

FOR CONTRACT NO.: 03-3E3904

**INFORMATION HANDOUT
MATERIALS INFORMATION**

UNDERGROUND CLASSIFICATION

LEAD INVESTIGATION REPORT

ROUTE: 03-Sac-99-16.8/18.1

DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF OCCUPATIONAL SAFETY AND HEALTH
MINING AND TUNNELING UNIT
2211 Park Towne Circle, Suite 2
Sacramento, California 95825



Telephone (916) 574-2540
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May 14, 2009

Department of Transportation
2800 Gateway Oaks Drive,
Sacramento, California 95833

Attention: Rupinder Dosanjh

Subject: Underground Classification No. C249-067-09T thru C253-067-09T
Route 99 Lane Extension Project

Mr. Rupinder Dosanjh:

The information provided to this office relative to the above project has been reviewed. On the basis of this analysis, Underground Classifications of "Potentially Gassy with Special Conditions" have been assigned to the tunnels identified on your submittal. Please retain the original Classifications for your records and deliver true and correct copies of these Classifications to the tunnel contractor for posting at the job site.

When the contractor who will be performing the work is selected, please advise them to notify this office to schedule the mandated Prejob Conferences with the Division prior to commencing any activity associated with construction or rehabilitation of the tunnels.

Please be informed that whenever an employee enters any bore or shaft being constructed under 30 inches in diameter, the Mining and Tunneling Unit then has immediate jurisdiction over that job. Please contact the Mining and Tunneling Unit prior to entering such spaces.

If you have any questions on this subject, please contact this office at your earliest convenience.

Sincerely,

A handwritten signature in black ink that reads "John R. Leahy".

John R. Leahy
Senior Engineer

cc: Douglas Patterson
File



State of California

Department of Industrial Relations

DIVISION OF OCCUPATIONAL SAFETY AND HEALTH
MINING AND TUNNELING UNIT

Underground Classification

C251-067-09T

DEPARTMENT OF TRANSPORTATION

(NAME OF TUNNEL OR MINE AND COMPANY NAME)

of 2800 Gateway Oaks Drive, Sacramento, California 95833
(MAILING ADDRESS)

at ROUTE 99 LANE EXTENSION PROJECT
(LOCATION)

has been classified as *** POTENTIALLY GASSY with Special Conditions***
(CLASSIFICATION)

as required by the California Labor Code Section 7955.

The Division shall be notified if sufficient quantities of flammable gas or vapors have been encountered underground. Classifications are based on the California Labor Code Part 9, Tunnel Safety Orders and Mine Safety Orders.

SPECIAL CONDITIONS

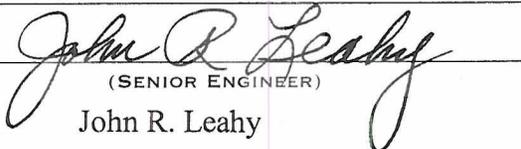
1. A Certified Gas Tester shall perform pre-entry and continuous monitoring of the underground environment to measure Oxygen and detect explosive, flammable, and toxic gasses whenever an employee is working in the underground environment.
2. Mechanical ventilation shall provide for continuous exhaust of fumes and air at any time an employee is working in the underground environment. The primary ventilation fans must be located outside of the underground environment and shall be reversible by a single switch near the fan location.
3. The Division shall be notified immediately if any **Flammable Gas** or **Petroleum Vapor** exceeds 5% of the Lower Explosive Limit.
4. All utilities that may be in conflict with the project shall be identified and physically located (potholed) prior to the start of project operations.

The 60-diameter by 25 feet deep drilled shaft project located along Route 99 approximately 550 feet south of the intersection of Route 99 and the Stockton Road overcrossing, Sacramento, Sacramento County.

This classification shall be conspicuously posted at the place of employment.

May 14, 2009

Date _____


(SENIOR ENGINEER)
John R. Leahy



State of California

Department of Industrial Relations

DIVISION OF OCCUPATIONAL SAFETY AND HEALTH
MINING AND TUNNELING UNIT

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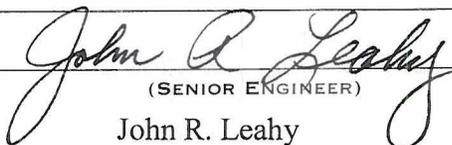
1. A Certified Gas Tester shall perform pre-entry and continuous monitoring of the underground environment to measure Oxygen and detect explosive, flammable, and toxic gasses whenever an employee is working in the underground environment.
2. Mechanical ventilation shall provide for continuous exhaust of fumes and air at any time an employee is working in the underground environment. The primary ventilation fans must be located outside of the underground environment and shall be reversible by a single switch near the fan location.
3. The Division shall be notified immediately if any **Flammable Gas** or **Petroleum Vapor** exceeds 5% of the Lower Explosive Limit.
4. All utilities that may be in conflict with the project shall be identified and physically located (potholed) prior to the start of project operations.

The 60-diameter by 22 feet deep drilled shaft project located along Route 99 approximately 1,050 feet south of the intersection of Route 99 and the Stockton Road overcrossing, Sacramento, Sacramento County.

This classification shall be conspicuously posted at the place of employment.

May 14, 2009

Date _____


(SENIOR ENGINEER)

John R. Leahy

AERIALLY DEPOSITED LEAD SITE INVESTIGATION REPORT



**State Route 99
Mack Road to Calvine Road
Sacramento County, California**

PREPARED FOR:

**CALIFORNIA DEPARTMENT OF TRANSPORTATION – DISTRICT 3
ENVIRONMENTAL ENGINEERING OFFICE
P.O. BOX 911
MARYSVILLE, CALIFORNIA 95901**



PREPARED BY:

**GEOCON CONSULTANTS, INC.
3160 GOLD VALLEY DRIVE, SUITE 800
RANCHO CORDOVA, CALIFORNIA 95742**



**GEOCON PROJECT NO. S9300-06-95
TASK ORDER NO. 95, EA NO. 03-3E3901**

SEPTEMBER 2009



Project No. S9300-06-95
September 4, 2009

Mr. Mark Melani
California Department of Transportation – District 3
Environmental Engineering Office
P.O. Box 911
Marysville, California 95901

Subject: STATE ROUTE 99 MACK ROAD TO CALVINE ROAD
SACRAMENTO COUNTY, CALIFORNIA
CONTRACT NO. 03A1368, TASK ORDER NO. 95, EA 03-3E3901
AERIALLY DEPOSITED LEAD SITE INVESTIGATION REPORT

Dear Mr. Melani:

In accordance with California Department of Transportation (Caltrans) Contract No. 03A1368, Task Order Number 95, and Expense Authorization 03-3E3901, Geocon Consultants, Inc. has performed environmental engineering services for the subject project. The Site consists of Caltrans right-of-way along State Route 99 from Mack Road to Calvine Road in Sacramento County, California. The accompanying report summarizes the services performed, including the advancement of 52 direct-push borings for shallow soil sampling and laboratory testing.

The contents of this report reflect the views of the author, who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

Please contact us if there are any questions concerning the contents of this report or if we may be of further service.

Sincerely,

GEOCON CONSULTANTS, INC.

Gemma G. Reblando
Project Geologist

John E. Juhrend, PE, CEG
Project Manager



GGR:JEJ;jaj

(5 + 2 CDs) Addressee

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FIGURES

1. Vicinity Map
- 2-1 through 2-6. Site Plans

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1. Summary of Soil Boring Coordinates, Lead and Soil pH Analytical Results

APPENDICES

- A. DTSC Variance
- B. Laboratory Reports and Chain-of-custody Documentation
- C. Lead Statistics and Regression Analysis Results

AERIALLY DEPOSITED LEAD SITE INVESTIGATION REPORT

1.0 INTRODUCTION

This Aerially Deposited Lead (ADL) Site Investigation Report for State Route 99 (SR-99) Mack Road to Calvine Road project was prepared by Geocon Consultants, Inc. under California Department of Transportation (Caltrans) Contract No. 03A1368, Task Order (TO) Number 95, and Expense Authorization (EA) 03-3E3901.

1.1 Project Description and Proposed Improvements

The project area consists of Caltrans right-of-way along the southbound (SB) and northbound (NB) shoulder areas and selected on- and offramps of SR-99 from Mack Road to Calvine Road, approximate Post Mile 16.8 to 18.1 (the Site) in Sacramento County, California. Caltrans proposes to connect existing auxiliary lanes at Mack Road and Calvine Road, which will include highway widening. The approximate project location is depicted on the Vicinity Map, Figure 1, and Site Plans, Figures 2-1 through 2-6.

1.2 General Objectives

The purpose of the scope of work outlined in TO No. 95 was to evaluate whether impacts due to aerial lead deposition from motor vehicle exhaust exist in the surface and near surface soils within the project boundaries. The investigative results will be used by Caltrans to inform the construction contractor(s) if lead-impacted soil is present within the project boundaries for health, safety and soil management/disposal purposes.

2.0 BACKGROUND

2.1 Potential Lead Soil Impacts

Ongoing testing by Caltrans throughout California has indicated that ADL exists along major freeway routes due to emissions from vehicles powered by leaded gasoline.

2.2 Hazardous Waste Determination Criteria

Regulatory criteria to classify a waste as “California hazardous” for handling and disposal purposes are contained in the California Code of Regulations (CCR), Title 22, Division 4.5, Chapter 11, Article 3, § 66261.24. Criteria to classify a waste as “Resource, Conservation, and Recovery Act (RCRA) hazardous” are contained in Chapter 40 of the Code of Federal Regulations (40 CFR), Section 261.

For waste containing metals, the waste is classified as California hazardous when: 1) the total metal content exceeds the respective Total Threshold Limit Concentration (TTLIC); or 2) the soluble metal content exceeds the respective Soluble Threshold Limit Concentration (STLC) based on the standard

Waste Extraction Test (WET). A waste may have the potential of exceeding the STLC when the waste's total metal content is greater than or equal to ten times the respective STLC value, since the WET uses a 1:10 dilution ratio. Hence, when a total metal is detected at a concentration greater than or equal to ten times the respective STLC, and assuming that 100 percent of the total metals are soluble, soluble metal analysis is required. A material is classified as RCRA hazardous, or Federal hazardous, when the soluble metal content exceeds the Federal regulatory level based on the Toxicity Characteristic Leaching Procedure (TCLP). The TTLC value for lead is 1,000 milligrams per kilogram (mg/kg). The STLC and TCLP values for lead are both 5.0 milligrams per liter (mg/l).

The above regulatory criteria are based on chemical concentrations. Wastes may also be classified as hazardous based on other criteria such as ignitability and corrosivity; however, for the purposes of this investigation, toxicity (i.e., lead concentrations) is the primary factor considered for waste classification since waste generated during the construction activities would not likely warrant testing for ignitability or corrosivity. Waste that is classified as either California-hazardous or RCRA-hazardous requires management as a hazardous waste.

The Department of Toxic Substances Control (DTSC) regulates and interprets hazardous waste laws in California. DTSC generally considers excavated or transported materials that exhibit "hazardous waste" characteristics to be a "waste" requiring proper management, treatment and disposal. Soil that contains lead above hazardous waste thresholds and is left in-place would not be necessarily classified by DTSC as a "waste." The DTSC has provided site-specific determinations that "movement of wastes within an area of contamination does not constitute "land disposal" and, thus, does not trigger hazardous waste disposal requirements." Therefore, lead-impacted soil that is scarified in-place, moisture-conditioned, and recompacted during roadway improvement activities might not be considered a "waste." DTSC should be consulted to confirm waste classification. It is noted that in addition to DTSC regulations, health and safety requirements and other local agency requirements may also apply to the handling and disposal of lead-impacted soil.

2.3 DTSC Variance

The DTSC issued a statewide Variance effective July 1, 2009, regarding the reuse of ADL-impacted soils within Caltrans right-of-way. Under the Variance, soil that is classified as a non-RCRA hazardous waste, based primarily on ADL content, may be suitable for reuse within Caltrans right-of-way. ADL soil that is classified as a RCRA hazardous waste is not eligible for reuse under the Variance and must be disposed of as a RCRA hazardous waste (Caltrans Type Z3).

ADL soil reused under the Variance must always be at least 5 feet above the highest groundwater elevation and, depending on lead concentrations, must be covered with at least one foot of non-hazardous soil or a pavement structure. The ADL soil may not be placed in areas where it might

contact groundwater or surface water (such as streams and rivers), and must be buried in locations that are protected from erosion that may result from storm water run-on and run-off.

Review of the statewide Variance indicates the following conditions regarding the reuse and management of ADL-impacted soil as fill material for construction and maintenance operations. If ADL soil meets the Variance criteria but is not intended to be reused within Caltrans right-of-way, then the excavated soil must be disposed of as a California hazardous waste (Caltrans Type Z2). A copy of the DTSC Variance is presented in Appendix A.

Caltrans Type Y1

ADL soil exhibiting a total lead concentration less than or equal to 1,411 mg/kg, a soluble lead concentration (based on a modified WET using deionized water as the extractant [DI-WET]) less than or equal to 1.5 mg/l, and a pH value greater than or equal to 5.5 may be reused within the same Caltrans corridor and must be covered with at least one foot of non-hazardous soil.

Caltrans Type Y2

ADL soil exhibiting a total lead concentration less than or equal to 1,411 mg/kg, a DI-WET soluble lead concentration less than or equal to 1.5 mg/l, and a pH value greater than 5 and less than 5.5 may be reused within the same Caltrans corridor and must be covered and protected from infiltration by a pavement structure.

ADL soil exhibiting a total lead concentration less than or equal to 1,411 mg/kg, a DI-WET soluble lead concentration greater than 1.5 mg/l and less than or equal to 150 mg/l, and a pH value greater than 5 may be reused within the same Caltrans corridor and must be covered and protected from infiltration by a pavement structure.

ADL soil exhibiting a total lead concentration greater than 1,411 mg/kg and less than or equal to 3,397 mg/kg, a DI-WET (using deionized water as the extractant) soluble lead concentration less than or equal to 150 mg/l, and a pH value greater than 5 may be reused within the same Caltrans corridor and must be covered and protected from infiltration by a pavement structure.

Caltrans Type Z2

ADL soil exhibiting a total lead concentration greater than 3,397 mg/kg, a DI-WET soluble lead concentration greater than 150 mg/l, or a pH value less than or equal to 5 is not eligible for reuse under the Variance and must be disposed of as a California hazardous waste.

Caltrans Type Z3

ADL soil exhibiting a TCLP soluble lead concentration greater than or equal to 5 mg/l is not eligible for reuse under the Variance and must be disposed of as a RCRA hazardous waste.

3.0 SCOPE OF SERVICES

We performed the following scope of services as requested by Caltrans in TO No. 95:

3.1 Pre-field Activities

- Conducted a pre-work site visit on July 29, 2009, to discuss the TO scope of services. Caltrans TO Manager Mark Melani and Geocon representatives Gemma Reblando and Josh Ewert attended the meeting. The purpose of the pre-work site visit was to identify and observe the project boundaries and conditions. The project limits were further outlined in white paint for subsequent utility clearance.
- Prepared a *Health and Safety Plan* dated July 31, 2009, to provide guidelines on the use of personal protective equipment and the health and safety procedures implemented during the field activities.
- Provided 48-hour notification to Underground Service Alert (Ticket Numbers 229682, 229780 and 229857) prior to job site mobilization.
- Retained the services of Advanced Technology Laboratories (ATL) to perform the chemical analysis of soil samples.

3.2 Field Activities

The field activities consisted of collecting soil samples along the NB and SB shoulder areas and selected on- and offramps of SR-99. On August 6, 2009, 155 soil samples were collected from 52 direct-push borings at the Caltrans designated soil sampling locations. The soil borings were excavated to an approximate maximum sampling depth of 2.25 feet. Per Caltrans' direction, soil samples were collected at general depths of 0 to 0.75 foot, 0.75 to 1.5 feet and 1.5 to 2.25 feet.

4.0 INVESTIGATIVE METHODS

4.1 Boring Location Rationale

The soil boring locations were designated by Caltrans in the vicinity of proposed improvements. Borings DP1 through DP6, DP11, DP12, DP18 through DP26, DP34 and DP35 were advanced along the shoulder of SB SR-99. Borings DP36 through DP48 were advanced along the shoulder of NB SR-99. Borings DP7 through DP10 were advanced along the SB SR-99 offramp to Alta Valley Drive (Mack Road). Borings DP13 through DP17 were advanced along the SB SR-99 onramp at Bruceville Road. Borings DP27 through DP33 and DP49 through DP52 were advanced along the SB SR-99 onramp at Stockton Boulevard. The approximate soil boring locations are depicted on Figures 2-1 through 2-6.

The coordinates of each boring location were determined using a differential global positioning system (GPS). The GPS was utilized during the field activities to locate the horizontal position of each

location with an error of no more than 3.3 feet. The latitude and longitude of the boring locations are summarized in Table 1.

4.2 Soil Sampling Procedures

A total of 155 soil samples were collected from 52 direct-push borings excavated at the Site. Soil samples were collected in cellulose thermoplastic (acetate) liners driven by the direct-push rig. The acetate liners were cut to separate the sample by depth, then the sample from a particular interval was opened and the soil sample was transferred to a Ziploc[®] re-sealable plastic bag. The soil samples were field homogenized within the sample bags and subsequently labeled, placed in an ice chest, and delivered to ATL for analytical testing under chain-of-custody (COC) documentation.

Quality assurance/quality control (QA/QC) procedures were performed during the field exploration activities. These procedures included decontamination of sampling equipment before each boring was advanced and providing COC documentation for each sample submitted to the laboratory. The soil sampling equipment was cleansed between each boring by washing the equipment with an Alconox[™] solution followed by a double rinse with deionized water. The field sampling activities were performed under the supervision of Geocon's field manager.

The direct-push borings were backfilled with the excess soil cuttings generated at each boring. The decontamination water was discharged to the ground surface away from surface water bodies or storm drain inlets.

4.3 Traffic Control

Traffic control, including the use of an attenuator truck, was provided by Caltrans based on the proximity of the work zone with respect to the active traffic lanes. We also provided "SHOULDER WORK AHEAD" advanced warning signs and orange traffic cones during the field work.

4.4 Laboratory Analyses

The soil samples collected within the project boundaries were submitted to ATL for the following analyses under five-working-day turn-around-time (TAT). The laboratory was instructed to homogenize the soil samples prior to analysis in accordance with Contract 03A1368 requirements.

- One hundred fifty-five soil samples were analyzed for total lead following United States Environmental Protection Agency (EPA) Test Method 6010B.
- Sixteen randomly selected soil samples were analyzed for soil pH following EPA Test Method 9045.
- Twenty-two soil samples were further analyzed for WET soluble lead following EPA Test Method 7420.

- Two soil samples were analyzed for TCLP soluble lead following EPA Test Methods 1311 and 7420.
- Fifteen soil samples were further analyzed for DI-WET soluble lead following EPA Test Method 7420.

4.5 Quality Assurance/Quality Control

QA/QC procedures were performed for each method of analysis with specificity for each analyte listed in the test method's QA/QC. The laboratory QA/QC procedures included the following:

- One method blank for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One sample analyzed in duplicate for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One spiked sample for every ten samples, batch of samples or type of matrix, whichever was more frequent, with the spike made at ten times the reporting limit or at the analyte level.

Prior to submitting the soil samples to the laboratory, the COC documentation was reviewed for accuracy and completeness. Reproductions of the laboratory reports and COC documentation are presented in Appendix B.

5.0 FIELD OBSERVATIONS AND INVESTIGATIVE RESULTS

5.1 Site Conditions

Soil encountered during the excavation of borings was generally comprised of gravelly and silty clay to the maximum sampling depth of approximately 2.25 feet. Groundwater was not encountered in the soil borings.

5.2 Soil Analytical Results

Total lead was detected in 126 of the 155 soil samples collected at concentrations ranging from 5.0 to 400 mg/kg. Twenty-two of the 155 soil samples had reported total lead concentrations greater than or equal to 50 mg/kg (ten times the STLC value for lead of 5.0 mg/l).

WET soluble lead was reported for each of the 22 soil samples analyzed at concentrations ranging from 1.2 to 34 mg/l. Fifteen of the 22 soil samples had soluble (WET) lead concentrations greater than the STLC value for lead of 5.0 mg/l and were further analyzed for DI-WET soluble lead. DI-WET soluble lead was reported for 12 of the 15 soil samples analyzed at concentrations ranging from 0.25 to 1.9 mg/l.

TCLP soluble lead was reported for soil samples DP22-0 and DP35-1.5 at concentrations of 2.3 and 0.43 mg/l, respectively.

Soil pH values ranged from 6.7 to 8.1.

A summary of the soil analytical results are presented in Table 1. The laboratory reports and COC documentation are presented in Appendix B.

5.3 Laboratory QA/QC

We reviewed the laboratory QA/QC provided with the laboratory reports. The data show acceptable surrogate recoveries and non-detect results for the method blanks. The relative percent difference (RPD) and/or matrix spike (MS)/matrix spike duplicate (MSD) for EPA Method 6010 is outside criteria for samples 106777-020ADUP and 106777-120AMSD. However, the analytical batch was validated by the laboratory control sample (LCS). Percent recoveries for MS and/or MSD for EPA Method 6010 are outside recovery criteria for sample 106777-120AMSD; however, the analytical batch was validated by the LCS. The data showed acceptable recoveries and RPDs for the rest of the MS and MSDs. Based on this limited data review, no additional qualifications of the soil data are necessary, and the data are of sufficient quality for the purposes of this report.

5.4 Statistical Evaluation for Lead Detected in Soil Samples

The total lead data for the samples collected from the Site were separated into two sample populations for statistical evaluation as described below:

- Sample population 'A' consists of soil samples collected from borings DP1 through DP35 located along SB SR-99 and associated ramps.
- Sample population 'B' consists of soil samples collected from borings DP36 through DP52 located along NB SR-99 and associated ramps.

Statistical methods were applied to the total lead data to evaluate: 1) the upper confidence limits (UCLs) of the arithmetic means of the total lead concentrations for each sampling depth; and 2) if an acceptable correlation between total and soluble lead concentrations exists that would allow the prediction of soluble lead concentrations based on calculated UCLs. The statistical methods used are discussed in a book entitled *Statistical Methods for Environmental Pollution Monitoring*, by Richard Gilbert; in an EPA *Technology Support Center Issue* document entitled, *The Lognormal Distribution in Environmental Applications*, by Ashok Singh et. al., dated December 1997; and in a book entitled *An Introduction to the Bootstrap*, by Bradley Efron and Robert J. Tibshirani.

5.4.1 Calculating the UCLs for the Arithmetic Mean

The upper one-sided 90% and 95% UCLs of the arithmetic mean are defined as the values that, when calculated repeatedly for randomly drawn subsets of site data, equal or exceed the true mean 90% and 95% of the time, respectively. Statistical confidence limits are the classical tool for addressing uncertainties of a distribution mean. The UCLs of the arithmetic mean concentration are used as the mean concentrations because it is not possible to know the true mean due to the essentially infinite number of soil samples that could be collected from a site. The UCLs therefore account for uncertainties due to limited sampling data. As data become less limited at a site, uncertainties decrease, and the UCLs move closer to the true mean.

Non-parametric bootstrap techniques used to calculate the UCLs are discussed in the previously referenced EPA document and in *An Introduction to the Bootstrap*. For those samples in which total lead was not detected at concentrations exceeding the laboratory reporting limit, a value equal to one-half of the reporting limit was used in the UCL calculation. The bootstrap results are presented in Appendix C. The calculated UCLs and statistical results are summarized in the tables below:

**Sample Population 'A' - Southbound SR-99
(Borings DP1 through DP35)**

SAMPLE INTERVAL (feet)	90% TOTAL LEAD UCL (mg/kg)	95% TOTAL LEAD UCL (mg/kg)	TOTAL LEAD MEAN (mg/kg)	MINIMUM VALUE (mg/kg)	MAXIMUM VALUE (mg/kg)
0 to 0.75	69.6	74.1	53.6	2.5	340
0.75 to 1.5	13.8	14.8	10.7	2.5	79
1.5 to 2.25	33.2	37.4	18.6	2.5	400

**Sample Population 'B' -Northbound SR-99
(Borings DP36 through DP52)**

SAMPLE INTERVAL (feet)	90% TOTAL LEAD UCL (mg/kg)	95% TOTAL LEAD UCL (mg/kg)	TOTAL LEAD MEAN (mg/kg)	MINIMUM VALUE (mg/kg)	MAXIMUM VALUE (mg/kg)
0 to 0.75	115.3	122.0	90.4	6.4	270
0.75 to 1.5	8.1	8.3	7.0	2.5	14
1.5 to 2.25	6.9	7.1	6.0	2.5	14

5.4.2 Correlation of Total and Soluble Lead

Total and corresponding soluble (WET) lead concentrations are bivariate data with a linear structure. This linear structure should allow for the prediction of soluble lead (WET) concentrations based on the UCLs calculated above in Section 5.4.1.

To estimate the degree of interrelation between total and corresponding soluble (WET) lead values (x and y , respectively), the *correlation coefficient* [r] is used. The correlation coefficient is a ratio that ranges from +1 to -1. A *correlation coefficient* of +1 indicates a perfect direct relationship between two variables; a *correlation coefficient* of -1 indicates that one variable changes inversely with relation to the other. Between the two extremes is a spectrum of less-than-perfect relationships, including zero, which indicates the lack of any sort of linear relationship at all.

The *correlation coefficient* was calculated for the 22 (x , y) data points (i.e., soil samples analyzed for both total lead [x] and soluble [WET] lead [y]) and equaled 0.400. A *correlation coefficient* greater than or equal to 0.8 is an acceptable indicator that a correlation exists. Consequently, an acceptable correlation between total and soluble lead concentrations could not be established for the data points since the *correlation coefficient* is less than 0.8. To achieve an acceptable correlation, the total and soluble (WET) lead data from three of the 22 data points (three data points with ratio of soluble (WET) lead to total lead greater than 0.1) for soil samples DP41-0, DP49-0 and DP35-.75 were excluded from the regression analysis. Theoretically, it is not possible to have a soluble (WET) lead concentration greater than one-tenth its total lead concentration since the dilution ratio is 1:10. Soluble (WET) lead level exceeding ten percent of its total lead level, based on the theoretical 1:10 soluble to total lead ratio, typically results from inherent soil sample heterogeneity and separate sample aliquots utilized for total and soluble (WET) lead analyses that are performed at different times. Consequently, excluding these three data points from the regression yields a *correlation coefficient* of 0.8.

For the *correlation coefficient* that indicates a linear relationship between total and soluble (WET) lead concentrations, it is possible to compute the line of dependence or a best-fit line between the two variables. A least squares method was used to find the equation of a best-fit line (regression line) by forcing the y -intercept equal to zero since that is a known point. The equation of the regression line was determined to be $y = 0.0458(x)$, where x represents total lead concentrations and y represents predicted soluble lead (WET) concentrations.

This equation was used to estimate the expected WET soluble lead concentrations for the UCLs calculated in Section 5.4.1. Regression analysis results and a scatter plot depicting the (x , y) data points along with the regression line are presented in Appendix C. The 90% and 95 % UCL-predicted WET soluble lead concentrations are summarized in Section 6.0.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 ADL Soil Waste Disposal/Reuse Classification

Waste classifications based on the 90% UCL of the lead content for the relevant excavation depths has historically been considered sufficient to satisfy a good faith effort by the EPA as discussed in SW-846. Risk assessment characterization is typically based on the 95% UCL of the lead content in the waste for the relevant depths; this is in accordance with the Risk Assessment Guidance for Superfund (RAGS) Volume 1 Documentation for Exposure Assessment. Per Caltrans, the 90% UCLs are to be used to evaluate onsite reuse, and the 95% UCLs are to be used to evaluate offsite disposal. In addition, the reuse of excavated soil has been evaluated, as applicable, based on the DTSC requirements for the statewide Variance.

Based on the TCLP soluble lead results of less than 5.0 mg/l, soil generated at the Site will not require disposal as a RCRA hazardous waste. If soil within the project limits is scarified in-place, moisture-conditioned, and recompacted during roadway improvement activities, it may not be considered a “waste.”

6.1.1 Southbound SR-99 – Borings DP1 through DP35

The table below summarizes the predicted soluble (WET) lead concentrations and the waste classification for excavated soil within SB SR-99 based on the calculated total lead UCLs and the relationship between total and soluble (WET) lead. Excavation scenarios and the UCL-predicted soluble (WET) lead calculations are summarized in the table below.

Excavation Depth	90% UCL Total Lead (mg/kg)	90% UCL Predicted WET Lead (mg/l)	95% UCL Total Lead (mg/kg)	95% UCL Predicted WET Lead (mg/l)	Waste Classification
0 to 0.75 foot	69.6	3.2	74.1	3.4	Non-hazardous
<i>Underlying soil (0.75 to 2.25 feet)</i>	<i>23.5</i>	<i>1.1</i>	<i>26.1</i>	<i>1.2</i>	<i>Non-hazardous</i>
0 to 1.5 feet	41.7	1.9	44.5	2.0	Non-hazardous
<i>Underlying soil (1.5 to 2.25 feet)</i>	<i>33.2</i>	<i>1.5</i>	<i>37.4</i>	<i>1.7</i>	<i>Non-hazardous</i>
0 to 2.25 feet	38.9	1.8	42.1	1.9	Non-hazardous

90% UCL applicable for waste classification; 95% UCL applicable for risk assessment
 Predicted WET lead concentrations were calculated using the equation of the regression line: $y = 0.0458x$

Based on the above table, soil generated from the top 2.25 feet would not be classified as a California hazardous waste since the 90% UCL-predicted soluble (WET) lead concentrations are less than the STLC value for lead of 5.0 mg/l. Consequently, the top 2.25 feet of excavated soil could be reused or disposed of as non-hazardous soil with respect to lead content.

6.1.2 Northbound SR-99 – Borings DP36 through DP52

The table below summarizes the predicted soluble (WET) lead concentrations and the waste classification for excavated soil within NB SR-99 based on the calculated total lead UCLs and the relationship between total and soluble (WET) lead. Excavation scenarios and the UCL-predicted soluble (WET) lead calculations are summarized in the table below.

Excavation Depth	90% UCL Total Lead (mg/kg)	90% UCL Predicted WET Lead (mg/l)	95% UCL Total Lead (mg/kg)	95% UCL Predicted WET Lead (mg/l)	Waste Classification
0 to 0.75 foot	115.3	5.3	122.0	5.6	Hazardous
<i>Underlying soil (0.75 to 2.25 feet)</i>	7.5	0.3	7.7	0.4	<i>Non-hazardous</i>
0 to 1.5 feet	61.7	2.8	65.2	3.0	Non-hazardous
<i>Underlying soil (1.5 to 2.25 feet)</i>	6.9	0.3	7.1	0.3	<i>Non-hazardous</i>
0 to 2.25 feet	43.4	2.0	45.8	2.1	Non-hazardous

90% UCL applicable for waste classification; 95% UCL applicable for risk assessment
 Predicted WET lead concentrations were calculated using the equation of the regression line: $y = 0.0458x$

Based on the above table, soil excavated from the surface to a depth of 0.75 foot would be classified as a California hazardous waste since the 90% UCL-predicted soluble (WET) lead concentrations are greater than the STLC value for lead of 5.0 mg/l. Soil excavated from the top 0.75 foot may be reused onsite in accordance with the DTSC Variance (as Caltrans Type Y1 material) and must be covered with at least one foot of non-hazardous soil since the DI-WET soluble lead levels for the soil samples collected from 0 to 0.75 foot are less than 1.5 mg/l and the pH values are greater than 5.5. If the top 0.75 foot of excavated soil will not be reused onsite, then the excavated soil should be either (1) managed and disposed of as a California hazardous waste or (2) stockpiled and resampled to confirm waste classification in accordance with specific disposal facility acceptance criteria, if applicable.

Underlying soil (i.e., deeper than 0.75 foot) would not be classified as a California hazardous waste.

If excavations are 1.5 feet or greater in depth and soil is managed as a whole, the excavated soil would not be classified as a California hazardous waste since the 90% UCL-predicted soluble WET lead concentrations are less than the lead STLC of 5.0 mg/l. Consequently, soil excavated from the top 1.5 to 2.25 feet could be reused or disposed of as non-hazardous soil with respect to lead content.

6.2 Worker Protection

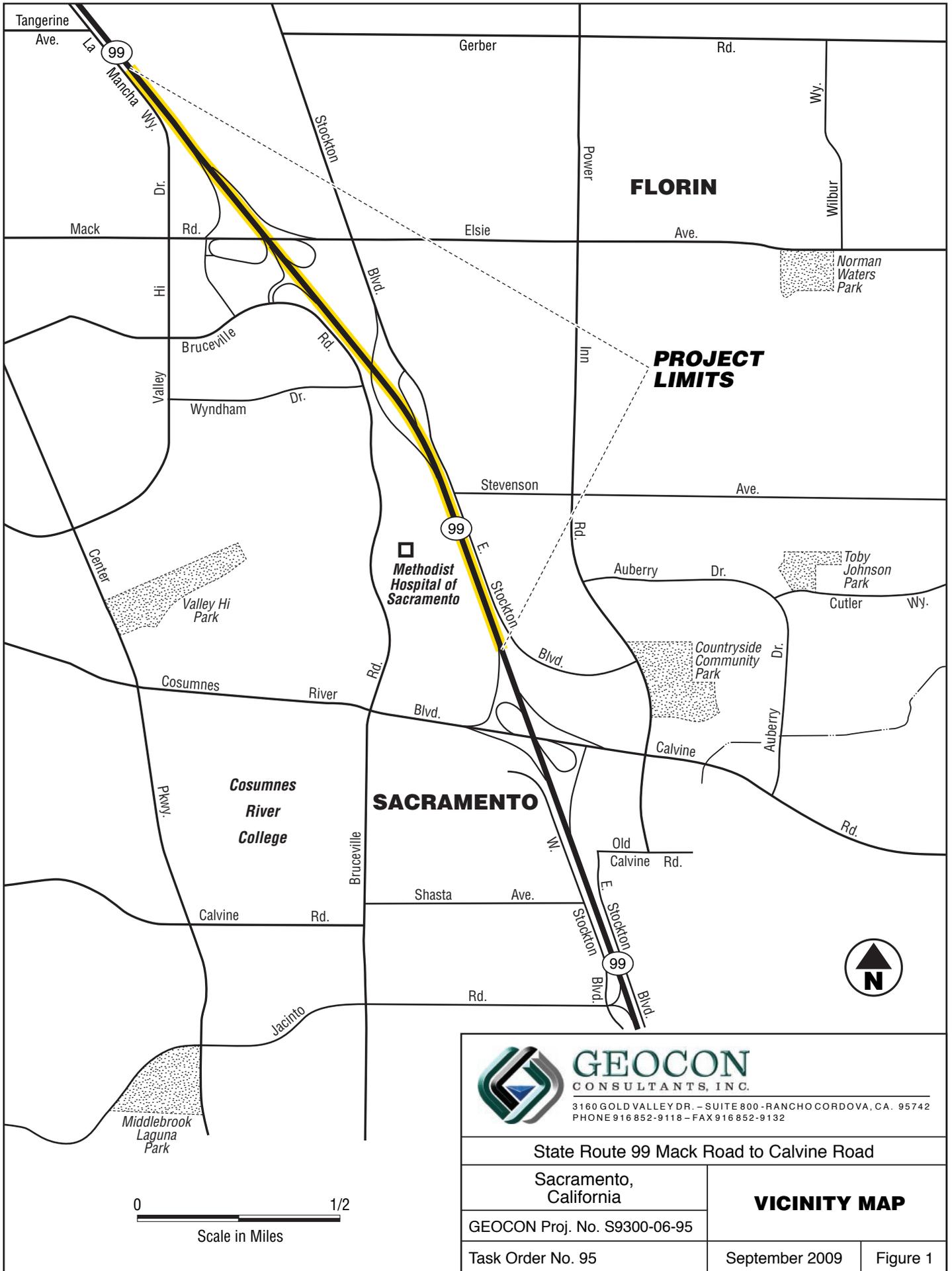
Per Caltrans' requirements, the contractor(s) should prepare a project-specific Lead Compliance Plan (CCR Title 8, Section 1532.1, the "Lead in Construction" standard) to minimize worker exposure to lead-impacted soil. The plan should include protocols for environmental and personnel monitoring,

requirements for personal protective equipment, and other health and safety protocols and procedures for the handling of lead-impacted soil.

7.0 REPORT LIMITATIONS

This report has been prepared exclusively for Caltrans. The information contained herein is only valid as of the date of the report and will require an update to reflect additional information obtained.

This report is not a comprehensive site characterization and should not be construed as such. The findings as presented in this report are predicated on the results of the limited sampling and laboratory testing performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein. Therefore, the report should be deemed conclusive with respect to only the information obtained. We make no warranty, express or implied, with respect to the content of this report or any subsequent reports, correspondence or consultation. We strived to perform the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.



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State Route 99 Mack Road to Calvin Road

Sacramento,
California

VICINITY MAP

GEOCON Proj. No. S9300-06-95

Task Order No. 95

September 2009

Figure 1



LEGEND:

DP1 ⊗ Approximate Direct-Push Boring Location



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California

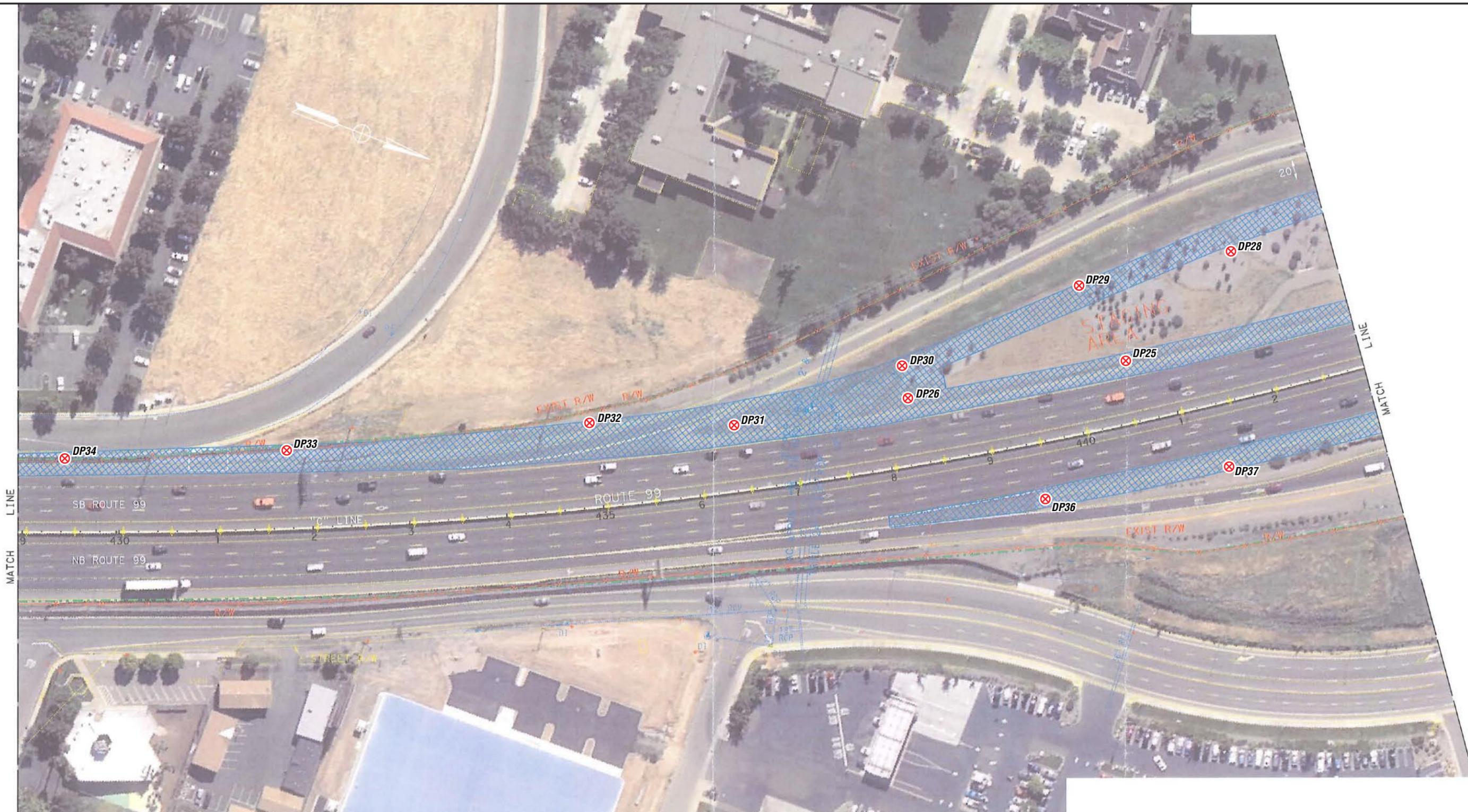
SITE PLAN

GEOCON Proj. No. S9300-06-95

Task Order No. 95

September 2009

Figure 2-1



LEGEND:

DP1 ⊗ Approximate Direct-Push Boring Location



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SITE PLAN

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Task Order No. 95

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Figure 2-2



LEGEND:

DP1 ⊗ Approximate Direct-Push Boring Location



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Figure 2-3



LEGEND:

DP1 ⊗ Approximate Direct-Push Boring Location



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Figure 2-4



LEGEND:

DP1 ⊗ Approximate Direct-Push Boring Location



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Figure 2-5

MATCH LINE



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Task Order No. 95

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Figure 2-6

TABLE 1
SUMMARY OF SOIL BORING COORDINATES, LEAD AND SOIL pH ANALYTICAL RESULTS
STATE ROUTE 99 MACK ROAD TO CALVINE ROAD
SACRAMENTO COUNTY, CALIFORNIA

BORING ID	SAMPLE DATE	LATITUDE	LONGITUDE	TOTAL LEAD (mg/kg)	WET LEAD (mg/l)	DI-WET LEAD (mg/l)	SOIL pH
DP1-0	8/6/2009	38.476845543	-121.425802261	240	6.5	0.53	---
DP1-.75	8/6/2009			10	---	---	---
DP1-1.5	8/6/2009			6.5	---	---	---
DP2-0	8/6/2009	38.476428971	-121.425364174	75	7.0	0.33	---
DP2-.75	8/6/2009			7.1	---	---	7.5
DP2-1.5	8/6/2009			<5.0	---	---	---
DP3-0	8/6/2009	38.475192825	-121.424042577	<5.0	---	---	---
DP3-.75	8/6/2009			<5.0	---	---	---
DP3-1.5	8/6/2009			<5.0	---	---	---
DP4-0	8/6/2009	38.474761029	-121.423582084	<5.0	---	---	---
DP4-.75	8/6/2009			<5.0	---	---	---
DP4-1.5	8/6/2009			6.4	---	---	---
DP5-0	8/6/2009	NA	NA	<5.0	---	---	7.6
DP5-.75	8/6/2009			5.4	---	---	---
DP5-1.5	8/6/2009			7.7	---	---	---
DP6-0	8/6/2009	38.473876247	-121.422654964	<5.0	---	---	---
DP6-.75	8/6/2009			<5.0	---	---	---
DP6-1.5	8/6/2009			<5.0	---	---	---
DP7-0	8/6/2009	38.474007014	-121.422971190	110	5.9	0.25	---
DP7-.75	8/6/2009			50	2.1	---	---
DP7-1.5	8/6/2009			<5.0	---	---	---
DP8-0	8/6/2009	38.473680881	-121.422954632	41	---	---	---
DP8-.75	8/6/2009			5.1	---	---	---
DP8-1.5	8/6/2009			5.5	---	---	---
DP9-0	8/6/2009	38.473509994	-121.423438931	26	---	---	7.1
DP9-.75	8/6/2009			<5.0	---	---	---
DP9-1.5	8/6/2009			6.3	---	---	---
DP10-0	8/6/2009	38.473550373	-121.423837553	150	2.3	---	---
DP10-.75	8/6/2009			6.0	---	---	---
DP10-1.5	8/6/2009			<5.0	---	---	---
DP11-0	8/6/2009	38.473444865	-121.422197026	6.7	---	---	---
DP11-.75	8/6/2009			<5.0	---	---	---
DP11-1.5	8/6/2009			<5.0	---	---	---
DP12-0	8/6/2009	38.472990771	-121.421717017	51	1.2	---	---
DP12-.75	8/6/2009			6.3	---	---	---
DP12-1.5	8/6/2009			5.8	---	---	---
DP13-0	8/6/2009	38.472749159	-121.422057202	18	---	---	---
DP13-.75	8/6/2009			21	---	---	---
DP13-1.5	8/6/2009			8.3	---	---	---

TABLE 1
SUMMARY OF SOIL BORING COORDINATES, LEAD AND SOIL pH ANALYTICAL RESULTS
STATE ROUTE 99 MACK ROAD TO CALVINE ROAD
SACRAMENTO COUNTY, CALIFORNIA

BORING ID	SAMPLE DATE	LATITUDE	LONGITUDE	TOTAL LEAD (mg/kg)	WET LEAD (mg/l)	DI-WET LEAD (mg/l)	SOIL pH
DP14-0	8/6/2009	38.472733649	-121.421551781	23	---	---	7.2
DP14-.75	8/6/2009			19	---	---	8.0
DP14-1.5	8/6/2009			15	---	---	---
DP15-0	8/6/2009	38.472668987	-121.421919677	68	2.6	---	---
DP15-.75	8/6/2009			5.1	---	---	---
DP15-1.5	8/6/2009			5.5	---	---	---
DP16-0	8/6/2009	38.472476196	-121.421269356	9.1	---	---	---
DP16-.75	8/6/2009			9.6	---	---	---
DP16-1.5	8/6/2009			7.5	---	---	---
DP17-0	8/6/2009	38.471999447	-121.420723539	17	---	---	---
DP17-.75	8/6/2009			12	---	---	---
DP17-1.5	8/6/2009			6.5	---	---	---
DP18-0	8/6/2009	38.471555393	-121.420235816	12	---	---	---
DP18-.75	8/6/2009			10	---	---	---
DP18-1.5	8/6/2009			8.2	---	---	6.7
DP19-0	8/6/2009	38.471089566	-121.419714895	31	---	---	---
DP19-.75	8/6/2009			<5.0	---	---	---
DP19-1.5	8/6/2009			<5.0	---	---	---
DP20-0	8/6/2009	38.470624478	-121.419207112	16	---	---	---
DP20-.75	8/6/2009			6.9	---	---	---
DP21-0	8/6/2009	38.470158994	-121.418713063	7.7	---	---	---
DP21-.75	8/6/2009			5.3	---	---	---
DP21-1.5	8/6/2009			6.2	---	---	---
DP22-0	8/6/2009	38.469290363	-121.417790202	340	8.4 (2.3)	0.40	---
DP22-.75	8/6/2009			6.0	---	---	7.3
DP22-1.5	8/6/2009			5.7	---	---	---
DP23-0	8/6/2009	38.468870559	-121.417362232	45	---	---	---
DP23-.75	8/6/2009			5.7	---	---	---
DP23-1.5	8/6/2009			53	2.3	---	---
DP24-0	8/6/2009	38.468406545	-121.416924094	30	---	---	---
DP24-.75	8/6/2009			5.3	---	---	---
DP24-1.5	8/6/2009			6.4	---	---	7.7
DP25-0	8/6/2009	38.467920549	-121.416513854	21	---	---	---
DP25-.75	8/6/2009			8.8	---	---	---
DP25-1.5	8/6/2009			5.4	---	---	---
DP26-0	8/6/2009	38.467429000	-121.416123625	18	---	---	---
DP26-.75	8/6/2009			5.0	---	---	---
DP26-1.5	8/6/2009			5.1	---	---	---

TABLE 1
 SUMMARY OF SOIL BORING COORDINATES, LEAD AND SOIL pH ANALYTICAL RESULTS
 STATE ROUTE 99 MACK ROAD TO CALVINE ROAD
 SACRAMENTO COUNTY, CALIFORNIA

BORING ID	SAMPLE DATE	LATITUDE	LONGITUDE	TOTAL LEAD (mg/kg)	WET LEAD (mg/l)	DI-WET LEAD (mg/l)	SOIL pH
DP27-0	8/6/2009	38.468744930	-121.417634153	30	---	---	---
DP27-.75	8/6/2009			8.8	---	---	---
DP27-1.5	8/6/2009			<5.0	---	---	---
DP28-0	8/6/2009	38.468386388	-121.417333997	21	---	---	---
DP28-.75	8/6/2009			7.4	---	---	8.0
DP28-1.5	8/6/2009			5.2	---	---	---
DP29-0	8/6/2009	38.467927824	-121.416807285	24	---	---	---
DP29-.75	8/6/2009			7.1	---	---	---
DP29-1.5	8/6/2009			5.4	---	---	---
DP30-0	8/6/2009	38.467362016	-121.416319650	37	---	---	---
DP30-.75	8/6/2009			7.6	---	---	---
DP30-1.5	8/6/2009			<5.0	---	---	---
DP31-0	8/6/2009	38.466795858	-121.415707819	100	4.7	---	---
DP31-.75	8/6/2009			6.6	---	---	---
DP31-1.5	8/6/2009			6.1	---	---	---
DP32-0	8/6/2009	38.466411014	-121.415512380	<5.0	---	---	---
DP32-.75	8/6/2009			10	---	---	---
DP32-1.5	8/6/2009			<5.0	---	---	---
DP33-0	8/6/2009	38.465737419	-121.415081127	100	9.1	<0.25	---
DP33-.75	8/6/2009			10	---	---	7.9
DP33-1.5	8/6/2009			9.0	---	---	---
DP34-0	8/6/2009	38.465041854	-121.414734797	170	7.4	0.71	---
DP34-.75	8/6/2009			12	---	---	---
DP34-1.5	8/6/2009			11	---	---	---
DP35-0	8/6/2009	38.464552849	-121.414502355	27	---	---	---
DP35-.75	8/6/2009			79	26	1.9	---
DP35-1.5	8/6/2009			400	21 (0.43)	1.4	---
DP36-0	8/6/2009	38.467849105	-121.415953432	42	---	---	---
DP36-.75	8/6/2009			<5.0	---	---	---
DP36-1.5	8/6/2009			<5.0	---	---	---
DP37-0	8/6/2009	38.468391646	-121.416378044	270	17	0.90	---
DP37-.75	8/6/2009			5.2	---	---	7.2
DP37-1.5	8/6/2009			<5.0	---	---	---
DP38-0	8/6/2009	38.468854126	-121.416828077	210	14	0.50	---
DP38-.75	8/6/2009			6.9	---	---	---
DP38-1.5	8/6/2009			6.5	---	---	7.3
DP39-0	8/6/2009	38.469304774	-121.417281263	33	---	---	---
DP39-.75	8/6/2009			<5.0	---	---	---
DP39-1.5	8/6/2009			5.3	---	---	---

TABLE 1
SUMMARY OF SOIL BORING COORDINATES, LEAD AND SOIL pH ANALYTICAL RESULTS
STATE ROUTE 99 MACK ROAD TO CALVINE ROAD
SACRAMENTO COUNTY, CALIFORNIA

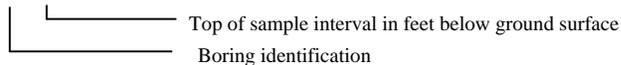
BORING ID	SAMPLE DATE	LATITUDE	LONGITUDE	TOTAL LEAD (mg/kg)	WET LEAD (mg/l)	DI-WET LEAD (mg/l)	SOIL pH
DP40-0	8/6/2009	38.469736440	-121.417739687	16	---	---	---
DP40-.75	8/6/2009			6.2	---	---	---
DP40-1.5	8/6/2009			<5.0	---	---	---
DP41-0	8/6/2009	38.470198045	-121.418219411	110	12	<0.25	---
DP41-.75	8/6/2009			<5.0	---	---	---
DP41-1.5	8/6/2009			<5.0	---	---	---
DP42-0	8/6/2009	38.470636590	-121.418693014	6.4	---	---	---
DP42-.75	8/6/2009			<5.0	---	---	---
DP42-1.5	8/6/2009			5.3	---	---	---
DP43-0	8/6/2009	38.471057327	-121.419129392	54	1.5	---	7.8
DP43-.75	8/6/2009			8.8	---	---	---
DP43-1.5	8/6/2009			6.0	---	---	---
DP44-0	8/6/2009	38.471476277	-121.419579745	24	---	---	---
DP44-.75	8/6/2009			7.0	---	---	---
DP44-1.5	8/6/2009			10	---	---	---
DP45-0	8/6/2009	38.471892428	-121.420020102	22	---	---	---
DP45-.75	8/6/2009			9.6	---	---	---
DP45-1.5	8/6/2009			6.1	---	---	---
DP46-0	8/6/2009	38.472366590	-121.420509972	28	---	---	---
DP46-.75	8/6/2009			6.7	---	---	---
DP46-1.5	8/6/2009			6.4	---	---	---
DP47-0	8/6/2009	38.472723341	-121.420883022	44	---	---	7.8
DP47-.75	8/6/2009			14	---	---	---
DP47-1.5	8/6/2009			6.7	---	---	---
DP48-0	8/6/2009	38.473199967	-121.421402208	110	6.0	0.31	---
DP48-.75	8/6/2009			7.3	---	---	---
DP48-1.5	8/6/2009			6.4	---	---	---
DP49-0	8/6/2009	38.470953121	-121.417814863	200	34	0.51	---
DP49-.75	8/6/2009			12	---	---	8.1
DP49-1.5	8/6/2009			14	---	---	---
DP50-0	8/6/2009	38.470799882	-121.417752038	170	11	0.56	---
DP50-.75	8/6/2009			12	---	---	---
DP50-1.5	8/6/2009			6.2	---	---	---
DP51-0	8/6/2009	38.470258709	-121.417909932	150	5.1	<0.25	7.2
DP51-.75	8/6/2009			6.6	---	---	---
DP51-1.5	8/6/2009			6.1	---	---	---
DP52-0	8/6/2009	38.470528431	-121.417934389	48	---	---	---
DP52-.75	8/6/2009			6.9	---	---	---
DP52-1.5	8/6/2009			6.6	---	---	---

TABLE 1
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 STATE ROUTE 99 MACK ROAD TO CALVINE ROAD
 SACRAMENTO COUNTY, CALIFORNIA

BORING ID	SAMPLE DATE	LATITUDE	LONGITUDE	TOTAL LEAD (mg/kg)	WET LEAD (mg/l)	DI-WET LEAD (mg/l)	SOIL pH
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Notes:

DP1-0



mg/kg = Milligrams per kilogram

mg/l = Milligrams per liter

< = Less than the laboratory reporting limits

NA = GPS data not available

--- = Not analyzed

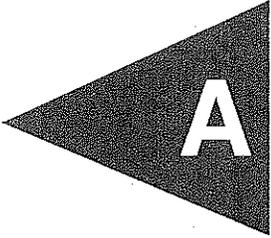
WET = Waste Extraction Test analyzed by EPA Method 7420 using acid extract

DI-WET = Waste Extraction Test analyzed by EPA Method 7420 using de-ionized water

(2.3) = Concentration in parenthesis indicates Toxicity Characteristic Leaching Procedure soluble lead

Concentrations in **bold** type are equal to or greater than the Soluble Threshold Limit Concentration for lead of 5.0 mg/l

APPENDIX



A



*California Environmental Protection Agency
Department of Toxic Substances Control*

VARIANCE

Applicant Names:

Variance No. V09HQSCD006

State of California
Department of Transportation
(Caltrans)
1120 N Street
Sacramento, California 95814

Effective Date: July 1, 2009

Expiration Date: July 1, 2014

Modification History:

Pursuant to California Health and Safety Code, Section 25143, the Department of Toxic Substances Control hereby issues the attached Variance consisting of 9 pages to the Department of Transportation.

A handwritten signature in black ink, appearing to read "Beverly Rikala".

Beverly Rikala
Team Leader, Operating Facilities Team
Department of Toxic Substances Control

Date: 6/30/09

VARIANCE

1. INTRODUCTION.

a) Pursuant to Health and Safety Code, section 25143, the California Department of Toxic Substances Control (DTSC) grants this variance to the applicant below for waste considered to be hazardous solely because of its lead concentrations and as further specified herein.

b) DTSC hereby grants this variance only from the requirements specified herein and only in accordance with all terms and conditions specified herein.

2. IDENTIFYING INFORMATION.

APPLICANT/OWNER/OPERATOR

State of California
Department of Transportation, (Caltrans)
All Districts

3. TYPE OF VARIANCE.

Generation, Manifest, Transportation, Storage and Disposal.

4. ISSUANCE AND EXPIRATION DATES.

DATE ISSUED: July 1, 2009 EXPIRATION DATE: July 1, 2014

5. APPLICABLE STATUTES AND REGULATIONS. The hazardous waste that is the subject of this variance is fully regulated under Health and Safety Code, section 25100, et seq. and California Code of Regulations, title 22, division 4.5 except as specifically identified in Section 8 of this variance.

6. DEFINITION. For purposes of this variance, "lead-contaminated soil(s)" shall mean soil that meets the criteria for hazardous waste but contains less than 3397 mg/kg total lead and is hazardous primarily because of aurally-deposited lead contamination associated with exhaust emissions from the operation of motor vehicles.

7. FINDINGS/DETERMINATIONS. DTSC has determined that the variance applicant meets the requirements set forth in Health and Safety Code, section 25143 for a variance from specific regulatory requirements as outlined in Section 8 of this variance. The specific determinations and findings made by DTSC are as follows:

a) Caltrans intends to excavate, stockpile, transport, bury and cover large volumes of soil associated with highway construction projects. In the more urbanized highway corridors around the State this soil is contaminated with lead, primarily due to historic emissions from automobile exhausts. In situ sampling and laboratory testing has shown that some of the soil contains concentrations of lead in excess of State regulatory thresholds, and thus any generated waste from disturbance of the soil

would be regulated as hazardous waste. Such soil contains a Total Threshold Limit Concentration (TTLC) of 1000 milligrams per kilogram (mg/kg) or more lead and/or it meets or exceeds the Soluble Threshold Limit Concentration (STLC) for lead of 5 milligrams per liter (mg/l). A Human Health Risk Assessment prepared for this variance concludes that soil contaminated with elevated concentrations of lead can be managed in a way that presents no significant risk to human health.

b) The lead-contaminated soil will be placed only in Caltrans' right-of-way. Depending on concentration levels, the wastes will be covered with a minimum thickness of one (1) foot of non-hazardous soil or asphalt/concrete cover and will always be at least five (5) feet above the highest groundwater elevation. Caltrans will assure that proper health and safety procedures will be followed for workers, including any persons engaged in maintenance work in areas where the waste has been buried and covered.

c) DTSC finds and requires that the lead-contaminated soil excavated, stockpiled, transported, buried and covered pursuant to this variance is a non-RCRA hazardous waste, and that the waste management activity is insignificant as a potential hazard to human health and safety and the environment, when managed in accordance with the conditions, limitations and other requirements specified in this variance.

8. PROVISIONS WAIVED.

Provided Caltrans meets the terms and conditions of this variance, DTSC waives the hazardous waste management requirements of Health and Safety Code, Chapter 6.5 and California Code of Regulations, title 22 for the lead-contaminated soil that Caltrans reuses in projects that would require Caltrans to obtain a permit for a disposal facility and any other generator requirements that concern the transportation, manifesting, storage and land disposal of hazardous waste.

9. SPECIFIC CONDITIONS, LIMITATIONS AND OTHER REQUIREMENTS.

In order for the provisions discussed in section 8 to be waived, lead-contaminated soil must not exceed the contaminant concentrations discussed below and Caltrans management practices must meet all the following conditions:

a) Caltrans implementation of this variance shall comply with all applicable state laws and regulations for water quality control, water quality control plans, waste discharge requirements (including storm water permits), and others issued by the State Water Resources Control Board (SWRCB) and/or a California Regional Water Quality Control Board (RWQCB). Caltrans shall provide written notification to the appropriate RWQCB at least 30 days prior to advertisement for bids of projects that involve invocation of this variance, or as otherwise negotiated with the SWRCB or appropriate RWQCB.

b) The waivers in this variance shall only be applied to lead-contaminated soil that is not a RCRA hazardous waste and is hazardous primarily because of aeri-

deposited lead contamination associated with exhaust emissions from the operation of motor vehicles. The variance is not applicable to any other hazardous waste.

c) Soil containing 1.5 mg/l extractable lead or less (based on a modified waste extraction test using deionized water as the extractant) and 1411 mg/kg or less total lead may be used as fill provided that the lead-contaminated soil is placed a minimum of five (5) feet above the maximum historic water table elevation and covered with at least one (1) foot of nonhazardous soil that will be maintained by Caltrans to prevent future erosion.

d) Soil containing 150 mg/L extractable lead or less (based on a modified waste extraction test using deionized water as the extractant) and 3397 mg/kg or less total lead may be used as fill provided that the lead-contaminated soils are placed a minimum of five (5) feet above the maximum historic water table elevation and protected from infiltration by a pavement structure which will be maintained by Caltrans.

e) Lead-contaminated soil with a pH less than 5.5 but greater than 5.0 shall only be used as fill material under the paved portion of the roadway. Lead-contaminated soil with a pH at or less than 5.0 shall be managed as a hazardous waste.

f) For each project that has the potential to generate waste by disturbing lead-contaminated soil (as defined in 6), Caltrans shall conduct sampling and analysis to adequately characterize the soils containing aerially deposited lead in the areas of planned excavation along the project route. Such sampling and analysis shall include the Toxicity Characteristic Leaching Procedure (TCLP) as prescribed by the United States Environmental Protection Agency to determine whether concentrations of contaminants in soil exceed federal criteria for classification as a hazardous waste.

g) Lead-contaminated soil managed pursuant to this variance shall not be moved outside the designated corridor boundaries (see paragraph t) below. All lead-contaminated soil not buried and covered within the same Caltrans corridor where it originated is not eligible for management under this variance and shall be managed as a hazardous waste.

h) Lead-contaminated soil managed pursuant to this variance shall not be placed in areas where it would become in contact with groundwater or surface water (such as streams and rivers).

i) Lead-contaminated soil managed pursuant to this variance shall be buried and covered only in locations that are protected from erosion that may result from storm water run-on and run-off.

j) The lead-contaminated soil shall be buried and covered in a manner that will prevent accidental or deliberate breach of the asphalt, concrete, and/or cover soil.

k) The presence of lead-contaminated soil shall be incorporated into the projects' as-built drawings. The as-built drawings shall be annotated with the location, representative analytical data, and volume of lead-contaminated soil. The as-built drawings shall also state the depth of the cover. These as-built drawings shall be retained by Caltrans.

l) Caltrans shall ensure that no other hazardous wastes, other than the lead-contaminated hazardous waste soil, are placed in the burial areas.

m) Lead-contaminated soil shall not be buried within ten (10) feet of culverts or locations subject to frequent worker exposure.

n) Excavated lead-contaminated soil not placed into the designated area (fill area, roadbed area) by the end of the working day shall be stockpiled and covered with sheets of polyethylene or at least one foot of non-hazardous soil. The lead-contaminated soil, while stockpiled or under transport, shall be protected from contacting surface water and from being dislodged or transported by wind or storm water. The stockpile covers shall be inspected at least once a week and within 24 hours after rainstorms. If the lead-contaminated soil is stockpiled for more than 4 days from the time of excavation, Caltrans shall restrict public access to the stockpile by using barriers that meet the safety requirements of the construction zone. The lead-contaminated soil shall be stockpiled for no more than 90 days from the time the soil is first excavated. If the contaminated soil is stockpiled beyond the 90 day limit Caltrans shall:

1. notify DTSC in writing of the 90 day exceedance and expected date of removal;
2. perform weekly inspections of the stockpiled material to ensure that there is adequate protection from run-on, runoff, public access, and wind dispersion; and
3. notify DTSC on weekly basis of the stockpile status until the stockpile is removed.

The lead-contaminated soil shall be stockpiled for no more than 180 days from the time the soil is first excavated.

o) Caltrans shall ensure that all stockpiling of lead-contaminated soil remains within the project area of the specified corridor. Stockpiling of lead-contaminated soil within the specified corridor, but outside the project area, is prohibited.

p) Caltrans shall conduct confirmatory sampling of any stockpile area in areas not known or expected to contain lead-contaminated soil after removal of the lead-contaminated soil to ensure that contamination has not been left behind or has not migrated from the stockpiled material to the surrounding soils.

q) Caltrans shall stockpile lead-contaminated soil only on high ground (i.e. no sump areas or low points) so that stockpiled soil will not come in contact with surface

water run-on or run-off.

r) Caltrans shall not stockpile lead-contaminated soil in environmentally and ecologically sensitive areas.

s) Caltrans shall ensure that storm/rain run-off that has come into contact with stockpiled lead-contaminated soil will not flow to storm drains, inlets, or waters of the State.

t) Caltrans may dispose of the lead-contaminated soil only within the operating right-of-way of an existing highway, as defined in Streets and Highways Code, section 23. Caltrans may move lead-contaminated soil from one Caltrans project to another Caltrans project only if the lead-contaminated soil remains within the same designated corridor.

Caltrans shall record any movement of lead-contaminated soil by using a bill of lading. The bill of lading must contain: 1) the US DOT description including shipping name, hazard class and ID number; 2) handling codes; 3) quantity of material; 4) volume of material; 5) date of shipment; 6) origin and destination of shipment; and 7) any specific handling instructions. The bill of lading shall be referenced in and kept on file with the project's as-built drawings. The lead-contaminated soil must be kept covered during transportation.

u) For each specific corridor where this variance is to be implemented, all of the following information shall be submitted in writing to DTSC at least five (5) days before construction of any project begins:

1. plan drawing designating the boundaries of the corridor where lead-contaminated soils will be excavated, stockpiled, buried and covered;
2. a list of the Caltrans projects that the corridor encompasses;
3. a list of Caltrans contractors that will be conducting any phase of work on any project affected by this variance;
4. duration of corridor construction;
5. location where sampling and analytical data used to make lead concentration level determinations are kept (e.g. a particular Caltrans project file);
6. name and phone number (including area code) of project resident engineer and project manager;
7. location where Caltrans and contractor health and safety plan and records are kept;

8. location of project special provisions (including page or section number) for soil excavation, transportation, stockpile, burial and placement of cover material;

9. location of project drawings (including drawing page number) for soil excavation, burial and placement of cover in plan and cross section (for example, "The project plans are located at the resident engineer's office located at 5th and Main Streets, City of Fresno, See pages xxxxx of contract xxxx");

10. updated information if a Caltrans project within the corridor is added, changed or deleted; and

11. type of environmental document prepared for each project, date of adoption, document title, Clearing House number and where the document is available for review. A copy of the Caltrans Categorical Exemption, Categorical Exclusion Form, or if filed, the Notice of Exemption for any project shall be submitted to the DTSC Headquarters Project Manager.

v) Changes in location of lead-contaminated soil placement, quantities or protection measures (field changes) shall be noted in the resident engineer's project log within five (5) days of the field change.

w) Caltrans shall ensure that field changes are in compliance with the requirements of this variance.

x) Operational procedures described in the California Environmental Quality Act (CEQA) Special Initial Study shall be followed by Caltrans for activities conducted under this variance.

y) Caltrans shall implement appropriate health and safety procedures to protect its employees and the public, and to prevent or minimize exposure to potentially hazardous wastes. A project-specific health and safety plan must be prepared and implemented. The monitoring and exposure standards shall be based on construction standards for exposure to lead in California Code of Regulations, title 8, section 1532.1.

z) Caltrans shall provide a district Coordinator for this variance. This Coordinator will be the primary point of contact for information flowing to, or received from, DTSC regarding any matter or submission under this variance. Caltrans shall promptly notify DTSC of the name of Coordinator and any change in the Coordinator.

aa) Caltrans shall conduct regular inspections, consistent with Caltrans' Maintenance Division's current Pavement Inspection and Slope Inspection programs, of the locations where lead-contaminated soil has been buried and/or covered pursuant to this variance. If site inspection reveals deterioration of cover so that conditions in the variance are not met, Caltrans shall repair or replace the cover.

bb) Caltrans shall develop and implement a record keeping mechanisms to record and retain permanent records of all locations where lead-contaminated soil has been buried per this variance. The records shall be made available to DTSC.

cc) If areas subject to the terms of this variance are sold, relinquished or abandoned (including roadways), all future property owners shall be notified in writing in advance by Caltrans of the requirements of this variance, and Caltrans shall provide the owner with a copy of the variance. A copy of such a notice shall be sent to DTSC and contain the corridor location and project. Caltrans shall also disclose to DTSC and the new owner the location of areas where lead-contaminated soil has been buried. Future property owners shall be subject to the same requirements as Caltrans.

dd) For the purposes of informing the public about instances where the variance is implemented, Caltrans shall:

1. maintain current fact sheets at all Caltrans resident engineer offices and the Caltrans District office. Caltrans shall make the fact sheets available to anyone expressing an interest in variance-related work.
2. maintain a binder(s) containing copies of all reports submitted to DTSC at the District office. Caltrans shall ensure that the binders are readily accessible to the public.
3. carry out the following actions when it identifies additional projects:
 - (A) notify the public via a display advertisement in a newspaper of general circulation in that area.
 - (B) update and distribute the fact sheet to the mailing list and repository locations.

ee) Lead-contaminated soil may be buried only in areas where access is limited or where lead-contaminated soil is covered and contained by a pavement structure.

ff) Dust containing lead-contaminated soil must be controlled. Water or dust palliative may be applied to control dust. If visible dust migration occurs, all excavation, stockpiling and truck loading and burying must be stopped. The granting of this variance confers no relief on Caltrans from compliance with the laws, regulations and requirements enforced by any local air district or the California Air Resources Board.

gg) Sampling and analysis is required to show the lead-contaminated soil meets the variance criteria. All sampling and analysis must be conducted in accordance with the appropriate methods specified in U.S. EPA SW-846.

hh) DTSC retains the right to require Caltrans or any future owner to remove, and properly dispose of, lead-contaminated soil in the event DTSC determines it is necessary for protection of public health, safety or the environment.

ii) DTSC finds that some projects involving lead-contaminated soil are joint projects between Caltrans and other government entities. In these joint projects, Caltrans may not be the lead agency implementing the project although Caltrans is still involved if the project occurs on its right-of-way.

Caltrans may invoke this variance for joint projects where Caltrans and local government entity are involved provided that 1) the project is within the Caltrans Right-of-Way; 2) Caltrans reviews/ oversees all phases of the project including design, contracting, environmental assessment, construction, operation, and maintenance; and 3) Caltrans oversees the project to verify all variance conditions are complied with. Caltrans will be fully responsible for the variance notification and implementation in these joint projects.

jj) All correspondence shall be directed to the following office:

Hazardous Waste Permitting
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, CA 95826

Attn: Caltrans Lead Variance Notification Unit

10. DISCLAIMER.

a) The issuance of this variance does not relieve Caltrans of the responsibility for compliance with Health and Safety Code, chapter 6.5, or the regulations adopted thereunder, and any other laws and regulations other than those specifically identified in Section 8 of this variance. Caltrans is subject to all terms and conditions herein. The granting of this variance confers no relief from compliance with any federal, State or local requirements other than those specifically provided herein.

b) The issuance of this variance does not release Caltrans from any liability associated with the handling of hazardous waste, except as specifically provided herein and subject to all terms and conditions of this variance.

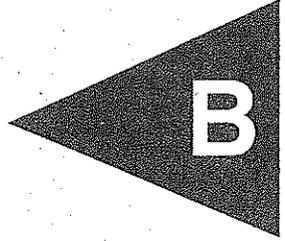
11. VARIANCE MODIFICATION OR REVOCATION. This variance is subject to review at the discretion of DTSC and may be modified or revoked by DTSC upon change of ownership and at any other time pursuant to Health and Safety Code, section 25143.
12. CEQA DETERMINATION. DTSC adopted a Negative Declaration on June 30, 2009.

Approved:

6/30/09
Date

Beverly Rikala
Beverly Rikala
Operating Facilities Team
Department of Toxic Substances Control

APPENDIX



B

August 14, 2009



Gemma Reblando
Geocon Consultants, Inc.
3160 Gold Valley Drive, Suite 800
Rancho Cordova, CA 95742
TEL: (916) 852-9118
FAX: (916) 852-9132

ELAP No.: 1838
NELAP No.: 02107CA
NEVADA.: CA-401
CSDLAC No.: 10196

Workorder No.: 106777

RE: Sac 99 Mack and Calvine, S9300-06-95

Attention: Gemma Reblando

Enclosed are the results for sample(s) received on August 08, 2009 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

A handwritten signature in blue ink, appearing to read "E. Rodriguez".

Eddie F. Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.



CLIENT: Geocon Consultants, Inc.
Project: Sac 99 Mack and Calvine, S9300-06-95
Lab Order: 106777

CASE NARRATIVE

Analytical Comments for Method 6010

Matrix Spike (MS) and /or Matrix Spike Duplicate (MSD) are/is outside recovery criteria for sample 106777-120AMSD; however, the analytical batch was validated by the Laboratory Control Sample (LCS).

RPD for Duplicate (DUP) and/or Matrix Spike (MS)/Matrix Spike Duplicate (MSD) is outside criteria for samples 106777-020ADUP and 106777-120AMSD; however, the analytical batch was validated by the Laboratory Control Sample (LCS).



ANALYTICAL RESULTS

**LEAD BY ICP
EPA 6010B**

CLIENT:	Geocon Consultants, Inc.	Lab Order:	106777
Project:	Sac 99 Mack and Calvine, S9300-06-95	Date Received	8/8/2009 8:56:00 AM
Project No:		Matrix:	Soil
Analyte:	Lead	Analyst:	CL

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
106777-001A	DP1-0	240	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-002A	DP1-.75	10	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-003A	DP1-1.5	6.5	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-004A	DP2-0	75	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-005A	DP2-.75	7.1	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-006A	DP2-1.5	ND	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-007A	DP3-0	ND	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-008A	DP3-.75	ND	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-009A	DP3-1.5	ND	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-010A	DP4-0	ND	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-011A	DP4-.75	ND	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-012A	DP4-1.5	6.4	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-013A	DP5-0	ND	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-014A	DP5-.75	5.4	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-015A	DP5-1.5	7.7	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-016A	DP6-0	ND	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-017A	DP6-.75	ND	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-018A	DP6-1.5	ND	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



ANALYTICAL RESULTS

**LEAD BY ICP
EPA 6010B**

CLIENT:	Geocon Consultants, Inc.	Lab Order:	106777
Project:	Sac 99 Mack and Calvine, S9300-06-95	Date Received	8/8/2009 8:56:00 AM
Project No:		Matrix:	Soil
Analyte:	Lead	Analyst:	CL

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
106777-019A	DP7-0	110	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-020A	DP7-.75	50	mg/Kg	57216	5.0	1	8/6/2009	8/12/2009
106777-021A	DP7-1.5	ND	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-022A	DP8-0	41	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-023A	DP8-.75	5.1	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-024A	DP8-1.5	5.5	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-025A	DP9-0	26	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-026A	DP9-.75	ND	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-027A	DP9-1.5	6.3	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-028A	DP10-0	150	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-029A	DP10-.75	6.0	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-030A	DP10-1.5	ND	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-031A	DP11-0	6.7	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-032A	DP11-.75	ND	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-033A	DP11-1.5	ND	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-034A	DP12-0	51	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-035A	DP12-.75	6.3	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-036A	DP12-1.5	5.8	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



ANALYTICAL RESULTS

**LEAD BY ICP
EPA 6010B**

CLIENT:	Geocon Consultants, Inc.	Lab Order:	106777
Project:	Sac 99 Mack and Calvine, S9300-06-95	Date Received	8/8/2009 8:56:00 AM
Project No:		Matrix:	Soil
Analyte:	Lead	Analyst:	CL

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
106777-037A	DP13-0	18	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-038A	DP13-.75	21	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-039A	DP13-1.5	8.3	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-040A	DP14-0	23	mg/Kg	57217	5.0	1	8/6/2009	8/12/2009
106777-041A	DP14-.75	19	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-042A	DP14-1.5	15	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-043A	DP15-0	68	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-044A	DP15-.75	5.1	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-045A	DP15-1.5	5.5	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-046A	DP16-0	9.1	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-047A	DP16-.75	9.6	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-048A	DP16-1.5	7.5	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-049A	DP17-0	17	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-050A	DP17-.75	12	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-051A	DP17-1.5	6.5	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-052A	DP18-0	12	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-053A	DP18-.75	10	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-054A	DP18-1.5	8.2	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



ANALYTICAL RESULTS

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EPA 6010B**

CLIENT:	Geocon Consultants, Inc.	Lab Order:	106777
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Project No:		Matrix:	Soil
Analyte:	Lead	Analyst:	CL

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
106777-055A	DP19-0	31	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-056A	DP19-.75	ND	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-057A	DP19-1.5	ND	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-058A	DP20-0	16	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-059A	DP20-.75	6.9	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-060A	DP21-0	7.7	mg/Kg	57218	5.0	1	8/6/2009	8/12/2009
106777-061A	DP21-.75	5.3	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-062A	DP21-1.5	6.2	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-063A	DP22-0	340	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-064A	DP22-.75	6.0	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-065A	DP22-1.5	5.7	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-066A	DP23-0	45	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-067A	DP23-.75	5.7	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-068A	DP23-1.5	53	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-069A	DP24-0	30	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-070A	DP24-.75	5.3	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-071A	DP24-1.5	6.4	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-072A	DP25-0	21	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



ANALYTICAL RESULTS

**LEAD BY ICP
EPA 6010B**

CLIENT:	Geocon Consultants, Inc.	Lab Order:	106777
Project:	Sac 99 Mack and Calvine, S9300-06-95	Date Received	8/8/2009 8:56:00 AM
Project No:		Matrix:	Soil
Analyte:	Lead	Analyst:	CL

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
106777-073A	DP25-.75	8.8	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-074A	DP25-1.5	5.4	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-075A	DP26-0	18	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-076A	DP26-.75	5.0	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-077A	DP26-1.5	5.1	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-078A	DP27-0	30	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-079A	DP27-.75	8.8	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-080A	DP27-1.5	ND	mg/Kg	57219	5.0	1	8/6/2009	8/12/2009
106777-081A	DP28-0	21	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-082A	DP28-.75	7.4	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-083A	DP28-1.5	5.2	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-084A	DP29-0	24	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-085A	DP29-.75	7.1	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-086A	DP29-1.5	5.4	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-087A	DP30-0	37	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-088A	DP30-.75	7.6	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-089A	DP30-1.5	ND	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-090A	DP31-0	100	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



ANALYTICAL RESULTS

**LEAD BY ICP
EPA 6010B**

CLIENT:	Geocon Consultants, Inc.	Lab Order:	106777
Project:	Sac 99 Mack and Calvine, S9300-06-95	Date Received	8/8/2009 8:56:00 AM
Project No:		Matrix:	Soil
Analyte:	Lead	Analyst:	CL

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
106777-091A	DP31-.75	6.6	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-092A	DP31-1.5	6.1	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-093A	DP32-0	ND	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-094A	DP32-.75	10	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-095A	DP32-1.5	ND	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-096A	DP33-0	100	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-097A	DP33-.75	10	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-098A	DP33-1.5	9.0	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-099A	DP34-0	170	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-100A	DP34-.75	12	mg/Kg	57220	5.0	1	8/6/2009	8/12/2009
106777-101A	DP34-1.5	11	mg/Kg	57221	5.0	1	8/6/2009	8/12/2009
106777-102A	DP35-0	27	mg/Kg	57221	5.0	1	8/6/2009	8/12/2009
106777-103A	DP35-.75	79	mg/Kg	57221	5.0	1	8/6/2009	8/12/2009
106777-104A	DP35-1.5	400	mg/Kg	57221	5.0	1	8/6/2009	8/12/2009
106777-105A	DP36-0	42	mg/Kg	57221	5.0	1	8/6/2009	8/12/2009
106777-106A	DP36-.75	ND	mg/Kg	57221	5.0	1	8/6/2009	8/12/2009
106777-107A	DP36-1.5	ND	mg/Kg	57221	5.0	1	8/6/2009	8/12/2009
106777-108A	DP37-0	270	mg/Kg	57221	5.0	1	8/6/2009	8/12/2009

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



ANALYTICAL RESULTS

**LEAD BY ICP
EPA 6010B**

CLIENT:	Geocon Consultants, Inc.	Lab Order:	106777
Project:	Sac 99 Mack and Calvine, S9300-06-95	Date Received	8/8/2009 8:56:00 AM
Project No:		Matrix:	Soil
Analyte:	Lead	Analyst:	CL

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
106777-109A	DP37-.75	5.2	mg/Kg	57221	5.0	1	8/6/2009	8/12/2009
106777-110A	DP37-1.5	ND	mg/Kg	57221	5.0	1	8/6/2009	8/12/2009
106777-111A	DP38-0	210	mg/Kg	57308	5.0	1	8/6/2009	8/13/2009
106777-112A	DP38-.75	6.9	mg/Kg	57308	5.0	1	8/6/2009	8/13/2009
106777-113A	DP38-1.5	6.5	mg/Kg	57308	5.0	1	8/6/2009	8/13/2009
106777-114A	DP39-0	33	mg/Kg	57308	5.0	1	8/6/2009	8/13/2009
106777-115A	DP39-.75	ND	mg/Kg	57308	5.0	1	8/6/2009	8/13/2009
106777-116A	DP39-1.5	5.3	mg/Kg	57308	5.0	1	8/6/2009	8/13/2009
106777-117A	DP40-0	16	mg/Kg	57308	5.0	1	8/6/2009	8/13/2009
106777-118A	DP40-.75	6.2	mg/Kg	57308	5.0	1	8/6/2009	8/13/2009
106777-119A	DP40-1.5	ND	mg/Kg	57308	5.0	1	8/6/2009	8/13/2009
106777-120A	DP41-0	110	mg/Kg	57308	5.0	1	8/6/2009	8/13/2009
106777-121A	DP41-.75	ND	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-122A	DP41-1.5	ND	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-123A	DP42-0	6.4	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-124A	DP42-.75	ND	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-125A	DP42-1.5	5.3	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-126A	DP43-0	54	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



ANALYTICAL RESULTS

**LEAD BY ICP
EPA 6010B**

CLIENT:	Geocon Consultants, Inc.	Lab Order:	106777
Project:	Sac 99 Mack and Calvine, S9300-06-95	Date Received	8/8/2009 8:56:00 AM
Project No:		Matrix:	Soil
Analyte:	Lead	Analyst:	CL

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
106777-127A	DP43-.75	8.8	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-128A	DP43-1.5	6.0	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-129A	DP44-0	24	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-130A	DP44-.75	7.0	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-131A	DP44-1.5	10	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-132A	DP45-0	22	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-133A	DP45-.75	9.6	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-134A	DP45-1.5	6.1	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-135A	DP46-0	28	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-136A	DP46-.75	6.7	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-137A	DP46-1.5	6.4	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-138A	DP47-0	44	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-139A	DP47-.75	14	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-140A	DP47-1.5	6.7	mg/Kg	57222	5.0	1	8/6/2009	8/12/2009
106777-141A	DP48-0	110	mg/Kg	57223	5.0	1	8/6/2009	8/12/2009
106777-142A	DP48-.75	7.3	mg/Kg	57223	5.0	1	8/6/2009	8/12/2009
106777-143A	DP48-1.5	6.4	mg/Kg	57223	5.0	1	8/6/2009	8/12/2009
106777-144A	DP49-0	200	mg/Kg	57223	5.0	1	8/6/2009	8/12/2009

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



**LEAD BY ICP
EPA 6010B**

ANALYTICAL RESULTS

CLIENT:	Geocon Consultants, Inc.	Lab Order:	106777
Project:	Sac 99 Mack and Calvine, S9300-06-95	Date Received	8/8/2009 8:56:00 AM
Project No:		Matrix:	Soil
Analyte:	Lead	Analyst:	CL

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
106777-145A	DP49-.75	12	mg/Kg	57223	5.0	1	8/6/2009	8/12/2009
106777-146A	DP49-1.5	14	mg/Kg	57223	5.0	1	8/6/2009	8/12/2009
106777-147A	DP50-0	170	mg/Kg	57223	5.0	1	8/6/2009	8/12/2009
106777-148A	DP50-.75	12	mg/Kg	57223	5.0	1	8/6/2009	8/12/2009
106777-149A	DP50-1.5	6.2	mg/Kg	57223	5.0	1	8/6/2009	8/12/2009
106777-150A	DP51-0	150	mg/Kg	57223	5.0	1	8/6/2009	8/12/2009
106777-151A	DP51-.75	6.6	mg/Kg	57223	5.0	1	8/6/2009	8/12/2009
106777-152A	DP51-1.5	6.1	mg/Kg	57223	5.0	1	8/6/2009	8/12/2009
106777-153A	DP52-0	48	mg/Kg	57223	5.0	1	8/6/2009	8/12/2009
106777-154A	DP52-.75	6.9	mg/Kg	57223	5.0	1	8/6/2009	8/12/2009
106777-155A	DP52-1.5	6.6	mg/Kg	57223	5.0	1	8/6/2009	8/12/2009

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



ANALYTICAL RESULTS

**pH
EPA 9045C**

CLIENT:	Geocon Consultants, Inc.	Lab Order:	106777
Project:	Sac 99 Mack and Calvine, S9300-06-95	Date Received	8/8/2009 8:56:00 AM
Project No:		Matrix:	Soil
Analyte:	pH	Analyst:	DDL

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
106777-005A	DP2-.75	7.5	pH Units	R111607	0.10	1	8/6/2009	8/11/2009
106777-013A	DP5-0	7.6	pH Units	R111606	0.10	1	8/6/2009	8/11/2009
106777-025A	DP9-0	7.1	pH Units	R111606	0.10	1	8/6/2009	8/11/2009
106777-040A	DP14-0	7.2	pH Units	R111606	0.10	1	8/6/2009	8/11/2009
106777-041A	DP14-.75	8.0	pH Units	R111606	0.10	1	8/6/2009	8/11/2009
106777-054A	DP18-1.5	6.7	pH Units	R111606	0.10	1	8/6/2009	8/11/2009
106777-064A	DP22-.75	7.3	pH Units	R111606	0.10	1	8/6/2009	8/11/2009
106777-071A	DP24-1.5	7.7	pH Units	R111606	0.10	1	8/6/2009	8/11/2009
106777-082A	DP28-.75	8.0	pH Units	R111606	0.10	1	8/6/2009	8/11/2009
106777-097A	DP33-.75	7.9	pH Units	R111606	0.10	1	8/6/2009	8/11/2009
106777-109A	DP37-.75	7.2	pH Units	R111606	0.10	1	8/6/2009	8/11/2009
106777-113A	DP38-1.5	7.3	pH Units	R111607	0.10	1	8/6/2009	8/11/2009
106777-126A	DP43-0	7.8	pH Units	R111607	0.10	1	8/6/2009	8/11/2009
106777-138A	DP47-0	7.8	pH Units	R111607	0.10	1	8/6/2009	8/11/2009
106777-145A	DP49-.75	8.1	pH Units	R111607	0.10	1	8/6/2009	8/11/2009
106777-150A	DP51-0	7.2	pH Units	R111607	0.10	1	8/6/2009	8/11/2009

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

Sample ID: MB-57216A	SampType: MBLK	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111652						
Client ID: PBS	Batch ID: 57216	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760375						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	5.0									
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Sample ID: LCS-57216	SampType: LCS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111652						
Client ID: LCSS	Batch ID: 57216	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760376						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	276.234	5.0	250.0	0	110	80	120				
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Sample ID: 106777-010ADUP	SampType: DUP	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111652						
Client ID: DP4-0	Batch ID: 57216	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760387						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	2.890	5.0						2.510	0	20	
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Sample ID: 106777-010AMS	SampType: MS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111652						
Client ID: DP4-0	Batch ID: 57216	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760388						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

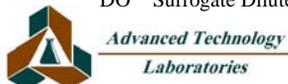
Lead	236.759	5.0	250.0	2.510	93.7	33	120				
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Sample ID: MB-57216B	SampType: MBLK	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111652						
Client ID: PBS	Batch ID: 57216	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760389						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	5.0									
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Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

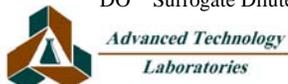
Sample ID: 106777-020ADUP	SampType: DUP	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111652						
Client ID: DP7-.75	Batch ID: 57216	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760400						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	32.775	5.0						49.76	41.2	20	R

Sample ID: 106777-020AMS	SampType: MS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111652						
Client ID: DP7-.75	Batch ID: 57216	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760401						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	265.221	5.0	250.0	49.76	86.2	33	120				

Sample ID: 106777-020AMSD	SampType: MSD	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111652						
Client ID: DP7-.75	Batch ID: 57216	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760402						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	256.549	5.0	250.0	49.76	82.7	33	120	265.2	3.32	20	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

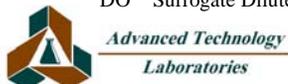
Sample ID: 106777-040ADUP	SampType: DUP	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111653						
Client ID: DP14-0	Batch ID: 57217	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760429						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	27.646	5.0						23.26	17.2	20	

Sample ID: 106777-040AMS	SampType: MS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111653						
Client ID: DP14-0	Batch ID: 57217	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760430						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	238.728	5.0	250.0	23.26	86.2	33	120				

Sample ID: 106777-040AMSD	SampType: MSD	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111653						
Client ID: DP14-0	Batch ID: 57217	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760431						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	223.824	5.0	250.0	23.26	80.2	33	120	238.7	6.44	20	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

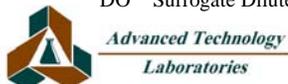
Sample ID: 106777-060ADUP	SampType: DUP	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111654						
Client ID: DP21-0	Batch ID: 57218	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760457						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	7.749	5.0						7.726	0.287	20	

Sample ID: 106777-060AMS	SampType: MS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111654						
Client ID: DP21-0	Batch ID: 57218	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760458						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	212.908	5.0	250.0	7.726	82.1	33	120				

Sample ID: 106777-060AMSD	SampType: MSD	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111654						
Client ID: DP21-0	Batch ID: 57218	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760459						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	201.183	5.0	250.0	7.726	77.4	33	120	212.9	5.66	20	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

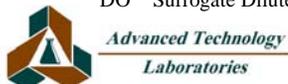
Sample ID: 106777-080ADUP	SampType: DUP	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111655						
Client ID: DP27-1.5	Batch ID: 57219	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760570						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	3.573	5.0						3.216	0	20	

Sample ID: 106777-080AMS	SampType: MS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111655						
Client ID: DP27-1.5	Batch ID: 57219	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760571						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	198.916	5.0	250.0	3.216	78.3	33	120				

Sample ID: 106777-080AMSD	SampType: MSD	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111655						
Client ID: DP27-1.5	Batch ID: 57219	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760572						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	195.179	5.0	250.0	3.216	76.8	33	120	198.9	1.90	20	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

Sample ID: MB-57220A	SampType: MBLK	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111660						
Client ID: PBS	Batch ID: 57220	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760587						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	5.0									
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Sample ID: LCS-57220	SampType: LCS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111660						
Client ID: LCSS	Batch ID: 57220	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760588						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	248.952	5.0	250.0	0	99.6	80	120				
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Sample ID: 106777-090ADUP	SampType: DUP	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111660						
Client ID: DP31-0	Batch ID: 57220	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760599						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	117.655	5.0						102.2	14.1	20	
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Sample ID: 106777-090AMS	SampType: MS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111660						
Client ID: DP31-0	Batch ID: 57220	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760600						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

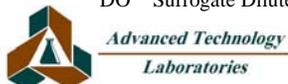
Lead	313.884	5.0	250.0	102.2	84.7	33	120				
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Sample ID: MB-57220B	SampType: MBLK	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111660						
Client ID: PBS	Batch ID: 57220	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760601						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	5.0									
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Qualifiers:

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|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

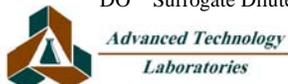
Sample ID: 106777-100ADUP	SampType: DUP	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111660						
Client ID: DP34-.75	Batch ID: 57220	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760612						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	11.383	5.0						11.60	1.87	20	

Sample ID: 106777-100AMS	SampType: MS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111660						
Client ID: DP34-.75	Batch ID: 57220	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760613						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	197.906	5.0	250.0	11.60	74.5	33	120				

Sample ID: 106777-100AMSD	SampType: MSD	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111660						
Client ID: DP34-.75	Batch ID: 57220	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760614						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	200.200	5.0	250.0	11.60	75.4	33	120	197.9	1.15	20	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

Sample ID: MB-57221A	SampType: MBLK	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111662						
Client ID: PBS	Batch ID: 57221	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760622						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	5.0									
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Sample ID: LCS-57221	SampType: LCS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111662						
Client ID: LCSS	Batch ID: 57221	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760623						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	243.105	5.0	250.0	0	97.2	80	120				
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Sample ID: 106777-110ADUP	SampType: DUP	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111662						
Client ID: DP37-1.5	Batch ID: 57221	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760634						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

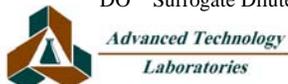
Lead	3.944	5.0						4.741	0	20	
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Sample ID: 106777-110AMS	SampType: MS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111662						
Client ID: DP37-1.5	Batch ID: 57221	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760635						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	197.680	5.0	250.0	4.741	77.2	33	120				
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Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

Sample ID: MB-57222A	SampType: MBLK	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111681						
Client ID: PBS	Batch ID: 57222	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760989						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	5.0									
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Sample ID: LCS-57222	SampType: LCS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111681						
Client ID: LCSS	Batch ID: 57222	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1760989						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	275.784	5.0	250.0	0	110	80	120				
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Sample ID: 106777-130ADUP	SampType: DUP	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111681						
Client ID: DP44-.75	Batch ID: 57222	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1761001						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	6.788	5.0							7.033	3.55	20
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Sample ID: 106777-130AMS	SampType: MS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111681						
Client ID: DP44-.75	Batch ID: 57222	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1761002						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

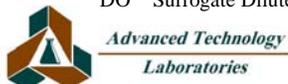
Lead	218.632	5.0	250.0	7.033	84.6	33	120				
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Sample ID: MB-57222B	SampType: MBLK	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111681						
Client ID: PBS	Batch ID: 57222	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1761003						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	5.0									
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Qualifiers:

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|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

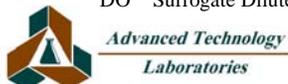
Sample ID: 106777-140ADUP	SampType: DUP	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111681						
Client ID: DP47-1.5	Batch ID: 57222	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1761014						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	6.551	5.0						6.662	1.68	20	

Sample ID: 106777-140AMS	SampType: MS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111681						
Client ID: DP47-1.5	Batch ID: 57222	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1761015						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	213.037	5.0	250.0	6.662	82.5	33	120				

Sample ID: 106777-140AMSD	SampType: MSD	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111681						
Client ID: DP47-1.5	Batch ID: 57222	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1761016						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	216.063	5.0	250.0	6.662	83.8	33	120	213.0	1.41	20	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

Sample ID: MB-57223A	SampType: MBLK	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111691						
Client ID: PBS	Batch ID: 57223	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1761212						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	5.0									
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Sample ID: LCS-57223	SampType: LCS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111691						
Client ID: LCSS	Batch ID: 57223	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1761213						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	242.883	5.0	250.0	0	97.2	80	120				
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Sample ID: 106777-150ADUP	SampType: DUP	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111691						
Client ID: DP51-0	Batch ID: 57223	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1761224						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	127.658	5.0						150.0	16.1	20	
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Sample ID: 106777-150AMS	SampType: MS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111691						
Client ID: DP51-0	Batch ID: 57223	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1761225						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

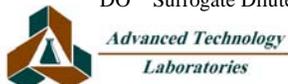
Lead	321.709	5.0	250.0	150.0	68.7	33	120				
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Sample ID: MB-57223B	SampType: MBLK	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111691						
Client ID: PBS	Batch ID: 57223	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1761226						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	5.0									
------	----	-----	--	--	--	--	--	--	--	--	--

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

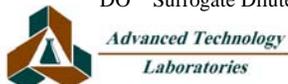
Sample ID: 106777-155ADUP	SampType: DUP	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111691						
Client ID: DP52-1.5	Batch ID: 57223	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1761232						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	6.871	5.0						6.568	4.50	20	

Sample ID: 106777-155AMS	SampType: MS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111691						
Client ID: DP52-1.5	Batch ID: 57223	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1761233						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	218.690	5.0	250.0	6.568	84.8	33	120				

Sample ID: 106777-155AMSD	SampType: MSD	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/11/2009	RunNo: 111691						
Client ID: DP52-1.5	Batch ID: 57223	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/12/2009	SeqNo: 1761234						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	230.319	5.0	250.0	6.568	89.5	33	120	218.7	5.18	20	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

Sample ID: MB-57308A	SampType: MBLK	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/13/2009	RunNo: 111732						
Client ID: PBS	Batch ID: 57308	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/13/2009	SeqNo: 1762036						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	1.093	5.0									
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Sample ID: LCS-57308	SampType: LCS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/13/2009	RunNo: 111732						
Client ID: LCSS	Batch ID: 57308	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/13/2009	SeqNo: 1762037						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	274.176	5.0	250.0	1.093	109	80	120				
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Sample ID: 106777-120ADUP	SampType: DUP	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/13/2009	RunNo: 111732						
Client ID: DP41-0	Batch ID: 57308	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/13/2009	SeqNo: 1762048						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	109.980	5.0						106.0	3.73	20	
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Sample ID: 106777-120AMS	SampType: MS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/13/2009	RunNo: 111732						
Client ID: DP41-0	Batch ID: 57308	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/13/2009	SeqNo: 1762049						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

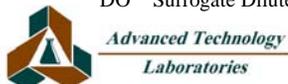
Lead	317.333	5.0	250.0	106.0	84.6	33	120				
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Sample ID: 106777-120AMSD	SampType: MSD	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 8/13/2009	RunNo: 111732						
Client ID: DP41-0	Batch ID: 57308	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 8/13/2009	SeqNo: 1762050						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	449.355	5.0	250.0	106.0	137	33	120	317.3	34.4	20	SR
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Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 9045_S

Sample ID: 106777-097ADUP	SampType: DUP	TestCode: 9045_S	Units: pH Units	Prep Date:	RunNo: 111606						
Client ID: DP33-.75	Batch ID: R111606	TestNo: EPA 9045C		Analysis Date: 8/11/2009	SeqNo: 1759526						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.980	0.10						7.890	1.13	20	

Qualifiers:

- | | | | | | |
|----|---|---|--------------------------------------|---|--|
| B | Analyte detected in the associated Method Blank | E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| ND | Not Detected at the Reporting Limit | R | RPD outside accepted recovery limits | S | Spike/Surrogate outside of limits due to matrix interference |
| DO | Surrogate Diluted Out | | Calculations are based on raw values | | |



*Advanced Technology
Laboratories*

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 9045_S

Sample ID: 106777-150ADUP	SampType: DUP	TestCode: 9045_S	Units: pH Units	Prep Date:	RunNo: 111607						
Client ID: DP51-0	Batch ID: R111607	TestNo: EPA 9045C		Analysis Date: 8/11/2009	SeqNo: 1759534						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.210	0.10						7.230	0.277	20	

Qualifiers:

- | | | | | | |
|----|---|---|--------------------------------------|---|--|
| B | Analyte detected in the associated Method Blank | E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| ND | Not Detected at the Reporting Limit | R | RPD outside accepted recovery limits | S | Spike/Surrogate outside of limits due to matrix interference |
| DO | Surrogate Diluted Out | | Calculations are based on raw values | | |



CHAIN OF CUSTODY RECORD



**Advanced Technology
Laboratories**

3275 Walnut Avenue
Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

FOR LABORATORY USE ONLY

P.O. #: _____
Logged By: *[Signature]* Date: *8/8/09*

Method of Transport
Client
ATL
CA OverN
FedEx
Other: *CSO*

Sample Condition Upon Receipt
1. CHILLED Y N 4. SEALED Y N
2. HEADSPACE (VOA) Y N 5. # OF SPLS MATCH COC Y N
3. CONTAINER INTACT Y N 6. PRESERVED Y N

Client: GEOCON Consultants, Inc Address: 3160 Gold Valley Drive, Suite 800 Tel: 916.852.9118
Attention: Gemma Reblando City: Rancho Cordova State: CA Zip Code: 95742 Fax: 916.852.9132

Project Name: **Sac 99 Mack and Calvine** Project #: **S9300-06-95** Sampler: (Printed Name) **Josh Ewert** (Signature) *[Signature]*

Relinquished by: (Signature and Printed Name) **Josh Ewert** Date: **8/7/2009** Time: **1630** Received by: (Signature and Printed Name) **Golden State Overnight** Date: **8/7/2009** Time: **1630**

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____ Received by: (Signature and Printed Name) *[Signature]* Date: **8/8/09** Time: **8:56**

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____ Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Josh Ewert 8/7/2009
Print Name Date
[Signature]
Signature

Send Report To:
Attn: _____
Co: **SAME AS ABOVE**
Addr: _____
City: _____ State: _____ Zip: _____

Bill To:
Attn: _____
Co: **SAME AS ABOVE**
Addr: _____
City: _____ State: _____ Zip: _____

Special Instructions/Comments:
Caltrans billing per contract 03A1368
Please homogenize samples prior to analyzing.
Please copy Kari Cook on the results and EDF reports and include an excel file. Thank you.
(cook@geoconinc.com)

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.
Storage Fees (applies when storage is requested):
■ Sample :\$2.00 / sample /mo (after 45 days)
■ Records: \$1 /ATL workorder /mo (after 1 year)

Circle or Add Analysis(es) Requested	SPECIFY APPROPRIATE MATRIX										PRESERVATION										
	8081A (Pesticides)	8082 (PCB)	8260B (Volatiles)	8270C (BNA)	8010B (Total Metal)	8015B (GRO) / 8020 (BTEX)	8015M (TPH) and TPH(mg)	TITLE 22 / CAM 17 (6010 / 7000)	Gasoline Package	TOTAL LEAD (6010B)		SVOCs (8270C)	SOIL	WATER	GROUND WATER	WASTEWATER	CARBON				
																	TAT	#	Type	OTHER _____	REMARKS

LAB USE ONLY:	Sample Description			
	Batch #:	Sample ID / Location	Date	Time
LAB USE ONLY:	106777-001	DP1-0	8/6/2009	0734
LAB USE ONLY:	2	DP1-.75		0735
LAB USE ONLY:	3	DP1-1.5		0736
LAB USE ONLY:	4	DP2-0		0745
LAB USE ONLY:	5	DP2-.75		0746
LAB USE ONLY:	6	DP2-1.5		0747
LAB USE ONLY:	7	DP3-0		0751
LAB USE ONLY:	8	DP3-.75		0752
LAB USE ONLY:	9	DP3-1.5		0753
LAB USE ONLY:	10	DP4-0		0802

■ TAT starts 8AM the following day if samples received after 3 PM

TAT: A = Overnight ≤ 24 hrs B = Emergency Next Workday C = Critical 2 Workdays D = Urgent 3 Workdays E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl N=HNO₃ S=H₂SO₄ C=4°C Z=Zn(AC)₂ O=NaOH T=Na₂S₂O₃

CHAIN OF CUSTODY RECORD



**Advanced Technology
Laboratories**

3275 Walnut Avenue
Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

FOR LABORATORY USE ONLY

P.O. #: _____
Logged By: _____ Date: _____

Method of Transport
Client
ATL
CA OverN
FedEx
Other: _____

Sample Condition Upon Receipt
1. CHILLED Y N 4. SEALED Y N
2. HEADSPACE (VOA) Y N 5. # OF SPLS MATCH COC Y N
3. CONTAINER INTACT Y N 6. PRESERVED Y N

Client: GEOCON Consultants, Inc Address: 3160 Gold Valley Drive, Suite 800 Tel: 916.852.9118
Attention: Gemma Reblando City: Rancho Cordova State: CA Zip Code: 95742 Fax: 916.852.9132

Project Name: Sac 99 Mack and Calvine Project #: S9300-06-95 Sampler: (Printed Name) Josh Ewert (Signature) *[Signature]*

Relinquished by: (Signature and Printed Name) Josh Ewert Date: 8/7/2009 Time: 1630 Received by: (Signature and Printed Name) Golden State Overnight Date: 8/7/2009 Time: 1630

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____ Received by: (Signature and Printed Name) *[Signature]* Date: 8/8/09 Time: 8:56

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____ Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Josh Ewert 8/7/2009
Print Name Date
[Signature]
Signature

Send Report To:
Attn: _____
Co: SAME AS ABOVE
Addr: _____
City: _____ State: _____ Zip: _____

Bill To:
Attn: _____
Co: SAME AS ABOVE
Addr: _____
City: _____ State: _____ Zip: _____

Special Instructions/Comments:
Caltrans billing per contract 03A1368
Please homogenize samples prior to analyzing.
Please copy Kari Cook on the results and EDF reports and include an excel file. Thank you.
(cook@geoconinc.com)

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.
Storage Fees (applies when storage is requested):
■ Sample: \$2.00 / sample /mo (after 45 days)
■ Records: \$1 /ATL workorder /mo (after 1 year)

Circle or Add Analysis(es) Requested	SPECIFY APPROPRIATE MATRIX										PRESERVATION							
	8081A (Pesticides)	8082 (PCOB)	8260B (Volatiles)	8270C (BVA)	8010B (Total Metal)	8015B (GRO) / 8020 (BTEX)	8021 (BTX)	TITLE 22 / CAM 17 (8010 / 7000)	Gasoline Package	TOTAL LEAD (8010B)		SVOCs (8270C)	SOIL	WATER	GROUND WATER	WASTEWATER	CARBON	
																	TAT # Type	QAI/QC RTNE <input type="checkbox"/> CT <input checked="" type="checkbox"/> SWRCB <input type="checkbox"/> Logcode _____ OTHER _____

ITEM	LAB USE ONLY:	Sample Description		
	Batch #:	Sample ID / Location	Date	Time
	10677-31	DP11-0	8/6/2009	0904
	32	DP11-.75		0905
	33	DP11-1.5		0906
	34	DP12-0		0914
	35	DP12-.75		0915
	36	DP12-1.5		0916
	37	DP13-0		0921
	38	DP13-.75		0922
	39	DP13-1.5		0923
	40	DP14-0		0926

■ TAT starts 8AM the following day if samples received after 3 PM

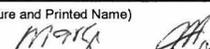
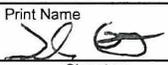
TAT: A = Overnight ≤ 24 hrs B = Emergency Next Workday C = Critical 2 Workdays D = Urgent 3 Workdays E = Routine 7 Workdays

Preservatives: H=HCl N=HNO₃ S=H₂SO₄ C=4°C
Z=Zn(AC)₂ O=NaOH T=Na₂S₂O₃

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

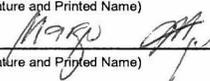
CHAIN OF CUSTODY RECORD

50F16

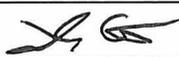
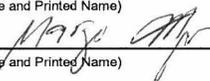
 <p>Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: (562) 989-4045 • Fax: (562) 989-4040</p>		FOR LABORATORY USE ONLY											
		P.O. #: _____		Method of Transport Client <input type="checkbox"/> ATL <input type="checkbox"/> CA OverN <input type="checkbox"/> FedEx <input type="checkbox"/> Other: _____		Sample Condition Upon Receipt 1. CHILLED Y <input type="checkbox"/> N <input type="checkbox"/> 4. SEALED Y <input type="checkbox"/> N <input type="checkbox"/> 2. HEADSPACE (VOA) Y <input type="checkbox"/> N <input type="checkbox"/> 5. # OF SPLS MATCH COC Y <input type="checkbox"/> N <input type="checkbox"/> 3. CONTAINER INTACT Y <input type="checkbox"/> N <input type="checkbox"/> 6. PRESERVED Y <input type="checkbox"/> N <input type="checkbox"/>							
Client: GEOCON Consultants, Inc Attention: Gemma Reblando			Address: 3160 Gold Valley Drive, Suite 800 City: Rancho Cordova State: CA Zip Code: 95742			Tel: 916.852.9118 Fax: 916.852.9132							
Project Name: Sac 99 Mack and Calvine		Project #: S9300-06-95		Sampler: (Printed Name) Josh Ewert		(Signature) 							
Relinquished by: (Signature and Printed Name) Josh Ewert 		Date: 8/7/2009		Time: 1630		Received by: (Signature and Printed Name) Golden State Overnight		Date: 8/7/2009	Time: 1630				
Relinquished by: (Signature and Printed Name)		Date:		Time:		Received by: (Signature and Printed Name) 		Date: 8/8/09	Time: 8:56				
Relinquished by: (Signature and Printed Name)		Date:		Time:		Received by: (Signature and Printed Name)		Date:	Time:				
I hereby authorize ATL to perform the work indicated below: Project Mgr /Submitter: Josh Ewert 8/7/2009  Print Name Date		Send Report To: Attn: _____ Co: SAME AS ABOVE Addr: _____ City: _____ State: _____ Zip: _____		Bill To: Attn: _____ Co: SAME AS ABOVE Addr: _____ City: _____ State: _____ Zip: _____		Special Instructions/Comments: Caltrans billing per contract 03A1368 Please homogenize samples prior to analyzing. Please copy Kari Cook on the results and EDF reports and include an excel file. Thank you. (cook@geoconinc.com)							
Sample/Records - Archival & Disposal Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report. Storage Fees (applies when storage is requested): ■ Sample :\$2.00 / sample /mo (after 45 days) ■ Records: \$1 /ATL workorder /mo (after 1 year)				Circle or Add Analysis(es) Requested				SPECIFY APPROPRIATE MATRIX					
				8081A (Pesticides)				PRESERVATION RTNE <input type="checkbox"/> CT <input checked="" type="checkbox"/> SWRCB <input type="checkbox"/> Logcode _____ OTHER _____ REMARKS					
				8082 (PCB)									
				8280B (Volatiles)									
				8270C (BVA)									
				8010B (Total Metal)									
				8015B (GRO) / 8020 (BTEX)									
				8021 (TPH and TPHmo)									
				TITLE 22 / CAM 17 (8010 / 7000)									
				Gasoline Package									
				TOTAL LEAD (8010B)									
				pH									
				SVOCs (8270C)									
				SOIL									
				WATER									
				GROUND WATER									
				WASTEWATER									
				CARBON									
				TAT									
				#									
				Type									
LAB USE ONLY: Batch #: _____ Lab No. _____		Sample Description		Date		Time		TAT		#		Type	
106777- 41		DP14-.75		8/6/2009		0927		5 day		1		P 306	
42		DP14-1.5				0928							
43		DP15-0				0932							
44		DP15-.75				0933							
45		DP15-1.5				0934							
46		DP16-0				0939							
47		DP16-.75				0940							
48		DP16-1.5				0941							
49		DP17-0				0948							
50		DP17-.75				0949							
■ TAT starts 8AM the following day if samples received after 3 PM		TAT: A = <input type="checkbox"/> Overnight ≤ 24 hrs		B = <input type="checkbox"/> Emergency Next Workday		C = <input type="checkbox"/> Critical 2 Workdays		D = <input type="checkbox"/> Urgent 3 Workdays		E = <input type="checkbox"/> Routine 7 Workdays		Preservatives: H=HCl N=HNO ₃ S=H ₂ SO ₄ C=4°C Z=Zn(AC) ₂ O=NaOH T=Na ₂ S ₂ O ₃	
Container Types:		T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar		G=Glass P=Plastic M=Metal									

CHAIN OF CUSTODY RECORD

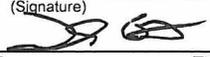
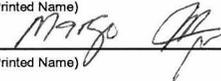
7 of 16

 <p>Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: (562) 989-4045 • Fax: (562) 989-4040</p>		FOR LABORATORY USE ONLY											
		P.O. #: _____		Method of Transport Client <input type="checkbox"/> ATL <input type="checkbox"/> CA OverN <input type="checkbox"/> FedEx <input type="checkbox"/> Other: _____		Sample Condition Upon Receipt 1. CHILLED Y <input type="checkbox"/> N <input type="checkbox"/> 4. SEALED Y <input type="checkbox"/> N <input type="checkbox"/> 2. HEADSPACE (VOA) Y <input type="checkbox"/> N <input type="checkbox"/> 5. # OF SPLS MATCH COC Y <input type="checkbox"/> N <input type="checkbox"/> 3. CONTAINER INTACT Y <input type="checkbox"/> N <input type="checkbox"/> 6. PRESERVED Y <input type="checkbox"/> N <input type="checkbox"/>							
Client: GEOCON Consultants, Inc Attention: Gemma Reblando				Address: 3160 Gold Valley Drive, Suite 800 City: Rancho Cordova State: CA Zip Code: 95742				Tel: 916.852.9118 Fax: 916.852.9132					
Project Name: Sac 99 Mack and Calvine		Project #: S9300-06-95		Sampler: (Printed Name) Josh Ewert		(Signature) 							
Relinquished by: (Signature and Printed Name) Josh Ewert		Date: 8/7/2009		Time: 1630		Received by: (Signature and Printed Name) Golden State Overnight		Date: 8/7/2009		Time: 1630			
Relinquished by: (Signature and Printed Name)		Date:		Time:		Received by: (Signature and Printed Name) 		Date: 8/9/09		Time: 855			
Relinquished by: (Signature and Printed Name)		Date:		Time:		Received by: (Signature and Printed Name)		Date:		Time:			
I hereby authorize ATL to perform the work indicated below: Project Mgr /Submitter: Josh Ewert		Send Report To: Attn: _____ Co: SAME AS ABOVE		Bill To: Attn: _____ Co: SAME AS ABOVE		Special Instructions/Comments: Caltrans billing per contract 03A1368 Please homogenize samples prior to analyzing. Please copy Kari Cook on the results and EDF reports and include an excel file. Thank you. (cook@geoconinc.com)							
Date: 8/7/2009 Print Name:  Signature		Date: _____ Print Name: _____ Signature		Date: _____ Print Name: _____ Signature		Date: _____ Print Name: _____ Signature							
Sample/Records - Archival & Disposal Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report. Storage Fees (applies when storage is requested): ■ Sample: \$.200 / sample /mo (after 45 days) ■ Records: \$1 /ATL workorder /mo (after 1 year)				Circle or Add Analysis(es) Requested				SPECIFY APPROPRIATE MATRIX				QA/QC	
				8081A (Pesticides) 8082 (PCB) 8260B (Volatiles) 8270C (BVA) 8010B (Total Metal) 8015B (GRO) / 8020 (BTEX) 8015M (TP-Hd and TP-Hmo) TITLE 22 / CAM 17 (8010 / 7000) Gasoline Package TOTAL LEAD (8010B) pH SVOCs (8270C) SOIL WATER GROUND WATER WASTEWATER CARBON								RTNE <input type="checkbox"/> CT <input checked="" type="checkbox"/> SWRCB <input type="checkbox"/> Logcode _____ OTHER _____	
LAB USE ONLY:		Sample Description											
Batch #:		Sample ID / Location		Date		Time						Container(s)	
Lab No.												TAT # Type	
10277-60		DP21-0		8/6/2009		1014						5 day 1 P 046	
61		DP21-.75				1015							
62		DP21-1.5				1016							
63		DP22-0				1021							
64		DP22-.75				1022							
65		DP22-1.5				1023							
66		DP23-0				1026							
67		DP23-.75				1027							
68		DP23-1.5				1028							
69		DP24-0		✓		1030							
■ TAT starts 8AM the following day if samples received after 3 PM		TAT: A = Overnight ≤ 24 hrs		B = Emergency Next Workday		C = Critical 2 Workdays		D = Urgent 3 Workdays		E = Routine 7 Workdays		Preservatives: H=HCl N=HNO ₃ S=H ₂ SO ₄ C=4°C Z=Zn(AC) ₂ O=NaOH T=Na ₂ S ₂ O ₃	
Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal													

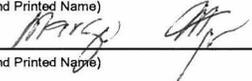
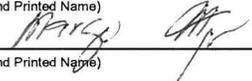
CHAIN OF CUSTODY RECORD

 <p>Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: (562) 989-4045 • Fax: (562) 989-4040</p>		FOR LABORATORY USE ONLY							
		P.O. #: _____ Logged By: _____ Date: _____		Method of Transport Client <input type="checkbox"/> ATL <input type="checkbox"/> CA OverN <input type="checkbox"/> FedEx <input type="checkbox"/> Other: _____		Sample Condition Upon Receipt 1. CHILLED Y <input type="checkbox"/> N <input type="checkbox"/> 4. SEALED Y <input type="checkbox"/> N <input type="checkbox"/> 2. HEADSPACE (VOA) Y <input type="checkbox"/> N <input type="checkbox"/> 5. # OF SPLS MATCH COC Y <input type="checkbox"/> N <input type="checkbox"/> 3. CONTAINER INTACT Y <input type="checkbox"/> N <input type="checkbox"/> 6. PRESERVED Y <input type="checkbox"/> N <input type="checkbox"/>			
Client: GEOCON Consultants, Inc Attention: Gemma Reblando			Address: 3160 Gold Valley Drive, Suite 800 City: Rancho Cordova State: CA Zip Code: 95742			Tel: 916.852.9118 Fax: 916.852.9132			
Project Name: Sac 99 Mack and Calvine		Project #: S9300-06-95		Sampler: (Printed Name) Josh Ewert		(Signature) 			
Relinquished by: (Signature and Printed Name) Josh Ewert 		Date: 8/7/2009	Time: 1630	Received by: (Signature and Printed Name) Golden State Overnight		Date: 8/7/2009 Time: 1630			
Relinquished by: (Signature and Printed Name)		Date:	Time:	Received by: (Signature and Printed Name) 		Date: 8/8/09 Time: 856			
Relinquished by: (Signature and Printed Name)		Date:	Time:	Received by: (Signature and Printed Name)		Date: Time:			
I hereby authorize ATL to perform the work indicated below: Project Mgr /Submitter: Josh Ewert 8/7/2009 Print Name Date  Signature		Send Report To: Attn: _____ Co: SAME AS ABOVE Addr: _____ City: State: Zip:		Bill To: Attn: _____ Co: SAME AS ABOVE Addr: _____ City: State: Zip:		Special Instructions/Comments: Caltrans billing per contract 03A1368 Please homogenize samples prior to analyzing. Please copy Kari Cook on the results and EDF reports and include an excel file. Thank you. (cook@geoconinc.com)			
Sample/Records - Archival & Disposal Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report. Storage Fees (applies when storage is requested): ■ Sample :\$2.00 / sample /mo (after 45 days) ■ Records: \$1 /ATL workorder /mo (after 1 year)				Circle or Add Analysis(es) Requested 8081A (Pesticides) _____ 8082 (PCOB) _____ 8280B (Volatiles) _____ 8270C (BVA) _____ 6010B (Total Metal) _____ 8015B (GRO) / 8020 (BTEX) _____ 8015M (TPH) and TPHmo _____ TITLE 22 / CAM 17 (6010 / 7000) _____ Gasoline Package _____ TOTAL LEAD (6010B) _____ pH _____ SVOCs (8270C) _____ SOIL _____ WATER _____ GROUND WATER _____ WASTEWATER _____ CARBON _____		SPECIFY APPROPRIATE MATRIX TAT # Type 5 day 1 P 314	QA/QC RTNE <input type="checkbox"/> CT <input checked="" type="checkbox"/> SWRCB <input type="checkbox"/> Logcode _____ OTHER _____ REMARKS		
ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description Sample ID / Location Date Time							
	106777-70	DP24-.75	8/6/2009	1031					
	71	DP24-1.5		1032					
	72	DP25-0		1036					
	73	DP25-.75		1037					
	74	DP25-1.5		1038					
	75	DP26-0		1041					
	76	DP26-.75		1042					
	77	DP26-1.5		1043					
	78	DP27-0		1049					
	79	DP27-.75		1050					
■ TAT starts 8AM the following day if samples received after 3 PM		TAT: A = <input type="checkbox"/> Overnight ≤ 24 hrs B = <input type="checkbox"/> Emergency Next Workday C = <input type="checkbox"/> Critical 2 Workdays D = <input type="checkbox"/> Urgent 3 Workdays E = <input type="checkbox"/> Routine 7 Workdays	Preservatives: H=HCl N=HNO ₃ S=H ₂ SO ₄ C=4°C Z=Zn(AC) ₂ O=NaOH T=Na ₂ S ₂ O ₃			Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal			

CHAIN OF CUSTODY RECORD

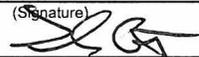
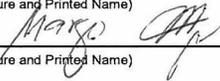
 <p>Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: (562) 989-4045 • Fax: (562) 989-4040</p>		FOR LABORATORY USE ONLY										
		P.O. #: _____		Method of Transport Client <input type="checkbox"/> ATL <input type="checkbox"/> CA OverN <input type="checkbox"/> FedEx <input type="checkbox"/> Other: _____		Sample Condition Upon Receipt 1. CHILLED Y <input type="checkbox"/> N <input type="checkbox"/> 4. SEALED Y <input type="checkbox"/> N <input type="checkbox"/> 2. HEADSPACE (VOA) Y <input type="checkbox"/> N <input type="checkbox"/> 5. # OF SPLS MATCH COC Y <input type="checkbox"/> N <input type="checkbox"/> 3. CONTAINER INTACT Y <input type="checkbox"/> N <input type="checkbox"/> 6. PRESERVED Y <input type="checkbox"/> N <input type="checkbox"/>						
Client: GEOCON Consultants, Inc Attention: Gemma Reblando			Address: 3160 Gold Valley Drive, Suite 800 City: Rancho Cordova State: CA Zip Code: 95742			Tel: 916.852.9118 Fax: 916.852.9132						
Project Name: Sac 99 Mack and Calvine		Project #: S9300-06-95		Sampler: (Printed Name) Josh Ewert		(Signature) 						
Relinquished by: (Signature and Printed Name) Josh Ewert 		Date: 8/7/2009		Time: 1630		Received by: (Signature and Printed Name) Golden State Overnight		Date: 8/7/2009	Time: 1630			
Relinquished by: (Signature and Printed Name)		Date:		Time:		Received by: (Signature and Printed Name) 		Date: 8/9/09	Time: 856			
Relinquished by: (Signature and Printed Name)		Date:		Time:		Received by: (Signature and Printed Name)		Date:	Time:			
I hereby authorize ATL to perform the work indicated below: Project Mgr /Submitter: Josh Ewert 8/7/2009 Print Name  Date		Send Report To: Attn: _____ Co: SAME AS ABOVE Addr: _____ City: _____ State: _____ Zip: _____		Bill To: Attn: _____ Co: SAME AS ABOVE Addr: _____ City: _____ State: _____ Zip: _____		Special Instructions/Comments: Caltrans billing per contract 03A1368 Please homogenize samples prior to analyzing. Please copy Kari Cook on the results and EDF reports and include an excel file. Thank you. (cook@geoconinc.com)						
Sample/Records - Archival & Disposal Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report. Storage Fees (applies when storage is requested): ■ Sample :\$2.00 / sample /mo (after 45 days) ■ Records: \$1 /ATL workorder /mo (after 1 year)				Circle or Add Analysis(es) Requested				SPECIFY APPROPRIATE MATRIX		PRESERVATION	QA/QC	
				8081A (Pesticides) 8082 (PCB) 8260B (Volatiles) 8270C (BVA) 8010B (Total Metal) 8015B (GRO) / 8020 (BTEX) 8021 (TPH) and TPH(m) TITLE 22 / CAM 17 (8010 / 7000) Gasoline Package TOTAL LEAD (8010B) pH SVOCs (8270C) SOIL WATER GROUND WATER WASTEWATER CARBON						RTNE <input type="checkbox"/> CT <input checked="" type="checkbox"/>	SWRCB <input type="checkbox"/> Logcode _____	OTHER _____
LAB USE ONLY: Batch #: Lab No.	Sample Description			Date	Time	TAT	#	Type	REMARKS			
106777- 80	DP27-1.5			8/6/2009	1051	5 day	1	P BAG				
81	DP28-0			↓	1056	↓	↓	↓				
82	DP28-.75			↓	1057	↓	↓	↓				
83	DP28-1.5			↓	1058	↓	↓	↓				
84	DP29-0			↓	1107	↓	↓	↓				
85	DP29-.75			↓	1108	↓	↓	↓				
86	DP29-1.5			↓	1109	↓	↓	↓				
87	DP30-0			↓	1110	↓	↓	↓				
88	DP30-.75			↓	1111	↓	↓	↓				
89	DP30-1.5			↓	1112	↓	↓	↓				
■ TAT starts 8AM the following day if samples received after 3 PM		TAT: A = <input type="checkbox"/> Overnight ≤ 24 hrs	B = <input type="checkbox"/> Emergency Next Workday	C = <input type="checkbox"/> Critical 2 Workdays	D = <input type="checkbox"/> Urgent 3 Workdays	E = <input type="checkbox"/> Routine 7 Workdays	Preservatives: H=HCl N=HNO ₃ S=H ₂ SO ₄ C=4°C Z=Zn(AC) ₂ O=NaOH T=Na ₂ S ₂ O ₃					
Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal												

CHAIN OF CUSTODY RECORD

 <p>Advanced Technology Laboratories</p> <p>3275 Walnut Avenue Signal Hill, CA 90755 Tel: (562) 989-4045 • Fax: (562) 989-4040</p>		FOR LABORATORY USE ONLY					
		P.O. #: _____ Logged By: _____ Date: _____		Method of Transport Client <input type="checkbox"/> ATL <input type="checkbox"/> CA OverN <input type="checkbox"/> FedEx <input type="checkbox"/> Other: _____		Sample Condition Upon Receipt 1. CHILLED Y <input type="checkbox"/> N <input type="checkbox"/> 4. SEALED Y <input type="checkbox"/> N <input type="checkbox"/> 2. HEADSPACE (VOA) Y <input type="checkbox"/> N <input type="checkbox"/> 5. # OF SPLS MATCH COC Y <input type="checkbox"/> N <input type="checkbox"/> 3. CONTAINER INTACT Y <input type="checkbox"/> N <input type="checkbox"/> 6. PRESERVED Y <input type="checkbox"/> N <input type="checkbox"/>	
Client: GEOCON Consultants, Inc Attention: Gemma Reblando			Address: 3160 Gold Valley Drive, Suite 800 City: Rancho Cordova State: CA Zip Code: 95742			Tel: 916.852.9118 Fax: 916.852.9132	
Project Name: Sac 99 Mack and Calvine		Project #: S9300-06-95		Sampler: (Printed Name) Josh Ewert		(Signature) 	
Relinquished by: (Signature and Printed Name) Josh Ewert		Date: 8/7/2009		Time: 1630		Received by: (Signature and Printed Name) Golden State Overnight	
Relinquished by: (Signature and Printed Name)		Date:		Time:		Received by: (Signature and Printed Name) 	
Relinquished by: (Signature and Printed Name)		Date:		Time:		Received by: (Signature and Printed Name) 	
I hereby authorize ATL to perform the work indicated below: Project Mgr /Submitter: Josh Ewert 8/7/2009 Print Name Date 		Send Report To: Attn: _____ Co: SAME AS ABOVE Addr: _____ City: _____ State: _____ Zip: _____		Bill To: Attn: _____ Co: SAME AS ABOVE Addr: _____ City: _____ State: _____ Zip: _____		Special Instructions/Comments: Caltrans billing per contract 03A1368 Please homogenize samples prior to analyzing. Please copy Kari Cook on the results and EDF reports and include an excel file. Thank you. (cook@geoconinc.com)	
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LAB USE ONLY: Batch #: _____ Lab No. _____				Sample Description Sample ID / Location Date Time		PRESERVATION QAI/QC RTNE <input type="checkbox"/> CT <input checked="" type="checkbox"/> SWRCB <input type="checkbox"/> Logcode _____ OTHER _____ REMARKS	
106777-90 91 92 93 94 95 96 97 98 99				DP30 DP31-0 DP31-.75 DP31-1.5 DP32-0 DP32-.75 DP32-1.5 DP33-0 DP33-.75 DP33-1.5 DP34-0		8/6/2009 1115 1116 1117 1121 1122 1123 1126 1127 1128 1135	
■ TAT starts 8AM the following day if samples received after 3 PM		TAT: A = Overnight ≤ 24 hrs B = Emergency Next Workday C = Critical 2 Workdays D = Urgent 3 Workdays E = Routine 7 Workdays		Preservatives: H=HCl N=HNO ₃ S=H ₂ SO ₄ C=4°C Z=Zn(AC) ₂ O=NaOH T=Na ₂ S ₂ O ₃			
Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal							

CHAIN OF CUSTODY RECORD

14 of 16

 <p>Advanced Technology Laboratories</p> <p>3275 Walnut Avenue Signal Hill, CA 90755 Tel: (562) 989-4045 • Fax: (562) 989-4040</p>		FOR LABORATORY USE ONLY						
		P.O. #: _____ Logged By: _____ Date: _____		Method of Transport Client <input type="checkbox"/> ATL <input type="checkbox"/> CA OverN <input type="checkbox"/> FedEx <input type="checkbox"/> Other: _____		Sample Condition Upon Receipt 1. CHILLED Y <input type="checkbox"/> N <input type="checkbox"/> 4. SEALED Y <input type="checkbox"/> N <input type="checkbox"/> 2. HEADSPACE (VOA) Y <input type="checkbox"/> N <input type="checkbox"/> 5. # OF SPLS MATCH COC Y <input type="checkbox"/> N <input type="checkbox"/> 3. CONTAINER INTACT Y <input type="checkbox"/> N <input type="checkbox"/> 6. PRESERVED Y <input type="checkbox"/> N <input type="checkbox"/>		
Client: GEOCON Consultants, Inc Attention: Gemma Reblando			Address: 3160 Gold Valley Drive, Suite 800 City: Rancho Cordova State: CA Zip Code: 95742			Tel: 916.852.9118 Fax: 916.852.9132		
Project Name: Sac 99 Mack and Calvine		Project #: S9300-06-95		Sampler: (Printed Name) Josh Ewert		(Signature) 		
Relinquished by: (Signature and Printed Name) Josh Ewert		Date: 8/7/2009		Time: 1630		Received by: (Signature and Printed Name) Golden State Overnight		
Relinquished by: (Signature and Printed Name) 		Date: 8/7/2009		Time: 1630		Received by: (Signature and Printed Name) 		
Relinquished by: (Signature and Printed Name)		Date:		Time:		Received by: (Signature and Printed Name)		
I hereby authorize ATL to perform the work indicated below: Project Mgr /Submitter: Josh Ewert 8/7/2009 Print Name Date 		Send Report To: Attn: _____ Co: SAME AS ABOVE Addr: _____ City: _____ State: _____ Zip: _____		Bill To: Attn: _____ Co: SAME AS ABOVE Addr: _____ City: _____ State: _____ Zip: _____		Special Instructions/Comments: Caltrans billing per contract 03A1368 Please homogenize samples prior to analyzing. Please copy Kari Cook on the results and EDF reports and include an excel file. Thank you. (cook@geoconinc.com)		
Sample/Records - Archival & Disposal Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report. Storage Fees (applies when storage is requested): ■ Sample :\$2.00 / sample /mo (after 45 days) ■ Records: \$1 /ATL workorder /mo (after 1 year)				Circle or Add Analysis(es) Requested 8081A (Pesticides) _____ 8082 (PCOB) _____ 8280B (Volatiles) _____ 8270C (BVA) _____ 8010B (Total Metal) _____ 8015B (GRO) / 8020 (BTEX) _____ 8021 (BTEX) _____ TITLE 22 / CAM 17 (8010 / 7000) _____ Gasoline Package _____ TOTAL LEAD (8010B) _____ PH _____ SVOCs (8270C) _____ SOIL _____ WATER _____ GROUND WATER _____ WASTEWATER _____ CARBON _____				SPECIFY APPROPRIATE MATRIX TAT # Type 5 day 1 P 316
LAB USE ONLY: Batch #: _____ Lab No. _____				Sample Description Sample ID / Location Date Time DP44-.75 8/6/2009 1414 DP44-1.5 1415 DP45-0 1419 DP45-.75 1426 DP45-1.5 1421 DP46-0 1424 DP46-.75 1425 DP46-1.5 1426 DP47-0 1433 DP47-.75 1434				PRESERVATION QAIQC RTNE <input type="checkbox"/> CT <input checked="" type="checkbox"/> SWRCB <input type="checkbox"/> Logcode _____ OTHER _____ REMARKS
■ TAT starts 8AM the following day if samples received after 3 PM		TAT: A = Overnight ≤ 24 hrs B = Emergency Next Workday C = Critical 2 Workdays D = Urgent 3 Workdays E = Routine 7 Workdays		Preservatives: H=HCl N=HNO ₃ S=H ₂ SO ₄ C=4°C Z=Zn(AC) ₂ O=NaOH T=Na ₂ S ₂ O ₃		Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal		

CHAIN OF CUSTODY RECORD

15 of 16



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Signal Hill, CA 90755
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P.O. #: _____	Method of Transport Client <input type="checkbox"/> ATL <input type="checkbox"/> CA OverN <input type="checkbox"/> FedEx <input type="checkbox"/> Other: _____	Sample Condition Upon Receipt 1. CHILLED Y <input type="checkbox"/> N <input type="checkbox"/> 4. SEALED Y <input type="checkbox"/> N <input type="checkbox"/> 2. HEADSPACE (VOA) Y <input type="checkbox"/> N <input type="checkbox"/> 5. # OF SPLS MATCH COC Y <input type="checkbox"/> N <input type="checkbox"/> 3. CONTAINER INTACT Y <input type="checkbox"/> N <input type="checkbox"/> 6. PRESERVED Y <input type="checkbox"/> N <input type="checkbox"/>
Logged By: _____ Date: _____		

Client: GEOCON Consultants, Inc Attention: Gemma Reblando	Address: 3160 Gold Valley Drive, Suite 800 City: Rancho Cordova State: CA Zip Code: 95742	Tel: 916.852.9118 Fax: 916.852.9132
--	--	--

Project Name: Sac 99 Mack and Calvine	Project #: S9300-06-95	Sampler: (Printed Name) Josh Ewert	(Signature)
Relinquished by: (Signature and Printed Name) Josh Ewert	Date: 8/7/2009	Received by: (Signature and Printed Name) Golden State Overnight	Date: 8/7/2009
Relinquished by: (Signature and Printed Name)	Date:	Received by: (Signature and Printed Name) 	Date: 8/8/09
Relinquished by: (Signature and Printed Name)	Date:	Received by: (Signature and Printed Name)	Date: 8/8/09

I hereby authorize ATL to perform the work indicated below: Project Mgr /Submitter: Josh Ewert 8/7/2009 Print Name Date 	Send Report To: Attn: _____ Co: SAME AS ABOVE Addr: _____ City: _____ State: _____ Zip: _____	Bill To: Attn: _____ Co: SAME AS ABOVE Addr: _____ City: _____ State: _____ Zip: _____	Special Instructions/Comments: Caltrans billing per contract 03A1368 Please homogenize samples prior to analyzing. Please copy Kari Cook on the results and EDF reports and include an excel file. Thank you. (cook@geoconinc.com)
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Sample/Records - Archival & Disposal
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Storage Fees (applies when storage is requested):
 ■ Sample :\$2.00 / sample /mo (after 45 days)
 ■ Records: \$1 /ATL workorder /mo (after 1 year)

Circle or Add Analysis(es) Requested	SPECIFY APPROPRIATE MATRIX										PRESERVATION					
	8081A (Pesticides)	8082 (PCB)	8260B (Volatiles)	8270C (BVA)	8010B (Total Metal)	8015B (GRO) / 8020 (BTEX)	8021 (BTEX)	TITLE 22 / CAM 17 (8010 / 2000)	Gasoline Package	TOTAL LEAD (8010B)		SIVOCs (8270C)	SOIL	WATER	GROUND WATER	WASTEWATER

ITEM	LAB USE ONLY: Batch #:	Sample Description			Date	Time	TAT	#	Type	REMARKS
	Lab No.	Sample ID / Location								
	106777-140	DP47-1.5			8/6/2009	1435				
	141	DP48-0				1438				
	142	DP48-75				1439				
	143	DP48-1.5				1440				
	144	DP49-0				1606				
	145	DP49-75				1607				
	146	DP49-1.5				1608				
	147	DP50-0				1615				
	148	DP50-75				1616				
	149	DP50-1.5				1617				

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Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal						

CHAIN OF CUSTODY RECORD



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Signal Hill, CA 90755
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FOR LABORATORY USE ONLY

P.O. #: _____
Logged By: _____ Date: _____

Method of Transport
Client
ATL
CA OverN
FedEx
Other: _____

Sample Condition Upon Receipt
1. CHILLED Y N 4. SEALED Y N
2. HEADSPACE (VOA) Y N 5. # OF SPLS MATCH COC Y N
3. CONTAINER INTACT Y N 6. PRESERVED Y N

Client: GEOCON Consultants, Inc Address: 3160 Gold Valley Drive, Suite 800 Tel: 916.852.9118
Attention: Gemma Reblando City: Rancho Cordova State: CA Zip Code: 95742 Fax: 916.852.9132

Project Name: Sac 99 Mack and Calvine Project #: S9300-06-95 Sampler: (Printed Name) Josh Ewert (Signature) *[Signature]*

Relinquished by: (Signature and Printed Name) Josh Ewert Date: 8/7/2009 Time: 1630 Received by: (Signature and Printed Name) Golden State Overnight Date: 8/7/2009 Time: 1630

Relinquished by: _____ Date: _____ Time: _____ Received by: _____ Date: 8/8/09 Time: 856

Relinquished by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Josh Ewert 8/7/2009
[Signature]
Date
Signature

Send Report To:
Attn: _____
Co: SAME AS ABOVE
Addr: _____
City: _____ State: _____ Zip: _____

Bill To:
Attn: _____
Co: SAME AS ABOVE
Addr: _____
City: _____ State: _____ Zip: _____

Special Instructions/Comments:
Caltrans billing per contract 03A1368
Please homogenize samples prior to analyzing.
Please copy Kari Cook on the results and EDF reports and include an excel file. Thank you.
(cook@geoconinc.com)

Sample/Records - Archival & Disposal
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■ Sample :\$2.00 / sample /mo (after 45 days)
■ Records: \$1 /ATL workorder /mo (after 1 year)

Circle or Add Analysis(es) Requested	SPECIFY APPROPRIATE MATRIX										PRESERVATION										
	8081A (Pesticides)	8082 (PCB)	8200B (Volatiles)	8270C (BNA)	8010B (Total Metal)	8015B (GRO) / 8020 (BTEX)	8015M (TPHrd and TPHmg)	Gasoline Package	TOTAL LEAD (6010 / 7000)	pH		SVOCs (6270C)	SOIL	WATER	GROUND WATER	WASTEWATER	CARBON				
																	RTNE <input type="checkbox"/>	CT <input checked="" type="checkbox"/>	SWRCB Logcode _____	OTHER _____	REMARKS

ITEM	LAB USE ONLY:		Sample Description			
	Batch #:	Lab No.	Sample ID / Location	Date	Time	
	106777-150		DPS1-0	8/6/2009	1620	
		151	DPS1-.75		1621	
		152	DPS1-1.5		1622	
		153	DPS2-0		1626	
		154	DPS2-.75		1627	
		155	DP52-1.5		1628	

■ TAT starts 8AM the following day if samples received after 3 PM

TAT: A = Overnight ≤ 24 hrs B = Emergency Next Workday C = Critical 2 Workdays D = Urgent 3 Workdays E = Routine 7 Workdays

Preservatives: H=HCl N=HNO₃ S=H₂SO₄ C=4°C
Z=Zn(AC)₂ O=NaOH T=Na₂S₂O₃

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

August 24, 2009



Gemma Reblando
Geocon Consultants, Inc.
3160 Gold Valley Drive, Suite 800
Rancho Cordova, CA 95742
TEL: (916) 852-9118
FAX: (916) 852-9132

ELAP No.: 1838
NELAP No.: 02107CA
NEVADA.: CA-401
CSDLAC No.: 10196

Workorder No.: 106777

RE: Sac 99 Mack and Calvine, S9300-06-95

Attention: Gemma Reblando

Enclosed are the results for sample(s) received on August 08, 2009 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

This is an addendum report. Please incorporate with documentation previously submitted.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

A handwritten signature in black ink, appearing to read "E. Rodriguez".

Eddie F. Rodriguez
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.



CLIENT: Geocon Consultants, Inc.
Project: Sac 99 Mack and Calvine, S9300-06-95
Lab Order: 106777

CASE NARRATIVE

Analytical Comments for Method 7420

Dilution was necessary for samples 106777-096A, 106777-103A, 106777-104A, 106777-108A, 106777-111A, 106777-120A, 106777-144A and 106777-147A, due to sample matrix.

Matrix Spike (MS) and /or Matrix Spike Duplicate (MSD) are/is outside recovery criteria for samples 106777-144AMS, 106777-144AMSD and 106794-015AMS; however, the analytical batch was validated by the Laboratory Control Sample (LCS).

RPD for Duplicate (DUP) is outside criteria for samples 106794-018ADUP and 106794-031ADUP; however, the Laboratory Control Sample (LCS) validated the analytical batch.



LEAD BY ATOMIC ABSORPTION (STLC)
WET/ EPA 7420

ANALYTICAL RESULTS

CLIENT:	Geocon Consultants, Inc.	Lab Order:	106777
Project:	Sac 99 Mack and Calvine, S9300-06-95	Date Received	8/8/2009 8:56:00 AM
Project No:		Matrix:	Soil
Analyte:	Lead	Analyst:	IL

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
106777-001A	DP1-0	6.5	mg/L	57393	0.25	1	8/6/2009	8/20/2009
106777-004A	DP2-0	7.0	mg/L	57393	0.25	1	8/6/2009	8/20/2009
106777-019A	DP7-0	5.9	mg/L	57393	0.25	1	8/6/2009	8/20/2009
106777-020A	DP7-.75	2.1	mg/L	57393	0.25	1	8/6/2009	8/20/2009
106777-028A	DP10-0	2.3	mg/L	57393	0.25	1	8/6/2009	8/20/2009
106777-034A	DP12-0	1.2	mg/L	57393	0.25	1	8/6/2009	8/20/2009
106777-043A	DP15-0	2.6	mg/L	57393	0.25	1	8/6/2009	8/20/2009
106777-063A	DP22-0	8.4	mg/L	57393	0.25	1	8/6/2009	8/20/2009
106777-068A	DP23-1.5	2.3	mg/L	57393	0.25	1	8/6/2009	8/20/2009
106777-090A	DP31-0	4.7	mg/L	57393	0.25	1	8/6/2009	8/20/2009
106777-096A	DP33-0	9.1	mg/L	57531	0.50	2	8/6/2009	8/24/2009
106777-099A	DP34-0	7.4	mg/L	57393	0.25	1	8/6/2009	8/20/2009
106777-103A	DP35-.75	26	mg/L	57393	2.5	10	8/6/2009	8/20/2009
106777-104A	DP35-1.5	21	mg/L	57393	2.5	10	8/6/2009	8/20/2009
106777-108A	DP37-0	17	mg/L	57393	2.5	10	8/6/2009	8/20/2009
106777-111A	DP38-0	14	mg/L	57393	1.2	5	8/6/2009	8/20/2009
106777-120A	DP41-0	12	mg/L	57393	1.2	5	8/6/2009	8/20/2009
106777-126A	DP43-0	1.5	mg/L	57393	0.25	1	8/6/2009	8/20/2009

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



**LEAD BY ATOMIC ABSORPTION (STLC)
WET/ EPA 7420**

ANALYTICAL RESULTS

CLIENT:	Geocon Consultants, Inc.	Lab Order:	106777
Project:	Sac 99 Mack and Calvine, S9300-06-95	Date Received	8/8/2009 8:56:00 AM
Project No:		Matrix:	Soil
Analyte:	Lead	Analyst:	IL

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
106777-141A	DP48-0	6.0	mg/L	57393	0.25	1	8/6/2009	8/20/2009
106777-144A	DP49-0	34	mg/L	57393	2.5	10	8/6/2009	8/20/2009
106777-147A	DP50-0	11	mg/L	57394	0.50	2	8/6/2009	8/20/2009
106777-150A	DP51-0	5.1	mg/L	57394	0.25	1	8/6/2009	8/20/2009

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



LEAD BY ATOMIC ABSORPTION (TCLP)
EPA 1311/ 7420

ANALYTICAL RESULTS

CLIENT:	Geocon Consultants, Inc.	Lab Order:	106777
Project:	Sac 99 Mack and Calvine, S9300-06-95	Date Received	8/8/2009 8:56:00 AM
Project No:		Matrix:	Soil
Analyte:	Lead	Analyst:	IL

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
106777-063A	DP22-0	2.3	mg/L	57499	0.25	1	8/6/2009	8/19/2009
106777-104A	DP35-1.5	0.43	mg/L	57499	0.25	1	8/6/2009	8/19/2009

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 7420_ST

Sample ID: MB-57393A	SampType: MBLK	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/18/2009	RunNo: 112028
Client ID: PBS	Batch ID: 57393	TestNo: WET/ EPA 74 WET	Analysis Date: 8/20/2009	SeqNo: 1767823	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead	ND	0.25			
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Sample ID: LCS-57393	SampType: LCS	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/18/2009	RunNo: 112028
Client ID: LCSS	Batch ID: 57393	TestNo: WET/ EPA 74 WET	Analysis Date: 8/20/2009	SeqNo: 1767824	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead	4.785	0.25	5.000	0	95.7 80 120
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Sample ID: 106777-090A-DUP	SampType: DUP	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/18/2009	RunNo: 112028
Client ID: DP31-0	Batch ID: 57393	TestNo: WET/ EPA 74 WET	Analysis Date: 8/20/2009	SeqNo: 1767835	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead	4.749	0.25			4.673 1.61 20
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Sample ID: 106777-090A-MS	SampType: MS	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/18/2009	RunNo: 112028
Client ID: DP31-0	Batch ID: 57393	TestNo: WET/ EPA 74 WET	Analysis Date: 8/20/2009	SeqNo: 1767836	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

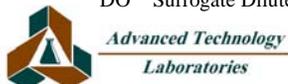
Lead	9.867	0.50	5.000	4.673	104 80 120
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Sample ID: MB-57393B	SampType: MBLK	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/18/2009	RunNo: 112028
Client ID: PBS	Batch ID: 57393	TestNo: WET/ EPA 74 WET	Analysis Date: 8/20/2009	SeqNo: 1767837	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead	ND	0.25			
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Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 7420_ST

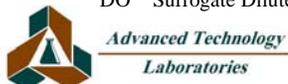
Sample ID: 106777-144A-DUP	SampType: DUP	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/18/2009	RunNo: 112028						
Client ID: DP49-0	Batch ID: 57393	TestNo: WET/ EPA 74 WET		Analysis Date: 8/20/2009	SeqNo: 1767848						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	32.508	2.5						33.96	4.38	20	

Sample ID: 106777-144A-MS	SampType: MS	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/18/2009	RunNo: 112028						
Client ID: DP49-0	Batch ID: 57393	TestNo: WET/ EPA 74 WET		Analysis Date: 8/20/2009	SeqNo: 1767849						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	37.705	2.5	5.000	33.96	74.8	80	120				S

Sample ID: 106777-144A-MSD	SampType: MSD	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/18/2009	RunNo: 112028						
Client ID: DP49-0	Batch ID: 57393	TestNo: WET/ EPA 74 WET		Analysis Date: 8/20/2009	SeqNo: 1767850						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	37.520	2.5	5.000	33.96	71.1	80	120	37.70	0.492	20	S

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 7420_ST

Sample ID: MB-57394A	SampType: MBLK	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/18/2009	RunNo: 112029
Client ID: PBS	Batch ID: 57394	TestNo: WET/ EPA 74 WET		Analysis Date: 8/20/2009	SeqNo: 1767851
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead	ND	0.25			
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Sample ID: LCS-57394	SampType: LCS	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/18/2009	RunNo: 112029
Client ID: LCSS	Batch ID: 57394	TestNo: WET/ EPA 74 WET		Analysis Date: 8/20/2009	SeqNo: 1767852
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead	5.117	0.25	5.000	0	102	80	120			
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Sample ID: 106794-015A-DUP	SampType: DUP	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/18/2009	RunNo: 112029
Client ID: ZZZZZZ	Batch ID: 57394	TestNo: WET/ EPA 74 WET		Analysis Date: 8/20/2009	SeqNo: 1767862
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead	23.331	1.2				23.41	0.330	20			
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Sample ID: 106794-015A-MS	SampType: MS	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/18/2009	RunNo: 112029
Client ID: ZZZZZZ	Batch ID: 57394	TestNo: WET/ EPA 74 WET		Analysis Date: 8/20/2009	SeqNo: 1767864
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

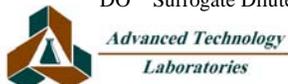
Lead	29.539	1.2	5.000	23.41	123	80	120				S
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Sample ID: MB-57394B	SampType: MBLK	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/18/2009	RunNo: 112029
Client ID: PBS	Batch ID: 57394	TestNo: WET/ EPA 74 WET		Analysis Date: 8/20/2009	SeqNo: 1767865
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead	ND	0.25									
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Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 7420_ST

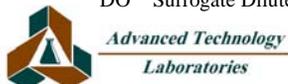
Sample ID: 106794-025A-DUP	SampType: DUP	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/18/2009	RunNo: 112029						
Client ID: ZZZZZZ	Batch ID: 57394	TestNo: WET/ EPA 74 WET		Analysis Date: 8/20/2009	SeqNo: 1767876						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	5.952	0.25						5.875	1.30	20	

Sample ID: 106794-025A-MS	SampType: MS	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/18/2009	RunNo: 112029						
Client ID: ZZZZZZ	Batch ID: 57394	TestNo: WET/ EPA 74 WET		Analysis Date: 8/20/2009	SeqNo: 1767877						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	11.238	0.50	5.000	5.875	107	80	120				

Sample ID: 106794-025A-MSD	SampType: MSD	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/18/2009	RunNo: 112029						
Client ID: ZZZZZZ	Batch ID: 57394	TestNo: WET/ EPA 74 WET		Analysis Date: 8/20/2009	SeqNo: 1767878						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	11.184	0.50	5.000	5.875	106	80	120	11.24	0.485	20	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 7420_ST

Sample ID: MB-57531	SampType: MBLK	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/20/2009	RunNo: 112120						
Client ID: PBS	Batch ID: 57531	TestNo: WET/ EPA 74 WET		Analysis Date: 8/24/2009	SeqNo: 1769728						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	0.25									
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Sample ID: LCS-57531	SampType: LCS	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/20/2009	RunNo: 112120						
Client ID: LCSS	Batch ID: 57531	TestNo: WET/ EPA 74 WET		Analysis Date: 8/24/2009	SeqNo: 1769728						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	4.771	0.25	5.000	0	95.4	80	120				
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Sample ID: 106777-096A-DUP	SampType: DUP	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/20/2009	RunNo: 112120						
Client ID: DP33-0	Batch ID: 57531	TestNo: WET/ EPA 74 WET		Analysis Date: 8/24/2009	SeqNo: 1769730						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	9.299	0.50						9.134	1.79	20	
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Sample ID: 106777-096A-MS	SampType: MS	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/20/2009	RunNo: 112120						
Client ID: DP33-0	Batch ID: 57531	TestNo: WET/ EPA 74 WET		Analysis Date: 8/24/2009	SeqNo: 1769731						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

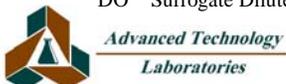
Lead	13.683	0.50	5.000	9.134	91.0	80	120				
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Sample ID: 106777-096A-MSD	SampType: MSD	TestCode: 7420_ST	Units: mg/L	Prep Date: 8/20/2009	RunNo: 112120						
Client ID: DP33-0	Batch ID: 57531	TestNo: WET/ EPA 74 WET		Analysis Date: 8/24/2009	SeqNo: 1769732						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	13.663	0.50	5.000	9.134	90.6	80	120	13.68	0.147	20	
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Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 7420_TC

Sample ID: MB-57499A	SampType: MBLK	TestCode: 7420_TC	Units: mg/L	Prep Date: 8/19/2009	RunNo: 111965
Client ID: PBS	Batch ID: 57499	TestNo: EPA 1311/ 74 EPA3010A		Analysis Date: 8/19/2009	SeqNo: 1766854
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead ND 0.25

Sample ID: MB-57467A TCLP	SampType: MBLK	TestCode: 7420_TC	Units: mg/L	Prep Date: 8/19/2009	RunNo: 111965
Client ID: PBS	Batch ID: 57499	TestNo: EPA 1311/ 74 EPA3010A		Analysis Date: 8/19/2009	SeqNo: 1766855
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead ND 0.25

Sample ID: LCS-57499	SampType: LCS	TestCode: 7420_TC	Units: mg/L	Prep Date: 8/19/2009	RunNo: 111965
Client ID: LCSS	Batch ID: 57499	TestNo: EPA 1311/ 74 EPA3010A		Analysis Date: 8/19/2009	SeqNo: 1766856
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead 1.067 0.25 1.000 0 107 80 120

Sample ID: 106794-018A-DUP	SampType: DUP	TestCode: 7420_TC	Units: mg/L	Prep Date: 8/19/2009	RunNo: 111965
Client ID: ZZZZZZ	Batch ID: 57499	TestNo: EPA 1311/ 74 EPA3010A		Analysis Date: 8/19/2009	SeqNo: 1766867
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

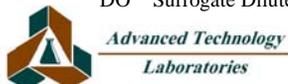
Lead 0.730 0.25 0.9077 21.7 20 R

Sample ID: 106794-018A-MS	SampType: MS	TestCode: 7420_TC	Units: mg/L	Prep Date: 8/19/2009	RunNo: 111965
Client ID: ZZZZZZ	Batch ID: 57499	TestNo: EPA 1311/ 74 EPA3010A		Analysis Date: 8/19/2009	SeqNo: 1766868
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead 3.409 0.25 2.500 0.9077 100 70 130

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



Diane Galvan

From: Gemma Reblando [reblando@geoconinc.com]
Sent: Friday, August 14, 2009 2:37 PM
To: Diane Galvan
Cc: 'John Juhrend'; 'Mark Melani'
Subject: Sac 99 Mack and Calvine (106777)

Hi Diane – please analyze the following soil samples for WET soluble lead under 5-day TAT.

- 106777-001A
- 106777-004A
- 106777-019A
- 106777-020A
- 106777-028A
- 106777-034A
- 106777-043A
- 106777-063A (plus TCLP lead)
- 106777-068A
- 106777-090A
- 106777-096A
- 106777-099A
- 106777-103A
- 106777-104A (plus TCLP lead)
- 106777-108A
- 106777-111A
- 106777-120A
- 106777-126A
- 106777-141A
- 106777-144A
- 106777-147A
- 106777-150A

Thanks.

Gemma Reblando

Project Geologist

Please visit our new website at <http://www.geoconinc.com>

Geocon Consultants, Inc.

3160 Gold Valley Drive, Suite 800
Rancho Cordova, CA 95742
916.852.9118 Tel
916.852.9132 Fax
916.396.8476 Mobile



GEOTECHNICAL - ENVIRONMENTAL - MATERIALS

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8/14/2009

August 31, 2009



Gemma Reblando
Geocon Consultants, Inc.
3160 Gold Valley Drive, Suite 800
Rancho Cordova, CA 95742

TEL: (916) 852-9118

FAX: (916) 852-9132

ELAP No.: 1838
NELAP No.: 02107CA
NEVADA.: CA-401
CSDLAC No.: 10196

Workorder No.: 106777

RE: Sac 99 Mack and Calvine, S9300-06-95

Attention: Gemma Reblando

Enclosed are the results for sample(s) received on August 08, 2009 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

This is an addendum report. Please incorporate with documentation previously submitted.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

A handwritten signature in black ink, appearing to read "E. Rodriguez".

Eddie F. Rodriguez

Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.



ANALYTICAL RESULTS

**LEAD BY ATOMIC ABSORPTION
WET DI/ EPA 7420**

CLIENT:	Geocon Consultants, Inc.	Lab Order:	106777
Project:	Sac 99 Mack and Calvine, S9300-06-95	Date Received	8/8/2009 8:56:00 AM
Project No:		Matrix:	Soil
Analyte:	Lead	Analyst:	IL

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
106777-001A	DP1-0	0.53	mg/L	57589	0.25	1	8/6/2009	8/27/2009
106777-004A	DP2-0	0.33	mg/L	57589	0.25	1	8/6/2009	8/27/2009
106777-019A	DP7-0	0.25	mg/L	57589	0.25	1	8/6/2009	8/27/2009
106777-063A	DP22-0	0.40	mg/L	57589	0.25	1	8/6/2009	8/27/2009
106777-096A	DP33-0	ND	mg/L	57778	0.25	1	8/6/2009	8/31/2009
106777-099A	DP34-0	0.71	mg/L	57589	0.25	1	8/6/2009	8/27/2009
106777-103A	DP35-.75	1.9	mg/L	57589	0.25	1	8/6/2009	8/27/2009
106777-104A	DP35-1.5	1.4	mg/L	57589	0.25	1	8/6/2009	8/27/2009
106777-108A	DP37-0	0.90	mg/L	57589	0.25	1	8/6/2009	8/27/2009
106777-111A	DP38-0	0.50	mg/L	57589	0.25	1	8/6/2009	8/27/2009
106777-120A	DP41-0	ND	mg/L	57589	0.25	1	8/6/2009	8/27/2009
106777-141A	DP48-0	0.31	mg/L	57589	0.25	1	8/6/2009	8/27/2009
106777-144A	DP49-0	0.51	mg/L	57589	0.25	1	8/6/2009	8/27/2009
106777-147A	DP50-0	0.56	mg/L	57589	0.25	1	8/6/2009	8/27/2009
106777-150A	DP51-0	ND	mg/L	57589	0.25	1	8/6/2009	8/27/2009

Qualifiers:	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 7420_DI

Sample ID: MB-57589A	SampType: MBLK	TestCode: 7420_DI	Units: mg/L	Prep Date: 8/25/2009	RunNo: 112288						
Client ID: PBS	Batch ID: 57589	TestNo: WET DI/ EPA WET		Analysis Date: 8/27/2009	SeqNo: 1773192						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	0.25									
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Sample ID: LCS-57589	SampType: LCS	TestCode: 7420_DI	Units: mg/L	Prep Date: 8/25/2009	RunNo: 112288						
Client ID: LCSS	Batch ID: 57589	TestNo: WET DI/ EPA WET		Analysis Date: 8/27/2009	SeqNo: 1773193						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	5.082	0.25	5.000	0	102	80	120				
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Sample ID: 106777-111A-DUP	SampType: DUP	TestCode: 7420_DI	Units: mg/L	Prep Date: 8/25/2009	RunNo: 112288						
Client ID: DP38-0	Batch ID: 57589	TestNo: WET DI/ EPA WET		Analysis Date: 8/27/2009	SeqNo: 1773204						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	0.514	0.25						0.4957	3.66	20	
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Sample ID: 106777-111A-MS	SampType: MS	TestCode: 7420_DI	Units: mg/L	Prep Date: 8/25/2009	RunNo: 112288						
Client ID: DP38-0	Batch ID: 57589	TestNo: WET DI/ EPA WET		Analysis Date: 8/27/2009	SeqNo: 1773205						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

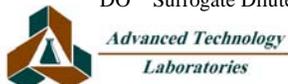
Lead	5.656	0.25	5.000	0.4957	103	70	130				
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Sample ID: MB-57589B	SampType: MBLK	TestCode: 7420_DI	Units: mg/L	Prep Date: 8/25/2009	RunNo: 112288						
Client ID: PBS	Batch ID: 57589	TestNo: WET DI/ EPA WET		Analysis Date: 8/27/2009	SeqNo: 1773206						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead	ND	0.25									
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Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 7420_DI

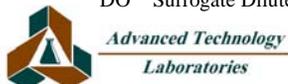
Sample ID: 106777-150A-DUP	SampType: DUP	TestCode: 7420_DI	Units: mg/L	Prep Date: 8/25/2009	RunNo: 112288						
Client ID: DP51-0	Batch ID: 57589	TestNo: WET DI/ EPA WET		Analysis Date: 8/27/2009	SeqNo: 1773212						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.25						0	0	20	

Sample ID: 106777-150A-MS	SampType: MS	TestCode: 7420_DI	Units: mg/L	Prep Date: 8/25/2009	RunNo: 112288						
Client ID: DP51-0	Batch ID: 57589	TestNo: WET DI/ EPA WET		Analysis Date: 8/27/2009	SeqNo: 1773213						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	5.434	0.25	5.000	0	109	70	130				

Sample ID: 106777-150A-MSD	SampType: MSD	TestCode: 7420_DI	Units: mg/L	Prep Date: 8/25/2009	RunNo: 112288						
Client ID: DP51-0	Batch ID: 57589	TestNo: WET DI/ EPA WET		Analysis Date: 8/27/2009	SeqNo: 1773214						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	5.496	0.25	5.000	0	110	70	130	5.434	1.13	20	

Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



CLIENT: Geocon Consultants, Inc.
Work Order: 106777
Project: Sac 99 Mack and Calvine, S9300-06-95

ANALYTICAL QC SUMMARY REPORT

TestCode: 7420_DI

Sample ID: MB-57778A	SampType: MBLK	TestCode: 7420_DI	Units: mg/L	Prep Date: 8/28/2009	RunNo: 112383
Client ID: PBS	Batch ID: 57778	TestNo: WET DI/ EPA WET		Analysis Date: 8/31/2009	SeqNo: 1774873
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead	ND	0.25									
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Sample ID: LCS-57778	SampType: LCS	TestCode: 7420_DI	Units: mg/L	Prep Date: 8/28/2009	RunNo: 112383
Client ID: LCSS	Batch ID: 57778	TestNo: WET DI/ EPA WET		Analysis Date: 8/31/2009	SeqNo: 1774874
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead	4.964	0.25	5.000	0	99.3	80	120				
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Sample ID: 106777-096A-DUP	SampType: DUP	TestCode: 7420_DI	Units: mg/L	Prep Date: 8/28/2009	RunNo: 112383
Client ID: DP33-0	Batch ID: 57778	TestNo: WET DI/ EPA WET		Analysis Date: 8/31/2009	SeqNo: 1774876
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead	ND	0.25						0	0	20	
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Sample ID: 106777-096A-MS	SampType: MS	TestCode: 7420_DI	Units: mg/L	Prep Date: 8/28/2009	RunNo: 112383
Client ID: DP33-0	Batch ID: 57778	TestNo: WET DI/ EPA WET		Analysis Date: 8/31/2009	SeqNo: 1774877
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

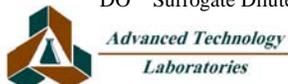
Lead	5.745	0.25	5.000	0	115	70	130				
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Sample ID: 106777-096A-MSD	SampType: MSD	TestCode: 7420_DI	Units: mg/L	Prep Date: 8/28/2009	RunNo: 112383
Client ID: DP33-0	Batch ID: 57778	TestNo: WET DI/ EPA WET		Analysis Date: 8/31/2009	SeqNo: 1774878
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead	5.909	0.25	5.000	0	118	70	130	5.745	2.82	20	
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Qualifiers:

- | | | |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out | Calculations are based on raw values | |



Diane Galvan**From:** Gemma Reblando [reblando@geoconinc.com]**Sent:** Wednesday, August 26, 2009 9:18 AM**To:** Diane Galvan**Subject:** Results/EDD - Sac 99 Mack and Calvine (106777)_S9300-06-95

Hi Diane – please add soil sample 106777-096A for DI-WET soluble lead analysis under 5-day TAT.

Gemma Reblando**Project Geologist****Please visit our new website at** <http://www.geoconinc.com>**Geocon Consultants, Inc.**

3160 Gold Valley Drive, Suite 800

Rancho Cordova, CA 95742

916.852.9118 Tel

916.852.9132 Fax

916.396.8476 Mobile



GEOTECHNICAL - ENVIRONMENTAL - MATERIALS

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From: Gemma Reblando [mailto:reblando@geoconinc.com]**Sent:** Friday, August 21, 2009 3:58 PM**To:** 'Diane Galvan'**Cc:** 'Mark Melani'; 'John Juhrend'**Subject:** Results/EDD - Sac 99 Mack and Calvine (106777)_S9300-06-95

Hi Diane – please analyze the following soil samples for DI-WET soluble lead under 5-day TAT.

106777-001A
 106777-004A
 106777-019A
 106777-063A
 106777-099A
 106777-103A
 106777-104A
 106777-108A
 106777-111A
 106777-120A
 106777-141A
 106777-144A
 106777-147A
 106777-150A

Thanks.

Gemma Reblando**Project Geologist****Please visit our new website at** <http://www.geoconinc.com>

8/26/2009

Geocon Consultants, Inc.

3160 Gold Valley Drive, Suite 800
Rancho Cordova, CA 95742
916.852.9118 Tel
916.852.9132 Fax
916.396.8476 Mobile

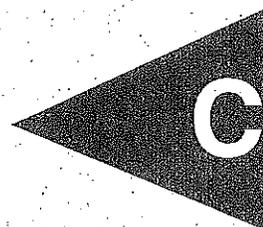


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APPENDIX



DESCRIPTION OF DATA SET

Project Name: State Route 99 Mack Road to Calvine Road
Project No.: S9300-06-95
Sample Interval: 0.0 to 0.75 foot
(SB Samples)

DATA SET STATISTICS

Number of Valid Samples	35
Number of Distinct Samples	27
Minimum	2.5
Maximum	340
Mean	53.62857143
Median	26
Standard Deviation	73.09792212
Variance	5343.306218
Coefficient of Variation	1.363040636
Skewness	2.506936615
Mean of log data	3.221835125
Standard Deviation of log data	1.331248469

90% Non-parametric UCLs

Standard Bootstrap UCL 69.63387479

95% Non-parametric UCLs

Standard Bootstrap UCL 74.09522264

DESCRIPTION OF DATA SET

Project Name: State Route 99 Mack Road to Calvine Road
Project No.: S9300-06-95
Sample Interval: 0.75 to 1.5 feet
(SB Samples)

DATA SET STATISTICS

Number of Valid Samples	35
Number of Distinct Samples	21
Minimum	2.5
Maximum	79
Mean	10.66
Median	6.9
Standard Deviation	14.500856
Variance	210.274824
Coefficient of Variation	1.360305
Skewness	3.854950
Mean of log data	1.982351
Standard Deviation of log data	0.770837

90% Non-parametric UCLs

Standard Bootstrap UCL 13.7647066

95% Non-parametric UCLs

Standard Bootstrap UCL 14.78599539

DESCRIPTION OF DATA SET

Project Name: State Route 99 Mack Road to Calvine Road
Project No.: S9300-06-95
Sample Interval: 1.5 to 2.25 ft
(SB Samples)

DATA SET STATISTICS

Number of Valid Samples	34
Number of Distinct Samples	21
Minimum	2.5
Maximum	400
Mean	18.60882353
Median	5.75
Standard Deviation	67.934043
Variance	4615.034162
Coefficient of Variation	3.650636
Skewness	5.693281
Mean of log data	1.799778
Standard Deviation of log data	0.982344

90% Non-parametric UCLs

Standard Bootstrap UCL 33.2487056

95% Non-parametric UCLs

Standard Bootstrap UCL 37.44528278

DESCRIPTION OF DATA SET

Project Name: State Route 99 Mack Road to Calvine Road
Project No.: S9300-06-95
Sample Interval: 0.0 to 0.75 foot
(NB Samples)

DATA SET STATISTICS

Number of Valid Samples	17
Number of Distinct Samples	16
Minimum	6.4
Maximum	270
Mean	90.43529412
Median	48
Standard Deviation	81.2845076
Variance	6607.171176
Coefficient of Variation	0.898813991
Skewness	0.943457478
Mean of log data	4.052940041
Standard Deviation of log data	1.052845997

90% Non-parametric UCLs

Standard Bootstrap UCL 115.3358192

95% Non-parametric UCLs

Standard Bootstrap UCL 121.9730839

DESCRIPTION OF DATA SET

Project Name: State Route 99 Mack Road to Calvine Road
Project No.: S9300-06-95
Sample Interval: 0.75 to 1.5 feet
(NB Samples)

DATA SET STATISTICS

Number of Valid Samples	17
Number of Distinct Samples	12
Minimum	2.5
Maximum	14
Mean	7.011764706
Median	6.9
Standard Deviation	3.484229
Variance	12.139853
Coefficient of Variation	0.496912
Skewness	0.399637
Mean of log data	1.809986
Standard Deviation of log data	0.572857

90% Non-parametric UCLs

Standard Bootstrap UCL 8.064244084

95% Non-parametric UCLs

Standard Bootstrap UCL 8.343563935

DESCRIPTION OF DATA SET

Project Name: State Route 99 Mack Road to Calvin Road
Project No.: S9300-06-95
Sample Interval: 1.5 to 2.25 ft
(NB Samples)

DATA SET STATISTICS

Number of Valid Samples	17
Number of Distinct Samples	11
Minimum	2.5
Maximum	14
Mean	5.976470588
Median	6.1
Standard Deviation	2.866298
Variance	8.215662
Coefficient of Variation	0.479597
Skewness	1.245045
Mean of log data	1.679334
Standard Deviation of log data	0.493594

90% Non-parametric UCLs

Standard Bootstrap UCL 6.859134572

95% Non-parametric UCLs

Standard Bootstrap UCL 7.105660521

**State Route 99 Mack Road to Calvine Road
Project No. S9300-06-95**

Sample ID	Total lead	WET Lead
DP10-0	150	2.3
DP12-0	51	1.2
DP22-0	340	8.4
DP1-0	240	6.5
DP43-0	54	1.5
DP51-0	150	5.1
DP15-0	68	2.6
DP7-.75	50	2.1
DP23-1.5	53	2.3
DP34-0	170	7.4
DP31-0	100	4.7
DP35-1.5	400	21
DP7-0	110	5.9
DP48-0	110	6.0
DP37-0	270	17
DP50-0	170	11
DP38-0	210	14
DP33-0	100	9.1
DP2-0	75	7.0
DP41-0	110	12
DP49-0	200	34
DP35-.75	79	26

