<b>Collected:</b> 9/29/2011 10:05:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 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

<b>Sample ID:</b> SL-001-SA8S-SS-0.0-0.5		<b>Collected:</b> 9/29/2011 11:25:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 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

<b>Sample ID:</b> SL-003-SA8S-SS-0.0-0.5		<b>Collected:</b> 9/29/2011 9:55:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.83	U	0.83	MDL	1.0	PQL	mg/Kg	UJ	Q

<b>Sample ID:</b> SL-005-SA8S-SS-0.0-0.5		<b>Collected:</b> 9/29/2011 8:40:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 1			
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORIDE	0.81	U	0.81	MDL	1.0	PQL	mg/Kg	UJ	Q

<b>Sample ID:</b> SL-007-SA8S-SS-0.0-0.5		<b>Collected:</b> 9/29/2011 8:00:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 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

<b>Sample ID:</b> SL-013-SA8S-SS-0.0-0.5		<b>Collected:</b> 9/29/2011 2:55:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 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

<b>Sample ID:</b> SL-014-SA8S-SS-0.0-0.5		<b>Collected:</b> 9/29/2011 3:10:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 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

<b>Sample ID:</b> SL-015-SA8S-SS-0.0-0.5		<b>Collected:</b> 9/29/2011 3:30:00		<b>Analysis Type:</b> RES		<b>Dilution:</b> 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

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

1/12/2012 1:00:07 PM

ADR version 1.4.0.111

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>GENCHEM</b>	
<b>Method:</b>	<b>300.0</b>	<b>Matrix: SO</b>

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
FLUORIDE	0.99	J	0.84	MDL	1.0	PQL	mg/Kg	J	Z, Q

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
FLUORIDE	0.86	U	0.86	MDL	1.1	PQL	mg/Kg	UJ	Q

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
FLUORIDE	1.0	J	0.84	MDL	1.0	PQL	mg/Kg	J	Q

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
FLUORIDE	4.1		0.86	MDL	1.1	PQL	mg/Kg	J	Q

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

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
POTASSIUM	3360		11.5	MDL	51.1	PQL	mg/Kg	J	Q
TIN	1.99	J	0.327	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	3.54	J	0.470	MDL	5.11	PQL	mg/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
POTASSIUM	5170		11.9	MDL	52.5	PQL	mg/Kg	J	Q
TIN	2.14	J	0.336	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	2.86	J	0.483	MDL	5.25	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

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
POTASSIUM	3130		11.6	MDL	51.2	PQL	mg/Kg	J	Q
TIN	1.94	J	0.328	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	3.40	J	0.471	MDL	5.12	PQL	mg/Kg	J	Z

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
POTASSIUM	1460		11.5	MDL	50.9	PQL	mg/Kg	J	Q
TIN	1.44	J	0.326	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	2.30	J	0.468	MDL	5.09	PQL	mg/Kg	J	Z

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
POTASSIUM	1640		11.7	MDL	51.8	PQL	mg/Kg	J	Q
TIN	1.50	J	0.331	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	2.00	J	0.476	MDL	5.18	PQL	mg/Kg	J	Z

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
POTASSIUM	3850		11.2	MDL	49.5	PQL	mg/Kg	J	Q
SODIUM	72.2	J	5.89	MDL	99.0	PQL	mg/Kg	J	Z
TIN	2.24	J	0.317	MDL	9.90	PQL	mg/Kg	U	B
Zirconium	1.71	J	0.456	MDL	4.95	PQL	mg/Kg	J	Z

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
POTASSIUM	4610		11.8	MDL	52.2	PQL	mg/Kg	J	Q
SODIUM	94.3	J	6.21	MDL	104	PQL	mg/Kg	J	Z
TIN	2.20	J	0.334	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	2.13	J	0.480	MDL	5.22	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</b>

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
POTASSIUM	4370		11.5	MDL	50.8	PQL	mg/Kg	J	Q
TIN	1.91	J	0.325	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	2.65	J	0.467	MDL	5.08	PQL	mg/Kg	J	Z

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
POTASSIUM	4220		11.8	MDL	52.3	PQL	mg/Kg	J	Q
SODIUM	104	J	6.22	MDL	105	PQL	mg/Kg	J	Z
TIN	2.06	J	0.335	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	3.31	J	0.481	MDL	5.23	PQL	mg/Kg	J	Z

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
BORON	2.58	J	0.388	MDL	5.39	PQL	mg/Kg	J	Z
POTASSIUM	4020		12.2	MDL	53.9	PQL	mg/Kg	J	Q
SODIUM	85.6	J	6.41	MDL	108	PQL	mg/Kg	J	Z
TIN	2.45	J	0.345	MDL	10.8	PQL	mg/Kg	U	B
Zirconium	1.76	J	0.496	MDL	5.39	PQL	mg/Kg	J	Z

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
BORON	1.20	J	0.369	MDL	5.13	PQL	mg/Kg	J	Z
POTASSIUM	2940		11.6	MDL	51.3	PQL	mg/Kg	J	Q
SODIUM	81.2	J	6.10	MDL	103	PQL	mg/Kg	J	Z
TIN	2.26	J	0.328	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	0.573	J	0.472	MDL	5.13	PQL	mg/Kg	J	Z

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
BORON	1.87	J	0.366	MDL	5.09	PQL	mg/Kg	J	Z
POTASSIUM	2650		11.5	MDL	50.9	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6010B</b>	<b>Matrix: SO</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
TIN	2.38	J	0.326	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	0.838	J	0.468	MDL	5.09	PQL	mg/Kg	J	Z

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: DUP01-SA8S-QC-092911      Collected: 9/29/2011 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
SELENIUM	0.284	J	0.0593	MDL	0.409	PQL	mg/Kg	J	Z

Sample ID: DUP01-SA8S-QC-092911      Collected: 9/29/2011 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
MOLYBDENUM	0.440		0.0511	MDL	0.102	PQL	mg/Kg	J	Q

Sample ID: DUP01-SA8S-QC-092911      Collected: 9/29/2011 10:05:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	108		0.108	MDL	0.409	PQL	mg/Kg	J	A

Sample ID: DUP01-SA8S-QC-092911      Collected: 9/29/2011 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	0.253		0.0756	MDL	0.204	PQL	mg/Kg	J	Q
ARSENIC	8.86		0.0817	MDL	0.409	PQL	mg/Kg	J	Q, E
CADMIUM	0.343		0.0450	MDL	0.102	PQL	mg/Kg	J	Q
CHROMIUM	32.6		0.123	MDL	0.409	PQL	mg/Kg	J	Q
COBALT	10.2		0.0204	MDL	0.102	PQL	mg/Kg	J	Q, A
COPPER	22.9		0.0817	MDL	0.409	PQL	mg/Kg	J	E, Q
LEAD	22.9		0.0104	MDL	0.204	PQL	mg/Kg	J	A
NICKEL	19.8		0.102	MDL	0.409	PQL	mg/Kg	J	Q
SILVER	0.0184	J	0.0145	MDL	0.102	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.303		0.0307	MDL	0.102	PQL	mg/Kg	J	Q
VANADIUM	61.4		0.0225	MDL	0.102	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-001-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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
MOLYBDENUM	0.461		0.0510	MDL	0.102	PQL	mg/Kg	J	Q

Sample ID: SL-001-SA8S-SS-0.0-0.5      Collected: 9/29/2011 11:25:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	138		0.108	MDL	0.408	PQL	mg/Kg	J	A

Sample ID: SL-001-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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	0.225		0.0755	MDL	0.204	PQL	mg/Kg	J	Q
ARSENIC	8.60		0.0816	MDL	0.408	PQL	mg/Kg	J	Q, E
CADMIUM	0.389		0.0449	MDL	0.102	PQL	mg/Kg	J	Q
CHROMIUM	47.4		0.122	MDL	0.408	PQL	mg/Kg	J	Q
COBALT	12.2		0.0204	MDL	0.102	PQL	mg/Kg	J	Q, A
COPPER	23.5		0.0816	MDL	0.408	PQL	mg/Kg	J	E, Q
LEAD	18.2		0.0104	MDL	0.204	PQL	mg/Kg	J	A
NICKEL	25.7		0.102	MDL	0.408	PQL	mg/Kg	J	Q
SILVER	0.0357	J	0.0145	MDL	0.102	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.420		0.0306	MDL	0.102	PQL	mg/Kg	J	Q
VANADIUM	86.2		0.0224	MDL	0.102	PQL	mg/Kg	J	E

Sample ID: SL-003-SA8S-SS-0.0-0.5      Collected: 9/29/2011 9:55:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.252	J	0.0588	MDL	0.406	PQL	mg/Kg	J	Z

Sample ID: SL-003-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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
MOLYBDENUM	0.322		0.0507	MDL	0.101	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-003-SA8S-SS-0.0-0.5	Collected: 9/29/2011 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
BARIUM	93.2		0.107	MDL	0.406	PQL	mg/Kg	J	A

Sample ID: SL-003-SA8S-SS-0.0-0.5	Collected: 9/29/2011 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	0.206		0.0750	MDL	0.203	PQL	mg/Kg	J	Q
ARSENIC	6.79		0.0811	MDL	0.406	PQL	mg/Kg	J	Q, E
CADMIUM	0.300		0.0446	MDL	0.101	PQL	mg/Kg	J	Q
CHROMIUM	29.9		0.122	MDL	0.406	PQL	mg/Kg	J	Q
COBALT	9.60		0.0203	MDL	0.101	PQL	mg/Kg	J	Q, A
COPPER	18.8		0.0811	MDL	0.406	PQL	mg/Kg	J	E, Q
LEAD	20.8		0.0103	MDL	0.203	PQL	mg/Kg	J	A
NICKEL	17.1		0.101	MDL	0.406	PQL	mg/Kg	J	Q
SILVER	0.0229	J	0.0144	MDL	0.101	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.257		0.0304	MDL	0.101	PQL	mg/Kg	J	Q
VANADIUM	51.6		0.0223	MDL	0.101	PQL	mg/Kg	J	E

Sample ID: SL-005-SA8S-SS-0.0-0.5	Collected: 9/29/2011 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	0.143	J	0.0590	MDL	0.407	PQL	mg/Kg	J	Z

Sample ID: SL-005-SA8S-SS-0.0-0.5	Collected: 9/29/2011 8:40:00	Analysis Type: REA2	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.136		0.0509	MDL	0.102	PQL	mg/Kg	J	Q

Sample ID: SL-005-SA8S-SS-0.0-0.5	Collected: 9/29/2011 8:40:00	Analysis Type: REA3	Dilution: 2						
Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	82.4		0.108	MDL	0.407	PQL	mg/Kg	J	A

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-005-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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
COPPER	9.34		0.0806	MDL	0.403	PQL	mg/Kg	J	Q

Sample ID: SL-005-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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	0.123	J	0.0753	MDL	0.204	PQL	mg/Kg	J	Z, Q
ARSENIC	4.49		0.0814	MDL	0.407	PQL	mg/Kg	J	Q, E
CADMIUM	0.232		0.0448	MDL	0.102	PQL	mg/Kg	J	Q
CHROMIUM	23.8		0.122	MDL	0.407	PQL	mg/Kg	J	Q
COBALT	4.85		0.0204	MDL	0.102	PQL	mg/Kg	J	Q, A
LEAD	6.61		0.0104	MDL	0.204	PQL	mg/Kg	J	A
NICKEL	9.79		0.102	MDL	0.407	PQL	mg/Kg	J	Q
THALLIUM	0.123		0.0305	MDL	0.102	PQL	mg/Kg	J	Q
VANADIUM	37.4		0.0224	MDL	0.102	PQL	mg/Kg	J	E

Sample ID: SL-007-SA8S-SS-0.0-0.5      Collected: 9/29/2011 8:00:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.213	J	0.0601	MDL	0.414	PQL	mg/Kg	J	Z

Sample ID: SL-007-SA8S-SS-0.0-0.5      Collected: 9/29/2011 8:00:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.277		0.0518	MDL	0.104	PQL	mg/Kg	J	Q

Sample ID: SL-007-SA8S-SS-0.0-0.5      Collected: 9/29/2011 8:00:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	88.6		0.110	MDL	0.414	PQL	mg/Kg	J	A

Sample ID: SL-007-SA8S-SS-0.0-0.5      Collected: 9/29/2011 8:00:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	12.6		0.0829	MDL	0.414	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-007-SA8S-SS-0.0-0.5      Collected: 9/29/2011 8:00:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.140	J	0.0766	MDL	0.207	PQL	mg/Kg	J	Z, Q
ARSENIC	4.87		0.0829	MDL	0.414	PQL	mg/Kg	J	Q, E
CADMIUM	0.225		0.0456	MDL	0.104	PQL	mg/Kg	J	Q
CHROMIUM	23.8		0.124	MDL	0.414	PQL	mg/Kg	J	Q
COBALT	6.87		0.0207	MDL	0.104	PQL	mg/Kg	J	Q, A
LEAD	10.9		0.0106	MDL	0.207	PQL	mg/Kg	J	A
NICKEL	13.2		0.104	MDL	0.414	PQL	mg/Kg	J	Q
THALLIUM	0.176		0.0311	MDL	0.104	PQL	mg/Kg	J	Q
VANADIUM	38.5		0.0228	MDL	0.104	PQL	mg/Kg	J	E

Sample ID: SL-013-SA8S-SS-0.0-0.5      Collected: 9/29/2011 2:55:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.221	J	0.0597	MDL	0.412	PQL	mg/Kg	J	Z

Sample ID: SL-013-SA8S-SS-0.0-0.5      Collected: 9/29/2011 2:55:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	2.03		0.0515	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-013-SA8S-SS-0.0-0.5      Collected: 9/29/2011 2:55:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	108		0.109	MDL	0.412	PQL	mg/Kg	J	A

Sample ID: SL-013-SA8S-SS-0.0-0.5      Collected: 9/29/2011 2:55:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	14.3		0.0816	MDL	0.408	PQL	mg/Kg	J	Q

Sample ID: SL-013-SA8S-SS-0.0-0.5      Collected: 9/29/2011 2:55:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.149	J	0.0762	MDL	0.206	PQL	mg/Kg	J	Z, Q
ARSENIC	7.58		0.0824	MDL	0.412	PQL	mg/Kg	J	Q, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>								
<b>Method:</b>	6020	<b>Matrix:</b>	SO						

Sample ID: SL-013-SA8S-SS-0.0-0.5      Collected: 9/29/2011 2:55:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.235		0.0453	MDL	0.103	PQL	mg/Kg	J	Q
CHROMIUM	25.8		0.124	MDL	0.412	PQL	mg/Kg	J	Q
COBALT	8.91		0.0206	MDL	0.103	PQL	mg/Kg	J	Q, A
LEAD	13.9		0.0105	MDL	0.206	PQL	mg/Kg	J	A
NICKEL	17.5		0.103	MDL	0.412	PQL	mg/Kg	J	Q
SILVER	0.0298	J	0.0146	MDL	0.103	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.351		0.0309	MDL	0.103	PQL	mg/Kg	J	Q
VANADIUM	49.8		0.0227	MDL	0.103	PQL	mg/Kg	J	E

Sample ID: SL-014-SA8S-SS-0.0-0.5      Collected: 9/29/2011 3:10:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.315	J	0.0577	MDL	0.398	PQL	mg/Kg	J	Z

Sample ID: SL-014-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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
MOLYBDENUM	0.531		0.0497	MDL	0.0994	PQL	mg/Kg	J	Q

Sample ID: SL-014-SA8S-SS-0.0-0.5      Collected: 9/29/2011 3:10:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	115		0.105	MDL	0.398	PQL	mg/Kg	J	A

Sample ID: SL-014-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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	0.146	J	0.0736	MDL	0.199	PQL	mg/Kg	J	Z, Q
ARSENIC	6.92		0.0795	MDL	0.398	PQL	mg/Kg	J	Q, E
CADMIUM	0.324		0.0437	MDL	0.0994	PQL	mg/Kg	J	Q
CHROMIUM	32.3		0.119	MDL	0.398	PQL	mg/Kg	J	Q
COBALT	9.79		0.0199	MDL	0.0994	PQL	mg/Kg	J	Q, A
COPPER	19.2		0.0795	MDL	0.398	PQL	mg/Kg	J	E, Q
LEAD	14.9		0.0101	MDL	0.199	PQL	mg/Kg	J	A
NICKEL	21.1		0.0994	MDL	0.398	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-014-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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
SILVER	0.0323	J	0.0141	MDL	0.0994	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.367		0.0298	MDL	0.0994	PQL	mg/Kg	J	Q
VANADIUM	51.4		0.0219	MDL	0.0994	PQL	mg/Kg	J	E

Sample ID: SL-015-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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	0.291	J	0.0595	MDL	0.410	PQL	mg/Kg	J	Z

Sample ID: SL-015-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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	0.491		0.0513	MDL	0.103	PQL	mg/Kg	J	Q

Sample ID: SL-015-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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	105		0.109	MDL	0.410	PQL	mg/Kg	J	A

Sample ID: SL-015-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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	0.122	J	0.0759	MDL	0.205	PQL	mg/Kg	J	Z, Q
ARSENIC	6.44		0.0820	MDL	0.410	PQL	mg/Kg	J	Q, E
CADMIUM	0.338		0.0451	MDL	0.103	PQL	mg/Kg	J	Q
CHROMIUM	31.3		0.123	MDL	0.410	PQL	mg/Kg	J	Q
COBALT	9.63		0.0205	MDL	0.103	PQL	mg/Kg	J	Q, A
COPPER	18.0		0.0820	MDL	0.410	PQL	mg/Kg	J	E, Q
LEAD	11.3		0.0105	MDL	0.205	PQL	mg/Kg	J	A
NICKEL	19.2		0.103	MDL	0.410	PQL	mg/Kg	J	Q
SILVER	0.0292	J	0.0146	MDL	0.103	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.356		0.0308	MDL	0.103	PQL	mg/Kg	J	Q
VANADIUM	53.2		0.0226	MDL	0.103	PQL	mg/Kg	J	E

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-024-SA8S-SS-0.0-0.5      Collected: 9/29/2011 2:15:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.324		0.0518	MDL	0.104	PQL	mg/Kg	J	Q

Sample ID: SL-024-SA8S-SS-0.0-0.5      Collected: 9/29/2011 2:15:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	98.8		0.110	MDL	0.414	PQL	mg/Kg	J	A

Sample ID: SL-024-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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	0.113	J	0.0766	MDL	0.207	PQL	mg/Kg	J	Z, Q
ARSENIC	6.35		0.0829	MDL	0.414	PQL	mg/Kg	J	Q, E
CADMIUM	0.263		0.0456	MDL	0.104	PQL	mg/Kg	J	Q
CHROMIUM	34.8		0.124	MDL	0.414	PQL	mg/Kg	J	Q
COBALT	9.74		0.0207	MDL	0.104	PQL	mg/Kg	J	Q, A
COPPER	18.4		0.0829	MDL	0.414	PQL	mg/Kg	J	E, Q
LEAD	16.7		0.0106	MDL	0.207	PQL	mg/Kg	J	A
NICKEL	18.9		0.104	MDL	0.414	PQL	mg/Kg	J	Q
SILVER	0.0209	J	0.0147	MDL	0.104	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.330		0.0311	MDL	0.104	PQL	mg/Kg	J	Q
VANADIUM	59.0		0.0228	MDL	0.104	PQL	mg/Kg	J	E

Sample ID: SL-126-SA7-SB-4.0-5.0      Collected: 9/29/2011 11:33:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.0991	J	0.0613	MDL	0.423	PQL	mg/Kg	J	Z

Sample ID: SL-126-SA7-SB-4.0-5.0      Collected: 9/29/2011 11:33:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.878		0.0528	MDL	0.106	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS  
**Method:** 6020 **Matrix:** SO

Sample ID: SL-126-SA7-SB-4.0-5.0      Collected: 9/29/2011 11:33:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	134		0.112	MDL	0.423	PQL	mg/Kg	J	A

Sample ID: SL-126-SA7-SB-4.0-5.0      Collected: 9/29/2011 11:33:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	9.64		0.0862	MDL	0.431	PQL	mg/Kg	J	Q

Sample ID: SL-126-SA7-SB-4.0-5.0      Collected: 9/29/2011 11:33:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0855	J	0.0782	MDL	0.211	PQL	mg/Kg	J	Z, Q
ARSENIC	4.03		0.0845	MDL	0.423	PQL	mg/Kg	J	Q, E
CADMIUM	0.164		0.0465	MDL	0.106	PQL	mg/Kg	J	Q
CHROMIUM	16.8		0.127	MDL	0.423	PQL	mg/Kg	J	Q
COBALT	6.53		0.0211	MDL	0.106	PQL	mg/Kg	J	Q, A
LEAD	6.61		0.0108	MDL	0.211	PQL	mg/Kg	J	A
NICKEL	12.2		0.106	MDL	0.423	PQL	mg/Kg	J	Q
SILVER	0.0360	J	0.0150	MDL	0.106	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.357		0.0317	MDL	0.106	PQL	mg/Kg	J	Q
VANADIUM	34.5		0.0232	MDL	0.106	PQL	mg/Kg	J	E

Sample ID: SL-127-SA7-SB-4.0-5.0      Collected: 9/29/2011 10:00:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.289		0.0518	MDL	0.104	PQL	mg/Kg	J	Q

Sample ID: SL-127-SA7-SB-4.0-5.0      Collected: 9/29/2011 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
BARIUM	90.8		0.110	MDL	0.414	PQL	mg/Kg	J	A

Sample ID: SL-127-SA7-SB-4.0-5.0      Collected: 9/29/2011 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
COPPER	5.08		0.0812	MDL	0.406	PQL	mg/Kg	J	Q

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>6020</b>	<b>Matrix: SO</b>

Sample ID: SL-127-SA7-SB-4.0-5.0      Collected: 9/29/2011 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	0.0860	J	0.0766	MDL	0.207	PQL	mg/Kg	J	Z, Q
ARSENIC	3.12		0.0829	MDL	0.414	PQL	mg/Kg	J	Q, E
CADMIUM	0.0757	J	0.0456	MDL	0.104	PQL	mg/Kg	J	Z, Q
CHROMIUM	13.2		0.124	MDL	0.414	PQL	mg/Kg	J	Q
COBALT	4.99		0.0207	MDL	0.104	PQL	mg/Kg	J	Q, A
LEAD	3.75		0.0106	MDL	0.207	PQL	mg/Kg	J	A
NICKEL	8.73		0.104	MDL	0.414	PQL	mg/Kg	J	Q
THALLIUM	0.271		0.0311	MDL	0.104	PQL	mg/Kg	J	Q
VANADIUM	28.6		0.0228	MDL	0.104	PQL	mg/Kg	J	E

Sample ID: SL-177-SA7-SB-3.0-4.0      Collected: 9/29/2011 8:50:00      Analysis Type: REA      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.176	J	0.0602	MDL	0.415	PQL	mg/Kg	J	Z

Sample ID: SL-177-SA7-SB-3.0-4.0      Collected: 9/29/2011 8:50:00      Analysis Type: REA2      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.627		0.0519	MDL	0.104	PQL	mg/Kg	J	Q

Sample ID: SL-177-SA7-SB-3.0-4.0      Collected: 9/29/2011 8:50:00      Analysis Type: REA3      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BARIUM	102		0.110	MDL	0.415	PQL	mg/Kg	J	A

Sample ID: SL-177-SA7-SB-3.0-4.0      Collected: 9/29/2011 8:50:00      Analysis Type: REA4      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	5.45		0.0847	MDL	0.423	PQL	mg/Kg	J	Q

Sample ID: SL-177-SA7-SB-3.0-4.0      Collected: 9/29/2011 8:50:00      Analysis Type: RES      Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.0768	U	0.0768	MDL	0.207	PQL	mg/Kg	UJ	Q
ARSENIC	5.16		0.0830	MDL	0.415	PQL	mg/Kg	J	Q, E

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** METALS

**Method:** 6020

**Matrix:** SO

Sample ID: SL-177-SA7-SB-3.0-4.0

Collected: 9/29/2011 8:50:00

Analysis Type: RES

Dilution: 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.0806	J	0.0456	MDL	0.104	PQL	mg/Kg	J	Z, Q
CHROMIUM	15.9		0.124	MDL	0.415	PQL	mg/Kg	J	Q
COBALT	5.11		0.0207	MDL	0.104	PQL	mg/Kg	J	Q, A
LEAD	6.03		0.0106	MDL	0.207	PQL	mg/Kg	J	A
NICKEL	10.3		0.104	MDL	0.415	PQL	mg/Kg	J	Q
SILVER	0.0351	J	0.0147	MDL	0.104	PQL	mg/Kg	UJ	Q, B
THALLIUM	0.323		0.0311	MDL	0.104	PQL	mg/Kg	J	Q
VANADIUM	31.4		0.0228	MDL	0.104	PQL	mg/Kg	J	E

**Method Category:** METALS

**Method:** 7199

**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
HEXAVALENT CHROMIUM	0.49	J	0.21	MDL	1.0	PQL	mg/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
HEXAVALENT CHROMIUM	0.42	J	0.21	MDL	1.1	PQL	mg/Kg	J	Z

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
HEXAVALENT CHROMIUM	0.41	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

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
HEXAVALENT CHROMIUM	0.40	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	METALS	
<b>Method:</b>	7199	<b>Matrix:</b> 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
HEXAVALENT CHROMIUM	0.73	J	0.21	MDL	1.0	PQL	mg/Kg	J	Z

<b>Method Category:</b>	METALS	
<b>Method:</b>	7471A	<b>Matrix:</b> 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
MERCURY	0.0137	J	0.0070	MDL	0.0991	PQL	mg/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
MERCURY	0.0132	J	0.0073	MDL	0.103	PQL	mg/Kg	J	Z

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
MERCURY	0.0184	J	0.0071	MDL	0.101	PQL	mg/Kg	J	Z

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
MERCURY	0.0161	J	0.0071	MDL	0.101	PQL	mg/Kg	J	Z

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
MERCURY	0.0194	J	0.0070	MDL	0.100	PQL	mg/Kg	J	Z

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
MERCURY	0.0138	J	0.0068	MDL	0.0965	PQL	mg/Kg	J	Z

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	<b>METALS</b>	
<b>Method:</b>	<b>7471A</b>	<b>Matrix: SO</b>

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
MERCURY	0.0074	J	0.0071	MDL	0.101	PQL	mg/Kg	J	Z

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
MERCURY	0.0193	J	0.0073	MDL	0.104	PQL	mg/Kg	J	Z

<b>Method Category:</b>	<b>SVOA</b>	
<b>Method:</b>	<b>8081A</b>	<b>Matrix: SO</b>

Sample ID: DUP01-SA8S-QC-092911      Collected: 9/29/2011 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
4,4'-DDD	0.18	U	0.18	MDL	0.35	PQL	ug/Kg	UJ	H
4,4'-DDE	0.53		0.068	MDL	0.35	PQL	ug/Kg	J	H
4,4'-DDT	0.43	U	0.43	MDL	0.43	PQL	ug/Kg	UJ	H
ALDRIN	0.068	U	0.068	MDL	0.17	PQL	ug/Kg	UJ	H
ALPHA-BHC	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H
BETA-BHC	0.062	U	0.062	MDL	0.17	PQL	ug/Kg	UJ	H
Chlordane	1.6	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z, H, FD
DELTA-BHC	0.055	J	0.037	MDL	0.17	PQL	ug/Kg	J	Z, H
DIELDRIN	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
ENDOSULFAN I	0.045	U	0.045	MDL	0.17	PQL	ug/Kg	UJ	H
ENDOSULFAN II	0.071	U	0.071	MDL	0.35	PQL	ug/Kg	UJ	H
ENDOSULFAN SULFATE	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
ENDRIN	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
ENDRIN ALDEHYDE	0.34	U	0.34	MDL	0.35	PQL	ug/Kg	UJ	H
ENDRIN KETONE	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
gamma-BHC (Lindane)	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H
HEPTACHLOR	0.062	U	0.062	MDL	0.17	PQL	ug/Kg	UJ	H
HEPTACHLOR EPOXIDE	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H
METHOXYCHLOR	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	H
MIREX	0.12	U	0.12	MDL	0.35	PQL	ug/Kg	UJ	H
TOXAPHENE	7.8	U	7.8	MDL	7.8	PQL	ug/Kg	UJ	H

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA  
**Method:** 8081A **Matrix:** SO

Sample ID: SL-001-SA8S-SS-0.0-0.5 Collected: 9/29/2011 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	0.52	U	0.52	MDL	0.52	PQL	ug/Kg	UJ	H
4,4'-DDE	0.85		0.070	MDL	0.36	PQL	ug/Kg	J	S, H
4,4'-DDT	0.82		0.070	MDL	0.36	PQL	ug/Kg	J	S, H
ALDRIN	0.070	U	0.070	MDL	0.18	PQL	ug/Kg	UJ	H
ALPHA-BHC	0.036	U	0.036	MDL	0.18	PQL	ug/Kg	UJ	H
BETA-BHC	0.064	U	0.064	MDL	0.18	PQL	ug/Kg	UJ	H
Chlordane	1.5	J	0.85	MDL	3.6	PQL	ug/Kg	J	Z, S, H
DELTA-BHC	0.44		0.038	MDL	0.18	PQL	ug/Kg	J	S, H
DIELDRIN	0.13	U	0.13	MDL	0.36	PQL	ug/Kg	UJ	H
ENDOSULFAN I	0.047	U	0.047	MDL	0.18	PQL	ug/Kg	UJ	H
ENDOSULFAN II	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	H
ENDOSULFAN SULFATE	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	H
ENDRIN	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	H
ENDRIN ALDEHYDE	0.095	U	0.095	MDL	0.36	PQL	ug/Kg	UJ	H
ENDRIN KETONE	0.070	U	0.070	MDL	0.36	PQL	ug/Kg	UJ	H
gamma-BHC (Lindane)	0.072	J	0.036	MDL	0.18	PQL	ug/Kg	J	Z, S, H
HEPTACHLOR	0.064	U	0.064	MDL	0.18	PQL	ug/Kg	UJ	H
HEPTACHLOR EPOXIDE	0.047	U	0.047	MDL	0.18	PQL	ug/Kg	UJ	H
METHOXYCHLOR	0.36	U	0.36	MDL	1.8	PQL	ug/Kg	UJ	H
MIREX	0.19	U	0.19	MDL	0.36	PQL	ug/Kg	UJ	H
TOXAPHENE	5.3	U	5.3	MDL	7.0	PQL	ug/Kg	UJ	H

Sample ID: SL-003-SA8S-SS-0.0-0.5 Collected: 9/29/2011 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
4,4'-DDD	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
4,4'-DDE	0.48		0.068	MDL	0.35	PQL	ug/Kg	J	H
4,4'-DDT	0.42	U	0.42	MDL	0.42	PQL	ug/Kg	UJ	H
ALDRIN	0.068	U	0.068	MDL	0.17	PQL	ug/Kg	UJ	H
ALPHA-BHC	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H
BETA-BHC	0.062	U	0.062	MDL	0.17	PQL	ug/Kg	UJ	H
Chlordane	0.82	U	0.82	MDL	3.5	PQL	ug/Kg	UJ	H, FD
DELTA-BHC	0.059	J	0.037	MDL	0.17	PQL	ug/Kg	J	Z, H
DIELDRIN	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8081A	<b>Matrix:</b> SO

Sample ID: SL-003-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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
ENDOSULFAN I	0.045	U	0.045	MDL	0.17	PQL	ug/Kg	UJ	H
ENDOSULFAN II	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
ENDOSULFAN SULFATE	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	R	Q
ENDRIN	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
ENDRIN ALDEHYDE	0.28	U	0.28	MDL	0.35	PQL	ug/Kg	UJ	H
ENDRIN KETONE	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	R	Q
gamma-BHC (Lindane)	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H
HEPTACHLOR	0.062	U	0.062	MDL	0.17	PQL	ug/Kg	UJ	H
HEPTACHLOR EPOXIDE	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H
METHOXYCHLOR	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	H
MIREX	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
TOXAPHENE	7.2	U	7.2	MDL	7.2	PQL	ug/Kg	UJ	H

Sample ID: SL-005-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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
4,4'-DDD	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
4,4'-DDE	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
4,4'-DDT	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
ALDRIN	0.068	U	0.068	MDL	0.17	PQL	ug/Kg	UJ	H
ALPHA-BHC	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H
BETA-BHC	0.062	U	0.062	MDL	0.17	PQL	ug/Kg	UJ	H
Chlordane	0.82	U	0.82	MDL	3.5	PQL	ug/Kg	UJ	H
DELTA-BHC	0.037	U	0.037	MDL	0.17	PQL	ug/Kg	UJ	H
DIELDRIN	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
ENDOSULFAN I	0.045	U	0.045	MDL	0.17	PQL	ug/Kg	UJ	H
ENDOSULFAN II	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
ENDOSULFAN SULFATE	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
ENDRIN	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
ENDRIN ALDEHYDE	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
ENDRIN KETONE	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
gamma-BHC (Lindane)	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H
HEPTACHLOR	0.062	U	0.062	MDL	0.17	PQL	ug/Kg	UJ	H
HEPTACHLOR EPOXIDE	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA  
**Method:** 8081A **Matrix:** SO

Sample ID: SL-005-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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
METHOXYCHLOR	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	H
MIREX	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
TOXAPHENE	2.3	U	2.3	MDL	6.8	PQL	ug/Kg	UJ	H

Sample ID: SL-007-SA8S-SS-0.0-0.5      Collected: 9/29/2011 8:00:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.069	U	0.069	MDL	0.35	PQL	ug/Kg	UJ	H
4,4'-DDE	0.17	U	0.17	MDL	0.35	PQL	ug/Kg	UJ	H
4,4'-DDT	0.19	U	0.19	MDL	0.35	PQL	ug/Kg	UJ	H
ALDRIN	0.069	U	0.069	MDL	0.17	PQL	ug/Kg	UJ	H
ALPHA-BHC	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H
BETA-BHC	0.062	U	0.062	MDL	0.17	PQL	ug/Kg	UJ	H
Chlordane	1.9	J	0.83	MDL	3.5	PQL	ug/Kg	J	Z, H
DELTA-BHC	0.045	J	0.037	MDL	0.17	PQL	ug/Kg	J	Z, H
DIELDRIN	0.069	U	0.069	MDL	0.35	PQL	ug/Kg	UJ	H
ENDOSULFAN I	0.046	U	0.046	MDL	0.17	PQL	ug/Kg	UJ	H
ENDOSULFAN II	0.069	U	0.069	MDL	0.35	PQL	ug/Kg	UJ	H
ENDOSULFAN SULFATE	0.069	U	0.069	MDL	0.35	PQL	ug/Kg	UJ	H
ENDRIN	0.069	U	0.069	MDL	0.35	PQL	ug/Kg	UJ	H
ENDRIN ALDEHYDE	0.35	U	0.35	MDL	0.35	PQL	ug/Kg	UJ	H
ENDRIN KETONE	0.069	U	0.069	MDL	0.35	PQL	ug/Kg	UJ	H
gamma-BHC (Lindane)	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H
HEPTACHLOR	0.062	U	0.062	MDL	0.17	PQL	ug/Kg	UJ	H
HEPTACHLOR EPOXIDE	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H
METHOXYCHLOR	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	H
MIREX	0.069	U	0.069	MDL	0.35	PQL	ug/Kg	UJ	H
TOXAPHENE	4.7	U	4.7	MDL	6.9	PQL	ug/Kg	UJ	H

Sample ID: SL-013-SA8S-SS-0.0-0.5      Collected: 9/29/2011 2:55:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
4,4'-DDE	1.1		0.068	MDL	0.35	PQL	ug/Kg	J	H
4,4'-DDT	1.9		0.068	MDL	0.35	PQL	ug/Kg	J	H

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8081A	<b>Matrix:</b> SO

Sample ID: SL-013-SA8S-SS-0.0-0.5

Collected: 9/29/2011 2:55:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALDRIN	0.068	U	0.068	MDL	0.17	PQL	ug/Kg	UJ	H
ALPHA-BHC	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H
BETA-BHC	0.062	U	0.062	MDL	0.17	PQL	ug/Kg	UJ	H
Chlordane	2.7	J	0.82	MDL	3.5	PQL	ug/Kg	J	Z, H
DELTA-BHC	0.14	U	0.14	MDL	0.17	PQL	ug/Kg	UJ	H
DIELDRIN	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
ENDOSULFAN I	0.045	U	0.045	MDL	0.17	PQL	ug/Kg	UJ	H
ENDOSULFAN II	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
ENDOSULFAN SULFATE	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
ENDRIN	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
ENDRIN ALDEHYDE	0.25	U	0.25	MDL	0.35	PQL	ug/Kg	UJ	H
ENDRIN KETONE	0.068	U	0.068	MDL	0.35	PQL	ug/Kg	UJ	H
gamma-BHC (Lindane)	0.060	J	0.035	MDL	0.17	PQL	ug/Kg	J	Z, H
HEPTACHLOR	0.062	U	0.062	MDL	0.17	PQL	ug/Kg	UJ	H
HEPTACHLOR EPOXIDE	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H
METHOXYCHLOR	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	H
MIREX	0.27	U	0.27	MDL	0.35	PQL	ug/Kg	UJ	H
TOXAPHENE	4.3	U	4.3	MDL	6.8	PQL	ug/Kg	UJ	H

Sample ID: SL-014-SA8S-SS-0.0-0.5

Collected: 9/29/2011 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
4,4'-DDD	0.20	U	0.20	MDL	0.35	PQL	ug/Kg	UJ	H
4,4'-DDE	1.1		0.069	MDL	0.35	PQL	ug/Kg	J	H
4,4'-DDT	0.80		0.069	MDL	0.35	PQL	ug/Kg	J	H
ALDRIN	0.069	U	0.069	MDL	0.17	PQL	ug/Kg	UJ	H
ALPHA-BHC	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H
BETA-BHC	0.063	U	0.063	MDL	0.17	PQL	ug/Kg	UJ	H
Chlordane	2.4	J	0.83	MDL	3.5	PQL	ug/Kg	J	Z, H
DELTA-BHC	0.054	J	0.038	MDL	0.17	PQL	ug/Kg	J	Z, H
DIELDRIN	0.069	U	0.069	MDL	0.35	PQL	ug/Kg	UJ	H
ENDOSULFAN I	0.046	U	0.046	MDL	0.17	PQL	ug/Kg	UJ	H
ENDOSULFAN II	0.069	U	0.069	MDL	0.35	PQL	ug/Kg	UJ	H
ENDOSULFAN SULFATE	0.069	U	0.069	MDL	0.35	PQL	ug/Kg	UJ	H

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA  
**Method:** 8081A **Matrix:** SO

Sample ID: SL-014-SA8S-SS-0.0-0.5 Collected: 9/29/2011 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
ENDRIN	0.069	U	0.069	MDL	0.35	PQL	ug/Kg	UJ	H
ENDRIN ALDEHYDE	0.22	U	0.22	MDL	0.35	PQL	ug/Kg	UJ	H
ENDRIN KETONE	0.069	U	0.069	MDL	0.35	PQL	ug/Kg	UJ	H
gamma-BHC (Lindane)	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H
HEPTACHLOR	0.063	U	0.063	MDL	0.17	PQL	ug/Kg	UJ	H
HEPTACHLOR EPOXIDE	0.035	U	0.035	MDL	0.17	PQL	ug/Kg	UJ	H
METHOXYCHLOR	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	H
MIREX	0.098	U	0.098	MDL	0.35	PQL	ug/Kg	UJ	H
TOXAPHENE	2.3	U	2.3	MDL	6.9	PQL	ug/Kg	UJ	H

Sample ID: SL-015-SA8S-SS-0.0-0.5 Collected: 9/29/2011 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'-DDD	0.14	U	0.14	MDL	0.36	PQL	ug/Kg	UJ	H
4,4'-DDE	0.57		0.069	MDL	0.36	PQL	ug/Kg	J	H
4,4'-DDT	0.29	J	0.069	MDL	0.36	PQL	ug/Kg	J	Z, H
ALDRIN	0.069	U	0.069	MDL	0.17	PQL	ug/Kg	UJ	H
ALPHA-BHC	0.036	U	0.036	MDL	0.17	PQL	ug/Kg	UJ	H
BETA-BHC	0.063	U	0.063	MDL	0.17	PQL	ug/Kg	UJ	H
Chlordane	1.9	J	0.84	MDL	3.6	PQL	ug/Kg	J	Z, H
DELTA-BHC	0.20		0.038	MDL	0.17	PQL	ug/Kg	J	H
DIELDRIN	0.069	U	0.069	MDL	0.36	PQL	ug/Kg	UJ	H
ENDOSULFAN I	0.046	U	0.046	MDL	0.17	PQL	ug/Kg	UJ	H
ENDOSULFAN II	0.069	U	0.069	MDL	0.36	PQL	ug/Kg	UJ	H
ENDOSULFAN SULFATE	0.069	U	0.069	MDL	0.36	PQL	ug/Kg	UJ	H
ENDRIN	0.069	U	0.069	MDL	0.36	PQL	ug/Kg	UJ	H
ENDRIN ALDEHYDE	0.17	U	0.17	MDL	0.36	PQL	ug/Kg	UJ	H
ENDRIN KETONE	0.069	U	0.069	MDL	0.36	PQL	ug/Kg	UJ	H
gamma-BHC (Lindane)	0.036	U	0.036	MDL	0.17	PQL	ug/Kg	UJ	H
HEPTACHLOR	0.063	U	0.063	MDL	0.17	PQL	ug/Kg	UJ	H
HEPTACHLOR EPOXIDE	0.036	U	0.036	MDL	0.17	PQL	ug/Kg	UJ	H
METHOXYCHLOR	0.36	U	0.36	MDL	1.7	PQL	ug/Kg	UJ	H
MIREX	0.069	U	0.069	MDL	0.36	PQL	ug/Kg	UJ	H
TOXAPHENE	2.7	U	2.7	MDL	6.9	PQL	ug/Kg	UJ	H

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8081A	<b>Matrix:</b> SO

Sample ID: SL-024-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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
4,4'-DDD	0.069	U	0.069	MDL	0.36	PQL	ug/Kg	UJ	H
4,4'-DDE	0.62		0.069	MDL	0.36	PQL	ug/Kg	J	H
4,4'-DDT	0.94		0.069	MDL	0.36	PQL	ug/Kg	J	H
ALDRIN	0.069	U	0.069	MDL	0.17	PQL	ug/Kg	UJ	H
ALPHA-BHC	0.036	U	0.036	MDL	0.17	PQL	ug/Kg	UJ	H
BETA-BHC	0.063	U	0.063	MDL	0.17	PQL	ug/Kg	UJ	H
Chlordane	2.9	J	0.84	MDL	3.6	PQL	ug/Kg	J	Z, H
DELTA-BHC	0.038	U	0.038	MDL	0.17	PQL	ug/Kg	UJ	H
DIELDRIN	0.069	U	0.069	MDL	0.36	PQL	ug/Kg	UJ	H
ENDOSULFAN I	0.046	U	0.046	MDL	0.17	PQL	ug/Kg	UJ	H
ENDOSULFAN II	0.069	U	0.069	MDL	0.36	PQL	ug/Kg	UJ	H
ENDOSULFAN SULFATE	0.069	U	0.069	MDL	0.36	PQL	ug/Kg	UJ	H
ENDRIN	0.069	U	0.069	MDL	0.36	PQL	ug/Kg	UJ	H
ENDRIN ALDEHYDE	0.18	U	0.18	MDL	0.36	PQL	ug/Kg	UJ	H
ENDRIN KETONE	0.069	U	0.069	MDL	0.36	PQL	ug/Kg	UJ	H
gamma-BHC (Lindane)	0.036	U	0.036	MDL	0.17	PQL	ug/Kg	UJ	H
HEPTACHLOR	0.063	U	0.063	MDL	0.17	PQL	ug/Kg	UJ	H
HEPTACHLOR EPOXIDE	0.036	U	0.036	MDL	0.17	PQL	ug/Kg	UJ	H
METHOXYCHLOR	0.36	U	0.36	MDL	1.7	PQL	ug/Kg	UJ	H
MIREX	0.069	U	0.069	MDL	0.36	PQL	ug/Kg	UJ	H
TOXAPHENE	2.9	U	2.9	MDL	6.9	PQL	ug/Kg	UJ	H

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8082	<b>Matrix:</b> SO

Sample ID: DUP01-SA8S-QC-092911      Collected: 9/29/2011 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 1260	0.54	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z, FD

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
Aroclor 5460	2.8	J	1.1	MDL	3.5	PQL	ug/Kg	J	Z

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

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

Sample ID: SL-003-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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 1260	0.40	U	0.40	MDL	1.8	PQL	ug/Kg	UJ	FD

Sample ID: SL-013-SA8S-SS-0.0-0.5      Collected: 9/29/2011 2:55:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	1.5	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
AROCLOR 1260	1.6	J	0.40	MDL	1.7	PQL	ug/Kg	J	Z
Aroclor 5460	2.5	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-014-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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
AROCLOR 1254	1.4	J	0.34	MDL	1.8	PQL	ug/Kg	J	Z
Aroclor 5460	1.4	J	1.0	MDL	3.4	PQL	ug/Kg	J	Z

Sample ID: SL-015-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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	0.55	J	0.41	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-024-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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
AROCLOR 1016	0.34	U	0.34	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1221	0.34	U	0.34	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1232	0.34	U	0.34	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1242	0.34	U	0.34	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1248	0.34	U	0.34	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1254	0.34	U	0.34	MDL	1.8	PQL	ug/Kg	UJ	S
AROCLOR 1260	0.41	U	0.41	MDL	1.8	PQL	ug/Kg	UJ	S
Aroclor 1262	0.34	U	0.34	MDL	1.8	PQL	ug/Kg	UJ	S
Aroclor 1268	0.34	U	0.34	MDL	1.8	PQL	ug/Kg	UJ	S
Aroclor 5432	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	S
Aroclor 5442	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	S
Aroclor 5460	1.0	U	1.0	MDL	3.4	PQL	ug/Kg	UJ	S

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8151A	<b>Matrix:</b> 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
2,4,5-TP (Silvex)	0.23	U	0.23	MDL	0.23	PQL	ug/Kg	UJ	L
2,4-DB	1.9		0.64	MDL	1.8	PQL	ug/Kg	J	FD
DICAMBA	0.41	U	0.41	MDL	1.2	PQL	ug/Kg	UJ	L
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L
MCPA	180	U	180	MDL	260	PQL	ug/Kg	UJ	L
MCPP	77	U	77	MDL	260	PQL	ug/Kg	UJ	L, FD

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
2,4,5-TP (Silvex)	0.080	U	0.080	MDL	0.18	PQL	ug/Kg	UJ	L
DICAMBA	0.42	U	0.42	MDL	1.3	PQL	ug/Kg	UJ	L
DINOSEB	0.85	U	0.85	MDL	2.5	PQL	ug/Kg	R	L
MCPA	1900		81	MDL	270	PQL	ug/Kg	J	L
MCPP	80	U	80	MDL	270	PQL	ug/Kg	UJ	L

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
2,4,5-TP (Silvex)	0.13	U	0.13	MDL	0.18	PQL	ug/Kg	UJ	Q, L
2,4-DB	0.64	U	0.64	MDL	1.8	PQL	ug/Kg	UJ	FD
DALAPON	4.5	U	4.5	MDL	9.3	PQL	ug/Kg	R	Q
DICAMBA	0.41	U	0.41	MDL	1.2	PQL	ug/Kg	R	Q
DINOSEB	0.83	U	0.83	MDL	2.5	PQL	ug/Kg	R	L
MCPA	130	U	130	MDL	260	PQL	ug/Kg	UJ	L
MCPP	280		77	MDL	260	PQL	ug/Kg	J	L, FD

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
2,4,5-TP (Silvex)	0.077	U	0.077	MDL	0.17	PQL	ug/Kg	UJ	L
DICAMBA	0.41	U	0.41	MDL	1.2	PQL	ug/Kg	UJ	L
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L
MCPA	78	U	78	MDL	260	PQL	ug/Kg	UJ	L
MCPP	77	U	77	MDL	260	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8151A	<b>Matrix:</b> 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
2,4,5-TP (Silvex)	0.078	U	0.078	MDL	0.18	PQL	ug/Kg	UJ	L
DICAMBA	0.42	U	0.42	MDL	1.3	PQL	ug/Kg	UJ	L
DINOSEB	0.83	U	0.83	MDL	2.5	PQL	ug/Kg	R	L
MCPA	79	U	79	MDL	260	PQL	ug/Kg	UJ	L
MCPP	78	U	78	MDL	260	PQL	ug/Kg	UJ	L

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
2,4,5-TP (Silvex)	0.26		0.077	MDL	0.17	PQL	ug/Kg	J	L
2,4-DB	1.4	J	0.64	MDL	1.7	PQL	ug/Kg	J	Z
DICAMBA	0.41	U	0.41	MDL	1.2	PQL	ug/Kg	UJ	L
DINOSEB	0.82	U	0.82	MDL	2.5	PQL	ug/Kg	R	L
MCPA	380		78	MDL	260	PQL	ug/Kg	J	L
MCPP	77	U	77	MDL	260	PQL	ug/Kg	UJ	L

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
2,4,5-TP (Silvex)	0.21		0.078	MDL	0.18	PQL	ug/Kg	J	L
2,4-DB	0.94	J	0.65	MDL	1.8	PQL	ug/Kg	J	Z
DICAMBA	0.42	U	0.42	MDL	1.2	PQL	ug/Kg	UJ	L
DINOSEB	0.83	U	0.83	MDL	2.5	PQL	ug/Kg	R	L
MCPA	79	U	79	MDL	260	PQL	ug/Kg	UJ	L
MCPP	78	U	78	MDL	260	PQL	ug/Kg	UJ	L

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
2,4,5-TP (Silvex)	0.15	U	0.15	MDL	0.18	PQL	ug/Kg	UJ	L
DICAMBA	0.42	U	0.42	MDL	1.2	PQL	ug/Kg	UJ	L
DINOSEB	0.83	U	0.83	MDL	2.5	PQL	ug/Kg	R	L
MCPA	200	U	200	MDL	260	PQL	ug/Kg	UJ	L
MCPP	78	U	78	MDL	260	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8151A	<b>Matrix:</b> 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
2,4,5-TP (Silvex)	0.20		0.078	MDL	0.18	PQL	ug/Kg	J	L
DICAMBA	0.42	U	0.42	MDL	1.3	PQL	ug/Kg	UJ	L
DINOSEB	0.84	U	0.84	MDL	2.5	PQL	ug/Kg	R	L
MCPA	210	U	210	MDL	260	PQL	ug/Kg	UJ	L
MCPP	78	U	78	MDL	260	PQL	ug/Kg	UJ	L

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C	<b>Matrix:</b> SO

Sample ID: DUP01-SA8S-QC-092911      Collected: 9/29/2011 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
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	510	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	510	PQL	ug/Kg	UJ	L

Sample ID: SL-001-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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
4,6-DINITRO-2-METHYLPHENOL	180	U	180	MDL	530	PQL	ug/Kg	UJ	L
BENZOIC ACID	180	U	180	MDL	530	PQL	ug/Kg	UJ	L

Sample ID: SL-003-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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	340	U	340	MDL	1000	PQL	ug/Kg	R	Q
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	520	PQL	ug/Kg	UJ	L
BENZIDINE	1200	U	1200	MDL	3400	PQL	ug/Kg	R	Q
BENZOIC ACID	170	U	170	MDL	520	PQL	ug/Kg	UJ	L

Sample ID: SL-005-SA8S-SS-0.0-0.5      Collected: 9/29/2011 8:40:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	510	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	510	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	<b>Method:</b>	8270C	<b>Matrix:</b>	SO
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Sample ID: SL-007-SA8S-SS-0.0-0.5      Collected: 9/29/2011 8:00:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	520	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	520	PQL	ug/Kg	UJ	L

Sample ID: SL-013-SA8S-SS-0.0-0.5      Collected: 9/29/2011 2:55:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	510	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	510	PQL	ug/Kg	UJ	L

Sample ID: SL-014-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	520	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	520	PQL	ug/Kg	UJ	L

Sample ID: SL-015-SA8S-SS-0.0-0.5      Collected: 9/29/2011 3:30:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	520	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	520	PQL	ug/Kg	UJ	L

Sample ID: SL-024-SA8S-SS-0.0-0.5      Collected: 9/29/2011 2:15:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	520	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	520	PQL	ug/Kg	UJ	L

Sample ID: SL-126-SA7-SB-4.0-5.0      Collected: 9/29/2011 11:33:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	180	U	180	MDL	540	PQL	ug/Kg	UJ	L
BENZOIC ACID	180	U	180	MDL	540	PQL	ug/Kg	UJ	L

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C	<b>Matrix:</b> SO

Sample ID: SL-127-SA7-SB-4.0-5.0      Collected: 9/29/2011 10:00:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	170	U	170	MDL	520	PQL	ug/Kg	UJ	L
BENZOIC ACID	170	U	170	MDL	520	PQL	ug/Kg	UJ	L

Sample ID: SL-177-SA7-SB-3.0-4.0      Collected: 9/29/2011 8:50:00      Analysis Type: RES-ACID      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,6-DINITRO-2-METHYLPHENOL	180	U	180	MDL	530	PQL	ug/Kg	UJ	L
BENZOIC ACID	180	U	180	MDL	530	PQL	ug/Kg	UJ	L

<b>Method Category:</b>	SVOA	
<b>Method:</b>	8270C SIM	<b>Matrix:</b> SO

Sample ID: DUP01-SA8S-QC-092911      Collected: 9/29/2011 10:05:00      Analysis Type: RES-BASE/NEUTRAL      Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	7.1	J	6.2	MDL	19	PQL	ug/Kg	U	B
Butylbenzylphthalate	16	J	6.2	MDL	19	PQL	ug/Kg	J	Z

Sample ID: SL-001-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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(A)PYRENE	0.87	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.91	J	0.71	MDL	1.8	PQL	ug/Kg	U	B
BENZO(K)FLUORANTHENE	0.72	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	14	J	6.4	MDL	19	PQL	ug/Kg	U	B
Butylbenzylphthalate	16	J	6.4	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	1.1	J	0.35	MDL	1.8	PQL	ug/Kg	J	Z
FLUORANTHENE	1.3	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z
PYRENE	1.2	J	0.71	MDL	1.8	PQL	ug/Kg	J	Z

Sample ID: SL-003-SA8S-SS-0.0-0.5      Collected: 9/29/2011 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	7.9	J	6.2	MDL	19	PQL	ug/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

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

Sample ID: SL-005-SA8S-SS-0.0-0.5 Collected: 9/29/2011 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	19		6.1	MDL	18	PQL	ug/Kg	U	B

Sample ID: SL-013-SA8S-SS-0.0-0.5 Collected: 9/29/2011 2:55:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.41	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	U	B
BIS(2-ETHYLHEXYL)PHTHALATE	14	J	6.2	MDL	18	PQL	ug/Kg	U	B
CHRYSENE	0.89	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.3	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.93	J	0.68	MDL	1.7	PQL	ug/Kg	U	B
PYRENE	0.80	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-014-SA8S-SS-0.0-0.5 Collected: 9/29/2011 3:10:00 Analysis Type: RES-BASE/NEUTRAL Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.78	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.42	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.4	J	0.69	MDL	1.7	PQL	ug/Kg	U	B
BIS(2-ETHYLHEXYL)PHTHALATE	18	J	6.2	MDL	19	PQL	ug/Kg	U	B
DIBENZO(A,H)ANTHRACENE	1.1	J	0.69	MDL	1.7	PQL	ug/Kg	U	B
INDENO(1,2,3-CD)PYRENE	1.3	J	0.69	MDL	1.7	PQL	ug/Kg	U	B
PHENANTHRENE	1.6	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-015-SA8S-SS-0.0-0.5 Collected: 9/29/2011 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
2-METHYLNAPHTHALENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	S
ACENAPHTHENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	S
ACENAPHTHYLENE	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	S
ANTHRACENE	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	S
BENZO(A)ANTHRACENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	S
BENZO(A)PYRENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	S
BENZO(B)FLUORANTHENE	1.4	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, S
BENZO(G,H,I)PERYLENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	S

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

**Method Category:** SVOA

**Method:** 8270C SIM

**Matrix:** SO

Sample ID: SL-015-SA8S-SS-0.0-0.5

Collected: 9/29/2011 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
BENZO(K)FLUORANTHENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	S
BIS(2-ETHYLHEXYL)PHTHALATE	6.2	U	6.2	MDL	19	PQL	ug/Kg	UJ	S
Butylbenzylphthalate	8.6	J	6.2	MDL	19	PQL	ug/Kg	J	Z, S
CHRYSENE	0.35	U	0.35	MDL	1.7	PQL	ug/Kg	UJ	S
DIBENZO(A,H)ANTHRACENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	S
Diethylphthalate	6.2	U	6.2	MDL	19	PQL	ug/Kg	UJ	S
Dimethylphthalate	6.2	U	6.2	MDL	19	PQL	ug/Kg	UJ	S
Di-n-butylphthalate	6.2	U	6.2	MDL	19	PQL	ug/Kg	UJ	S
Di-n-octylphthalate	6.2	U	6.2	MDL	19	PQL	ug/Kg	UJ	S
FLUORANTHENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	S
FLUORENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	S
INDENO(1,2,3-CD)PYRENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	S
NAPHTHALENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	S
N-NITROSODIMETHYLAMINE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	S
PHENANTHRENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	S
PYRENE	0.69	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	S

Sample ID: SL-127-SA7-SB-4.0-5.0

Collected: 9/29/2011 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
ACENAPHTHYLENE	0.58	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.83	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.3	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	6.9	J	6.3	MDL	19	PQL	ug/Kg	U	B
INDENO(1,2,3-CD)PYRENE	0.71	J	0.70	MDL	1.7	PQL	ug/Kg	U	B

Sample ID: SL-177-SA7-SB-3.0-4.0

Collected: 9/29/2011 8:50:00

Analysis Type: RES-BASE/NEUTRAL

Dilution: 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	6.6	J	6.3	MDL	19	PQL	ug/Kg	U	B

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_v1

eQAPP Name: CDM\_SSFL\_110509

## Reason Code Legend

<i>Reason Code</i>	<i>Description</i>
	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
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision

\* denotes a non-reportable result

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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# Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_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	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: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## Data Qualifier Summary

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: PrepDE258\_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

Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling

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## **Enclosure I**

### **Level III ADR Outliers (including Manual Review Outliers)**

# Quality Control Outlier Reports

DE258

## QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: DE258  
 EDD Filename: DE258\_v1.

Laboratory: LL  
 eQAPP Name: CDM\_SSFL\_110509

**Method: 8081A** **Preparation Method: 5030B**  
**Matrix: SO**

Sample ID	Type	Actual	Criteria	Units	Flag
DUP01-SA8S-QC-092911 (RES)	Sampling To Extraction	15.00	14.00	DAYS	J(all detects) UJ(all non-detects)
SL-001-SA8S-SS-0.0-0.5 (RES)		15.00	14.00	DAYS	
SL-003-SA8S-SS-0.0-0.5 (RES)		15.00	14.00	DAYS	
SL-003-SA8S-SS-0.0-0.5MS (RES)		15.00	14.00	DAYS	
SL-003-SA8S-SS-0.0-0.5MSD (RES)		15.00	14.00	DAYS	
SL-003-SA8S-SS-0.0-0.5RLLCS (RE		15.00	14.00	DAYS	
SL-003-SA8S-SS-0.0-0.5RLMS (RE		15.00	14.00	DAYS	
SL-005-SA8S-SS-0.0-0.5 (RES)		15.00	14.00	DAYS	
SL-007-SA8S-SS-0.0-0.5 (RES)		15.00	14.00	DAYS	
SL-013-SA8S-SS-0.0-0.5 (RES)		15.00	14.00	DAYS	
SL-014-SA8S-SS-0.0-0.5 (RES)		15.00	14.00	DAYS	
SL-015-SA8S-SS-0.0-0.5 (RES)		15.00	14.00	DAYS	
SL-024-SA8S-SS-0.0-0.5 (RES)		15.00	14.00	DAYS	

**Method: 8151A** **Preparation Method: 5030B**  
**Matrix: SO**

Sample ID	Type	Actual	Criteria	Units	Flag
SL-003-SA8S-SS-0.0-0.5MS (RES)	Sampling To Extraction	20.00	14.00	DAYS	J(all detects) UJ(all non-detects)
SL-003-SA8S-SS-0.0-0.5MSD (RES)		20.00	14.00	DAYS	
SL-003-SA8S-SS-0.0-0.5RLLCS (RE		20.00	14.00	DAYS	

# Method Blank Outlier Report

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: DE258\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27808DB221629	10/12/2011 4:29:00 PM	ALUMINUM CALCIUM IRON MAGNESIUM MANGANESE PHOSPHORUS STRONTIUM TIN	14.0 mg/Kg 13.0 mg/Kg 7.03 mg/Kg 5.37 mg/Kg 0.0762 mg/Kg 1.34 mg/Kg 0.0535 mg/Kg 1.32 mg/Kg	DUP01-SA8S-QC-092911 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 SL-126-SA7-SB-4.0-5.0 SL-127-SA7-SB-4.0-5.0 SL-177-SA7-SB-3.0-4.0
P28608BB221042	10/14/2011 10:42:00 AM	TITANIUM	0.0860 mg/Kg	DUP01-SA8S-QC-092911 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 SL-126-SA7-SB-4.0-5.0 SL-127-SA7-SB-4.0-5.0 SL-177-SA7-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
DUP01-SA8S-QC-092911(RES)	TIN	1.99 mg/Kg	1.99U mg/Kg
SL-001-SA8S-SS-0.0-0.5(RES)	TIN	2.14 mg/Kg	2.14U mg/Kg
SL-003-SA8S-SS-0.0-0.5(RES)	TIN	1.94 mg/Kg	1.94U mg/Kg
SL-005-SA8S-SS-0.0-0.5(RES)	TIN	1.44 mg/Kg	1.44U mg/Kg
SL-007-SA8S-SS-0.0-0.5(RES)	TIN	1.50 mg/Kg	1.50U mg/Kg
SL-013-SA8S-SS-0.0-0.5(RES)	TIN	2.24 mg/Kg	2.24U mg/Kg
SL-014-SA8S-SS-0.0-0.5(RES)	TIN	2.20 mg/Kg	2.20U mg/Kg
SL-015-SA8S-SS-0.0-0.5(RES)	TIN	1.91 mg/Kg	1.91U mg/Kg
SL-024-SA8S-SS-0.0-0.5(RES)	TIN	2.06 mg/Kg	2.06U mg/Kg
SL-126-SA7-SB-4.0-5.0(RES)	TIN	2.45 mg/Kg	2.45U mg/Kg
SL-127-SA7-SB-4.0-5.0(RES)	TIN	2.26 mg/Kg	2.26U mg/Kg
SL-177-SA7-SB-3.0-4.0(RES)	TIN	2.38 mg/Kg	2.38U mg/Kg

# Method Blank Outlier Report

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: DE258\_v1.

eQAPP Name: CDM\_SSFL\_110509

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P27826AB220430A	10/7/2011 4:30:00 AM	COPPER LEAD SILVER	0.977 mg/Kg 0.121 mg/Kg 0.0360 mg/Kg	DUP01-SA8S-QC-092911 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 SL-126-SA7-SB-4.0-5.0 SL-127-SA7-SB-4.0-5.0 SL-177-SA7-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
DUP01-SA8S-QC-092911(RES)	SILVER	0.0184 mg/Kg	0.0184U mg/Kg
SL-001-SA8S-SS-0.0-0.5(RES)	SILVER	0.0357 mg/Kg	0.0357U mg/Kg
SL-003-SA8S-SS-0.0-0.5(RES)	SILVER	0.0229 mg/Kg	0.0229U mg/Kg
SL-013-SA8S-SS-0.0-0.5(RES)	SILVER	0.0298 mg/Kg	0.0298U mg/Kg
SL-014-SA8S-SS-0.0-0.5(RES)	SILVER	0.0323 mg/Kg	0.0323U mg/Kg
SL-015-SA8S-SS-0.0-0.5(RES)	SILVER	0.0292 mg/Kg	0.0292U mg/Kg
SL-024-SA8S-SS-0.0-0.5(RES)	SILVER	0.0209 mg/Kg	0.0209U mg/Kg
SL-126-SA7-SB-4.0-5.0(RES)	SILVER	0.0360 mg/Kg	0.0360U mg/Kg
SL-177-SA7-SB-3.0-4.0(RES)	SILVER	0.0351 mg/Kg	0.0351U mg/Kg

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

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKLB28B260718	10/13/2011 7:18:00 AM	BENZO(G,H,I)PERYLENE BIS(2-ETHYLHEXYL)PHTHALATE DIBENZO(A,H)ANTHRACENE INDENO(1,2,3-CD)PYRENE	1.5 ug/Kg 7.6 ug/Kg 1.4 ug/Kg 1.1 ug/Kg	DUP01-SA8S-QC-092911 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 SL-126-SA7-SB-4.0-5.0 SL-127-SA7-SB-4.0-5.0 SL-177-SA7-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
DUP01-SA8S-QC-092911(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	7.1 ug/Kg	19U ug/Kg
SL-001-SA8S-SS-0.0-0.5(RES)	BENZO(G,H,I)PERYLENE	0.91 ug/Kg	1.8U ug/Kg
SL-001-SA8S-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	14 ug/Kg	19U ug/Kg
SL-003-SA8S-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	7.9 ug/Kg	19U ug/Kg
SL-005-SA8S-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	19 ug/Kg	19U ug/Kg
SL-013-SA8S-SS-0.0-0.5(RES)	BENZO(G,H,I)PERYLENE	1.0 ug/Kg	1.7U ug/Kg

**Project Name and Number: 1203-004-009-AL - SSFL Area IV Collocated Soil Sampling**

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# Method Blank Outlier Report

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: DE258\_v1.

eQAPP Name: CDM\_SSFL\_110509

Method: 8270C SIM  
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
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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-013-SA8S-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	14 ug/Kg	18U ug/Kg
SL-013-SA8S-SS-0.0-0.5(RES)	INDENO(1,2,3-CD)PYRENE	0.93 ug/Kg	1.7U ug/Kg
SL-014-SA8S-SS-0.0-0.5(RES)	BENZO(G,H,I)PERYLENE	1.4 ug/Kg	1.7U ug/Kg
SL-014-SA8S-SS-0.0-0.5(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	18 ug/Kg	19U ug/Kg
SL-014-SA8S-SS-0.0-0.5(RES)	DIBENZO(A,H)ANTHRACENE	1.1 ug/Kg	1.7U ug/Kg
SL-014-SA8S-SS-0.0-0.5(RES)	INDENO(1,2,3-CD)PYRENE	1.3 ug/Kg	1.7U ug/Kg
SL-127-SA7-SB-4.0-5.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	6.9 ug/Kg	19U ug/Kg
SL-127-SA7-SB-4.0-5.0(RES)	INDENO(1,2,3-CD)PYRENE	0.71 ug/Kg	1.7U ug/Kg
SL-177-SA7-SB-3.0-4.0(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	6.6 ug/Kg	19U ug/Kg

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: DE258\_v1.

eQAPP Name: CDM\_SSFL\_110509

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-003-SA8S-SS-0.0-0.5MSD (SL-003-SA8S-SS-0.0-0.5)	2,4,5-T	-	-	10.00-158.00	39 (35.00)	2,4,5-T	J (all detects)
SL-003-SA8S-SS-0.0-0.5MS SL-003-SA8S-SS-0.0-0.5MSD (SL-003-SA8S-SS-0.0-0.5)	2,4,5-TP (Silvex) DINOSEB	16 8	- -	24.00-141.00 10.00-46.00	92 (35.00) 124 (35.00)	2,4,5-TP (Silvex) DINOSEB	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-003-SA8S-SS-0.0-0.5MS SL-003-SA8S-SS-0.0-0.5MSD (SL-003-SA8S-SS-0.0-0.5)	ENDOSULFAN SULFATE ENDRIN KETONE	0 -	- 0	21.00-160.00 22.00-165.00	200 (50.00) 200 (50.00)	ENDOSULFAN SULFATE ENDRIN KETONE	J(all detects) R(all non-detects)

**Method: 8151A**  
**Matrix: SO**

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-003-SA8S-SS-0.0-0.5MSD (SL-003-SA8S-SS-0.0-0.5)	2,4,5-TP (Silvex) DINOSEB	- -	- -	24.00-141.00 10.00-46.00	45 (35.00) 43 (35.00)	2,4,5-TP (Silvex) DINOSEB	J(all detects)
SL-003-SA8S-SS-0.0-0.5MS SL-003-SA8S-SS-0.0-0.5MSD (SL-003-SA8S-SS-0.0-0.5)	DALAPON DICAMBA	0 -	0 0	10.00-125.00 10.00-190.00	- 200 (50.00)	DALAPON DICAMBA	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-003-SA8S-SS-0.0-0.5MS SL-003-SA8S-SS-0.0-0.5MSD (DUP01-SA8S-QC-092911)	ARSENIC CADMIUM CHROMIUM	191 - 168	210 131 208	75.00-125.00 75.00-125.00 75.00-125.00	- - -	ARSENIC CADMIUM CHROMIUM	J(all detects)
SL-001-SA8S-SS-0.0-0.5	COBALT	-	129	75.00-125.00	-	COBALT	
SL-003-SA8S-SS-0.0-0.5	COPPER	130	167	75.00-125.00	-	COPPER	
SL-005-SA8S-SS-0.0-0.5	LEAD	-	255	75.00-125.00	-	LEAD	
SL-007-SA8S-SS-0.0-0.5	NICKEL	136	179	75.00-125.00	-	NICKEL	
SL-013-SA8S-SS-0.0-0.5	SILVER	-	127	75.00-125.00	-	SILVER	
SL-014-SA8S-SS-0.0-0.5	THALLIUM	-	144	75.00-125.00	-	THALLIUM	
SL-015-SA8S-SS-0.0-0.5	VANADIUM	243	285	75.00-125.00	-	VANADIUM	
SL-024-SA8S-SS-0.0-0.5	ZINC	145	181	75.00-125.00	-	ZINC	
SL-126-SA7-SB-4.0-5.0 SL-127-SA7-SB-4.0-5.0 SL-177-SA7-SB-3.0-4.0)							

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: DE258\_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-003-SA8S-SS-0.0-0.5MS SL-003-SA8S-SS-0.0-0.5MSD (DUP01-SA8S-QC-092911 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 SL-126-SA7-SB-4.0-5.0 SL-127-SA7-SB-4.0-5.0 SL-177-SA7-SB-3.0-4.0)	ANTIMONY	27	37	75.00-125.00	-	ANTIMONY	J(all detects) UJ(all non-detects)  Post Spike = 86%
SL-003-SA8S-SS-0.0-0.5MSD (DUP01-SA8S-QC-092911 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 SL-126-SA7-SB-4.0-5.0 SL-127-SA7-SB-4.0-5.0 SL-177-SA7-SB-3.0-4.0)	MOLYBDENUM	-	134	75.00-125.00	-	MOLYBDENUM	J(all detects)
SL-003-SA8S-SS-0.0-0.5MS SL-003-SA8S-SS-0.0-0.5MSD (DUP01-SA8S-QC-092911 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 SL-126-SA7-SB-4.0-5.0 SL-127-SA7-SB-4.0-5.0 SL-177-SA7-SB-3.0-4.0)	BARIUM	202	320	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-003-SA8S-SS-0.0-0.5MS SL-003-SA8S-SS-0.0-0.5MSD (DUP01-SA8S-QC-092911 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 SL-126-SA7-SB-4.0-5.0 SL-127-SA7-SB-4.0-5.0 SL-177-SA7-SB-3.0-4.0)	ALUMINUM CALCIUM IRON MAGNESIUM MANGANESE POTASSIUM	2148 2589 768 151 221 148	2670 909 672 293 - 171	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	J(all detects)  Al, Ca, Fe, Mg, Mn, No Qual, >4x

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: DE258\_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-127-SA7-SB-4.0-5.0MS (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-126-SA7-SB-4.0-5.0 SL-127-SA7-SB-4.0-5.0 SL-177-SA7-SB-3.0-4.0)	COPPER	130	-	75.00-125.00	-	COPPER	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-003-SA8S-SS-0.0-0.5MS SL-003-SA8S-SS-0.0-0.5MSD (SL-003-SA8S-SS-0.0-0.5)	3,3'-DICHLOROBENZIDINE 4-CHLOROANILINE ANILINE HEXACHLOROBENZENE	- - - 123	- - - -	28.00-109.00 13.00-107.00 18.00-116.00 77.00-114.00	41 (30.00) 69 (30.00) 34 (30.00) -	3,3'-DICHLOROBENZIDINE 4-CHLOROANILINE ANILINE HEXACHLOROBENZENE	J(all detects)
SL-003-SA8S-SS-0.0-0.5MS SL-003-SA8S-SS-0.0-0.5MSD (SL-003-SA8S-SS-0.0-0.5)	2,4-DINITROPHENOL BENZIDINE	0 -	- 0	20.00-143.00 35.00-141.00	200 (30.00) 200 (30.00)	2,4-DINITROPHENOL BENZIDINE	J(all detects) R(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-003-SA8S-SS-0.0-0.5MSD (SL-003-SA8S-SS-0.0-0.5)	BENZO(G,H,I)PERYLENE DIBENZO(A,H)ANTHRACENE INDENO(1,2,3-CD)PYRENE	- - -	- - -	33.00-141.00 22.00-133.00 21.00-143.00	49 (30.00) 41 (30.00) 41 (30.00)	BENZO(G,H,I)PERYLENE DIBENZO(A,H)ANTHRACENE INDENO(1,2,3-CD)PYRENE	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-003-SA8S-SS-0.0-0.5MS (DUP01-SA8S-QC-092911 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)	FLUORIDE	72	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)
SL-126-SA7-SB-4.0-5.0MS (SL-126-SA7-SB-4.0-5.0 SL-127-SA7-SB-4.0-5.0 SL-177-SA7-SB-3.0-4.0)	FLUORIDE	64	-	80.00-120.00	-	FLUORIDE	J(all detects) UJ(all non-detects)

# Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: DE258

Laboratory: LL

EDD Filename: DE258\_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-003-SA8S-SS-0.0-0.5MS SL-003-SA8S-SS-0.0-0.5MSD (DUP01-SA8S-QC-092911 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 SL-126-SA7-SB-4.0-5.0 SL-127-SA7-SB-4.0-5.0 SL-177-SA7-SB-3.0-4.0)	TITANIUM	313	299	75.00-125.00	-	TITANIUM	No Qual, >4x